XECRO

most reliable sensor technology

inductive • capacitive • optoelectronics • touch 'n indicators

Most Reliable Sensor Technology

- electric field
- inductive
- capacitive
- optical

At a Glance

"Talent for innovation and customers orientation are the key factors of our success"

Think for Technology

XECRO is an independent company with more then 15 years of experience in the sensor industry.

During the years XECRO expanded its knowledge and production line to one of the completest range of inductive and capacitive sensors in the automation industry; focusing on the highest performance available.
Our innovations in this technologies results as the thinnest and shortest sensors, quad sensing distances, high pressure and high temperature resistant proximity switches. XECRO develops, produces and commercializes industrial sensors and general industrial electronics worldwide.

Global Organization

XECRO is one of the leading companies in inductive and capacitive technology and serves customers in Europe, North and Latin America, Asia, Africa and Middle East. The organization is regulated in accordance with the strict directives of ISO 9001-2000 .
XECROs headquarter located in Hanover, Germany, represents the focal point; our business counts with highly motivated management and working team: Financial and Sales dept., R & D, Customer Assistance, Shipping dept. and Warehouse are located in a modern 1100 square meter building. Customers can benefit from our synergic organization: the production is made by XECRO in Hanover, Germany and in collaboration with selected strategic production facilities inside the EU.

Dynamic R & D

R & D resources are the heart of the company. Thanks to expertise, gained during the years, in implementing individual solutions for customer applications, we are able to adapt our products to almost any customer needs.

In close cooperation between our business partners and development department, XECRO delivers customized sensor solutions based on the following technologies:

- Electric-Field, human touch devices and touch panels
- Optical
  - dirt resistant
  - miniature construction
  - high temperature resistant
- Capacitive
  - highest performance
  - high temperature resistant
- Inductive
  - highest performance
  - metal face, one piece construction
  - high temperature resistant
  - high pressure proof
  - analog output
  - namur

If special housings are required, we design them in 3D.

XECRO has rapid prototyping service for any shape and can provide IGES or STEP files in advance to check that the later integration is possible.

All XECRO products are built with the highest accuracy and are fully tested after production. The CE print on the products confirms with EU and EN standards and directives.

Touch Interfaces and Indicators 4

switch and indicator in one
touch activated - no tiring
no wear - 100% solid state design
vandalism proof - protection class IK09
water & oil tight construction
very bright optics with 360° micro mirrors

Inductive Sensors 18

miniature diameters Ø3, M4, …
shortest housings >18mm<
metal face stainless steel housings
highest sensing distances
according to namur guidelines
analog voltage output
ferrous | non ferrous sensing only
high pressure resistant 500 bar
high temperature proof up to 180°C / 356 °F

Inductive Ring-Sensors 88

diameter Ø6 - Ø21
static operatio
high sensitivityn
build-in pulse stretching of 100 ms
relaible metal connector

Capacitive Sensors 90

small diameters Ø6.5, M8, …
adjustable sensing distance
reliable metal housings
highest sensing distances
high temperature resistant up to 120°C / 250 °F

Capacitive Ring-Sensors 102

diameter Ø6 - Ø21
static operation
adjustable sensitivity
relaible metal connector

Fork-Light Barriers 104

infrared, collimated red-light
complete range of fork openings
laser version with same dimensions
object detection down to Ø0.03mm
reliable metal housings

Tool Center Devices 112

completely aligned x-y-unit
two free domed laser barriers
precision high-speed laser beams

Frame-Light Barriers 114

wide range of active areas
static / dynamic selectable
reliable metal housings
build-in protection for optics

Optoelectronic, Standard 114

Diffuse Reflective
Retro-Reflective
Transparent Object Detection
Through Beam
M8-Flat
Reflectors

Connecting Cables 122

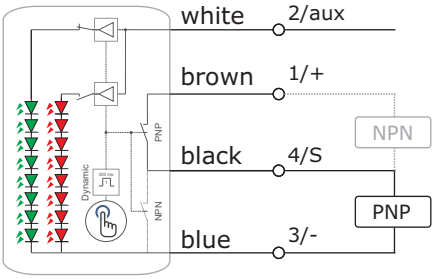
IP67, PUR quality

Universal Timer Modules 132

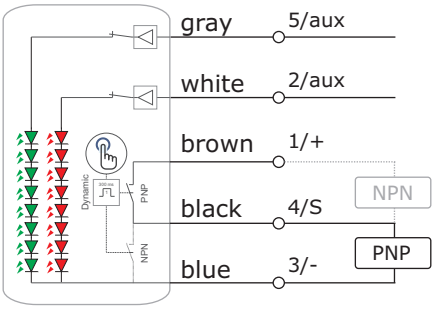
Unlimited Timing Options
Type Conversions, PNP ⇆ NPN, NC ⇆ NO
UNI-PROG, programming adapter

directory

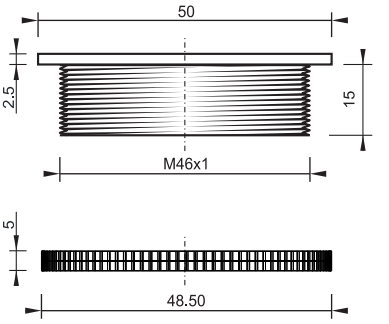
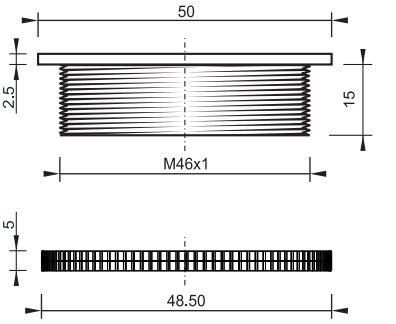
Schematic 1



Schematic 2



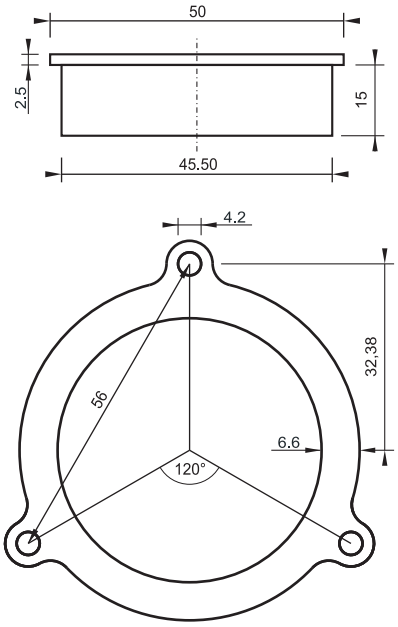
Connector M8

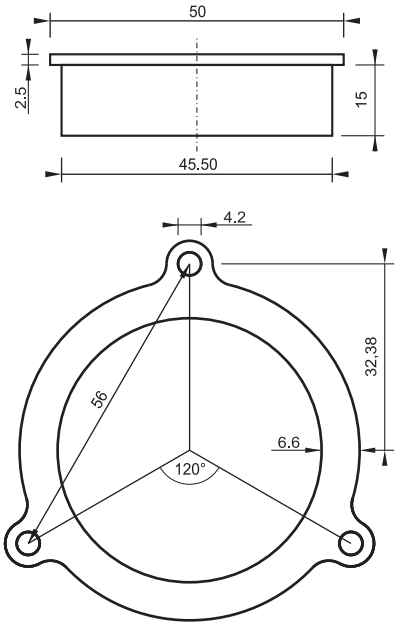
Dynamic	Static
	

SPECIFICATIONS	Dynamic Operation	Static Operation
Operating Voltage	14... 30 VDC	14... 30 VDC
Reverse Polarity Protection	built-in	built-in
Current Consumption	< 60 mA	< 60 mA
Output Current	200 mA	200 mA
Short Circuit Protection	built-in - self resetting	built-in - self resetting
Voltage Drop	2.5V @200mA	2.5V @200mA
Auxiliary Input	> 0.4 * VCC, 3mA @30V	> 0.4 * VCC, 3mA @30V
Impulse Duration	300 ms, programmable	Continuous
Number of Operations	Unlimited	Unlimited
Indicating Element	High Performance LEDs	High Performance LEDs
Operating Temperature	-40... +55 °C	-40... +55 °C
Front Window	Polycarbonate	Polycarbonate
Housing Material	1.4305 / SS303	1.4305 / SS303
Protection Class Front	IP69	IP69
Protection Class Back	IP67	IP67
Mechanical Protection Class	IK09	IK09
Programmable	Yes, UNI-PROG required	Yes, UNI-PROG required
Article Code		
Schematic 1, PNP - PO	MO46D T1VPOGR	MO46S T1VPOGR
Schematic 1, PNP - PC	MO46D T1VPCGR	MO46S T1VPCGR
Schematic 1, NPN - NO	MO46D T1VNOGR	MO46S T1VNOGR
Schematic 1, NPN - NC	MO46D T1VNCGR	MO46S T1VNCGR
Schematic 2, PNP - PO	MO46D T2VPOGR	MO46S T2VPOGR
Schematic 2, PNP - PC	MO46D T2VPCGR	MO46S T2VPCGR
Schematic 2, NPN - NO	MO46D T2VNOGR	MO46S T2VNOGR
Schematic 2, NPN - NC	MO46D T2VNCGR	MO46S T2VNCGR
Symbol Specification Code	See next Pages	See next Pages

DuraTouch® - Machine Operation
Touch Interfaces and Indicators

Dynamic	Static





Touch Operation
acting without tiring

Optical FeedBack
clearly visible - very bright

Shock Resistant
vandal-proof construction

Solid State Design
absolutely no moving parts

100% Oil-Tight
completely sealed enclosure

Wide-Angle Optics
LEDs with 360° micro mirrors

Constant Brightness
varying voltage has no effect

Versatile Concept
we make custom configurations

Dynamic Operation	Static Operation
14... 30 VDC	14... 30 VDC
built-in	built-in
< 60 mA	< 60 mA
200 mA	200 mA
built-in - self resetting	built-in - self resetting
2.5V @200mA	2.5V @200mA
> 0.4 * VCC, 3mA @30V	> 0.4 * VCC, 3mA @30V
300 ms, programmable	Continuous
Unlimited	Unlimited
High Performance LEDs	High Performance LEDs
-40... +55 °C	-40... +55 °C
Polycarbonate	Polycarbonate
1.4305 / SS303	1.4305 / SS303
IP69	IP69
IP67	IP67
IK09	IK09
Yes, UNI-PROG required	Yes, UNI-PROG required
MO46D B1VPOGR	MO46S B1VPOGR
MO46D B1VPCGR	MO46S B1VPCGR
MO46D B1VNOGR	MO46S B1VNOGR
MO46D B1VNCGR	MO46S B1VNCGR
MO46D B2VPOGR	MO46S B2VPOGR
MO46D B2VPCGR	MO46S B2VPCGR
MO46D B2VNOGR	MO46S B2VNOGR
MO46D B2VNCGR	MO46S B2VNCGR
See next Pages	See next Pages

The **DuraTouch®** switch from XECRO designs-in E Field Technology a near field effect smart circuitry to determine the presence of a conductive mass - like a human hand or finger, grounded metal or liquid.
As soon as a hand or finger touches the surface, the switch detects the presence and instantly indicates this event.
Due to the physical non-pressure technology, the switches can be operated without fatigue. Their solid-state design with no moving parts inside allows unlimited operations with no wear. They are not affected by loose clothing, debris etc, objects which accidentally activate optical sensors type.
DuraTouch® switches with Dynamic operation are typical start-buttons for machine operation where a single impulse is required to start a process.
DuraTouch® switches with Static operation activate their output as long as the operator touches them. They're used where a longer signal with no tiring is required.

Schematic 1 turns on the green LEDs at full brightness as soon as the device gets ® powered. When the DuraTouch is operated, it turns off the green segment and activates the red LEDs; the dynamic version for 300ms only and returns then to the prior state.

Schematic 2 disconnects all LEDs completely from the internal signal processing. External positive voltages at the **aux**iliary inputs will constantly turn on their corresponding LEDs as long as the signal is present.

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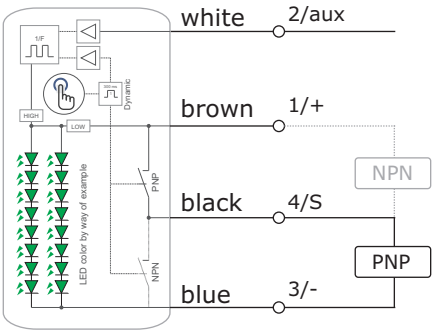
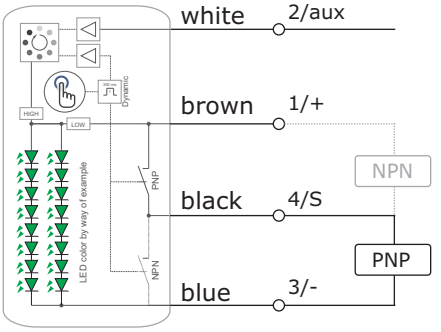
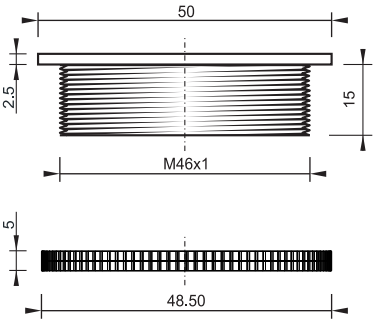
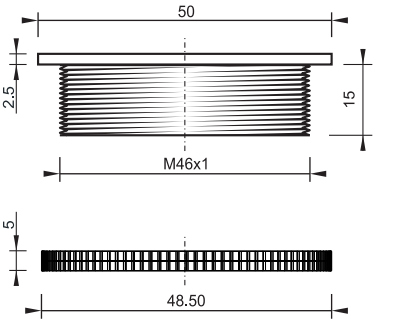
Schematic 3



Schematic 4



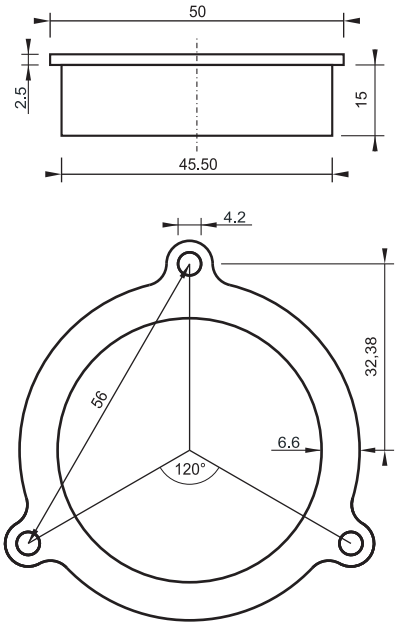
Connector M8

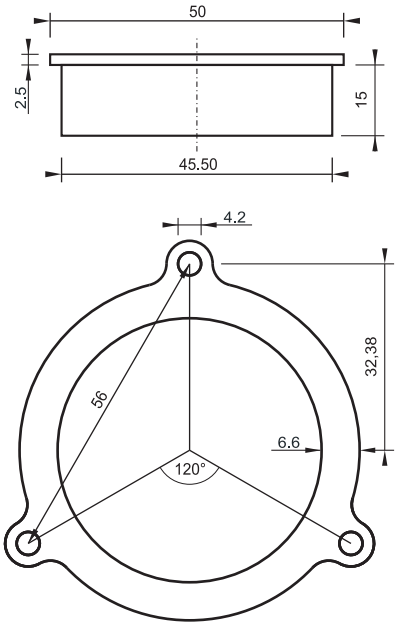
Dynamic	Static
	

SPECIFICATIONS	Dynamic Operation	Static Operation
Operating Voltage	14... 30 VDC	14... 30 VDC
Reverse Polarity Protection	built-in	built-in
Current Consumption	< 60 mA	< 60 mA
Output Current	200 mA	200 mA
Short Circuit Protection	built-in - self resetting	built-in - self resetting
Voltage Drop	2.5V @200mA	2.5V @200mA
Auxiliary Input	> 0.4 * VCC, 3mA @30V	> 0.4 * VCC, 3mA @30V
Impulse Duration	300 ms, programmable	Continuous
Number of Operations	Unlimited	Unlimited
Indicating Element	High Performance LEDs	High Performance LEDs
Operating Temperature	-40... +55 °C	-40... +55 °C
Front Window	Polycarbonate	Polycarbonate
Housing Material	1.4305 / SS303	1.4305 / SS303
Protection Class Front	IP69	IP69
Protection Class Back	IP67	IP67
Mechanical Protection Class	IK09	IK09
Programmable	Yes, UNI-PROG required	Yes, UNI-PROG required
Article Code		
Schematic 1, PNP - PO	MO46D T1VPOGG	MO46S T1VPORR
Schematic 1, PNP - PC	MO46D T1VPCGG	MO46S T1VPCRR
Schematic 1, NPN - NO	MO46D T1VNOGG	MO46S T1VNORR
Schematic 1, NPN - NC	MO46D T1VNCGG	MO46S T1VNCRR
Schematic 2, PNP - PO	MO46D T2VPOGG	MO46S T2VPORR
Schematic 2, PNP - PC	MO46D T2VPCGG	MO46S T2VPCRR
Schematic 2, NPN - NO	MO46D T2VNOGG	MO46S T2VNORR
Schematic 2, NPN - NC	MO46D T2VNCGG	MO46S T2VNCRR
Symbol Specification Code	See next Pages	See next Pages

DuraTouch® - Machine Operation
Touch Interfaces and Indicators

Dynamic	Static





Touch Operation
acting without tiring

Optical FeedBack
clearly visible - very bright

Shock Resistant
vandal-proof construction

Solid State Design
absolutely no moving parts

100% Oil-Tight
completely sealed enclosure

Wide-Angle Optics
LEDs with 360° micro mirrors

Constant Brightness
varying voltage has no effect

Versatile Concept
we make custom configurations

Dynamic Operation	Static Operation
14... 30 VDC	14... 30 VDC
built-in	built-in
< 60 mA	< 60 mA
200 mA	200 mA
built-in - self resetting	built-in - self resetting
2.5V @200mA	2.5V @200mA
> 0.4 * VCC, 3mA @30V	> 0.4 * VCC, 3mA @30V
300 ms, programmable	Continuous
Unlimited	Unlimited
High Performance LEDs	High Performance LEDs
-40... +55 °C	-40... +55 °C
Polycarbonate	Polycarbonate
1.4305 / SS303	1.4305 / SS303
IP69	IP69
IP67	IP67
IK09	IK09
Yes, UNI-PROG required	Yes, UNI-PROG required
MO46D B1VPOBB	MO46S B1VPORR
MO46D B1VPCBB	MO46S B1VPCRR
MO46D B1VNOBB	MO46S B1VNORR
MO46D B1VNCBB	MO46S B1VNCRR
MO46D B2VPOBB	MO46S B2VPORR
MO46D B2VPCBB	MO46S B2VPCRR
MO46D B2VNOBB	MO46S B2VNORR
MO46D B2VNCBB	MO46S B2VNCRR
See next Pages	See next Pages

The **DuraTouch®** switch from XECRO designs-in E Field Technology a near field effect smart circuitry to determine the presence of a conductive mass - like a human hand or finger, grounded metal or liquid.
As soon as a hand or finger touches the surface, the switch detects the presence and instantly indicates this event.
Due to the physical non-pressure technology, the switches can be operated without fatigue. Their solid-state design with no moving parts inside allows unlimited operations with no wear. They are not affected by loose clothing, debris etc, objects which accidentally activate optical sensors type.
DuraTouch® switches with Dynamic operation are typical start-buttons for machine operation where a single impulse is required to start a process.
DuraTouch® switches with Static operation activate their output as long as the operator touches them. They're used where a longer signal with no tiring is required.

Schematic 3 keeps all LEDs turned on at low intensity. When the Duratouch® is operated, it emits a single bright impulse (Dynamic) or constantly blinks brighly at ~1 Hz (Static).

Schematic 4 keeps all LEDs turned on at low intensity. When the DuraTouch® is operated, it flickers at high brightness for 300ms (Dynamic) or as long as the trigger is present (Static).

A positive voltage level at the **aux**iliary input causes the DuraTouch® to blink/flicker. AUX is independent from the working principle of the switch and therefore drives the LEDs as long as the external signal is present.

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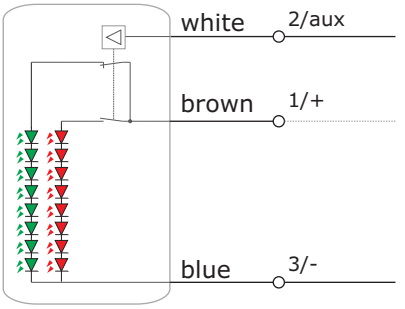
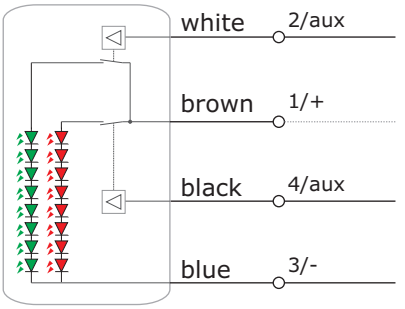
DuraTouch® - Machine Operation
Dual Color LED Indicators

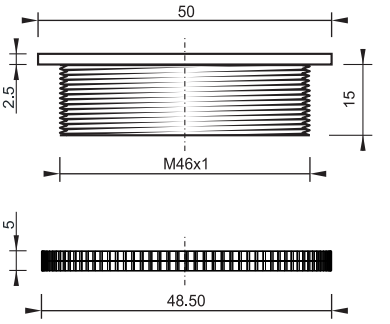
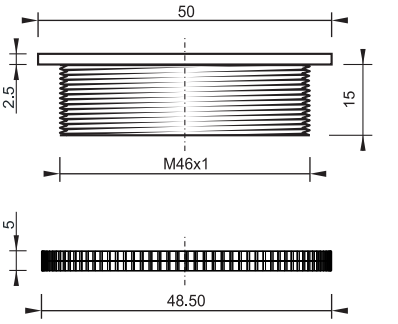
Schematic 1



Schematic 2

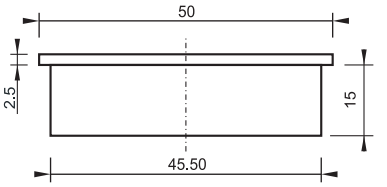
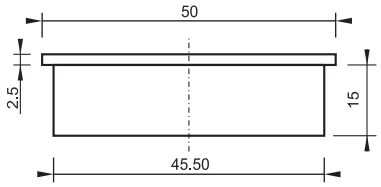
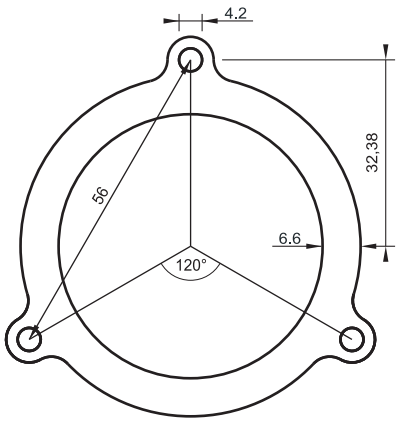
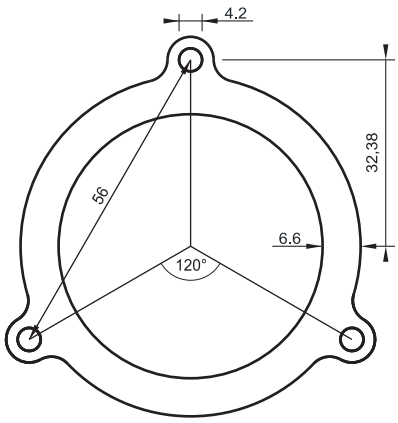


Connector M8

Dynamic	Static
	

SPECIFICATIONS	Constant Light	Self-Blinking
Operating Voltage	14... 30 VDC	14... 30 VDC
Reverse Polarity Protection	built-in	built-in
Current Consumption	< 60 mA	< 60 mA
Self-Blinking	programmable	yes, pre-programmed
Blink Frequency	programmable	1 Hz, programmable
Auxiliary Input	> 0.4 * VCC, 3mA @30V	> 0.4 * VCC, 3mA @30V
Indicating Element	High Performance LEDs	High Performance LEDs
Operating Temperature	-40... +55 °C	-40... +55 °C
Front Window	Polycarbonate	Polycarbonate
Housing Material	1.4305 / SS303	1.4305 / SS303
Protection Class Front	IP69	IP69
Protection Class Back	IP67	IP67
Mechanical Protection Class	IK09	IK09
Programmable	Yes, UNI-PROG required	Yes, UNI-PROG required
Article Code		
Schematic 1,Green (530 nm)Red (624 nm)	DLH46 T1-VGR	DLH46 T2-VGR-1
Schematic 1, Blue (470 nm), Red (624 nm)	DLH46 T1-VBR	DLH46 T1-VBR-1
Schematic 1, Blue (470 nm), Green (530 nm)	DLH46 T1-VBG	DLH46 T1-VBG-1
Schematic 1, White, Red (624 nm)	DLH46 T1-VWR	DLH46 T1-VWR-1
Schematic 2, Green (530 nm), Red (624 nm)	DLH46 T2-VGR	DLH46 T2-VGR-1
Schematic 2, Blue (470 nm), Red (624 nm)	DLH46 T2-VBR	DLH46 T2-VBR-1
Schematic 2, Blue (470 nm), Green (530 nm)	DLH46 T2-VBG	DLH46 T2-VBG-1
Schematic 2, White, Red (624 nm)	DLH46 T2-VWR	DLH46 T2-VWR-1
Symbol Specification Code	See next Pages	See next Pages

Dual Color LED Indicators

Dynamic	Static
	
	

Single or Dual Color
flexible illumination concept

Optical FeedBack
clearly visible - very bright

Shock Resistant
vandal-proof construction

Solid State Design
absolutely no moving parts

100% Oil-Tight
completely sealed enclosure

Wide-Angle Optics
LEDs with 360° micro mirrors

Constant Brightness
varying voltage has no effect

Versatile Concept
we make custom configurations

Constant Light	Self-Blinking
14... 30 VDC	14... 30 VDC
built-in	built-in
< 60 mA	< 60 mA
programmable	yes, pre-programmed
programmable	1 Hz, programmable
> 0.4 * VCC, 3mA @30V	> 0.4 * VCC, 3mA @30V
High Performance LEDs	High Performance LEDs
-40... +55 °C	-40... +55 °C
Polycarbonate	Polycarbonate
1.4305 / SS303	1.4305 / SS303
IP69	IP69
IP67	IP67
IK09	IK09
Yes, UNI-PROG required	Yes, UNI-PROG required
DLH46 B1-VGR	DLH46 B1-VGR-1
DLH46 B1-VBR	DLH46 B1-VBR-1
DLH46 B1-VBG	DLH46 B1-VBG-1
DLH46 B1-VWR	DLH46 B1-VWR-1
DLH46 B2-VGR	DLH46 B2-VGR-1
DLH46 B2-VBR	DLH46 B2-VBR-1
DLH46 B2-VBG	DLH46 B2-VBG-1
DLH46 B2-VWR	DLH46 B2-VWR-1
See next Pages	See next Pages

These extremely bright LED-Indicators are available with 16 ultra-bright LED of a single color or with two different alternating colors. Both versions have an auxilary input to activate the LEDs.

Schematic 1 turns the LED on as long as the external signal is present.

Schematic 2 starts blinking with a frequency of 1 Hz as soon as the external input is active.

These reliable indicators fit into the same mounting holes the Ø46 mm **DuraTouch®** uses.

Each indicator additionally can be upgraded with a pictogram to point the meaning of it even more.

XECRO reserves the right to make minor changes without prior notification.

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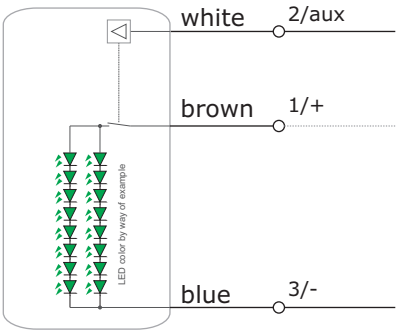
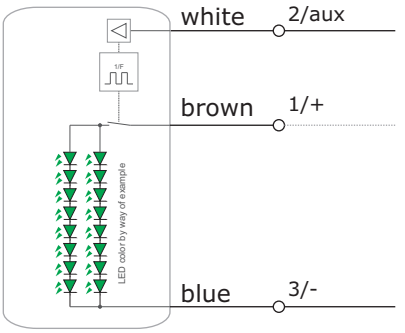
DuraTouch® - Machine Operation
Single Color LED Indicators

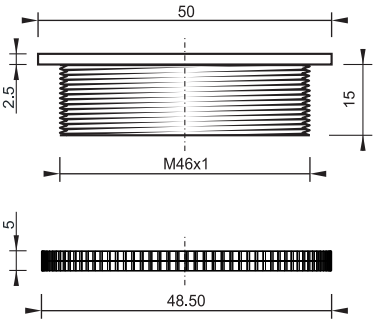
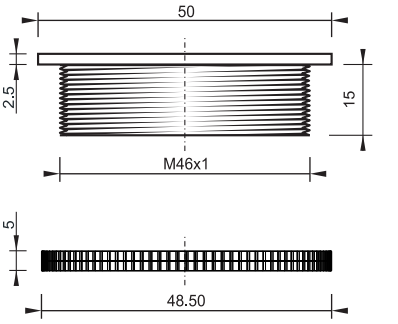
Schematic 3



Schematic 4



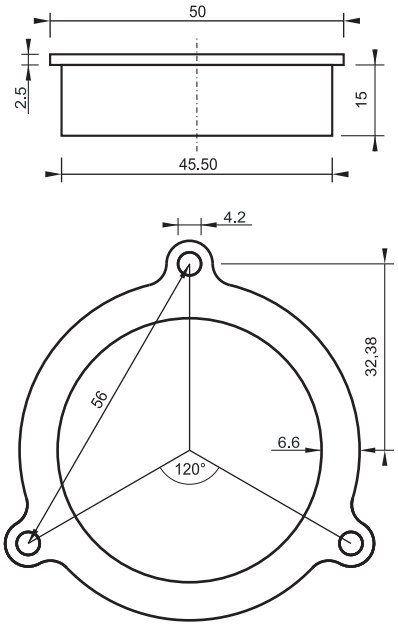
Connector M8

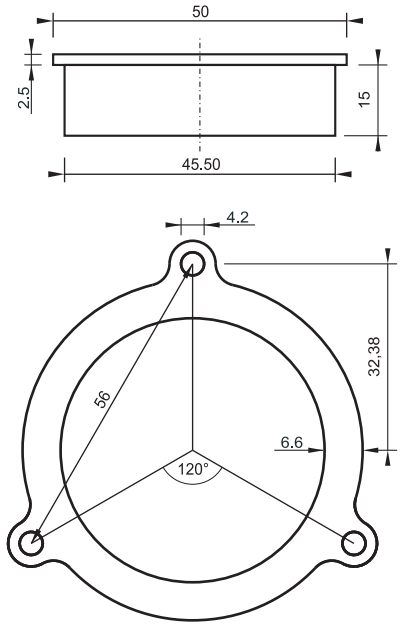
Dynamic	Static
	

SPECIFICATIONS	Constant Light	Blinking when activated
Operating Voltage	14... 30 VDC	14... 30 VDC
Reverse Polarity Protection	built-in	built-in
Current Consumption	< 60 mA	< 60 mA
Self-Blinking	programmable	yes, pre-programmed
Blink Frequency	programmable	1 Hz, programmable
Auxiliary Input	> 0.4 * VCC, 3mA @30V	> 0.4 * VCC, 3mA @30V
Indicating Element	High Performance LEDs	High Performance LEDs
Operating Temperature	-40... +55 °C	-40... +55 °C
Front Window	Polycarbonate	Polycarbonate
Housing Material	1.4305 / SS303	1.4305 / SS303
Protection Class Front	IP69	IP69
Protection Class Back	IP67	IP67
Mechanical Protection Class	IK09	IK09
Programmable	Yes, UNI-PROG required	Yes, UNI-PROG required
Article Code		
Schematic 1, 100% Red (624 nm)	SLH46 T1-VRR	SLH46 T1-VRR-1
Schematic 1, 100% GREEN (530 nm)	SLH46 T1-VGG	SLH46 T1-VGG-1
Schematic 1, 100% BLUE (470 nm)	SLH46 T1-VBB	SLH46 T1-VBB-1
Schematic 1, 100% WHITE	SLH46 T1-VBB	SLH46 T1-VBB-1
Schematic 2, 100% Red (624 nm)	SLH46 T2-VRR	SLH46 T2-VRR-1
Schematic 2, 100% GREEN (530 nm)	SLH46 T2-VGG	SLH46 T2-VGG-1
Schematic 2, 100% BLUE (470 nm)	SLH46 T2-VBB	SLH46 T2-VBB-1
Schematic 2, 100% WHITE	SLH46 T2-VBB	SLH46 T2-VBB-1
Symbol Specification Code	See next Pages	See next Pages

Single Color LED Indicators

Dynamic	Static





Single or Dual Color
flexible illumination concept

Optical FeedBack
clearly visible - very bright

Shock Resistant
vandal-proof construction

Solid State Design
absolutely no moving parts

100% Oil-Tight
completely sealed enclosure

Wide-Angle Optics
LEDs with 360° micro mirrors

Constant Brightness
varying voltage has no effect

Versatile Concept
we make custom configurations

Constant Light	Blinking when activated
14... 30 VDC	14... 30 VDC
built-in	built-in
< 60 mA	< 60 mA
programmable	yes, pre-programmed
programmable	1 Hz, programmable
> 0.4 * VCC, 3mA @30V	> 0.4 * VCC, 3mA @30V
High Performance LEDs	High Performance LEDs
-40... +55 °C	-40... +55 °C
Polycarbonate	Polycarbonate
1.4305 / SS303	1.4305 / SS303
IP69	IP69
IP67	IP67
IK09	IK09
Yes, UNI-PROG required	Yes, UNI-PROG required
SLH46 B1-VRR	SLH46 B1-VRR-1
SLH46 B1-VGG	SLH46 B1-VGG-1
SLH46 B1-VBB	SLH46 B1-VBB-1
SLH46 B1-VBB	SLH46 B1-VBB-1
SLH46 B2-VRR	SLH46 B2-VRR-1
SLH46 B2-VGG	SLH46 B2-VGG-1
SLH46 B2-VBB	SLH46 B2-VBB-1
SLH46 B2-VBB	SLH46 B2-VBB-1
See next Pages	See next Pages

These extremely bright LED-Indicators are available with 16 ultra-bright LED of a single color or with two different alternating colors. Both versions have an auxilary input to activate the LEDs.

Schematic 1 turns the LED on as long as the external signal is present.

Schematic 2 starts blinking with a frequency of 1 Hz as soon as the external input is active.

These reliable indicators fit into the same mounting holes the Ø46 mm **DuraTouch®** uses.

Each indicator additionally can be upgraded with a pictogram to point the meaning of it even more.

XECRO reserves the right to make minor changes without prior notification.

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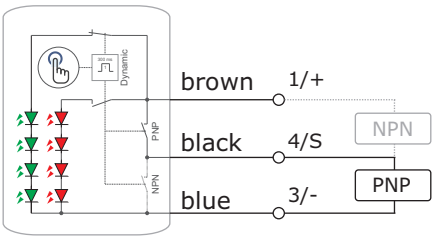
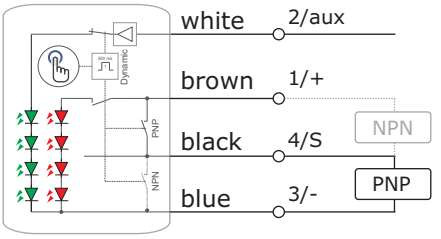
DuraTouch® - Machine Operation
Touch Interfaces and Indicators

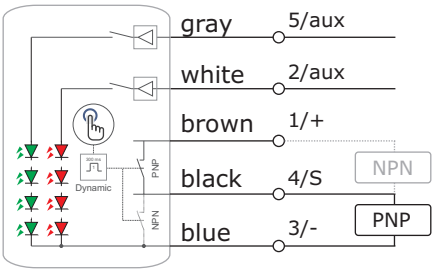
Schematic 0

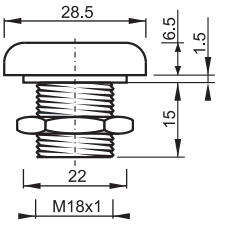
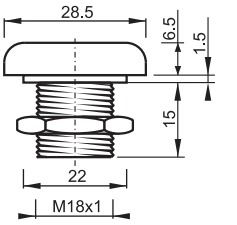


Schematic 1



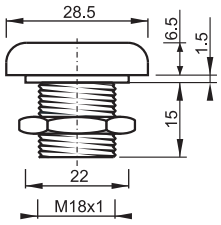
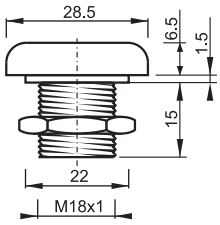
Schematic 2



	Dynamic	Static
		

SPECIFICATIONS	Dynamic Operation	Static Operation
Operating Voltage	14... 30 VDC	14... 30 VDC
Reverse Polarity Protection	built-in	built-in
Current Consumption	< 30 mA	< 30 mA
Output Current	200 mA	200 mA
Short Circuit Protection	built-in - self resetting	built-in - self resetting
Voltage Drop	2.5V @200mA	2.5V @200mA
Auxiliary Input	> 2V, 3mA @30V	> 2V, 3mA @30V
Impulse Duration	300 ms, programmable	Continuous
Number of Operations	Unlimited	Unlimited
Indicating Element	High Performance LEDs	High Performance LEDs
Operating Temperature	-40... +55 °C	-40... +55 °C
Front Window	Polycarbonate	Polycarbonate
Housing Material	1.4305 / SS303	1.4305 / SS303
Protection Class Front	IP69	IP69
Protection Class Back	IP67	IP67
Mechanical Protection Class	IK09	IK09
Programmable	Yes, UNI-PROG required	Yes, UNI-PROG required
Article Code		
Schematic 0, PNP - PO	MO22D T0VPOGR	MO22S T0VPOGR
Schematic 0, PNP - PC	MO22D T0VPCGR	MO22S T0VPCGR
Schematic 0, NPN - NO	MO22D T0VNOGR	MO22S T0VNOGR
Schematic 0, NPN - NC	MO22D T0VNCGR	MO22S T0VNCGR
Schematic 1, PNP - PO	MO22D T1VPOGR	MO22S T1VPOGR
Schematic 1, PNP - PC	MO22D T1VPCGR	MO22S T1VPCGR
Schematic 1, NPN - NO	MO22D T1VNOGR	MO22S T1VNOGR
Schematic 1, NPN - NC	MO22D T1VNCGR	MO22S T1VNCGR
Symbol Specification Code	See next Pages	See next Pages

DuraTouch® - Machine Operation
Touch Interfaces and Indicators

Toggle	Combo
	

Touch Operation
acting without tiring

Optical Feedback
clearly visible - homogeneous

Shock Resistant
vandal-proof construction

Solid State Design
absolutely no moving parts

100% Oil-Tight
completely sealed enclosure

Versatile Concept
pure multi-LED indicators available

Constant Brightness
varying voltage has no effect

Compatible Siemens Moeller
fits into standard Ø22.5mm holes

Latched Operation	Combined Operation
14... 30 VDC	14... 30 VDC
built-in	built-in
< 30 mA	< 30 mA
200 mA	200 mA
built-in - self resetting	built-in - self resetting
2.5V @200mA	2.5V @200mA
> 2V, 3mA @30V	> 2V, 3mA @30V
Continuous	Special
Unlimited	Unlimited
High Performance LEDs	High Performance LEDs
-40... +55 °C	-40... +55 °C
Polycarbonate	Polycarbonate
1.4305 / SS303	1.4305 / SS303
IP69	IP69
IP67	IP67
IK09	IK09
Yes, UNI-PROG required	Yes, UNI-PROG required
MO22T T0VPOGR	MO22C T0VPOGR
MO22T T0VPCGR	MO22C T0VPCGR
MO22T T0VNOGR	MO22C T0VNOGR
MO22T T0VNCGR	MO22C T0VNCGR
MO22T T1VPOGR	MO22C T1VPOGR
MO22T T1VPCGR	MO22C T1VPCGR
MO22T T1VNOGR	MO22C T1VNOGR
MO22T T1VNCGR	MO22C T1VNCGR
See next Pages	See next Pages

The **DuraTouch®** switch from XECRO designs-in E Field Technology a near field effect smart circuitry to determine the presence of a conductive mass - like a human hand or finger, grounded metal or liquid.
As soon as a hand or finger touches the surface, the switch detects the presence and instantly indicates this event.
Due to the physical non-pressure technology, the switches can be operated without fatigue. Their solid-state design with no moving parts inside allows unlimited operations with no wear. They are not affected by loose clothing, debris etc, objects which accidentally activate optical sensors type.
DuraTouch® switches with Dynamic operation are typical start-buttons for machine operation where a single impulse is required to start a process.
DuraTouch® switches with Static operation activate their output as long as the operator touches them. They're used where a longer signal with no tiring is required. This series also can **toggle** the output each time the surface is touched. **Combo** can be used as a static switch where the output is active as long as the switch is operated. A fast double touch latches the switch with permanent On-state from where it gets released by an additional touch.
Schematic 0 turns on the green LEDs as soon as the device gets powered.
Schematic 1 turns on the green LEDs as soon as aux gets active.
The indicated color changes from green to red as long as the output is activated.
Schematic 2 disconnects all LEDs from the internal signal processing. External positive voltages at the **aux**iliary inputs will constantly turn on their corresponding LEDs as long as the signal is present.

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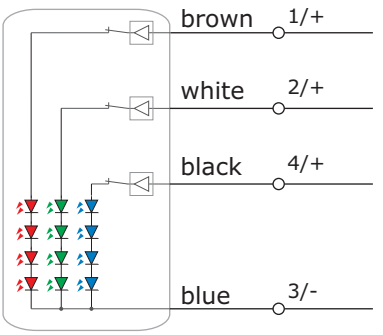
DuraTouch® - Machine Operation
Multi Color LED-Indicator

Schematic



Shock Resistant
vandal-proof construction

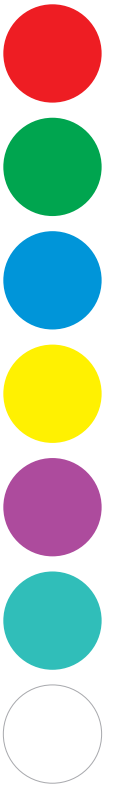
7 Different Colors
each LED can be driven individually

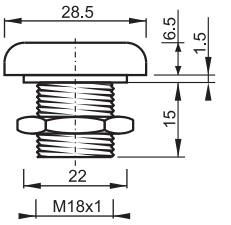
100% Oil-Tight
completely sealed enclosure

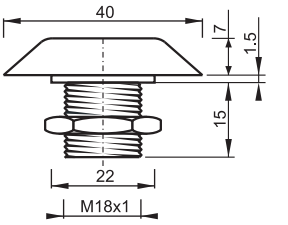
Constant Brightness
varying voltage has no effect

Compatible Siemens Moeller
fits into standard Ø22.5mm holes

Standard	Hygienic



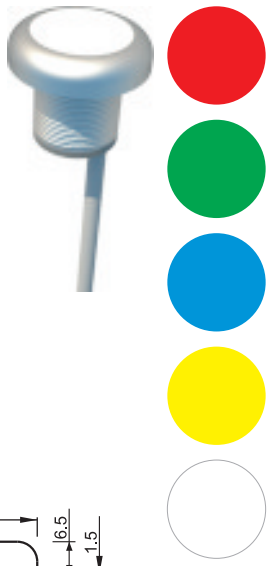


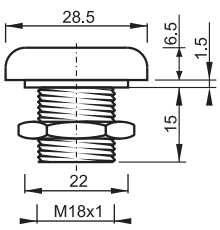


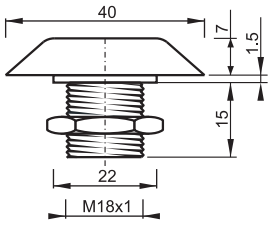
SPECIFICATIONS	Multi-LED Standard	Multi-LED Hygienic
Operating Voltage	14... 30 VDC	14... 30 VDC
Reverse Polarity Protection	built-in	built-in
Current Consumption	< 11 mA per string	< 11 mA per string
Voltage Drop (Red)	~ 8 V	~ 8 V
Voltage Drop (Green)	~ 14 V	~ 14 V
Voltage Drop (Blue)	~ 13 V	~ 13 V
Voltage Drop (Yellow)	~ 8 V	~ 8 V
Voltage Drop (White)	~ 13 V	~ 13 V
Auxiliary Input	depends on LED color	depends on LED color
Indicating Element	High Performance LEDs	High Performance LEDs
Operating Temperature	-40... +55 °C	-40... +55 °C
Front Window	Polycarbonate	Polycarbonate
Housing Material	1.4305 / SS303	1.4305 / SS303
Protection Class Front	IP69	IP69
Protection Class Back	IP67	IP67
Mechanical Protection Class	IK09	IK09
Programmable	No	No
Article Code		
Multi-LED	MLS22 T-VRGB	MLH22 T-VRGB
Single LED, Red		
Single LED, Green		
Single LED, Blue		
Single LED, White		
Symbol Specifaction Code		

DuraTouch® - Machine Operation
Single Color LED-Indicator

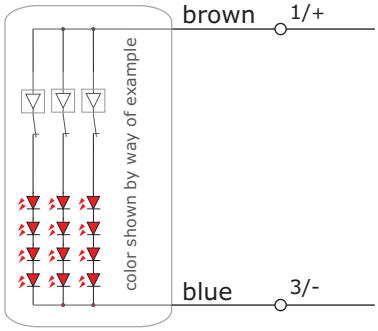
Standard	Hygienic







Schematic



Shock Resistant
vandal-proof construction

5 Different Colors
maximum brightness

100% Oil-Tight
completely sealed enclosure

Constant Brightness
varying voltage has no effect

Compatible Siemens Moeller
fits into standard Ø22.5mm holes

Single-LED Standard	Single-LED Hygienic
14... 30 VDC	14... 30 VDC
built-in	built-in
< 11 mA per string	< 11 mA per string
~ 8 V	~ 8 V
~ 14 V	~ 14 V
~ 13 V	~ 13 V
~ 8 V	~ 8 V
~ 13 V	~ 13 V
depends on LED color	depends on LED color
High Performance LEDs	High Performance LEDs
-40... +55 °C	-40... +55 °C
Polycarbonate	Polycarbonate
1.4305 / SS303	1.4305 / SS303
IP69	IP69
IP67	IP67
IK09	IK09
No	No
SLS22 T-VRRR	SLH22 T-VRRR
SLS22 T-VGGG	SLH22 T-VGGG
SLS22 T-VBBB	SLH22 T-VBBB
SLS22 T-VWWW	SLH22 T-VWWW

These very flexible Multi-Color LED-Indicators from XECRO fit into the same mounting holes the Ø22mm DuraTouch® uses and were also used by the mechanical switches and filament lamps from Siemens® and Moeller®.

Each LED path can be driven individually to select one of 7 different colors enabling the user to display e.g.

- ready
- all parts in position
  - machine processing
  - low part count in magazine
- error

with a single indicator.

Each indicator additionally can be upgraded with a pictogram to point the meaning of it even more.

The Single LED Indicators on the right are using 12 very bright LEDs of a single color and thereby reaching significant more brightness on standard colors.

See next pages

XECRO reserves the right to make minor changes without prior notification.

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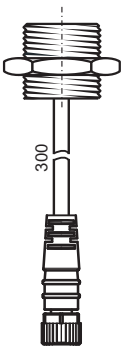
How to build Order Codes

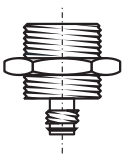
MO	46	S		T	1	P	O	G	R	-	Options

Product Classifier (Machine Operation)	
Mounting Diameter	**46** mm **22** mm
Operation Principle	**S**tatic **D**ynamic
Kept Free	
Mounting Classifier	**T**hreaded **B**racket
Internal Schematic	as shown on the corresponding product pages - **1**, **2**, **3**, ...
Output Level	**P**NP switching **N**PN switching
Output Switching	**O** normaly open **C** normally closed
LED #1	**G**reen, **R**ed, **B**lue, **Y**ellow **W**hite idle indicator at Schematic 1 & 2
LED #2	**G**reen, **R**ed, **B**lue, **Y**ellow **W**hite active indicator at Schematic 1 & 2
Connector M8	/M8
Pig-Tailed M8, (30 cm)	/3P8
Single Strands, (20 cm)	/2F4
PVC Cable, (200 cm)	/2P
Terminal Block	/TB5
Symbol #	as shown in the overview use #30, in case of no symbol custom symbols on request

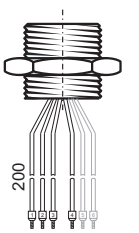
3P8



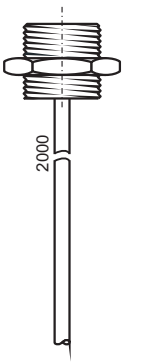
M8



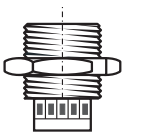
2F4(5,6)



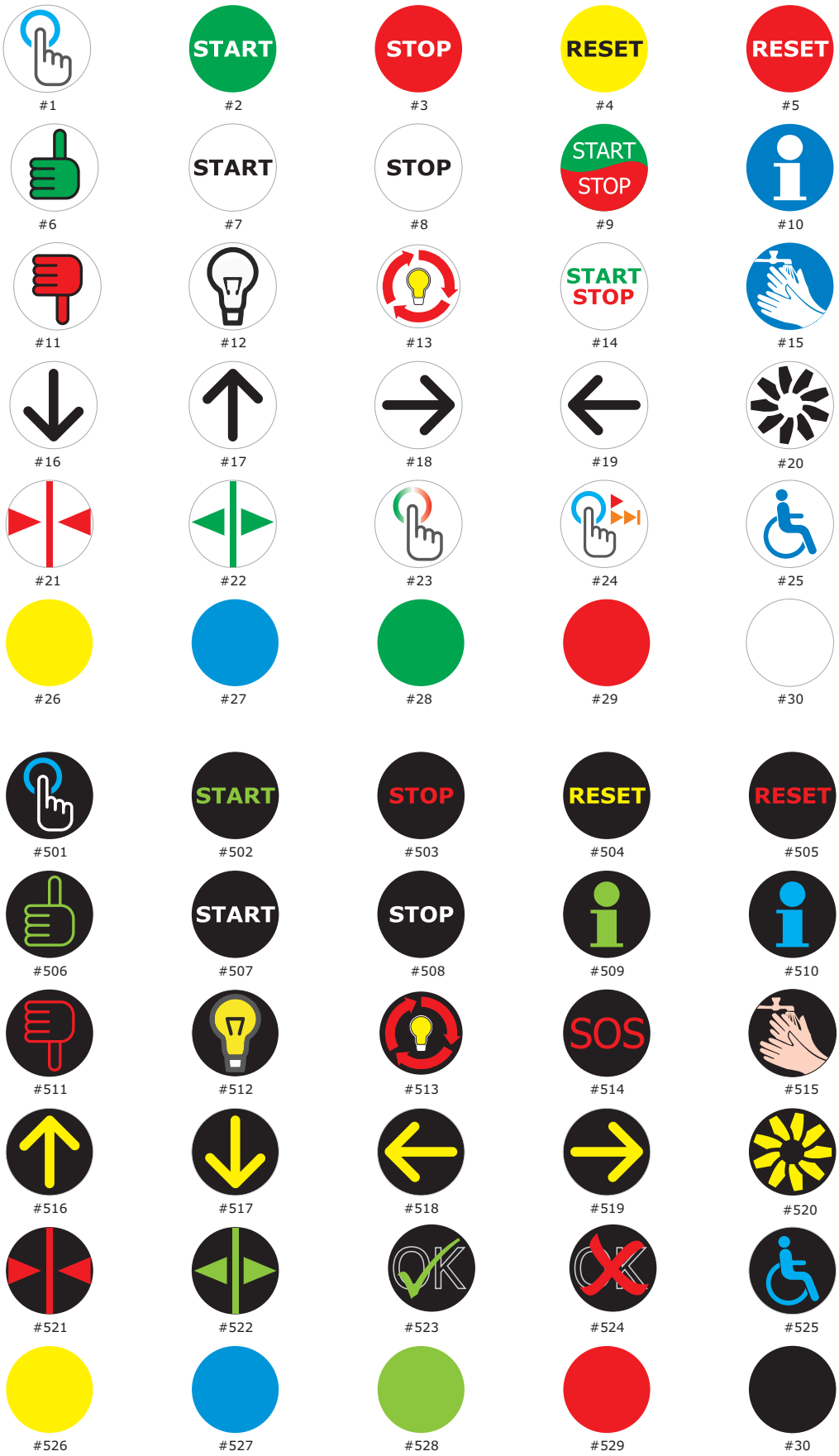
2P



TB5



Standard Pictograms



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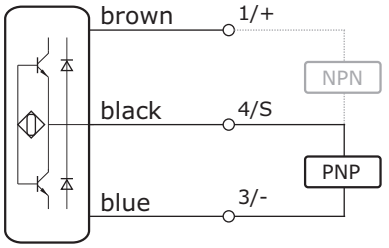
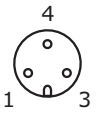
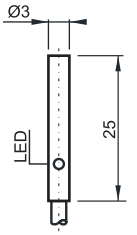
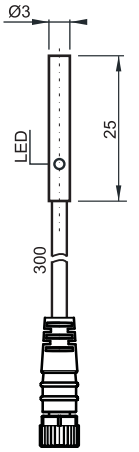
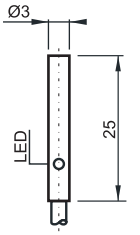
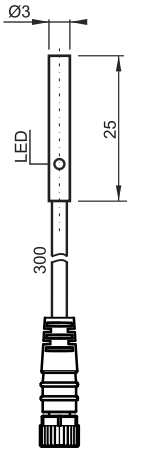
Output Schematics



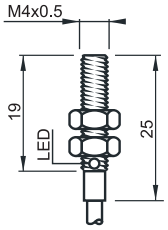
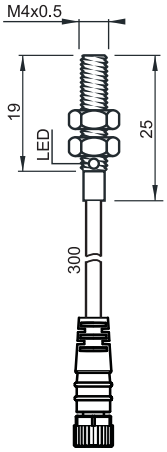
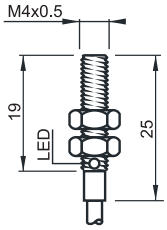
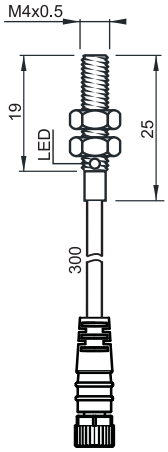
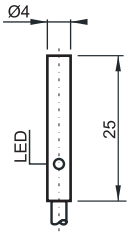
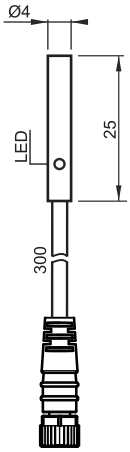
Connector M8



Ø3	Ø3	Ø3	Ø3
0.6 mm	0.6 mm	1 mm	1 mm
			

SPECIFICATIONS	Ø3 mm	Ø3 mm	Ø3 mm	Ø3 mm
Sensing Distance	0.6 mm - Shielded	0.6 mm - Shielded	1.0 mm - Shielded	1.0 mm - Shielded
Operating Voltage	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire
Reverse Polarity Protection	built-in	built-in	built-in	built-in
Current Consumption	< 8 mA	< 8 mA	< 8 mA	< 8 mA
Current Load Capability	200 mA	200 mA	200 mA	200 mA
Short Circuit Protection	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
Voltage Drop	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
Switching Frequency	2000 Hz	2000 Hz	1000 Hz	1000 Hz
Repeatability	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
Hysteresis	3...15 %	3...15 %	3...15 %	3...15 %
Operating Temperature	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C
Protection Class	IP67	IP67	IP67	IP67
Sensing Face Material	POM	POM	POM	POM
Housing Material	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303
Connection	High-Flex PVC, 2m	Conn. M8, 3-pole, 30cm	High-Flex PVC, 2m	Conn. M8, 3-pole, 30cm
Output Indicator	built-in	Integrated	Integrated	Integrated
Article Code				
PNP - NO, 3-wire	IPSD3-S08PO25/A2P	IPSD3-S08PO25/3P8	IPSD3-S1PO25/A2P	IPSD3-S1PO25/3P8
PNP - NC, 3-wire	IPSD3-S08PC25/A2P	IPSD3-S08PC25/3P8	IPSD3-S1PC25/A2P	IPSD3-S1PC25/3P8
NPN - NO, 3-wire	IPSD3-S08NO25/A2P	IPSD3-S08NO25/3P8	IPSD3-S1NO25/A2P	IPSD3-S1NO25/3P8
NPN - NC, 3-wire	IPSD3-S08NC25/A2P	IPSD3-S08NC25/3P8	IPSD3-S1NC25/A2P	IPSD3-S1NC25/3P8
Recommended Connecting Cable	-	M8/3...	-	M8/3...

Inductive Proximity Switches

M4	M4	M4	M4	Ø4	Ø4
0.6 mm	0.6 mm	1 mm	1 mm	0.8 mm	0.8 mm
					

M4x0.5	M4x0.5	M4x0.5	M4x0.5	Ø4 mm	Ø4 mm
0.6 mm - Shielded	0.6 mm - Shielded	1.0 mm - Shielded	1.0 mm - Shielded	0.8 mm - Shielded	0.8 mm - Shielded
10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire
built-in	built-in	built-in	built-in	built-in	built-in
< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA
200 mA	200 mA	200 mA	200 mA	200 mA	200 mA
built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
2000 Hz	2000 Hz	1000 Hz	1000 Hz	2000 Hz	2000 Hz
< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C
IP67	IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM	POM
1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303
High-Flex PVC, 2m	Conn. M8, 3-pole, 30cm	High-Flex PVC, 2m	Conn. M8, 3-pole, 30cm	High-Flex PVC, 2m	Conn. M8, 3-pole, 30cm
Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
IPS4-S08PO25/A2P	IPS4-S08PO25/3P8	IPS4-S1PO25/A2P	IPS4-S1PO25/3P8	IPSD4-S08PO25/A2P	IPSD4-S08PO25/3P8
IPS4-S08PC25/A2P	IPS4-S08PC25/3P8	IPS4-S1PC25/A2P	IPS4-S1PC25/3P8	IPSD4-S08PC25/A2P	IPSD4-S08PC25/3P8
IPS4-S08NO25/A2P	IPS4-S08NO25/3P8	IPS4-S1NO25/A2P	IPS4-S1NO25/3P8	IPSD4-S08NO25/A2P	IPSD4-S08NO25/3P8
IPS4-S08NC25/A2P	IPS4-S08NC25/3P8	IPS4-S1NC25/A2P	IPS4-S1NC25/3P8	IPSD4-S08NC25/A2P	IPSD4-S08NC25/3P8
-	M8/3…	-	M8/3…	-	M8/3…

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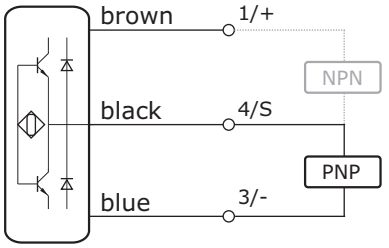
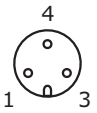
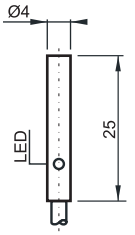
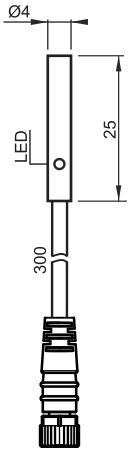
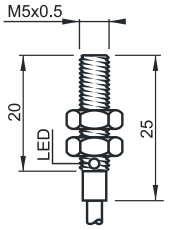
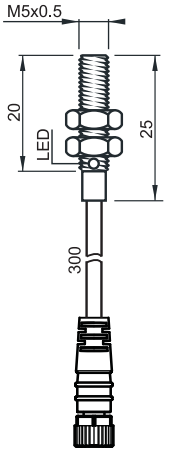
Output Schematics



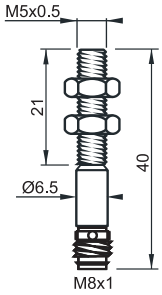
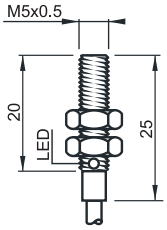
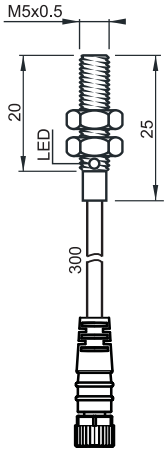
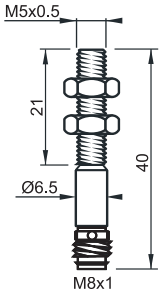
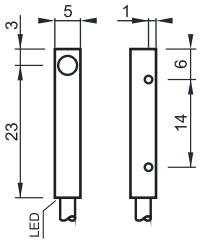
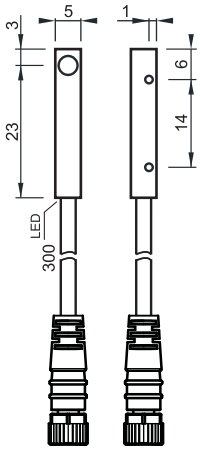
Connector M8



	Ø4	Ø4	M5	M5
	1.5 mm	1.5 mm	0.8 mm	0.8 mm
				

SPECIFICATIONS	Ø4 mm	Ø4 mm	M5x0.5	M5x0.5
Sensing Distance	1.5 mm - Shielded	1.5 mm - Shielded	0.8 mm - Shielded	0.8 mm - Shielded
Operating Voltage	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire
Reverse Polarity Protection	built-in	built-in	built-in	built-in
Current Consumption	< 8 mA	< 8 mA	< 8 mA	< 8 mA
Current Load Capability	200 mA	200 mA	200 mA	200 mA
Short Circuit Protection	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
Voltage Drop	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
Switching Frequency	1000 Hz	1000 Hz	2000 Hz	2000 Hz
Repeatability	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
Hysteresis	3...15 %	3...15 %	3...15 %	3...15 %
Operating Temperature	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C
Protection Class	IP67	IP67	IP67	IP67
Sensing Face Material	POM	POM	POM	POM
Housing Material	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303
Connection	High-Flex PVC, 2m	Conn. M8, 3-pole, 30cm	High-Flex PVC, 2m	Conn. M8, 3-pole, 30cm
Output Indicator	Integrated	Integrated	Integrated	Integrated
Article Code				
PNP - NO, 3-wire	IPSD4-S1.5PO25/A2P	IPSD4-S1.5PO25/3P8	IPS5-S08PO25/A2P	IPS5-S08PO25/3P8
PNP - NC, 3-wire	IPSD4-S1.5PC25/A2P	IPSD4-S1.5PC25/3P8	IPS5-S08PC25/A2P	IPS5-S08PC25/3P8
NPN - NO, 3-wire	IPSD4-S1.5NO25/A2P	IPSD4-S1.5NO25/3P8	IPS5-S08NO25/A2P	IPS5-S08NO25/3P8
NPN - NC, 3-wire	IPSD4-S1.5NC25/A2P	IPSD4-S1.5NC25/3P8	IPS5-S08NC25/A2P	IPS5-S08NC25/3P8
Recommended Connecting Cable	-	M8/3...	-	M8/3...

Inductive Proximity Switches

M5	M5	M5	M5	5x5	5x5
0.8 mm	1.5 mm	1.5 mm	1.5 mm	0.8 mm	0.8 mm
					

M5x0.5	M5x0.5	M5x0.5	M5x0.5	5 x 5	5 x 5
0.8 mm - Shielded	1.5 mm - Shielded	1.5 mm - Shielded	1.5 mm - Shielded	0.8 mm - Shielded	0.8 mm - Shielded
10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire
built-in	built-in	built-in	built-in	built-in	built-in
< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA
200 mA	200 mA	200 mA	200 mA	200 mA	200 mA
built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
2000 Hz	1000 Hz	1000 Hz	1000 Hz	2000 Hz	2000 Hz
< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C
IP67	IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM	POM
1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	Plated Brass	Plated Brass
Connector M8, 3-pole	High-Flex PVC, 2m	Conn. M8, 3-pole, 30cm	Connector M8, 3-pole	High-Flex PVC, 2m	Conn. M8, 3-pole, 30cm
Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
IPS5-S08PO40/M8	IPS5-S1.5PO25/A2P	IPS5-S1.5PO25/3P8	IPS5-S1.5PO40/M8	IPS55-S08PO26/A2P	IPS55-S08PO26/3P8
IPS5-S08PC40/M8	IPS5-S1.5PC25/A2P	IPS5-S1.5PC25/3P8	IPS5-S1.5PC40/M8	IPS55-S08PC 26/A2P	IPS55-S08PC26/3P8
IPS5-S08NO40/M8	IPS5-S1.5NO25/A2P	IPS5-S1.5NO25/3P8	IPS5-S1.5NO40/M8	IPS55-S08NO26/A2P	IPS55-S08NO26/3P8
IPS5-S08NC40/M8	IPS5-S1.5NC25/A2P	IPS5-S1.5NC25/3P8	IPS5-S1.5NC40/M8	IPS55-S08NC26/A2P	IPS55-S08NC26/3P8
M8/3…	-	M8/3…	M8/3…	-	M8/3…

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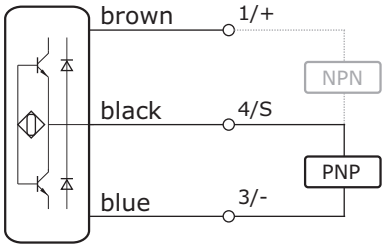
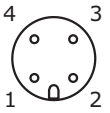
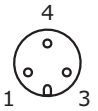
Output Schematics



Connector M12

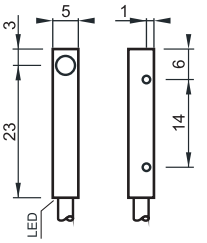


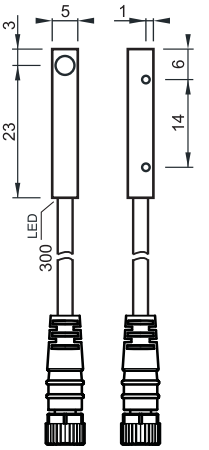
Connector M8

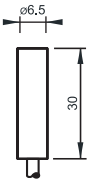


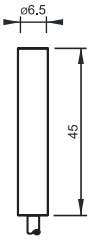
5x5	5x5	Ø6.5	Ø6.5

1.5 mm	1.5 mm	1 mm	1 mm



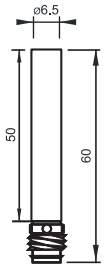
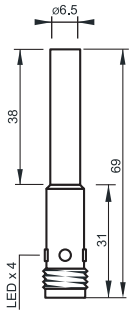
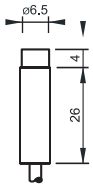
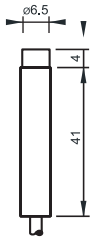
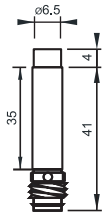






SPECIFICATIONS	5 x 5	5 x 5	Ø6.5 mm	Ø6.5 mm
Sensing Distance	1.5 mm - Shielded	1.5 mm - Shielded	1 mm - Shielded	1 mm - Shielded
Operating Voltage	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire
Reverse Polarity Protection	built-in	built-in	built-in	built-in
Current Consumption	< 8 mA	< 8 mA	< 8 mA	< 8 mA
Current Load Capability	200 mA	200 mA	200 mA	200 mA
Short Circuit Protection	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
Voltage Drop	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
Switching Frequency	1000 Hz	1000 Hz	2000 Hz	2000 Hz
Repeatability	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
Hysteresis	3...15 %	3...15 %	3...15 %	3...15 %
Operating Temperature	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C
Protection Class	IP67	IP67	IP67	IP67
Sensing Face Material	POM	POM	POM	POM
Housing Material	Plated Brass	Plated Brass	1.4305 / SS303	1.4305 / SS303
Connection	High-Flex PVC, 2m	Conn. M8, 3-pole, 30cm	High-Flex PVC, 2m	High-Flex PVC, 2m
Output Indicator	Integrated	Integrated	Integrated	Integrated
Article Code				
PNP - NO, 3-wire	IPS55-S1.5PO26/A2P	IPS55-S1.5PO26/3P8	IPSD6-S1PO30/A2P	IPSD6-S1PO45/A2P
PNP - NC, 3-wire	IPS55-S1.5PC26/A2P	IPS55-S1.5PC26/3P8	IPSD6-S1PC30/A2P	IPSD6-S1PC45/A2P
NPN - NO, 3-wire	IPS55-S1.5NO26/A2P	IPS55-S1.5NO26/3P8	IPSD6-S1NO30/A2P	IPSD6-S1NO45/A2P
NPN - NC, 3-wire	IPS55-S1.5NC26/A2P	IPS55-S1.5NC26/3P8	IPSD6-S1NC30/A2P	IPSD6-S1NC45/A2P
10...55 VDC - NO, 2-wire				IPSD6-S1DO45/A2P
10...55 VDC - NC, 2-wire				IPSD6-S1DC45/A2P
Recommended Connecting Cable	-	M8/3...	-	-

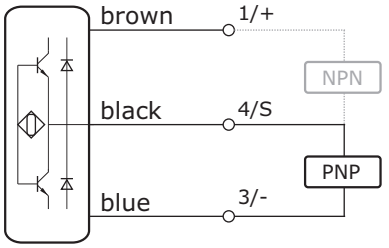
Inductive Proximity Switches

Ø6.5	Ø6.5	Ø6.5	Ø6.5	Ø6.5	Ø6.5
1 mm	1 mm	1 mm	2 mm	2 mm	2 mm
					

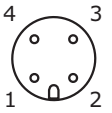
Ø6.5 mm	Ø6.5 mm	Ø6.5 mm	Ø6.5 mm	Ø6.5 mm	Ø6.5 mm
1 mm - Shielded	1 mm - Shielded	1 mm - Shielded	2 mm - Unshielded	2 mm - Unshielded	2 mm - Unshielded
10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire
built-in	built-in	built-in	built-in	built-in	built-in
< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA
200 mA	200 mA	200 mA	200 mA	200 mA	200 mA
built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
2000 Hz	2000 Hz	2000 Hz	2000 Hz	2000 Hz	2000 Hz
< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C
IP67	IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM	POM
1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303
Connector M8, 3-pole	Connector M8, 3-pole	Connector M12, 4-pole	High-Flex PVC, 2m	High-Flex PVC, 2m	Conn. M8, 3-pole, 30cm
Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
IPSD6-S1PO45/M8	IPSD6-S1PO60/M8	IPSD6-S1PO69/M12	IPSD6-N2PO30/A2P	IPSD6-N2PO45/A2P	IPSD6-N2PO45/M8
IPSD6-S1PC45/M8	IPSD6-S1PC60/M8	IPSD6-S1PC69/M12	IPSD6-N2PC30/A2P	IPSD6-N2PC45/A2P	IPSD6-N2PC45/M8
IPSD6-S1NO45/M8	IPSD6-S1NO60/M8	IPSD6-S1NO69/M12	IPSD6-N2NO30/A2P	IPSD6-N2NO45/A2P	IPSD6-N2NO45/M8
IPSD6-S1NC45/M8	IPSD6-S1NC60/M8	IPSD6-S1NC69/M12	IPSD6-N2NC30/A2P	IPSD6-N2NC45/A2P	IPSD6-N2NC45/M8
	IPSD6-S1DO60/M8	IPSD6-S1DO69/M12	IPSD6-N2DO45/A2P	IPSD6-N2DO45/A2P	
	IPSD6-S1DC60/M8	IPSD6-S1DC69/M12	IPSD6-N2DC45/A2P	IPSD6-N2DC45/A2P	
M8/3…	M8/3…	M12/3…	-	-	M8/3…

XECRO reserves the right to make minor changes without prior notification.

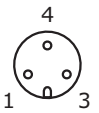
Output Schematics



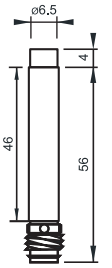
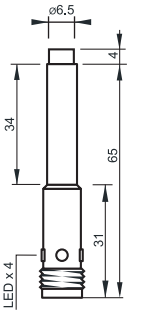
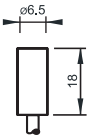
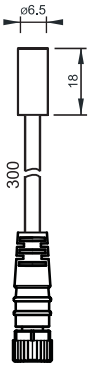
Connector M12



Connector M8

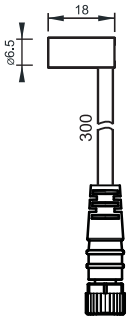
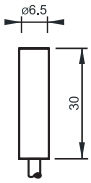
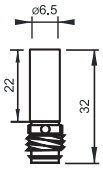
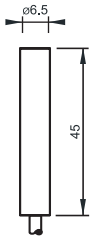
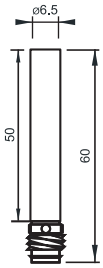


Not to be used for Safety Applications

Ø6.5	Ø6.5	Ø6.5	Ø6.5
2 mm	2 mm	2 mm	2 mm
			

SPECIFICATIONS	Ø6.5 mm	Ø6.5 mm	Ø6.5 mm	Ø6.5 mm
Sensing Distance	2 mm - Unshielded	2 mm - Unshielded	2 mm - Shielded	2 mm - Shielded
Operating Voltage	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire
Reverse Polarity Protection	built-in	built-in	built-in	built-in
Current Consumption	< 8 mA	< 8 mA	< 8 mA	< 8 mA
Current Load Capability	200 mA	200 mA	200 mA	200 mA
Short Circuit Protection	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
Voltage Drop	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
Switching Frequency	2000 Hz	2000 Hz	2000 Hz	2000 Hz
Repeatability	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
Hysteresis	3...15 %	3...15 %	3...15 %	3...15 %
Operating Temperature	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C
Protection Class	IP67	IP67	IP67	IP67
Sensing Face Material	POM	POM	POM	POM
Housing Material	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303
Connection	Connector M8, 3-pole	Connector M12, 4-pole	High-Flex PVC, 2m	Conn. M8, 3-pole, 30cm
Output Indicator	Integrated	Integrated	Integrated	Integrated
Article Code				
PNP - NO, 3-wire	IPSD6-N2PO60/M8	IPSD6-N2PO69/M12	IPSD6-S2PO18/A2P	IPSD6-S2PO18/3P8
PNP - NC, 3-wire	IPSD6-N2PC60/M8	IPSD6-S1PC69/M12	IPSD6-S2PC18/A2P	IPSD6-S2PC18/3P8
PNP - NO+NC, 4-wire				
NPN - NO, 3-wire	IPSD6-N2NO60/M8	IPSD6-N2NO69/M12	IPSD6-S2NO18/A2P	IPSD6-S2NO18/3P8
NPN - NC, 3-wire	IPSD6-N2NC60/M8	IPSD6-N2NC69/M12	IPSD6-S2NC18/A2P	IPSD6-S2NC18/3P8
NPN - NO+NC, 4-wire				
10...55 VDC - NO, 2-wire	IPSD6-N2DO60/M8	IPSD6-N2DO69/M12		
10...55 VDC - NC, 2-wire	IPSD6-N2DC60/M8	IPSD6-N2DC69/M12		
Recommended Connecting Cable	M8/3...	M12/3...	-	M8/3...

Inductive Proximity Switches

Ø6.5	Ø6.5	Ø6.5	Ø6.5	Ø6.5	Ø6.5
2 mm	2 mm	2 mm	2 mm	2 mm	2 mm
					
Ø6.5 mm	Ø6.5 mm	Ø6.5 mm	Ø6.5 mm	Ø6.5 mm	Ø6.5 mm
2 mm - Shielded	2 mm - Shielded	2 mm - Shielded	2 mm - Shielded	2 mm - Shielded	2 mm - Shielded
10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire
built-in	built-in	built-in	built-in	built-in	built-in
< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA
200 mA	200 mA	200 mA	200 mA	200 mA	200 mA
built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
2000 Hz	2000 Hz	2000 Hz	2000 Hz	2000 Hz	2000 Hz
< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C
IP67	IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM	POM
1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303
Conn. M8, 3-pole, 30cm	High-Flex PVC, 2m	Conn. M8, 3-pole, 30cm	High-Flex PVC, 2m	Connector M8, 3-pole	Connector M8, 3-pole
Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
IPSD6-S2PO18/R3P8	IPSD6-S2PO30/A2P	IPSD6-S2PO32/M8	IPSD6-S2PO45/A2P	IPSD6-S2PO45/M8	IPSD6-S2PO60/M8
IPSD6-S2PC18/R3P8	IPSD6-S2PC30/A2P	IPSD6-S2PC32/M8	IPSD6-S2PC45/A2P	IPSD6-S2PC45/M8	IPSD6-S2PC60/M8
IPSD6-S2NO18/R3P8	IPSD6-S2NO30/A2P	IPSD6-S2NO32/M8	IPSD6-S2NO45/A2P	IPSD6-S2NO45/M8	IPSD6-S2NO60/M8
IPSD6-S2NC18/R3P8	IPSD6-S2NC30/A2P	IPSD6-S2NC32/M8	IPSD6-S2NC45/A2P	IPSD6-S2NC45/M8	IPSD6-S2NC60/M8
M8/3…	-	M8/3…	-	M8/3…	M8/3…

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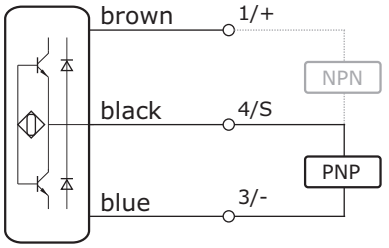
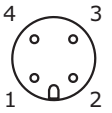
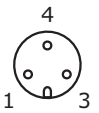
Output Schematics

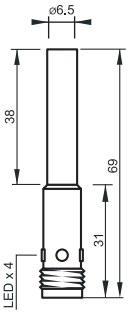
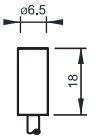
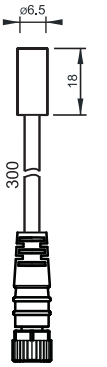
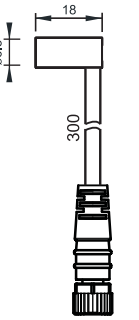


Connector M12



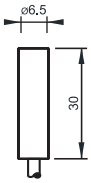
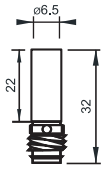
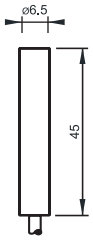
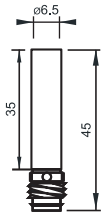
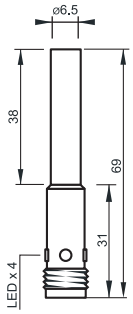
Connector M8



	Ø6.5	Ø6.5	Ø6.5	Ø6.5
	2 mm	3 mm	3 mm	3 mm
				

SPECIFICATIONS	Ø6.5 mm	Ø6.5 mm	Ø6.5 mm	Ø6.5 mm
Sensing Distance	2 mm - Shielded	3 mm - Shielded	3 mm - Shielded	3 mm - Shielded
Operating Voltage	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire
Reverse Polarity Protection	built-in	built-in	built-in	built-in
Current Consumption	< 8 mA	< 8 mA	< 8 mA	< 8 mA
Current Load Capability	200 mA	200 mA	200 mA	200 mA
Short Circuit Protection	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
Voltage Drop	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
Switching Frequency	2000 Hz	1000 Hz	1000 Hz	1000 Hz
Repeatability	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
Hysteresis	3...15 %	3...15 %	3...15 %	3...15 %
Operating Temperature	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C
Protection Class	IP67	IP67	IP67	IP67
Sensing Face Material	POM	POM	POM	POM
Housing Material	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303
Connection	Connector M12, 4-pole	High-Flex PVC, 2m	Conn. M8, 3-pole, 30cm	Conn. M8, 3-pole, 30cm
Output Indicator	Integrated	Integrated	Integrated	Integrated
Article Code				
PNP - NO, 3-wire	IPSD6-S2PO69/M12	IPSD6-S3PO18/A2P	IPSD6-S3PO18/3P8	IPSD6-S3PO18/R3P8
PNP - NC, 3-wire	IPSD6-S2PC69/M12	IPSD6-S3PC18/A2P	IPSD6-S3PC18/3P8	IPSD6-S3PC18/R3P8
PNP - NO+NC, 4-wire				
NPN - NO, 3-wire	IPSD6-S2NO69/M12	IPSD6-S3NO18/A2P	IPSD6-S3NO18/3P8	IPSD6-S3NO18/R3P8
NPN - NC, 3-wire	IPSD6-S2NC69/M12	IPSD6-S3NC18/A2P	IPSD6-S3NC18/3P8	IPSD6-S3NC18/R3P8
NPN - NO+NC, 4-wire				
Recommended Connecting Cable	M12/3...	-	M8/3...	M8/3...

Inductive Proximity Switches

Ø6.5	Ø6.5	Ø6.5	Ø6.5	Ø6.5	Ø6.5
3 mm	3 mm	3 mm	3 mm	3 mm	3 mm
					

Ø6.5 mm	Ø6.5 mm	Ø6.5 mm	Ø6.5 mm	Ø6.5 mm	Ø6.5 mm
3 mm - Shielded	3 mm - Shielded	3 mm - Shielded	3 mm - Shielded	3 mm - Shielded	3 mm - Shielded
10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire
built-in	built-in	built-in	built-in	built-in	built-in
< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA
200 mA	200 mA	200 mA	200 mA	200 mA	200 mA
built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
1000 Hz	1000 Hz	1000 Hz	1000 Hz	1000 Hz	1000 Hz
< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C
IP67	IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM	POM
1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303
High-Flex PVC, 2m	Connector M8, 3-pole	High-Flex PVC, 2m	Connector M8, 3-pole	Connector M8, 3-pole	Connector M12, 4-pole
Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
IPSD6-S3PO30/A2P	IPSD6-S3PO32/M8	IPSD6-S3PO45/A2P	IPSD6-S3PO45/M8	IPSD6-S3PO60/M8	IPSD6-S3PO70/M12
IPSD6-S3PC30/A2P	IPSD6-S3PC32/M8	IPSD6-S3PC45/A2P	IPSD6-S3PC45/M8	IPSD6-S3PC60/M8	IPSD6-S3PC70/M12
IPSD6-S3NO30/A2P	IPSD6-S3NO32/M8	IPSD6-S3NO45/A2P	IPSD6-S3NO45/M8	IPSD6-S3NO60/M8	IPSD6-S3NO70/M12
IPSD6-S3NC30/A2P	IPSD6-S3NC32/M8	IPSD6-S3NC45/A2P	IPSD6-S3NC45/M8	IPSD6-S3NC60/M8	IPSD6-S3NC70/M12
-	M8/3…	-	M8/3…	M8/3…	M12/3…

XECRO reserves the right to make minor changes without prior notification.

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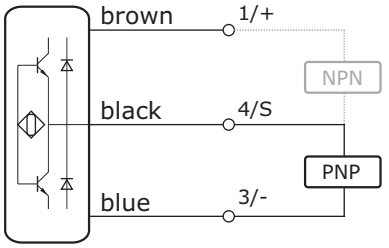
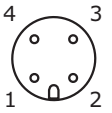
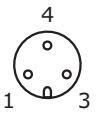
Output Schematics

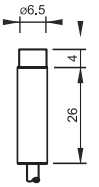
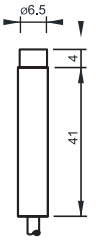
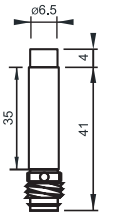
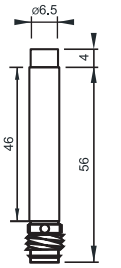


Connector M12

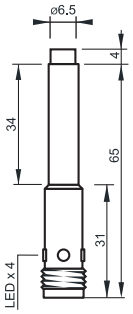
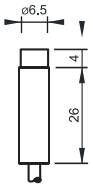
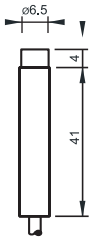
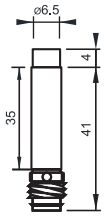
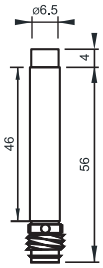
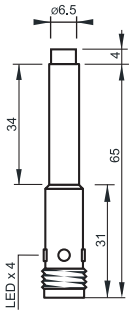


Connector M8



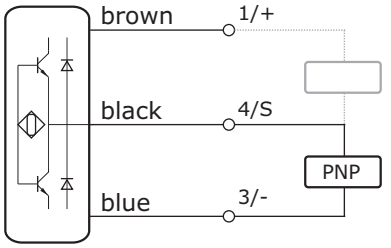
	Ø6.5	Ø6.5	Ø6.5	Ø6.5
	4 mm	4 mm	4 mm	4 mm
				

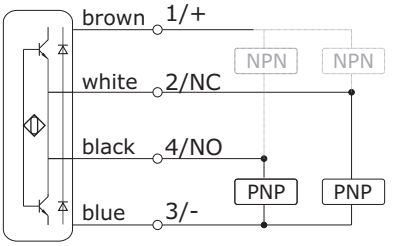
SPECIFICATIONS	Ø6.5 mm	Ø6.5 mm	Ø6.5 mm	Ø6.5 mm
Sensing Distance	4 mm - Unshielded	4 mm - Unshielded	4 mm - Unshielded	4 mm - Unshielded
Operating Voltage	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire
Reverse Polarity Protection	built-in	built-in	built-in	built-in
Current Consumption	< 8 mA	< 8 mA	< 8 mA	< 8 mA
Current Load Capability	200 mA	200 mA	200 mA	200 mA
Short Circuit Protection	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
Voltage Drop	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
Switching Frequency	1000 Hz	1000 Hz	1000 Hz	1000 Hz
Repeatability	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
Hysteresis	3...15 %	3...15 %	3...15 %	3...15 %
Operating Temperature	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C
Protection Class	IP67	IP67	IP67	IP67
Sensing Face Material	POM	POM	POM	POM
Housing Material	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303
Connection	High-Flex PVC, 2m	High-Flex PVC, 2m	Connector M8, 3-pole	Connector M8, 3-pole
Output Indicator	Integrated	Integrated	Integrated	Integrated
Article Code				
PNP - NO, 3-wire	IPSD6-N4PO30/A2P	IPSD6-N4PO45/A2P	IPSD6-N4PO45/M8	IPSD6-N4PO60/M8
PNP - NC, 3-wire	IPSD6-N4PC30/A2P	IPSD6-N4PC45/A2P	IPSD6-N4PC45/M8	IPSD6-N4PC60/M8
PNP - NO+NC, 4-wire				
NPN - NO, 3-wire	IPSD6-N4NO30/A2P	IPSD6-N4NO30/A2P	IPSD6-N4NO45/M8	IPSD6-N4NO60/M8
NPN - NC, 3-wire	IPSD6-N4NC30/A2P	IPSD6-N4NC45/A2P	IPSD6-N4NC45/M8	IPSD6-N4NC60/M8
NPN - NO+NC, 4-wire				
Recommended Connecting Cable	-	-	M8/3...	M8/3...

Ø6.5	Ø6.5	Ø6.5	Ø6.5	Ø6.5	Ø6.5
4 mm	6 mm	6 mm	6 mm	6 mm	6 mm
					

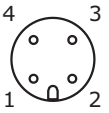
Ø6.5 mm	Ø6.5 mm	Ø6.5 mm	Ø6.5 mm	Ø6.5 mm	Ø6.5 mm
4 mm - Unshielded	6 mm - Unshielded	6 mm - Unshielded	6 mm - Unshielded	6 mm - Unshielded	6 mm - Unshielded
10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire
built-in	built-in	built-in	built-in	built-in	built-in
< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA
200 mA	200 mA	200 mA	200 mA	200 mA	200 mA
built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
1000 Hz	500 Hz	500 Hz	500 Hz	500 Hz	500 Hz
< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C
IP67	IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM	POM
1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303
Connector M12, 4-pole	High-Flex PVC, 2m	High-Flex PVC, 2m	Connector M8, 3-pole	Connector M8, 3-pole	Connector M12, 4-pole
Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
IPSD6-N4PO69/M12	IPSD6-N6PO30/A2P	IPSD6-N6PO45/A2P	IPSD6-N6PO45/M8	IPSD6-N6PO60/M8	IPSD6-N6PO70/M12
IPSD6-N4PC69/M12	IPSD6-N6P305/A2P	IPSD6-N6PC45/A2P	IPSD6-N6PC45/M8	IPSD6-N6PC60/M8	IPSD6-N6PC70/M12
IPSD6-N4NO69/M12	IPSD6-N63045/A2P	IPSD6-N6NO45/A2P	IPSD6-N6NO45/M8	IPSD6-N6NO60/M8	IPSD6-N6NO70/M12
IPSD6-N4NC69/M12	IPSD6-N30C45/A2P	IPSD6-N6NC45/A2P	IPSD6-N6NC45/M8	IPSD6-N6NC60/M8	IPSD6-N6NC70/M12
M12/3…	-	-	M8/3…	M8/3…	M12/3…

Output Schematics

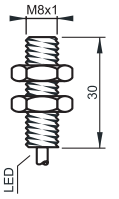
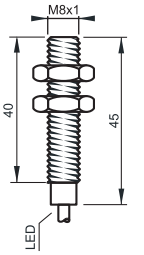
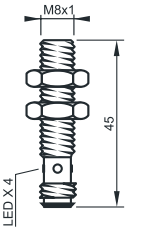
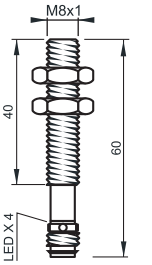




Connector M12

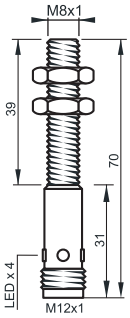
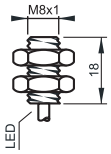
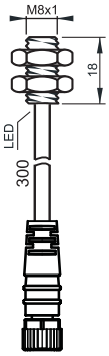
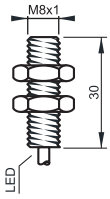
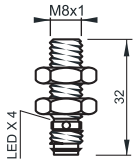
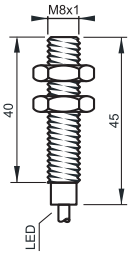


Not to be used for Safety Applications

	M8	M8	M8	M8
	1 mm	1 mm	1 mm	1 mm
				

SPECIFICATIONS	M8x1	M8x1	M8x1	M8x1
Sensing Distance	1 mm - Shielded	1 mm - Shielded	1 mm - Shielded	1 mm - Shielded
Operating Voltage	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire
Reverse Polarity Protection	built-in	built-in	built-in	built-in
Current Consumption	< 8 mA	< 8 mA	< 8 mA	< 8 mA
Current Load Capability	200 mA	200 mA	200 mA	200 mA
Short Circuit Protection	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
Voltage Drop	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
Switching Frequency	2000 Hz	2000 Hz	2000 Hz	2000 Hz
Repeatability	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
Hysteresis	3...15 %	3...15 %	3...15 %	3...15 %
Operating Temperature	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C
Protection Class	IP67	IP67	IP67	IP67
Sensing Face Material	POM	POM	POM	POM
Housing Material	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303
Connection	High-Flex PVC, 2m	High-Flex PVC, 2m	Connector M8, 3-pole	Connector M8, 3-pole
Output Indicator	Integrated	Integrated	Integrated	Integrated
Article Code				
PNP - NO, 3-wire	IPS8-S1PO30/A2P	IPS8-S1PO45/A2P	IPS8-S1PO45/M8	IPS8-S1PO60/M8
PNP - NC, 3-wire	IPS8-S1PC30/A2P	IPS8-S1PC45/A2P	IPS8-S1PC45/M8	IPS8-S1PC60/M8
PNP - NO+NC, 4-wire				
NPN - NO, 3-wire	IPS8-S1NO30/A2P	IPS8-S1NO45/A2P	IPS8-S1NO45/M8	IPS8-S1NO60/M8
NPN - NC, 3-wire	IPS8-S1NC30/A2P	IPS8-S1NC45/A2P	IPS8-S1NC45/M8	IPS8-S1NC60/M8
NPN - NO+NC, 4-wire				
10...55 VDC - NO, 2-wire		IPS8-S1DO45/A2P		IPS8-S1DO60/M8
10...55 VDC - NC, 2-wire		IPS8-S1DC45/A2P		IPS8-S1DC60/M8
Recommended Connecting Cable	-	-	M8/3...	M8/3...

Inductive Proximity Switches

M8	M8	M8	M8	M8	M8
1 mm	2 mm	2 mm	2 mm	2 mm	2 mm
					

M8x1	M8x1	M8x1	M8x1	M8x1	M8x1
1 mm - Shielded	2 mm - Shielded	2 mm - Shielded	2 mm - Shielded	2 mm - Shielded	2 mm - Shielded
10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire
built-in	built-in	built-in	built-in	built-in	built-in
< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA
200 mA	200 mA	200 mA	200 mA	200 mA	200 mA
built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
2000 Hz	2000 Hz	2000 Hz	2000 Hz	2000 Hz	2000 Hz
< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C
IP67	IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM	POM
1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303
Connector M12, 4-pole	High-Flex PVC, 2m	Conn. M8, 3-pole, 30cm	High-Flex PVC, 2m	Connector M8, 3-pole	High-Flex PVC, 2m
Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
IPS8-S1PO70/M12	IPS8-S2PO18/A2P	IPS8-S2PO18/3P8	IPS8-S2PO30/A2P	IPS8-S2PO32/M8	IPS8-S2PO45/A2P
IPS8-S1PC70/M12	IPS8-S2PC18/A2P	IPS8-S2PC18/3P8	IPS8-S2PC30/A2P	IPS8-S2PC32/M8	IPS8-S2PC45/A2P
			IPS8-S2PCO30/A2P		IPS8-S2PCO45/A2P
IPS8-S1NO70/M12	IPS8-S2NO18/A2P	IPS8-S2NO18/3P8	IPS8-S2NO30/A2P	IPS8-S2NO32/M8	IPS8-S2NO45/A2P
IPS8-S1NC70/M12	IPS8-S2NC18/A2P	IPS8-S2NC18/3P8	IPS8-S2NC30/A2P	IPS8-S2NC32/M8	IPS8-S2NC45/A2P
			IPS8-S2NCO30/A2P		IPS8-S2NCO45/A2P
IPS8-S1DO70/M12					
IPS8-S1DC70/M12					
M8/3…	-	M8/3…	-	M8/3…	-

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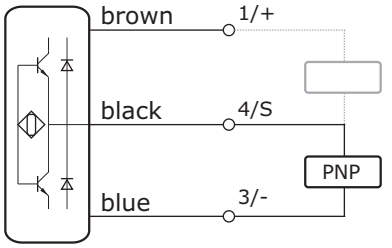
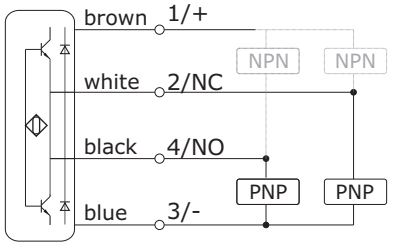
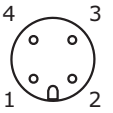
Output Schematics

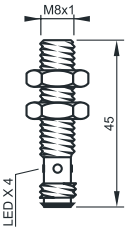
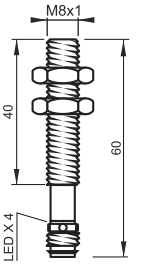
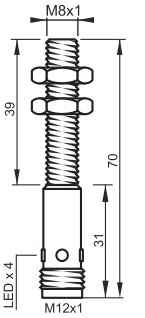
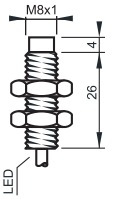




Connector M12

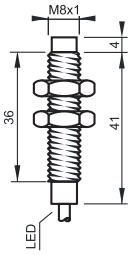
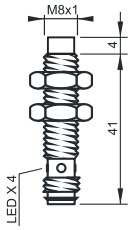
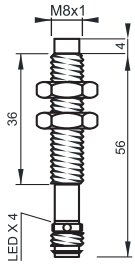
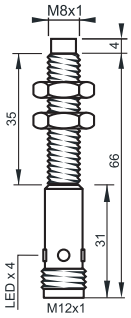
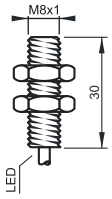
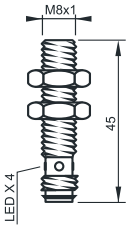


Not to be used for Safety Applications

	M8	M8	M8	M8
	2 mm	2 mm	2 mm	2 mm
				

SPECIFICATIONS	M8x1	M8x1	M8x1	M8x1
Sensing Distance	2 mm - Shielded	2 mm - Shielded	2 mm - Shielded	2 mm - Unshielded
Operating Voltage	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire
Reverse Polarity Protection	built-in	built-in	built-in	built-in
Current Consumption	< 8 mA	< 8 mA	< 8 mA	< 8 mA
Current Load Capability	200 mA	200 mA	200 mA	200 mA
Short Circuit Protection	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
Voltage Drop	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
Switching Frequency	2000 Hz	2000 Hz	2000 Hz	2000 Hz
Repeatability	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
Hysteresis	3...15 %	3...15 %	3...15 %	3...15 %
Operating Temperature	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C
Protection Class	IP67	IP67	IP67	IP67
Sensing Face Material	POM	POM	POM	POM
Housing Material	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303
Connection	Connector M8, 3-pole	Connector M8, 3-pole	Connector M12, 4-pole	High-Flex PVC, 2m
Output Indicator	Integrated	Integrated	Integrated	Integrated
Article Code				
PNP - NO, 3-wire	IPS8-S2PO45/M8	IPS8-S2PO60/M8	IPS8-S2PO70/M12	IPS8-N2PO30/A2P
PNP - NC, 3-wire	IPS8-S2PC45/M8	IPS8-S2PC60/M8	IPS8-S2PC70/M12	IPS8-N2PC30/A2P
PNP - NO+NC, 4-wire	IPS8-S2PCO45/M8	IPS8-S2PCO60/M8	IPS8-S2PCO70/M12	
NPN - NO, 3-wire	IPS8-S2NO45/M8	IPS8-S2NO60/M8	IPS8-S2NO70/M12	IPS8-N2NO30/A2P
NPN - NC, 3-wire	IPS8-S2NC45/M8	IPS8-S2NC60/M8	IPS8-S2NC70/M12	IPS8-N2NC30/A2P
NPN - NO+NC, 4-wire	IPS8-S2NCO45/M8	IPS8-S2NCO60/M8	IPS8-S2NCO70/M12	
10...55 VDC - NO, 2-wire				
10...55 VDC - NC, 2-wire				
Recommended Connecting Cable	M8/3... / M8/4...	M8/3... / M8/4...	M12/3... / M12/4...	-

Inductive Proximity Switches

M8	M8	M8	M8	M8	M8
2 mm	2 mm	2 mm	2 mm	2 mm	2 mm
					

M8x1	M8x1	M8x1	M8x1	M8 Metal Face	M8 Metal Face
2 mm - Unshielded	2 mm - Unshielded	2 mm - Unshielded	2 mm - Unshielded	2 mm - Shielded	2 mm - Shielded
10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire
built-in	built-in	built-in	built-in	built-in	built-in
< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA
200 mA	200 mA	200 mA	200 mA	200 mA	200 mA
built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
2000 Hz	2000 Hz	2000 Hz	2000 Hz	1000 Hz	1000 Hz
< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C
IP67	IP67	IP67	IP67	IP69k, Conn. IP67	IP69k, Conn. IP67
POM	POM	POM	POM	1.4305 / SS303	1.4305 / SS303
1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303
High-Flex PVC, 2m	Connector M8, 3-pole	Connector M8, 3-pole	Connector M12, 4-pole	High-Flex PVC, 2m	Connector M8, 3-pole
Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
IPS8-N2PO45/A2P	IPS8-N2PO45/M8	IPS8-N2PO60/M8	IPS8-N2PO70/M12	IMF8-S2PO30/A2P	IMF8-S2PO45/M8
IPS8-N2PC45/A2P	IPS8-N2PC45/M8	IPS8-N2PC60/M8	IPS8-N2PC70/M12	IMF8-S2PC30/A2P	IMF8-S2PC45/M8
IPS8-N2NO45/A2P	IPS8-N2NO45/M8	IPS8-N2NO60/M8	IPS8-N2NO70/M12	IMF8-S2NO30/A2P	IMF8-S2NO45/M8
IPS8-N2NC45/A2P	IPS8-N2NC45/M8	IPS8-N2NC60/M8	IPS8-N2NC70/M12	IMF8-S2NC30/A2P	IMF8-S2NC45/M8
IPS8-N2DO45/A2P		IPS8-N2DO60/M8	IPS8-N2DO70/M12		
IPS8-N2DC45/A2P		IPS8-N2DC60/M8	IPS8-N2DC70/M12		
-	M8/3…	M8/3…	M8/3…	-	M8/3…

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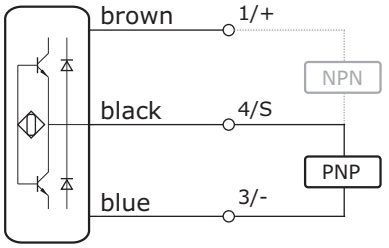
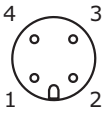
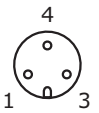
Output Schematics

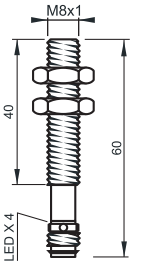
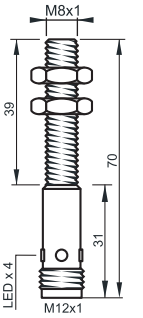
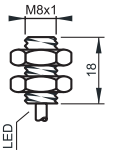
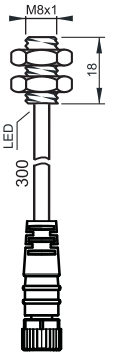


Connector M12



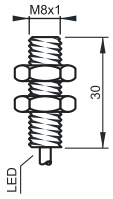
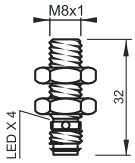
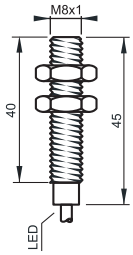
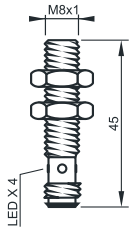
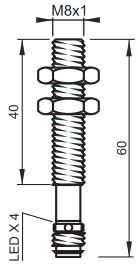
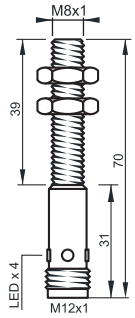
Connector M8



	M8	M8	M8	M8
	2 mm	2 mm	3 mm	3 mm
				

SPECIFICATIONS	M8 Metal Face	M8 Metal Face	M8x1	M8x1
Sensing Distance	2 mm - Shielded	2 mm - Shielded	3 mm - Shielded	3 mm - Shielded
Operating Voltage	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire
Reverse Polarity Protection	built-in	built-in	built-in	built-in
Current Consumption	< 8 mA	< 8 mA	< 8 mA	< 8 mA
Current Load Capability	200 mA	200 mA	200 mA	200 mA
Short Circuit Protection	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
Voltage Drop	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
Switching Frequency	1000 Hz	1000 Hz	1000 Hz	1000 Hz
Repeatability	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
Hysteresis	3...15 %	3...15 %	3...15 %	3...15 %
Operating Temperature	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C
Protection Class	IP69k, Conn. IP67	IP69k, Conn. IP67	IP67	IP67
Sensing Face Material	1.4305 / SS303	1.4305 / SS303	POM	POM
Housing Material	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303
Connection	Connector M8, 3-pole	Connector M12, 4-pole	High-Flex PVC, 2m	Conn. M8, 3-pole, 30cm
Output Indicator	Integrated	Integrated	Integrated	Integrated
Article Code				
PNP - NO, 3-wire	IMF8-S2PO60/M8	IMF8-S2PO70/M12	IPS8-S3PO18/A2P	IPS8-S3PO18/3P8
PNP - NC, 3-wire	IMF8-S2PC60/M8	IMF8-S2PC70/M12	IPS8-S3PC18/A2P	IPS8-S3PC18/3P8
PNP - NO+NC, 4-wire				
NPN - NO, 3-wire	IMF8-S2NO60/M8	IMF8-S2NO70/M12	IPS8-S3NO18/A2P	IPS8-S3NO18/3P8
NPN - NC, 3-wire	IMF8-S2NC60/M8	IMF8-S2NC70/M12	IPS8-S3NC18/A2P	IPS8-S3NC18/3P8
NPN - NO+NC, 4-wire				
Recommended Connecting Cable	M8/3...	M12/3...	-	M8/3...

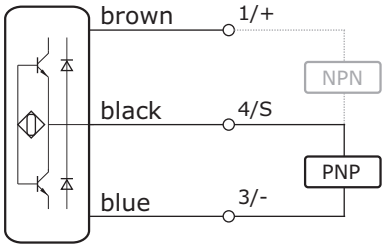
Inductive Proximity Switches

M8	M8	M8	M8	M8	M8
3 mm	3 mm	3 mm	3 mm	3 mm	3 mm
					

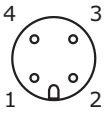
M8x1	M8x1	M8x1	M8x1	M8x1	M8x1
3 mm - Shielded	3 mm - Shielded	3 mm - Shielded	3 mm - Shielded	3 mm - Shielded	3 mm - Shielded
10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire
built-in	built-in	built-in	built-in	built-in	built-in
< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA
200 mA	200 mA	200 mA	200 mA	200 mA	200 mA
built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
1000 Hz	1000 Hz	1000 Hz	1000 Hz	1000 Hz	1000 Hz
< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C
IP67	IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM	POM
1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303
High-Flex PVC, 2m	Connector M8, 3-pole	High-Flex PVC, 2m	Connector M8, 3-pole	Connector M8, 3-pole	Connector M12, 4-pole
Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
IPS8-S3PO30/A2P	IPS8-S3PO32/M8	IPS8-S3PO45/A2P	IPS8-S3PO45/M8	IPS8-S3PO60/M8	IPS8-S3PO70/M12
IPS8-S3PC30/A2P	IPS8-S3PC32/M8	IPS8-S3PC45/A2P	IPS8-S3PC45/M8	IPS8-S3PC60/M8	IPS8-S3PC70/M12
IPS8-S3NO30/A2P	IPS8-S3NO32/M8	IPS8-S3NO45/A2P	IPS8-S3NO45/M8	IPS8-S3NO60/M8	IPS8-S3NO70/M12
IPS8-S3NC30/A2P	IPS8-S3NC32/M8	IPS8-S3NC45/A2P	IPS8-S3NC45/M8	IPS8-S3NC60/M8	IPS8-S3NC70/M12
-	M8/3…	-	M8/3…	M8/3…	M12/3…

XECRO reserves the right to make minor changes without prior notification.

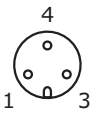
Output Schematics

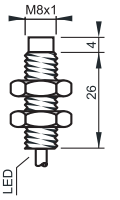
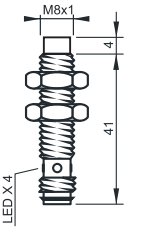
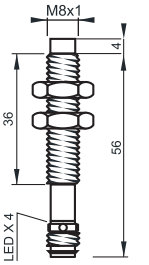
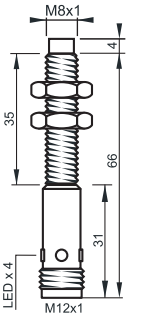


Connector M12



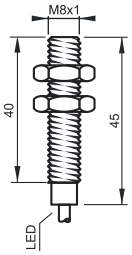
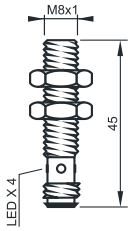
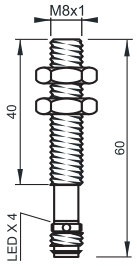
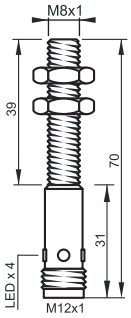
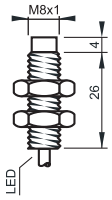
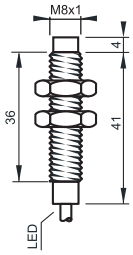
Connector M8



	M8	M8	M8	M8
	3.5 mm	3.5 mm	3.5 mm	3.5 mm
				

SPECIFICATIONS	M8 Metal Face	M8 Metal Face	M8 Metal Face	M8 Metal Face
Sensing Distance	3.5 mm - Unshielded	3.5 mm - Unshielded	3.5 mm - Unshielded	3.5 mm - Unshielded
Operating Voltage	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire
Reverse Polarity Protection	built-in	built-in	built-in	built-in
Current Consumption	< 8 mA	< 8 mA	< 8 mA	< 8 mA
Current Load Capability	200 mA	200 mA	200 mA	200 mA
Short Circuit Protection	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
Voltage Drop	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
Switching Frequency	1000 Hz	1000 Hz	1000 Hz	1000 Hz
Repeatability	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
Hysteresis	3...15 %	3...15 %	3...15 %	3...15 %
Operating Temperature	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C
Protection Class	IP69k, Conn. IP67	IP69k, Conn. IP67	IP69k, Conn. IP67	IP69k, Conn. IP67
Sensing Face Material	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303
Housing Material	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303
Connection	High-Flex PVC, 2m	Connector M8, 3-pole	Connector M8, 3-pole	Connector M12, 4-pole
Output Indicator	Integrated	Integrated	Integrated	Integrated
Article Code				
PNP - NO, 3-wire	IMF8-N4PO30/A2P	IMF8-N4PO45/M8	IMF8-N4PO60/M8	IMF8-N4PO70/M12
PNP - NC, 3-wire	IMF8-N4PC30/A2P	IMF8-N4PC45/M8	IMF8-N4PC60/M8	IMF8-N4PC70/M12
PNP - NO+NC, 4-wire				
NPN - NO, 3-wire	IMF8-N4NO30/A2P	IMF8-N4NO45/M8	IMF8-N4NO60/M8	IMF8-N4NO70/M12
NPN - NC, 3-wire	IMF8-N4NC30/A2P	IMF8-N4NC45/M8	IMF8-N4NC60/M8	IMF8-N4NC70/M12
NPN - NO+NC, 4-wire				
Recommended Connecting Cable	-	M8/3...	M8/3...	M12/3...

Inductive Proximity Switches

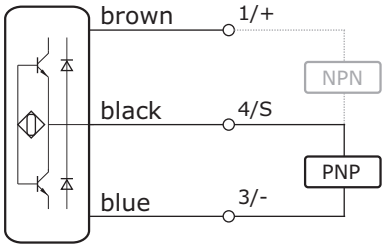
M8	M8	M8	M8	M8	M8
4 mm	4 mm	4 mm	4 mm	4 mm	4 mm
					

M8 Performance	M8 Performance	M8 Performance	M8 Performance	M8x1	M8x1
4 mm - Shielded	4 mm - Shielded	4 mm - Shielded	4 mm - Shielded	4 mm - Unshielded	4 mm - Unshielded
10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire
built-in	built-in	built-in	built-in	built-in	built-in
< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA
200 mA	200 mA	200 mA	200 mA	200 mA	200 mA
built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
500 Hz	500 Hz	500 Hz	500 Hz	1000 Hz	1000 Hz
< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C
IP67	IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM	POM
Plated Brass	Plated Brass	Plated Brass	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303
High-Flex PVC, 2m	Connector M8, 3-pole	Connector M8, 3-pole	Connector M12, 4-pole	High-Flex PVC, 2m	High-Flex PVC, 2m
Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
IPS8-S4PO45/A2P	IPS8-S4PO45/M8	IPS8-S4PO60/M8	IPS8-S4PO70/M12	IPS8-N4PO30/A2P	IPS8-N4PO45/A2P
IPS8-S4PC45/A2P	IPS8-S4PC45/M8	IPS8-S4PC60/M8	IPS8-S4PC70/M12	IPS8-N4PC30/A2P	IPS8-N4PC45/A2P
IPS8-S4NO45/A2P	IPS8-S4NO45/M8	IPS8-S4NO60/M8	IPS8-S4NO70/M12	IPS8-N4NO30/A2P	IPS8-N4NO45/A2P
IPS8-S4NC45/A2P	IPS8-S4NC45/M8	IPS8-S4NC60/M8	IPS8-S4NC70/M12	IPS8-N4NC30/A2P	IPS8-N4NC45/A2P
-	M8/3…	M8/3…	M12/3…	-	-

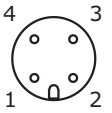
XECRO reserves the right to make minor changes without prior notification.

Inductive Proximity Switches

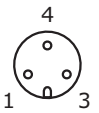
Output Schematics

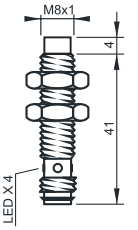
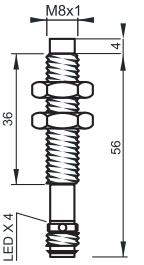
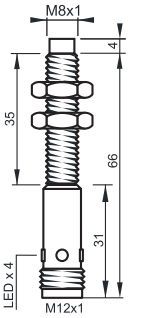
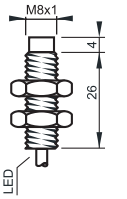


Connector M12



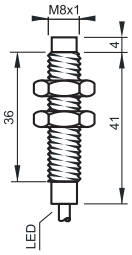
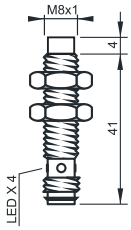
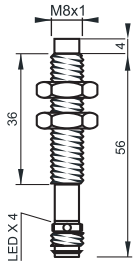
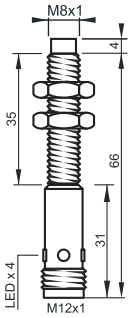
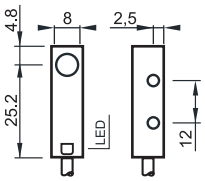
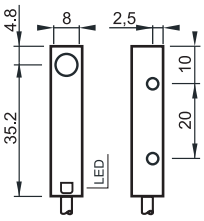
Connector M8



	M8	M8	M8	M8
	4 mm	4 mm	4 mm	6 mm
				

SPECIFICATIONS	M8x1	M8x1	M8x1	M8x1
Sensing Distance	4 mm - Unshielded	4 mm - Unshielded	4 mm - Unshielded	6 mm - Unshielded
Operating Voltage	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire
Reverse Polarity Protection	built-in	built-in	built-in	built-in
Current Consumption	< 8 mA	< 8 mA	< 8 mA	< 8 mA
Current Load Capability	200 mA	200 mA	200 mA	200 mA
Short Circuit Protection	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
Voltage Drop	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
Switching Frequency	1000 Hz	1000 Hz	1000 Hz	500 Hz
Repeatability	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
Hysteresis	3...15 %	3...15 %	3...15 %	3...15 %
Operating Temperature	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C
Protection Class	IP67	IP67	IP67	IP67
Sensing Face Material	POM	POM	POM	POM
Housing Material	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303
Connection	Connector M8, 3-pole	Connector M8, 3-pole	Connector M12, 4-pole	High-Flex PVC, 2m
Output Indicator	Integrated	Integrated	Integrated	Integrated
Article Code				
PNP - NO, 3-wire	IPS8-N4PO45/M8	IPS8-N4PO60/M8	IPS8-N4PO70/M12	IPS8-N6PO30/A2P
PNP - NC, 3-wire	IPS8-N4PC45/M8	IPS8-N4PC60/M8	IPS8-N4PC70/M12	IPS8-N6PC30/A2P
PNP - NO+NC, 4-wire				
NPN - NO, 3-wire	IPS8-N4NO45/M8	IPS8-N4NO60/M8	IPS8-N4NO70/M12	IPS8-N6NO30/A2P
NPN - NC, 3-wire	IPS8-N4NC45/M8	IPS8-N4NC60/M8	IPS8-N4NC70/M12	IPS8-N6NC30/A2P
NPN - NO+NC, 4-wire				
Recommended Connecting Cable	M8/3...	M8/3...	M12/3...	-

Inductive Proximity Switches

M8	M8	M8	M8	8 x 8	8 x 8
6 mm	6 mm	6 mm	6 mm	2 mm	2 mm
					

M8x1	M8x1	M8x1	M8x1	8 x 8	8 x 8
6 mm - Unshielded	6 mm - Unshielded	6 mm - Unshielded	6 mm - Unshielded	2 mm - Shielded	2 mm - Shielded
10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire
built-in	built-in	built-in	built-in	built-in	built-in
< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA
200 mA	200 mA	200 mA	200 mA	200 mA	200 mA
built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
500 Hz	500 Hz	500 Hz	500 Hz	2000 Hz	2000 Hz
< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C
IP67	IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM	POM
1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	Plated Brass	Plated Brass
High-Flex PVC, 2m	Connector M8, 3-pole	Connector M8, 3-pole	Connector M12, 4-pole	High-Flex PVC, 2m	High-Flex PVC, 2m
Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
IPS8-N6PO45/A2P	IPS8-N6PO45/M8	IPS8-N6PO60/M8	IPS8-N6PO70/M12	IPS88-S2PO30/A2P	IPS88-S2PO40/A2P
IPS8-N6PC45/A2P	IPS8-N6PC45/M8	IPS8-N6PC60/M8	IPS8-N6PC70/M12	IPS88-S2PC30/A2P	IPS88-S2PC40/A2P
IPS8-N6NO45/A2P	IPS8-N6NO45/M8	IPS8-N6NO60/M8	IPS8-N6NO70/M12	IPS88-S2NO30/A2P	IPS88-S2NO40/A2P
IPS8-N6NC45/A2P	IPS8-N6NC45/M8	IPS8-N6NC60/M8	IPS8-N6NC70/M12	IPS88-S2NC30/A2P	IPS88-S2NC40/A2P
-	M8/3…	M8/3…	M12/3…	-	-

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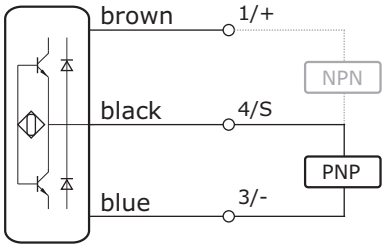
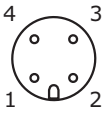
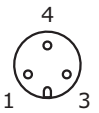
Output Schematics

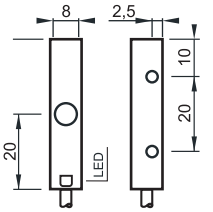
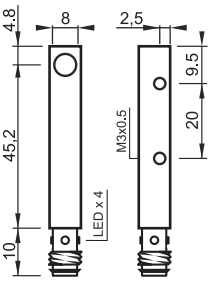
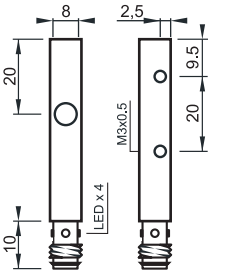
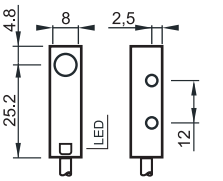


Connector M12



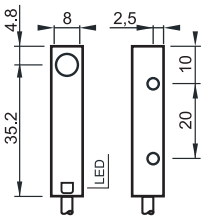
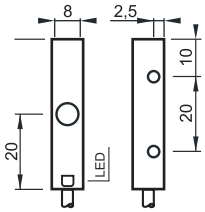
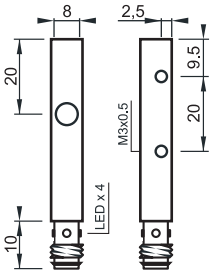
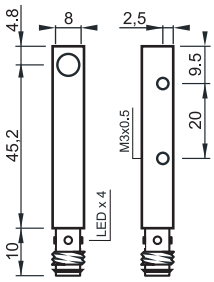
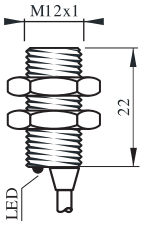
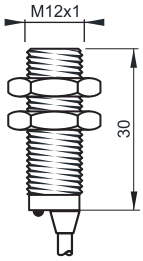
Connector M8



	8 x 8	8 x 8	8 x 8	8 x 8
	2 mm	2 mm	2 mm	3 mm
				

SPECIFICATIONS

	8 x 8	8 x 8	8 x 8	8 x 8
Sensing Distance	2 mm - Shielded	2 mm - Shielded	2 mm - Shielded	3 mm - Shielded
Operating Voltage	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire
Reverse Polarity Protection	built-in	built-in	built-in	built-in
Current Consumption	< 8 mA	< 8 mA	< 8 mA	< 8 mA
Current Load Capability	200 mA	200 mA	200 mA	200 mA
Short Circuit Protection	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
Voltage Drop	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
Switching Frequency	2000 Hz	2000 Hz	2000 Hz	1000 Hz
Repeatability	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
Hysteresis	3...15 %	3...15 %	3...15 %	3...15 %
Operating Temperature	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C
Protection Class	IP67	IP67	IP67	IP67
Sensing Face Material	POM	POM	POM	POM
Housing Material	Plated Brass	Plated Brass	Plated Brass	Plated Brass
Connection	High-Flex PVC, 2m	Connector M8, 3-pole	Connector M8, 3-pole	High-Flex PVC, 2m
Output Indicator	Integrated	Integrated	Integrated	Integrated
Article Code				
PNP - NO, 3-wire	IPS88-S2PO40C/A2P	IPS88-S2PO60/M8	IPS88-S2PO60C/M8	IPS88-S3PO30/A2P
PNP - NC, 3-wire	IPS88-S2PC40C/A2P	IPS88-S2PC60/M8	IPS88-S2PC60C/M8	IPS88-S3PC30/A2P
PNP - NO+NC, 4-wire				
NPN - NO, 3-wire	IPS88-S2NO40C/A2P	IPS88-S2NO60/M8	IPS88-S2NO60C/M8	IPS88-S3NO30/A2P
NPN - NC, 3-wire	IPS88-S2NC40C/A2P	IPS88-S2NC60/M8	IPS88-S2NC60C/M8	IPS88-S3NC30/A2P
NPN - NO+NC, 4-wire				
Recommended Connecting Cable	-	M8/3...	M8/3...	-

8 x 8	8 x 8	8 x 8	8 x 8	M12	M12
3 mm	3 mm	3 mm	3 mm	2 mm	2 mm
					

8 x 8	8 x 8	8 x 8	8 x 8	M12x1	M12x1
3 mm - Shielded	3 mm - Shielded	3 mm - Shielded	3mm - Shielded	2 mm - Shielded	2 mm - Shielded
10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC,3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire
built-in	built-in	built-in	built-in	built-in	built-in
< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA
200 mA	200 mA	200 mA	200 mA	200 mA	200 mA
built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
1000 Hz	1000 Hz	1000 Hz	1000 Hz	2000 Hz	2000 Hz
< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C
IP67	IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM	POM
Plated Brass	Plated Brass	Plated Brass	Plated Brass	Plated Brass	Plated Brass
High-Flex PVC, 2m	High-Flex PVC, 2m	Connector M8, 3-pole	Connector M8, 3-pole	High-Flex PVC, 2m	High-Flex PVC, 2m
Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
IPS88-S3PO40/A2P	IPS88-S3PO40C/A2P	IPS88-S3PO60C/M8	IPS88-S3PO60/M8	IPS12-S2PO22/A2P	IPS12-S2PO30/A2P
IPS88-S3PC40/A2P	IPS88-S3PC40C/A2P	IPS88-S3PC60C/M8	IPS88-S3PC60/M8	IPS12-S2PC22/A2P	IPS12-S2PC30/A2P
IPS88-S3NO40/A2P	IPS88-S3NO40C/A2P	IPS88-S3NO60C/M8	IPS88-S3NO60/M8	IPS12-S2NO22/A2P	IPS12-S2NO30/A2P
IPS88-S3NC40/A2P	IPS88-S3NC40C/A2P	IPS88-S3NC60C/M8	IPS88-S3NC60/M8	IPS12-S2NC30/A2P	IPS12-S2NC30/A2P
-	-	M8/3…	M8/3…	-	-

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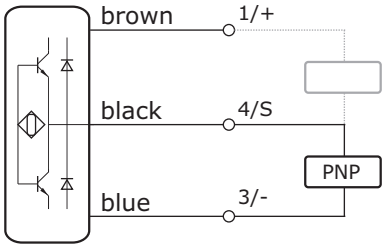
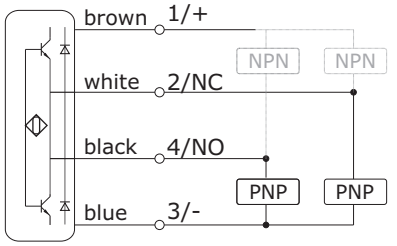
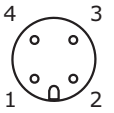
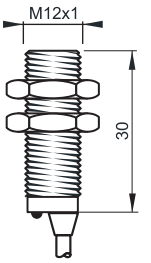
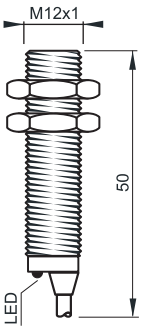
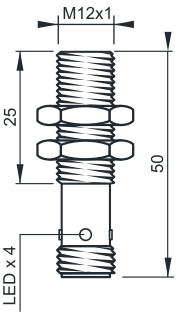
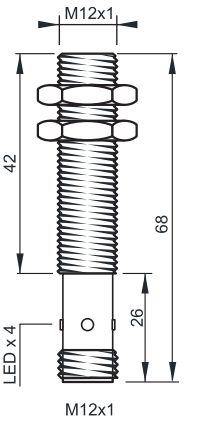
Output Schematics





Connector M12



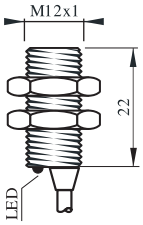
M12	M12	M12	M12
2 mm	2 mm	2 mm	2 mm
			

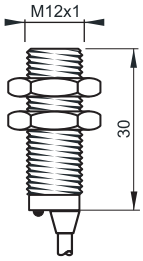
SPECIFICATIONS	M12x1	M12x1	M12x1	M12x1
Sensing Distance	2 mm - Shielded	2 mm - Shielded	2 mm - Shielded	2 mm - Shielded
Operating Voltage	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire
Reverse Polarity Protection	built-in	built-in	built-in	built-in
Current Consumption	< 8 mA	< 8 mA	< 8 mA	< 8 mA
Current Load Capability	200 mA	200 mA	200 mA	200 mA
Short Circuit Protection	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
Voltage Drop	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
Switching Frequency	2000 Hz	2000 Hz	2000 Hz	2000 Hz
Repeatability	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
Hysteresis	3...15 %	3...15 %	3...15 %	3...15 %
Operating Temperature	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C
Protection Class	IP67	IP67	IP67	IP67
Sensing Face Material	POM	POM	POM	POM
Housing Material	Plated Brass	Plated Brass	Plated Brass	Plated Brass
Connection	High-Flex PVC, 2m	High-Flex PVC, 2m	Connector M12, 4-pole	Connector M12, 4-pole
Output Indicator	Integrated	Integrated	Integrated	Integrated
Article Code				
PNP - NO, 3-wire	IPS12-S2PO30/A2P	IPS12-S2PO50/A2P	IPS12-S2PO50/M12	IPS12-S2PO68/M12
PNP - NC, 3-wire	IPS12-S2PC30/A2P	IPS12-S2PC50/A2P	IPS12-S2PC50/M12	IPS12-S2PC68/M12
PNP - NO+NC, 4-wire				
NPN - NO, 3-wire	IPS12-S2NO30/A2P	IPS12-S2NO50/A2P	IPS12-S2NO50/M12	IPS12-S2NO68/M12
NPN - NC, 3-wire	IPS12-S2NC30/A2P	IPS12-S2NC50/A2P	IPS12-S2NC50/M12	IPS12-S2NC68/M12
NPN - NO+NC, 4-wire				
10...55 VDC - NO, 2-wire		IPS12-S2DO50/A2P		IPS12-S2DO68/M12
10...55 VDC - NC, 2-wire		IPS12-S2DC50/A2P		IPS12-S2DC68/M12
Recommended Connecting Cable	-	-	M12/3...	M12/3...

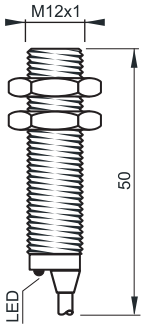
Inductive Proximity Switches

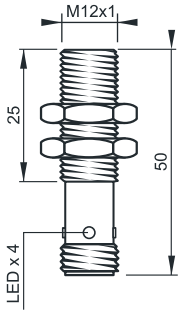
M12	M12	M12	M12	M12	M12

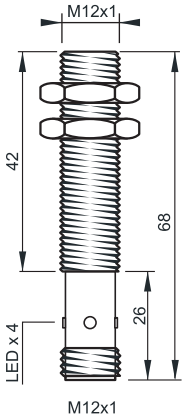
4 mm	4 mm	4 mm	4 mm	4 mm	4 mm

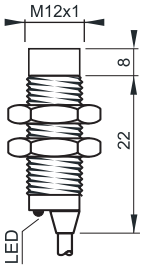












M12x1	M12x1	M12x1	M12x1	M12x1	M12x1
4 mm - Shielded	4 mm - Shielded	4 mm - Shielded	4 mm - Shielded	4 mm - Shielded	4 mm - Unshielded
10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire
built-in	built-in	built-in	built-in	built-in	built-in
< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA
200 mA	200 mA	200 mA	200 mA	200 mA	200 mA
built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
1000 Hz	1000 Hz	1000 Hz	1000 Hz	1000 Hz	1000 Hz
< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
3...15 %	3...15 %	3...15 %	3...15 %	3...15 %	3...15 %
-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C
IP67	IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM	POM
Plated Brass	Plated Brass	Plated Brass	Plated Brass	Plated Brass	Plated Brass
High-Flex PVC, 2m	High-Flex PVC, 2m	High-Flex PVC, 2m	Connector M12, 4-pole	Connector M12, 4-pole	High-Flex PVC, 2m
Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
IPS12-S4PO22/A2P	IPS12-S4PO30/A2P	IPS12-S4PO50/A2P	IPS12-S4PO50/M12	IPS12-S4PO68/M12	IPS12-N4PO30/A2P
IPS12-S4PC22/A2P	IPS12-S4PC30/A2P	IPS12-S4PC50/A2P	IPS12-S4PC50/M12	IPS12-S4PC68/M12	IPS12-N4PC30/A2P
	IPS12-S4PCO30/A2P	IPS12-S4PCO50/A2P	IPS12-S4PCO50/M12	IPS12-S4PCO68/M12	
IPS12-S4NO22/A2P	IPS12-S4NO30/A2P	IPS12-S4NO50/A2P	IPS12-S4NO50/M12	IPS12-S4NO68/M12	IPS12-N4NO30/A2P
IPS12-S4NC22/A2P	IPS12-S4NC30/A2P	IPS12-S4NC50/A2P	IPS12-S4NC50/M12	IPS12-S4NC68/M12	
	IPS12-S4NCO30/A2P	IPS12-S4NCO50/A2P	IPS12-S4NCO50/M12	IPS12-S4NCO68/M12	IPS12-N4NCO30/A2P
		IPS12-S4DO50/A2P		IPS12-S4DO68/M12	
		IPS12-S4DC50/A2P		IPS12-S4DC68/M12	
-	-	-	M12/3... / M12/4...	M12/3... / M12/4...	-

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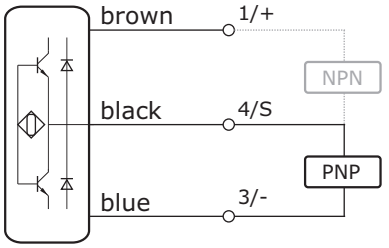
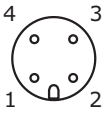
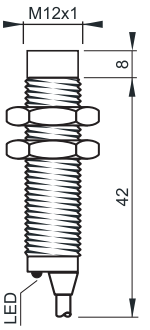
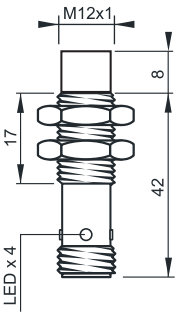
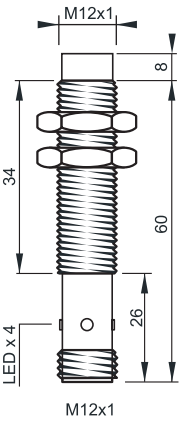
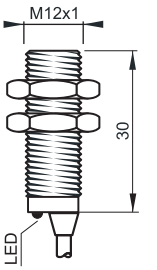
Output Schematics



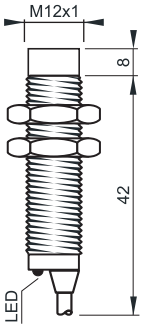
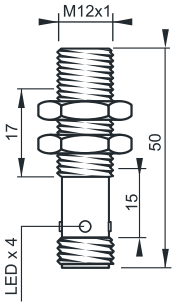
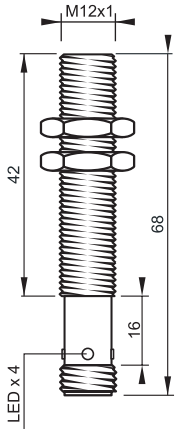
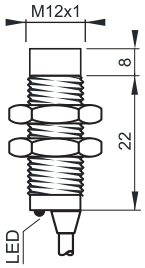
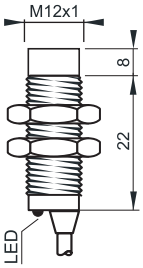
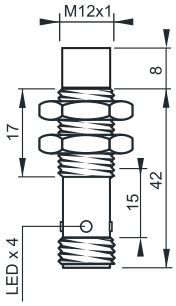
Connector M12



	M12	M12	M12	M12
	4 mm	4 mm	4 mm	4 mm
				

SPECIFICATIONS	M12x1	M12x1	M12x1	M12 Metal Face
Sensing Distance	4 mm - Unshielded	4 mm - Unshielded	4 mm - Unshielded	4 mm - Shielded
Operating Voltage	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire
Reverse Polarity Protection	built-in	built-in	built-in	built-in
Current Consumption	< 8 mA	< 8 mA	< 8 mA	< 8 mA
Current Load Capability	200 mA	200 mA	200 mA	200 mA
Short Circuit Protection	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
Voltage Drop	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
Switching Frequency	1000 Hz	1000 Hz	1000 Hz	1000 Hz
Repeatability	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
Hysteresis	3...15 %	3...15 %	3...15 %	3...15 %
Operating Temperature	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C
Protection Class	IP67	IP67	IP67	IP69k, Conn. IP67
Sensing Face Material	POM	POM	POM	1.4305 / SS303
Housing Material	Plated Brass	Plated Brass	Plated Brass	1.4305 / SS303
Connection	High-Flex PVC, 2m	Connector M12, 4-pole	Connector M12, 4-pole	High-Flex PVC, 2m
Output Indicator	Integrated	Integrated	Integrated	Integrated
Article Code				
PNP - NO, 3-wire	IPS12-N4PO50/A2P	IPS12-N4PO50/M12	IPS12-N4PO68/M12	IMF12-S4PO30/A2P
PNP - NC, 3-wire	IPS12-N4PC50/A2P	IPS12-N4PC50/M12	IPS12-N4PC68/M12	IMF12-S4PC30/A2P
PNP - NO+NC, 4-wire				
NPN - NO, 3-wire	IPS12-N4NO50/A2P	IPS12-N4NO50/M12	IPS12-N4NO68/M12	IMF12-S4NO30/A2P
NPN - NC, 3-wire	IPS12-N4NC50/A2P	IPS12-N4NC50/M12	IPS12-N4NC68/M12	IMF12-S4NC30/A2P
NPN - NO+NC, 4-wire				
10...55 VDC - NO, 2-wire	IPS12-N4DO50/A2P		IPS12-N4DO68/M12	
10...55 VDC - NC, 2-wire	IPS12-N4DC50/A2P		IPS12-N4DC68/M12	
Recommended Connecting Cable	-	M12/3...	M12/3...	-

Inductive Proximity Switches

M12	M12	M12	M12	M12	M12
4 mm	4 mm	4 mm	6 mm	6 mm	6 mm
					
M12 Metal Face	M12 Metal Face	M12 Metal Face	M12 Metal Face	M12 Metal Face	M12 Metal Face
4 mm - Shielded	4 mm - Shielded	4 mm - Shielded	6 mm - Unshielded	6 mm - Unshielded	6 mm - Unshielded
10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire
built-in	built-in	built-in	built-in	built-in	built-in
< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA
200 mA	200 mA	200 mA	200 mA	200 mA	200 mA
built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
1000 Hz	1000 Hz	1000 Hz	1000 Hz	1000 Hz	1000 Hz
< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C
IP69k, Conn. IP67	IP69k, Conn. IP67	IP69k, Conn. IP67	IP69k, Conn. IP67	IP69k, Conn. IP67	IP69k, Conn. IP67
1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303
1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303
High-Flex PVC, 2m	Connector M12, 4-pole	Connector M12, 4-pole	High-Flex PVC, 2m	High-Flex PVC, 2m	Connector M12, 4-pole
Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
IMF12-S4PO50/A2P	IMF12-S4PO50/M12	IMF12-S4PO68/M12	IMF12-N6PO30/A2P	IMF12-N6PO50/A2P	IMF12-N6PO50/M12
IMF12-S4PC50/A2P	IMF12-S4PC50/M12	IMF12-S4PC68/M12	IMF12-N6PC30/A2P	IMF12-N6PC50/A2P	IMF12-N6PC50/M12
IMF12-S4NO50/A2P	IMF12-S4NO50/M12	IMF12-S4NO68/M12	IMF12-N6NO30/A2P	IMF12-N6NO50/A2P	IMF12-N6NO50/M12
IMF12-S4NC50/A2P	IMF12-S4NC50/M12	IMF12-S4NC68/M12	IMF12-N6NC30/A2P	IMF12-N6NC50/A2P	IMF12-N6NC50/M12
-	M12/3…	M12/3…	-	-	M12/3…

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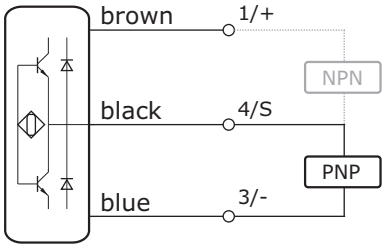
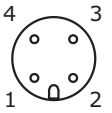
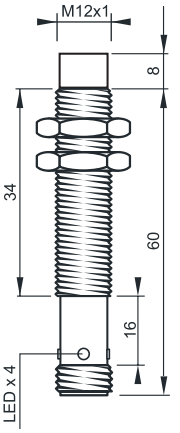
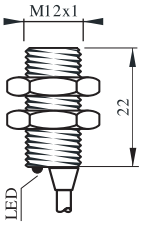
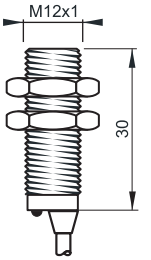
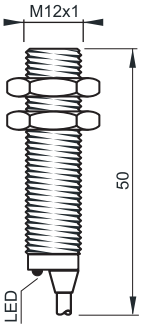
Output Schematics

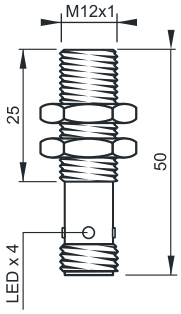
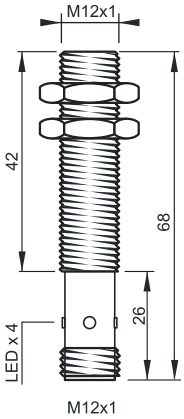
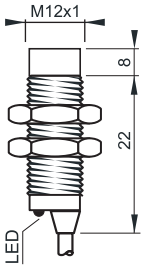
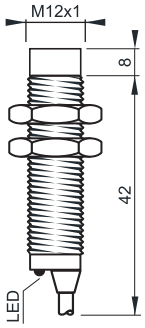
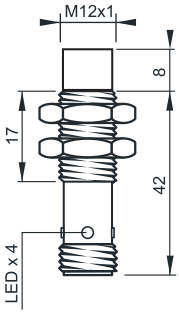
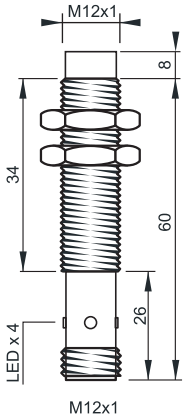


Connector M12



M12	M12	M12	M12
6 mm	6 mm	6 mm	6 mm
			

SPECIFICATIONS	M12 Metal Face	M12x1	M12x1	M12x1
Sensing Distance	6 mm - Unshielded	6 mm - Shielded	6 mm - Shielded	6 mm - Shielded
Operating Voltage	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire
Reverse Polarity Protection	built-in	built-in	built-in	built-in
Current Consumption	< 8 mA	< 8 mA	< 8 mA	< 8 mA
Current Load Capability	200 mA	200 mA	200 mA	200 mA
Short Circuit Protection	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
Voltage Drop	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
Switching Frequency	800 Hz	800 Hz	800 Hz	800 Hz
Repeatability	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
Hysteresis	3...15 %	3...15 %	3...15 %	3...15 %
Operating Temperature	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C
Protection Class	IP69k, Conn. IP67	IP67	IP67	IP67
Sensing Face Material	1.4305 / SS303	POM	POM	POM
Housing Material	1.4305 / SS303	Plated Brass	Plated Brass	Plated Brass
Connection	Connector M12, 4-pole	High-Flex PVC, 2m	High-Flex PVC, 2m	High-Flex PVC, 2m
Output Indicator	Integrated	Integrated	Integrated	Integrated
Article Code				
PNP - NO, 3-wire	IMF12-N6PO68/M12	IPS12-S6PO22/A2P	IPS12-S6PO30/A2P	IPS12-S6PO50/A2P
PNP - NC, 3-wire	IMF12-N6PC68/M12	IPS12-S6PC22/A2P	IPS12-S6PC30/A2P	IPS12-S6PC50/A2P
PNP - NO+NC, 4-wire				
NPN - NO, 3-wire	IMF12-N6NO68/M12	IPS12-S6NO22/A2P	IPS12-S6NO30/A2P	IPS12-S6NO50/A2P
NPN - NC, 3-wire	IMF12-N6NC68/M12	IPS12-S6NC30/A2P	IPS12-S6NC30/A2P	IPS12-S6NC50/A2P
NPN - NO+NC, 4-wire				
10...55 VDC - NO, 2-wire				
10...55 VDC - NC, 2-wire				
Recommended Connecting Cable	M12/3...	-	-	-

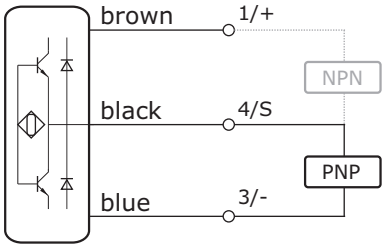
M12	M12	M12	M12	M12	M12
6 mm	6 mm	8 mm	8 mm	8 mm	8 mm
					

M12x1	M12x1	M12x1	M12x1	M12x1	M12x1
6 mm - Shielded	6 mm - Shielded	8 mm - Unshielded	8 mm - Unshielded	8 mm - Unshielded	8 mm - Unshielded
10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire
built-in	built-in	built-in	built-in	built-in	built-in
< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA
200 mA	200 mA	200 mA	200 mA	200 mA	200 mA
built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
800 Hz	800 Hz	500 Hz	500 Hz	500 Hz	500 Hz
< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
3...15 %	3...15 %	3...15 %	3...15 %	3...15 %	3...15 %
-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C
IP67	IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM	POM
Plated Brass	Plated Brass	Plated Brass	Plated Brass	Plated Brass	Plated Brass
Connector M12, 4-pole	Connector M12, 4-pole	High-Flex PVC, 2m	High-Flex PVC, 2m	Connector M12, 4-pole	Connector M12, 4-pole
Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
IPS12-S6PO50/M12	IPS12-S6PO68/M12	IPS12-N8PO30/A2P	IPS12-N8PO50/A2P	IPS12-N8PO50/M12	IPS12-N8PO68/M12
IPS12-S6PC50/M12	IPS12-S6PC68/M12	IPS12-N8PC30/A2P	IPS12-N8PC50/A2P	IPS12-N8PC50/M12	IPS12-N8PC68/M12
IPS12-S6NO50M12	IPS12-S6NO68/M12	IPS12-N8NO30/A2P	IPS12-N8NO50/A2P	IPS12-N8NO50/M12	IPS12-N8NO68/M12
IPS12-S6NC50M12	IPS12-S6NC68/M12	IPS12-N8NC30/A2P	IPS12-N8NC50/A2P	IPS12-N8NC50/M12	IPS12-N8NC68/M12
					IPS12-N8DO68/M12
					IPS12-N8DC68/M12
M12/3...	M12/3...	-	-	M12/3...	M12/3...

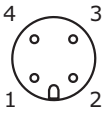
XECRO reserves the right to make minor changes without prior notification.

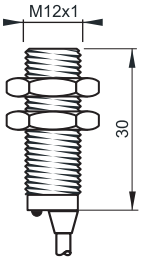
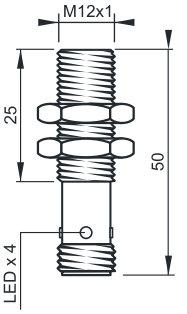
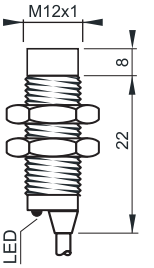
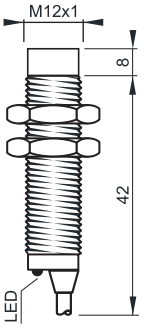
Inductive Proximity Switches

Output Schematics



Connector M12



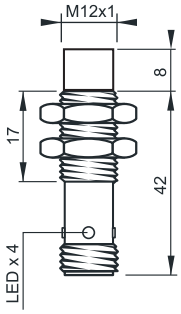
M12	M12	M12	M12
8 mm	8 mm	10 mm	10 mm
			

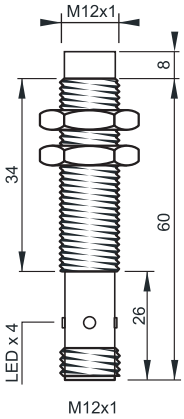
SPECIFICATIONS	M12x1	M12x1	M12x1	M12x1
Sensing Distance	8 mm - Shielded	8 mm - Shielded	10 mm - Unshielded	10 mm - Unshielded
Operating Voltage	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire
Reverse Polarity Protection	built-in	built-in	built-in	built-in
Current Consumption	< 8 mA	< 8 mA	< 8 mA	< 8 mA
Current Load Capability	200 mA	200 mA	200 mA	200 mA
Short Circuit Protection	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
Voltage Drop	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
Switching Frequency	500 Hz	500 Hz	400 Hz	400 Hz
Repeatability	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
Hysteresis	3...15 %	3...15 %	3...15 %	3...15 %
Operating Temperature	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C
Protection Class	IP67	IP67	IP67	IP67
Sensing Face Material	POM	POM	POM	POM
Housing Material	Plated Brass	Plated Brass	Plated Brass	Plated Brass
Connection	High-Flex PVC, 2m	Connector M12, 4-pole	High-Flex PVC, 2m	High-Flex PVC, 2m
Output Indicator	Integrated	Integrated	Integrated	Integrated
Article Code				
PNP - NO, 3-wire	IPS12-S8PO30/A2P	IPS12-S8PO50/M12	IPS12-N10PO30/A2P	IPS12-N10PO50/A2P
PNP - NC, 3-wire	IPS12-S8PC30/A2P	IPS12-S8PC50/M12	IPS12-N10PC30/A2P	IPS12-N10PC50/A2P
PNP - NO+NC, 4-wire				
NPN - NO, 3-wire	IPS12-S8NO30/A2P	IPS12-S8NO50/M12	IPS12-N10NO30/A2P	IPS12-N10NO50/A2P
NPN - NC, 3-wire	IPS12-S8NC30/A2P	IPS12-S8NC50/M12	IPS12-N10NC30/A2P	IPS12-N10NC50/A2P
NPN - NO+NC, 4-wire				
10...55 VDC - NO, 2-wire				
10...55 VDC - NC, 2-wire				
Recommended Connecting Cable	-	M12/3...	-	-

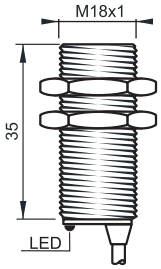
Inductive Proximity Switches

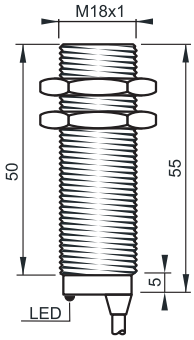
M12	M12	M18	M18	M18	M18

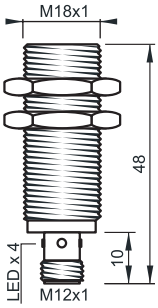
10 mm	10 mm	5 mm	5 mm	5 mm	5 mm

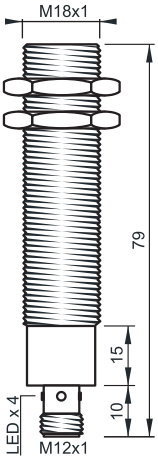








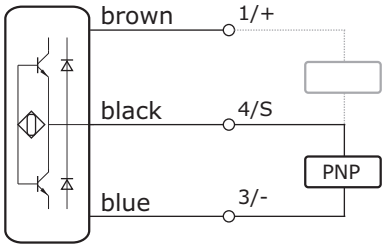


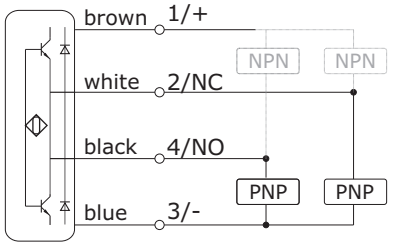


M12x1	M12x1	M18x1	M18x1	M18x1	M18x1
10 mm - Unshielded	10 mm - Unshielded	5 mm - Shielded	5 mm - Shielded	5 mm - Shielded	5 mm - Shielded
10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire
built-in	built-in	built-in	built-in	built-in	built-in
< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA
200 mA	200 mA	200 mA	200 mA	200 mA	200 mA
built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
400 Hz	400 Hz	1000 Hz	1000 Hz	1000 Hz	1000 Hz
< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
3...15 %	3...15 %	3...15 %	3...15 %	3...15 %	3...15 %
-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C
IP67	IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM	POM
Plated Brass	Plated Brass	Plated Brass	Plated Brass	Plated Brass	Plated Brass
Connector M12, 4-pole	Connector M12, 4-pole	High-Flex PVC, 2m	High-Flex PVC, 2m	Connector M12, 4-pole	Connector M12, 4-pole
Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
IPS12-N10PO50/M12	IPS12-N10PO68/M12	IPS18-S5PO35/A2P	IPS18-S5PO55/A2P	IPS179S5PO4-/M12	IPS18-S5PO48/M12
IPS12-N10PC50/M12	IPS12-N10PC68/M12	IPS18-S5PC35/A2P	IPS18-S5PC55/A2P	IPS179S5PC4-/M12	IPS18-S5PC48/M12
IPS12-N10NO50/M12	IPS12-N10NO68/M12	IPS18-S5NO35/A2P	IPS18-S5NO55/A2P	IPS179S5NO4-/M12	IPS18-S5NO48/M12
IPS12-N10NC50/M12	IPS12-N10NC68/M12	IPS18-S5NC35/A2P	IPS18-S5NC55/A2P	IPS18-S5NC79/M12	IPS18-S5NC48/M12
			IPS18-S5DO55/A2P	IPS18-S5DO79/M12	
			IPS18-S5DC55/A2P	IPS18-S5DC79/M12	
M12/3...	M12/3...	-	-	M12/3...	M12/3...

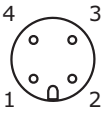
XECRO reserves the right to make minor changes without prior notification.

Output Schematics

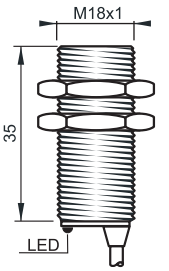
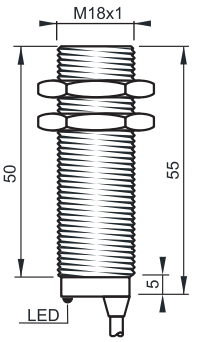
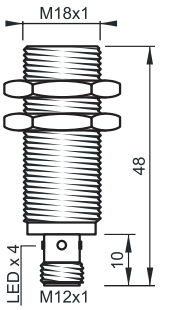
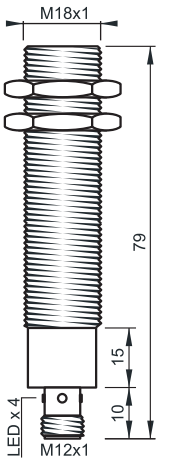




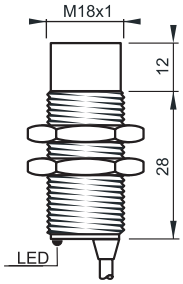
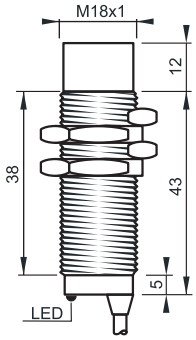
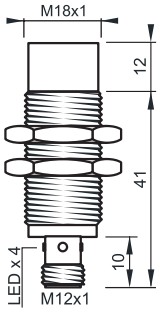
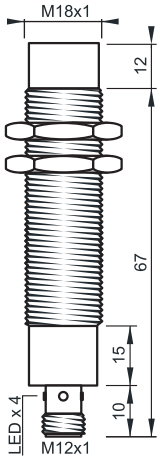
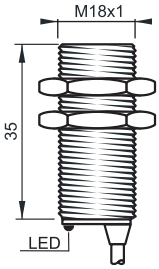
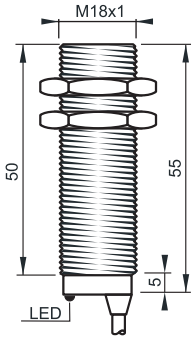
Connector M12



Not to be used for Safety Applications

	M18	M18	M18	M18
	8 mm	8 mm	8 mm	8 mm
				

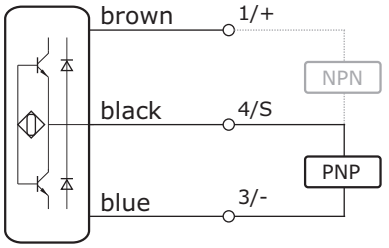
SPECIFICATIONS	M18x1	M18x1	M18x1	M18x1
Sensing Distance	8 mm - Shielded	8 mm - Shielded	8 mm - Shielded	8 mm - Shielded
Operating Voltage	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire
Reverse Polarity Protection	built-in	built-in	built-in	built-in
Current Consumption	< 8 mA	< 8 mA	< 8 mA	< 8 mA
Current Load Capability	200 mA	200 mA	200 mA	200 mA
Short Circuit Protection	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
Voltage Drop	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
Switching Frequency	500 Hz	500 Hz	500 Hz	500 Hz
Repeatability	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
Hysteresis	3...15 %	3...15 %	3...15 %	3...15 %
Operating Temperature	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C
Protection Class	IP67	IP67	IP67	IP67
Sensing Face Material	POM	POM	POM	POM
Housing Material	Plated Brass	Plated Brass	Plated Brass	Plated Brass
Connection	High-Flex PVC, 2m	High-Flex PVC, 2m	Connector M12, 4-pole	Connector M12, 4-pole
Output Indicator	Integrated	Integrated	Integrated	Integrated
Article Code				
PNP - NO, 3-wire	IPS18-S8PO35/A2P	IPS18-S8PO55/A2P	IPS18-S8PO48/M12	IPS18-S8PO79/M12
PNP - NC, 3-wire	IPS18-S8PC35/A2P	IPS18-S8PC55/A2P	IPS18-S8PC48/M12	IPS18-S8PC79/M12
PNP - NO+NC, 4-wire	IPS18-S8PCO35/A2P	IPS18-S8PCO55/A2P	IPS18-S8PCO48/M12	IPS18-S8PCO79/M12
NPN - NO, 3-wire	IPS18-S8NO35/A2P	IPS18-S8NO55/A2P	IPS18-S8NO48/M12	IPS18-S8NO79/M12
NPN - NC, 3-wire	IPS18-S8NC35/A2P	IPS18-S8NC55/A2P	IPS18-S8NC48/M12	IPS18-S8NC79/M12
NPN - NO+NC, 4-wire	IPS18-S8NCO35/A2P	IPS18-S8NCO55/A2P	IPS18-S8NCO48/M12	IPS18-S8NCO79/M12
10...55 VDC - NO, 2-wire		IPS18-S8DO55/A2P		IPS18-S8DO79/M12
10...55 VDC - NC, 2-wire		IPS18-S8DC55/A2P		IPS18-S8DC79/M12
Recommended Connecting Cable	-	-	M12/3... / M12/4...	M12/3... / M12/4...

M18	M18	M18	M18	M18	M18
8 mm	8 mm	8 mm	8 mm	12 mm	12 mm
					

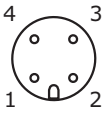
M18x1	M18x1	M18x1	M18x1	M18x1	M18x1
8 mm - Unshielded	8 mm - Unshielded	8 mm - Unshielded	8 mm - Unshielded	12 mm - Shielded	12 mm - Shielded
10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire
integrado	built-in	built-in	built-in	built-in	built-in
< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA
200 mA	200 mA	200 mA	200 mA	200 mA	200 mA
built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
500 Hz	500 Hz	500 Hz	500 Hz	300 Hz	300 Hz
< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
3...15 %	3...15 %	3...15 %	3...15 %	3...15 %	3...15 %
-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C
IP67	IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM	POM
Plated Brass	Plated Brass	Plated Brass	Plated Brass	Plated Brass	Plated Brass
High-Flex PVC, 2m	High-Flex PVC, 2m	Connector M12, 4-pole	Connector M12, 4-pole	High-Flex PVC, 2m	High-Flex PVC, 2m
Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
IPS18-N8PO40/A2P	IPS18-N8PO55/A2P	IPS18-N8PO53/M12	IPS18-N8PO79/M12	IPS18-S12PO35/A2P	IPS18-S12PO55/A2P
IPS18-N8PC40/A2P	IPS18-N8PC55/A2P	IPS18-N8PC53/M12	IPS18-N8PC79/M12	IPS18-S12PC35/A2P	IPS18-S12PC55/A2P
IPS18-N8NO40/A2P	IPS18-N8NO55/A2P	IPS18-N8NO53/M12	IPS18-N8NO79/M12	IPS18-S12NO35/A2P	IPS18-S12NO55/A2P
IPS18-N8NC40/A2P	IPS18-N8NC55/A2P	IPS18-N8NC53/M12	IPS18-N8NC79/M12	IPS18-S12NC35/A2P	IPS18-S12NC55/A2P
	IPS18-N8DO55/A2P		IPS18-N8DO79/M12		
	IPS18-N8DC55/A2P		IPS18-N8DC79/M12		
-	-	M12/3...	M12/3...	-	-

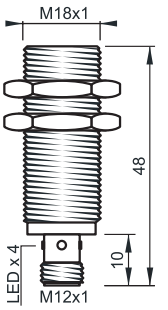
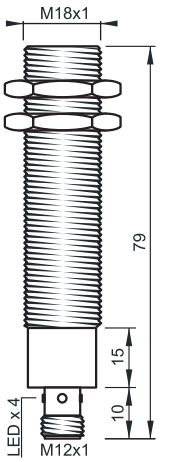
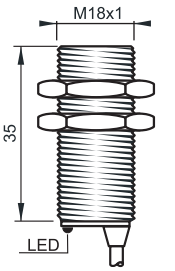
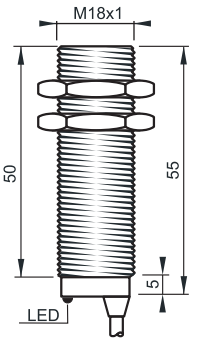
XECRO reserves the right to make minor changes without prior notification.

Output Schematics

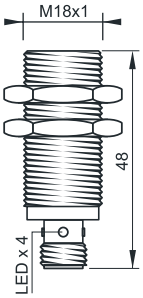
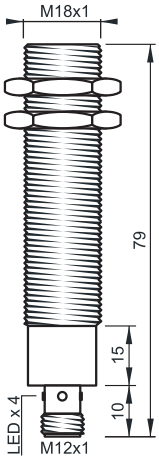
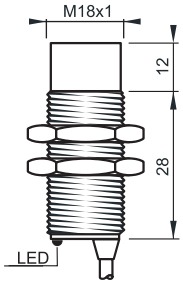
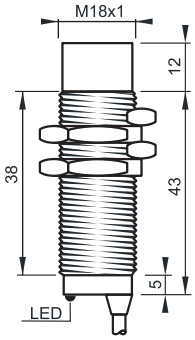
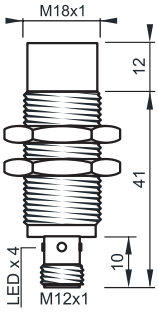
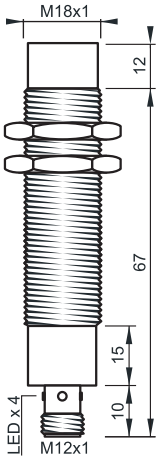


Connector M12

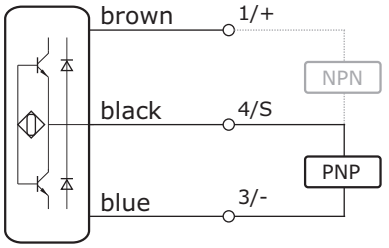


M18	M18	M18	M18
12 mm	12 mm	8 mm	8 mm
			

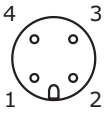
SPECIFICATIONS	M18x1	M18x1	M18 Metal Face	M18 Metal Face
Sensing Distance	12 mm - Shielded	12 mm - Shielded	8 mm - Shielded	8 mm - Shielded
Operating Voltage	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire
Reverse Polarity Protection	built-in	built-in	built-in	built-in
Current Consumption	< 8 mA	< 8 mA	< 8 mA	< 8 mA
Current Load Capability	200 mA	200 mA	200 mA	200 mA
Short Circuit Protection	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
Voltage Drop	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
Switching Frequency	300 Hz	300 Hz	1000 Hz	1000 Hz
Repeatability	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
Hysteresis	3...15 %	3...15 %	3...15 %	3...15 %
Operating Temperature	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C
Protection Class	IP67	IP67	IP69k, Conn. IP67	IP69k, Conn. IP67
Sensing Face Material	POM	POM	1.4305 / SS303	1.4305 / SS303
Housing Material	Plated Brass	Plated Brass	1.4305 / SS303	1.4305 / SS303
Connection	Connector M12, 4-pole	Connector M12, 4-pole	High-Flex PVC, 2m	High-Flex PVC, 2m
Output Indicator	Integrated	Integrated	Integrated	Integrated
Article Code				
PNP - NO, 3-wire	IPS18-S12PO48/M12	IPS18-S12PO79/M12	IMF18-S8PO35/A2P	IMF18-S8PO55/A2P
PNP - NC, 3-wire	IPS18-S12PC48/M12	IPS18-S12PC79/M12	IMF18-S8PC35/A2P	IMF18-S8PC55/A2P
PNP - NO+NC, 4-wire				
NPN - NO, 3-wire	IPS18-S12NO48/M12	IPS18-S12NO79/M12	IMF18-S8NO35/A2P	IMF18-S8NO55/A2P
NPN - NC, 3-wire	IPS18-S12NC48/M12	IPS18-S12NC79/M12	IMF18-S8NC35/A2P	IMF18-S8NC55/A2P
NPN - NO+NC, 4-wire				
10...55 VDC - NO, 2-wire				
10...55 VDC - NC, 2-wire				
Recommended Connecting Cable	M12/3...	M12/3...	-	-

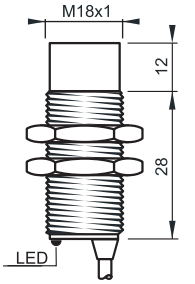
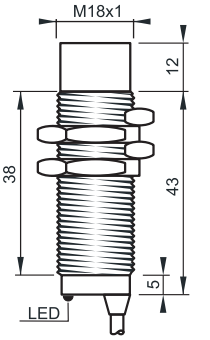
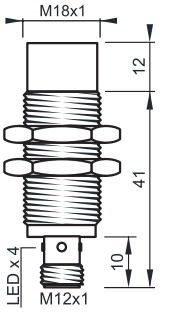
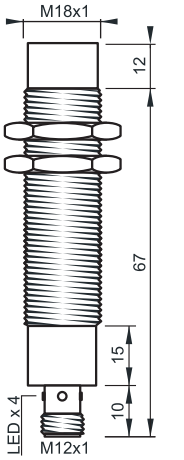
M18	M18	M18	M18	M18	M18
8 mm	8 mm	16 mm	16 mm	16 mm	16 mm
					
M18 Metal Face	M18 Metal Face	M18x1	M18x1	M18x1	M18x1
8 mm - Shielded	8 mm - Shielded	16 mm - Unshielded	16 mm - Unshielded	16 mm - Unshielded	16 mm - Unshielded
10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire
built-in	built-in	built-in	built-in	built-in	built-in
< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA
200 mA	200 mA	200 mA	200 mA	200 mA	200 mA
built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
1000 Hz	1000 Hz	150 Hz	150 Hz	150 Hz	150 Hz
< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C
IP69k, Conn. IP67	IP69k, Conn. IP67	IP67	IP67	IP67	IP67
1.4305 / SS303	1.4305 / SS303	POM	POM	POM	POM
1.4305 / SS303	1.4305 / SS303	Plated Brass	Plated Brass	Plated Brass	Plated Brass
Connector M12, 4-pole	Connector M12, 4-pole	High-Flex PVC, 2m	High-Flex PVC, 2m	Connector M12, 4-pole	Connector M12, 4-pole
Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
IMF18-S8PO48/M12	IMF18-S8PO79/M12	IPS18-N16PO40/A2P	IPS18-N16PO55/A2P	IPS18-N16PO53/M12	IPS18-N16PO79/M12
IMF18-S8PC48/M12	IMF18-S8PC79/M12	IPS18-N16PC40/A2P	IPS18-N16PC55/A2P	IPS18-N16PC53/M12	IPS18-N16PC79/M12
IMF18-S8NO48/M12	IMF18-S8NO79/M12	IPS18-N16NO40/A2P	IPS18-N16NO55/A2P	IPS18-N16NO53/M12	IPS18-N16NO79/M12
IMF18-S8NC48/M12	IMF18-S8NC79/M12	IPS18-N16NC40/A2P	IPS18-N16NC55/A2P	IPS18-N16NC53/M12	IPS18-N16NC79/M12
			IPS18-N16DO55/A2P		IPS18-N16DO79/M12
			IPS18-N16DC55/A2P		IPS18-N16DC79/M12
M12/3…	M12/3…	-	-	M12/3…	M12/3…

Output Schematics



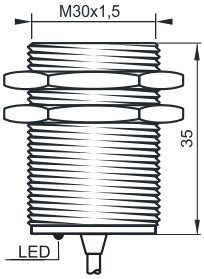
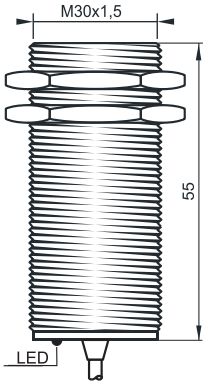
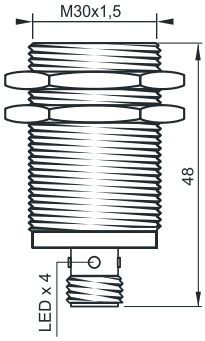
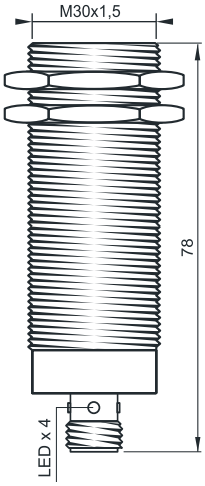
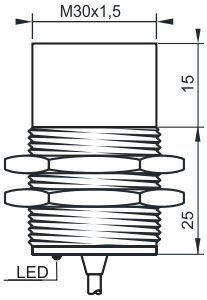
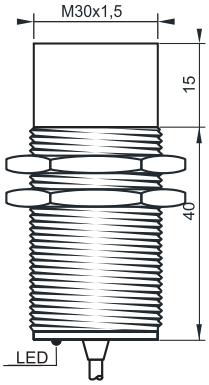
Connector M12



M18	M18	M18	M18
20 mm	20 mm	20 mm	20 mm
			

SPECIFICATIONS	M18x1	M18x1	M18x1	M18x1
Sensing Distance	20 mm - Unshielded	20 mm - Unshielded	20 mm - Unshielded	20 mm - Unshielded
Operating Voltage	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire
Reverse Polarity Protection	built-in	built-in	built-in	built-in
Current Consumption	< 8 mA	< 8 mA	< 8 mA	< 8 mA
Current Load Capability	200 mA	200 mA	200 mA	200 mA
Short Circuit Protection	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
Voltage Drop	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
Switching Frequency	100 Hz	100 Hz	100 Hz	100 Hz
Repeatability	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
Hysteresis	3...15 %	3...15 %	3...15 %	3...15 %
Operating Temperature	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C
Protection Class	IP67	IP67	IP67	IP67
Sensing Face Material	POM	POM	POM	POM
Housing Material	Plated Brass	Plated Brass	Plated Brass	Plated Brass
Connection	High-Flex PVC, 2m	High-Flex PVC, 2m	Connector M12, 4-pole	Connector M12, 4-pole
Output Indicator	Integrated	Integrated	Integrated	Integrated
Article Code				
PNP - NO, 3-wire	IPS18-N20PO40/A2P	IPS18-N20PO55/A2P	IPS18-N20PO53/M12	IPS18-N20PO79/M12
PNP - NC, 3-wire	IPS18-N20PC40/A2P	IPS18-N20PC55/A2P	IPS18-N20PC53/M12	IPS18-N20PC79/M12
PNP - NO+NC, 4-wire				
NPN - NO, 3-wire	IPS18-N20NO40/A2P	IPS18-N20NO55/A2P	IPS18-N20NO53/M12	IPS18-N20NO79/M12
NPN - NC, 3-wire	IPS18-N20NC40/A2P	IPS18-N20NC55/A2P	IPS18-N20NC53/M12	IPS18-N20NC79/M12
NPN - NO+NC, 4-wire				
10...55 VDC - NO, 2-wire				
10...55 VDC - NC, 2-wire				
Recommended Connecting Cable	-	-	M12/3...	M12/3...

Inductive Proximity Switches

M30	M30	M30	M30	M30	M30
10 mm	10 mm	10 mm	10 mm	15 mm	15 mm
					

M30x1.5	M30x1.5	M30x1.5	M30x1.5	M30x1.5	M30x1.5
10 mm - Shielded	10 mm - Shielded	10 mm - Shielded	10 mm - Shielded	15 mm - Unshielded	15 mm - Unshielded
10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire
built-in	built-in	built-in	built-in	built-in	built-in
< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA
200 mA	200 mA	200 mA	200 mA	200 mA	200 mA
built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
300 Hz	300 Hz	300 Hz	300 Hz	150 Hz	150 Hz
< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C
IP67	IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM	POM
Plated Brass	Plated Brass	Plated Brass	Plated Brass	Plated Brass	Plated Brass
High-Flex PVC, 2m	High-Flex PVC, 2m	Connector M12, 4-pole	Connector M12, 4-pole	High-Flex PVC, 2m	High-Flex PVC, 2m
Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
IPS30-S10PO35/A2P	IPS30-S10PO55/A2P	IPS30-S10PO48/M12	IPS30-S10PO79/M12	IPS30-N15PO40/A2P	IPS30-N15PO55/A2P
IPS30-S10PC35/A2P	IPS30-S10PC55/A2P	IPS30-S10PC48/M12	IPS30-S10PC79/M12	IPS30-N15PC40/A2P	IPS30-N15PC55/A2P
IPS30-S10NO35/A2P	IPS30-S10NO55/A2P	IPS30-S10NO48/M12	IPS30-S10NO79/M12	IPS30-N15NO40/A2P	IPS30-N15NO55/A2P
IPS30-S10NC35/A2P	IPS30-S10NC55/A2P	IPS30-S10NC48/M12	IPS30-S10NC79/M12	IPS30-N15NC40/A2P	IPS30-N15NC55/A2P
	IPS30-S10DO55/A2P		IPS30-S10DO79/M12		IPS30-N15DO55/A2P
	IPS30-S10DC55/A2P		IPS30-S10DC79/M12		IPS30-N15DC55/A2P
-	-	M12/3…	M12/3…	-	-

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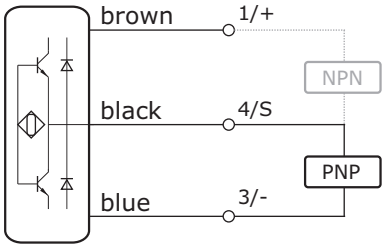
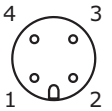
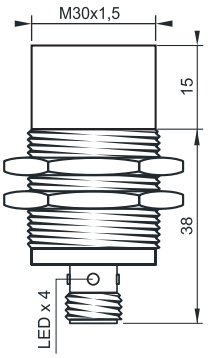
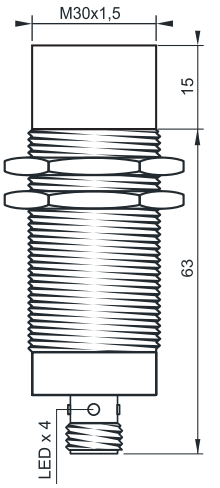
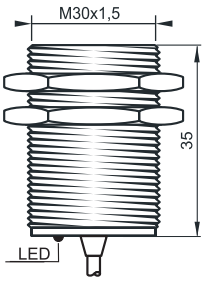
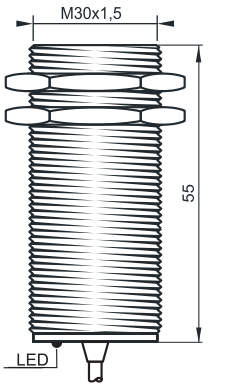
Output Schematics

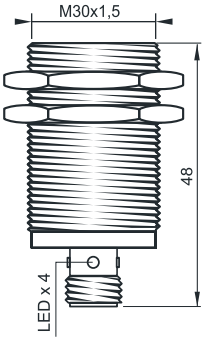
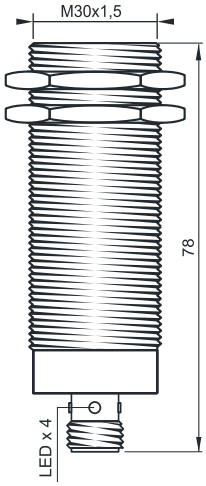
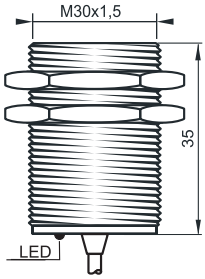
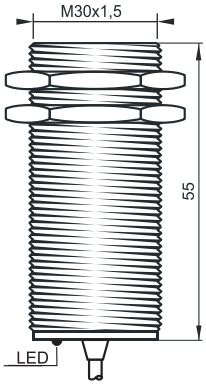
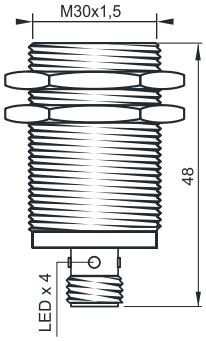
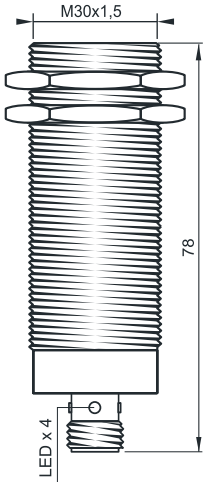


Connector M12



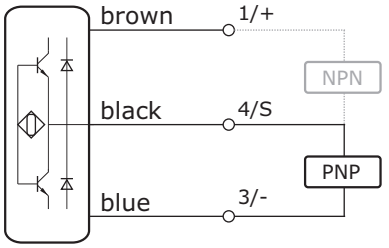
M30	M30	M30	M30
15 mm	15 mm	16 mm	16 mm
			

SPECIFICATIONS	M30x1.5	M30x1.5	M30x1.5	M30x1.5
Sensing Distance	15 mm - Unshielded	15 mm - Unshielded	16 mm - Shielded	16 mm - Shielded
Operating Voltage	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire
Reverse Polarity Protection	built-in	built-in	built-in	built-in
Current Consumption	< 8 mA	< 8 mA	< 8 mA	< 8 mA
Current Load Capability	200 mA	200 mA	200 mA	200 mA
Short Circuit Protection	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
Voltage Drop	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
Switching Frequency	150 Hz	150 Hz	150 Hz	150 Hz
Repeatability	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
Hysteresis	3...15 %	3...15 %	3...15 %	3...15 %
Operating Temperature	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C
Protection Class	IP67	IP67	IP67	IP67
Sensing Face Material	POM	POM	POM	POM
Housing Material	Plated Brass	Plated Brass	Plated Brass	Plated Brass
Connection	Connector M12, 4-pole	Connector M12, 4-pole	High-Flex PVC, 2m	High-Flex PVC, 2m
Output Indicator	Integrated	Integrated	Integrated	Integrated
Article Code				
PNP - NO, 3-wire	IPS30-N15PO53/M12	IPS30-N15PO79/M12	IPS30-S16PO35/A2P	IPS30-S16PO55/A2P
PNP - NC, 3-wire	IPS30-N15PC53/M12	IPS30-N15PC79/M12	IPS30-S16PC35/A2P	IPS30-S16PC55/A2P
PNP - NO+NC, 4-wire				
NPN - NO, 3-wire	IPS30-N15NO53/M12	IPS30-N15NO79/M12	IPS30-S16NO35/A2P	IPS30-S16NO55/A2P
NPN - NC, 3-wire	IPS30-N15NC53/M12	IPS30-N15NC79/M12	IPS30-S16NC35/A2P	IPS30-S16NC55/A2P
NPN - NO+NC, 4-wire				
10...55 VDC - NO, 2-wire		IPS30-N15DO79/M12		IPS30-S16DO55/A2P
10...55 VDC - NC, 2-wire		IPS30-N15DC79/M12		IPS30-S16DC55/A2P
Recommended Connecting Cable	M12/3...	M12/3...	-	-

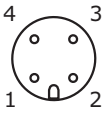
M30	M30	M30	M30	M30	M30
16 mm	16 mm	22 mm	22 mm	22 mm	22 mm
					
M30x1.5	M30x1.5	M30x1.5	M30x1.5	M30x1.5	M30x1.5
16 mm - Shielded	16 mm - Shielded	22 mm - Shielded	22 mm - Shielded	22 mm - Shielded	22 mm - Shielded
10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire
built-in	built-in	built-in	built-in	built-in	built-in
< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA
200 mA	200 mA	200 mA	200 mA	200 mA	200 mA
built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
150 Hz	150 Hz	300 Hz	300 Hz	300 Hz	300 Hz
< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
3...15 %	3...15 %	3...15 %	3...15 %	3...15 %	3...15 %
-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C
IP67	IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM	POM
Plated Brass	Plated Brass	Plated Brass	Plated Brass	Plated Brass	Plated Brass
Connector M12, 4-pole	Connector M12, 4-pole	High-Flex PVC, 2m	High-Flex PVC, 2m	Connector M12, 4-pole	Connector M12, 4-pole
Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
IPS30-S16PO48/M12	IPS30-S16PO79/M12	IPS30-S22PO35/A2P	IPS30-S22PO55/A2P	IPS30-S22PO48/M12	IPS30-S22PO79/M12
IPS30-S16PC48/M12	IPS30-S16PC79/M12	IPS30-S22PC35/A2P	IPS30-S22PC55/A2P	IPS30-S22PC48/M12	IPS30-S22PC79/M12
IPS30-S16NO48/M12	IPS30-S16NO79/M12	IPS30-S22NO35/A2P	IPS30-S22NO55/A2P	IPS30-S22NO48/M12	IPS30-S22NO79/M12
IPS30-S16NC48/M12	IPS30-S16NC79/M12	IPS30-S22NC35/A2P	IPS30-S22NC55/A2P	IPS30-S22NC48/M12	IPS30-S22NC79/M12
	IPS30-S16DO79/M12				
	IPS30-S16DC79/M12				
M12/3...	M12/3...	-	-	M12/3...	M12/3...

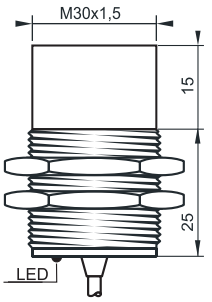
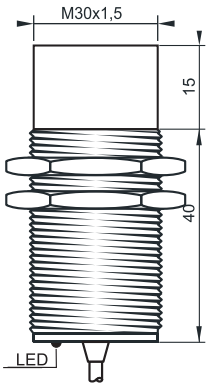
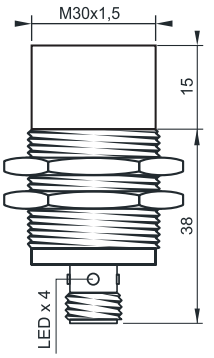
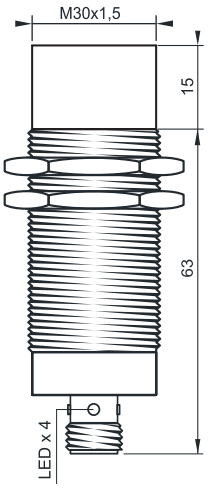
XECRO reserves the right to make minor changes without prior notification.

Output Schematics

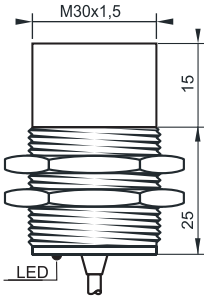
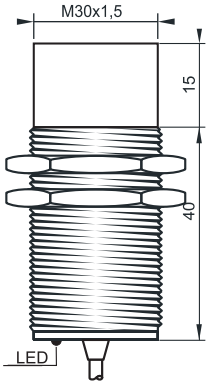
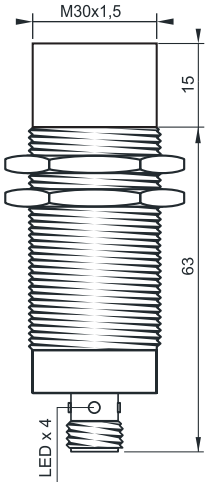
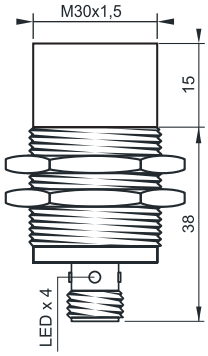
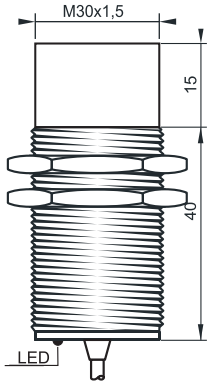
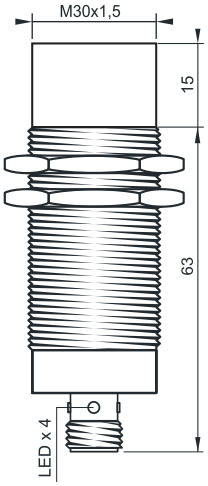


Connector M12



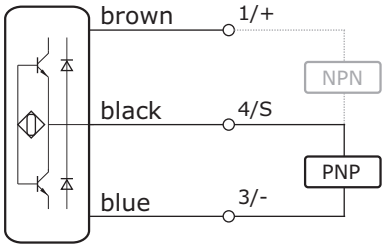
M30	M30	M30	M30
25 mm	25 mm	25 mm	25 mm
			

SPECIFICATIONS	M30x1.5	M30x1.5	M30x1.5	M30x1.5
Sensing Distance	25 mm - Unshielded	25 mm - Unshielded	25 mm - Unshielded	25 mm - Unshielded
Operating Voltage	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire
Reverse Polarity Protection	built-in	built-in	built-in	built-in
Current Consumption	< 8 mA	< 8 mA	< 8 mA	< 8 mA
Current Load Capability	200 mA	200 mA	200 mA	200 mA
Short Circuit Protection	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
Voltage Drop	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
Switching Frequency	100 Hz	100 Hz	100 Hz	100 Hz
Repeatability	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
Hysteresis	3...15 %	3...15 %	3...15 %	3...15 %
Operating Temperature	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C
Protection Class	IP67	IP67	IP67	IP67
Sensing Face Material	POM	POM	POM	POM
Housing Material	Plated Brass	Plated Brass	Plated Brass	Plated Brass
Connection	High-Flex PVC, 2m	High-Flex PVC, 2m	Connector M12, 4-pole	Connector M12, 4-pole
Output Indicator	Integrated	Integrated	Integrated	Integrated
Article Code				
PNP - NO, 3-wire	IPS30-N25PO40/A2P	IPS30-N25PO55/A2P	IPS30-N25PO53/M12	IPS30-N25PO79/M12
PNP - NC, 3-wire	IPS30-N25PC40/A2P	IPS30-N25PC55/A2P	IPS30-N25PC53/M12	IPS30-N25PC79/M12
PNP - NO+NC, 4-wire				
NPN - NO, 3-wire	IPS30-N25NO40/A2P	IPS30-N25NO55/A2P	IPS30-N25NO53/M12	IPS30-N25NO79/M12
NPN - NC, 3-wire	IPS30-N25NC40/A2P	IPS30-N25NC55/A2P	IPS30-N25NC53/M12	IPS30-N25NC79/M12
NPN - NO+NC, 4-wire				
10...55 VDC - NO, 2-wire		IPS30-N25DO55/A2P		IPS30-N25DO79/M12
10...55 VDC - NC, 2-wire		IPS30-N25DC55/A2P		IPS30-N25DC79/M12
Recommended Connecting Cable	-	-	M12/3...	M12/3...

M30	M30	M30	M30	M30	M30
40 mm	40 mm	40 mm	40 mm	50 mm	50 mm
					

M30x1.5	M30x1.5	M30x1.5	M30x1.5	M30x1.5	M30x1.5
40 mm - Unshielded	40 mm - Unshielded	40 mm - Unshielded	40 mm - Unshielded	50 mm - Unshielded	50 mm - Unshielded
10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire
built-in	built-in	built-in	built-in	built-in	built-in
< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA
200 mA	200 mA	200 mA	200 mA	200 mA	200 mA
built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
100 Hz	100 Hz	100 Hz	100 Hz	100 Hz	100 Hz
< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C
IP67	IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM	POM
Plated Brass	Plated Brass	Plated Brass	Plated Brass	Plated Brass	Plated Brass
High-Flex PVC, 2m	High-Flex PVC, 2m	Connector M12, 4-pole	Connector M12, 4-pole	High-Flex PVC, 2m	Connector M12, 4-pole
Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
IPS30-N40PO40/A2P	IPS30-N40PO55/A2P	IPS30-N40PO79/M12	IPS30-N40PO53/M12	IPS30-N50PO55/A2P	IPS30-N50PO79/M12
IPS30-N40PC40/A2P	IPS30-N40PC55/A2P	IPS30-N40PC79/M12	IPS30-N40PC53/M12	IPS30-N50PC55/A2P	IPS30-N50PC79/M12
IPS30-N40NO40/A2P	IPS30-N40NO55/A2P	IPS30-N40NO79/M12	IPS30-N40NO53/M12	IPS30-N50NO55/A2P	IPS30-N50NO79/M12
IPS30-N40NC40/A2P	IPS30-N40NC55/A2P	IPS30-N40NC79/M12	IPS30-N40NC53/M12	IPS30-N50NC55/A2P	IPS30-N50NC79/M12
-	-	M12/3…	M12/3…	-	M12/3…

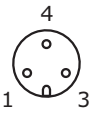
Output Schematics



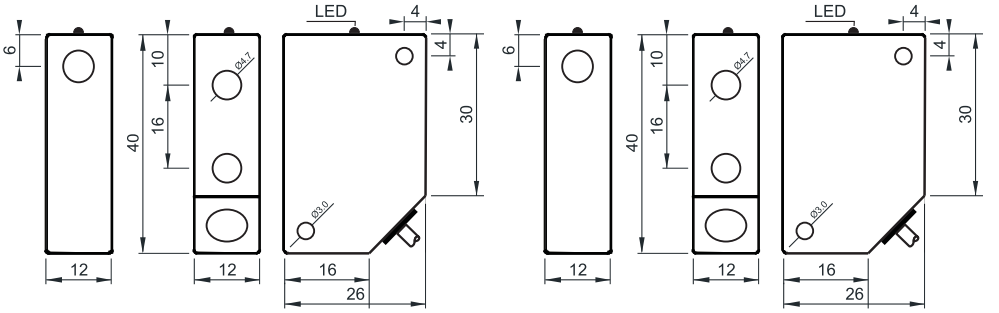
25x40

25x40

Connector M8



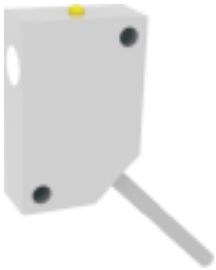
2 mm 4 mm 4 mm 8 mm



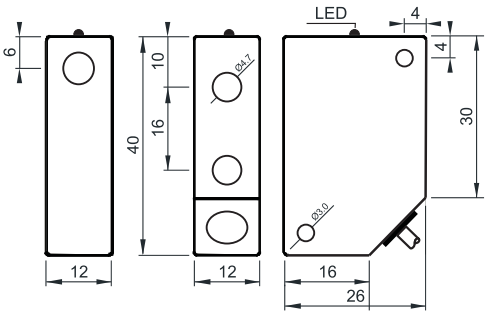
SPECIFICATIONS	25 x 40 x 12 mm	25 x 40 x 12 mm	25 x 40 x 12 mm	25 x 40 x 12 mm
Sensing Distance	2 mm - Shielded	4 mm - Unshielded	4 mm - Shielded	8 mm - Unshielded
Operating Voltage	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire
Reverse Polarity Protection	built-in	built-in	built-in	built-in
Current Consumption	< 8 mA	< 8 mA	< 8 mA	< 8 mA
Current Load Capability	200 mA	200 mA	200 mA	200 mA
Short Circuit Protection	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
Voltage Drop	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
Switching Frequency	2000 Hz	2000 Hz	1000 Hz	500 Hz
Repeatability	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
Hysteresis	3...15 %	3...15 %	3...15 %	3...15 %
Operating Temperature	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C
Protection Class	IP67	IP67	IP67	IP67
Sensing Head	PBT	PBT	PBT	PBT
Housing Material	PBT	PBT	PBT	PBT
Connection	High-Flex PVC, 2m	High-Flex PVC, 2m	High-Flex PVC, 2m	High-Flex PVC, 2m
Output Indicator	Integrated	Integrated	Integrated	Integrated
Article Code				
PNP - NO, 3-wire	IPS2540-S2POS/A2P	IPS2540-N4POS/A2P	IPS2540-S4POS/A2P	IPS2540-N4POS/A2P
PNP - NC, 3-wire	IPS2540-S2PCS/A2P	IPS2540-N4PCS/A2P	IPS2540-S4PCS/A2P	IPS2540-N8PCS/A2P
PNP - NO+NC, 4-wire				
NPN - NO, 3-wire	IPS2540-S2NOS/A2P	IPS2540-N4NOS/A2P	IPS2540-S4NOS/A2P	IPS2540-N8NOS/A2P
NPN - NC, 3-wire	IPS2540-S2NCS/A2P	IPS2540-N4NCS/A2P	IPS2540-S4NCS/A2P	IPS2540-N8NCS/A2P
NPN - NO+NC, 4-wire				
10...55 VDC - NO, 2-wire	IPS2540-S2DOS/A2P	IPS2540-N4DOS/A2P		
10...55 VDC - NC, 2-wire	IPS2540-S2DCS/A2P	IPS2540-N4DCS/A2P		
Recommended Connecting Cable	-	-	-	-

Inductive Proximity Switches

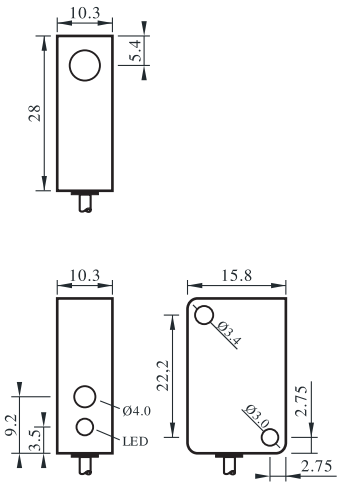
25x40	16x28	16x28



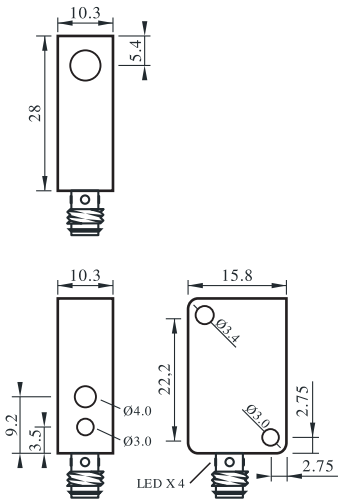
6 mm



1 mm 2 mm



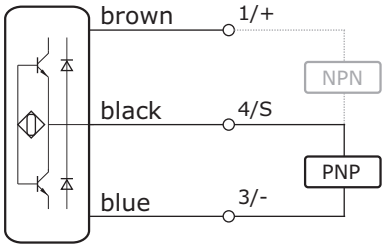
1 mm 2 mm



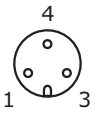
25 x 40 x 12 mm	16 x 28 x 10 mm	16 x 28 x 10 mm	16 x 28 x 10 mm	16 x 28 x 10 mm
6 mm - Shielded	1 mm - Shielded	2 mm - Unshielded	1 mm - Shielded	2 mm - Unshielded
10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire
built-in	built-in	built-in	built-in	built-in
< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
800 Hz	2000 Hz	2000 Hz	2000 Hz	2000 Hz
< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C
IP67	IP67	IP67	IP67	IP67
PBT	PBT	PBT	PBT	PBT
PBT	PBT	PBT	PBT	PBT
High-Flex PVC, 2m	High-Flex PVC, 2m	High-Flex PVC, 2m	Connector M8, 3-pole	Connector M8, 3-pole
Integrated	Integrated	Integrated	Integrated	Integrated
IPS2540-S6POS/A2P	IPS1628-S1POS/A2P	IPS1628-N2POS/A2P	IPS1628-S1POS/M8	IPS1628-N2POS/M8
IPS2540-S6PCS/A2P	IPS1628-S1PCS/A2P	IPS1628-N2PCS/A2P	IPS1628-S1PCS/M8	IPS1628-N2PCS/M8
IPS2540-S6NOS/A2P	IPS1628-S1NOS/A2P	IPS1628-N2NOS/A2P	IPS1628-S1NOS/M8	IPS1628-N24NOS/M8
IPS2540-S6NCS/A2P	IPS1628-S12NCS/A2P	IPS1628-N2NCS/A2P	IPS1628-S1NCS/M8	IPS1628-N2NCS/M8
-	-	-	M8/3…	M8/3…

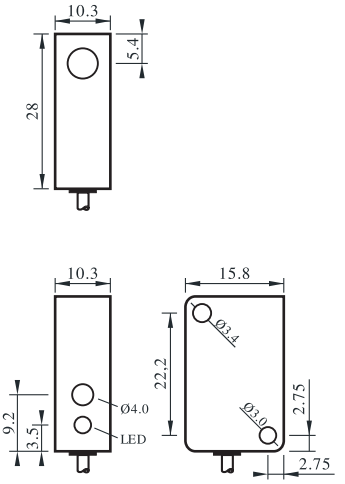
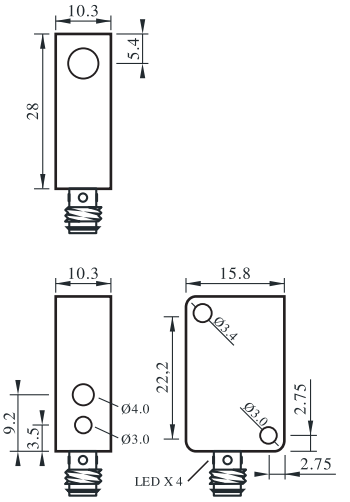
XECRO reserves the right to make minor changes without prior notification.

Output Schematics

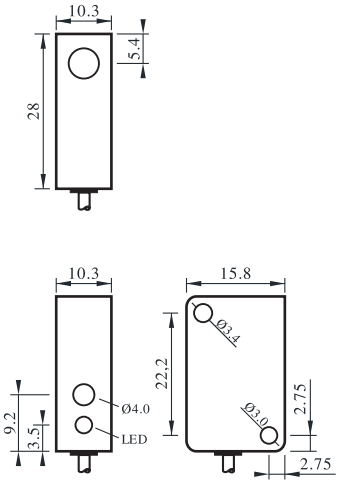
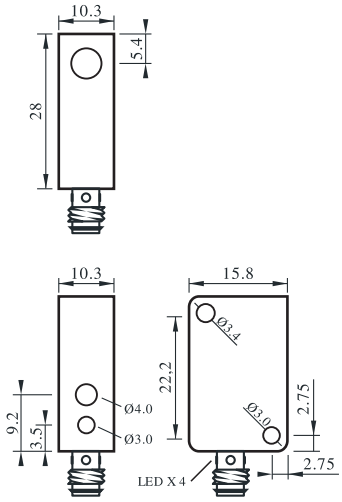
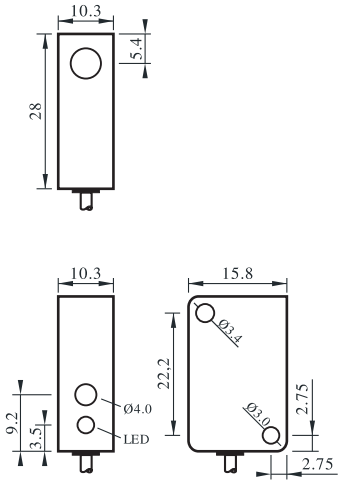


Connector M8



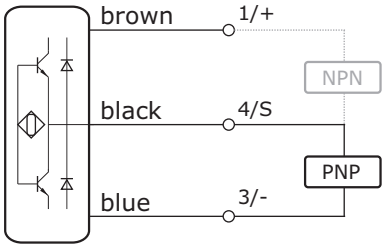
	16x28		16x28	
	2 mm	4 mm	2 mm	4 mm
				

SPECIFICATIONS	16 x 28 x 10 mm	16 x 28 x 10 mm	16 x 28 x 10 mm	16 x 28 x 10 mm
Sensing Distance	2 mm - Shielded	4 mm - Unshielded	3 mm - Shielded	6 mm - Unshielded
Operating Voltage	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire
Reverse Polarity Protection	built-in	built-in	built-in	built-in
Current Consumption	< 8 mA	< 8 mA	< 8 mA	< 8 mA
Current Load Capability	200 mA	200 mA	200 mA	200 mA
Short Circuit Protection	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
Voltage Drop	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
Switching Frequency	2000 Hz	1000 Hz	2000 Hz	1000 Hz
Repeatability	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
Hysteresis	3...15 %	3...15 %	3...15 %	3...15 %
Operating Temperature	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C
Protection Class	IP67	IP67	IP67	IP67
Sensing Head	PBT	PBT	PBT	PBT
Housing Material	PBT	PBT	PBT	PBT
Connection	High-Flex PVC, 2m	High-Flex PVC, 2m	Connector M8, 3-pole	Connector M8, 3-pole
Output Indicator	Integrated	Integrated	Integrated	Integrated
Article Code				
PNP - NO, 3-wire	IPS1628-S2POS/A2P	IPS1628-N4POS/A2P	IPS1628-S2POS/M8	IPS1628-N4POS/M8
PNP - NC, 3-wire	IPS1628-S2PCS/A2P	IPS1628-N4PCS/A2P	IPS1628-S2PCS/M8	IPS1628-N4PCS/M8
PNP - NO+NC, 4-wire				
NPN - NO, 3-wire	IPS1628-S2NOS/A2P	IPS1628-N4NOS/A2P	IPS1628-S2NOS/M8	IPS1628-N4NOS/M8
NPN - NC, 3-wire	IPS1628-S2NCS/A2P	IPS1628-N4NCS/A2P	IPS1628-S2NCS/M8	IPS1628-N4NCS/M8
NPN - NO+NC, 4-wire				
10...55 VDC - NO, 2-wire				
10...55 VDC - NC, 2-wire				
Recommended Connecting Cable	-	-	M8/3...	M8/3...

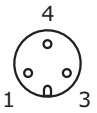
16x28		16x28		16x28	
3 mm	6 mm	3 mm	6 mm	1 mm	2 mm
					

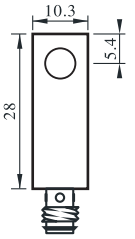
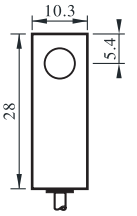
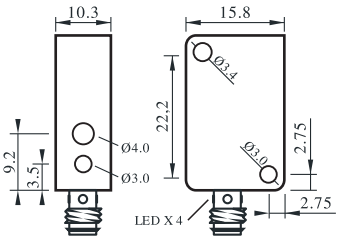
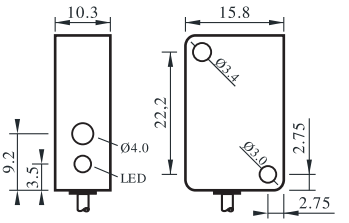
16 x 28 x 10 mm	16 x 28 x 10 mm	16 x 28 x 10 mm	16 x 28 x 10 mm	16 x 28 x 10 mm	16 x 28 x 10 mm
3 mm - Shielded	6 mm - Unshielded	3 mm - Shielded	6 mm - Unshielded	1 mm - Shielded	2 mm - Unshielded
10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire
built-in	built-in	built-in	built-in	built-in	built-in
< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA
200 mA	200 mA	200 mA	200 mA	200 mA	200 mA
built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
1000 Hz	2000 Hz	1000 Hz	500 Hz	2000 Hz	2000 Hz
< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C
IP67	IP67	IP67	IP67	IP67	IP67
PBT	PBT	PBT	PBT	PBT	PBT
PBT	PBT	PBT	PBT	PBT	PBT
High-Flex PVC, 2m	High-Flex PVC, 2m	Connector M8, 3-pole	Connector M8, 3-pole	High-Flex PVC, 2m	High-Flex PVC, 2m
Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
IPS1628-S3POS/A2P	IPS1628-N6POS/A2P	IPS1628-S3POS/M8	IPS1628-N6POS/M8	IPS1628-S1POS/A2P	IPS1628-N2POS/A2P
IPS1628-S3PCS/A2P	IPS1628-N6PCS/A2P	IPS1628-S3PCS/M8	IPS1628-N6PCS/M8	IPS1628-S1PCS/A2P	IPS1628-N2PCS/A2P
IPS1628-S3NOS/A2P	IPS1628-N6NOS/A2P	IPS1628-S3NOS/M8	IPS1628-N6NOS/M8	IPS1628-S1NOS/A2P	IPS1628-N2NOS/A2P
IPS1628-S3NCS/A2P	IPS1628-N6NCS/A2P	IPS1628-S3NCS/M8	IPS1628-N6NCS/M8	IPS1628-S12NCS/A2P	IPS1628-N2NCS/A2P
-	-	M8/3…	M8/3…	-	-

Output Schematics



Connector M8

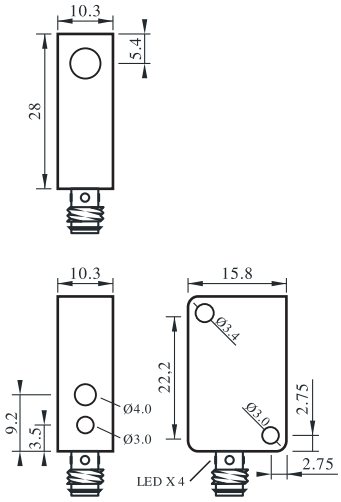


	16x28		16x28	
	1 mm	2 mm	2 mm	4 mm
				
				

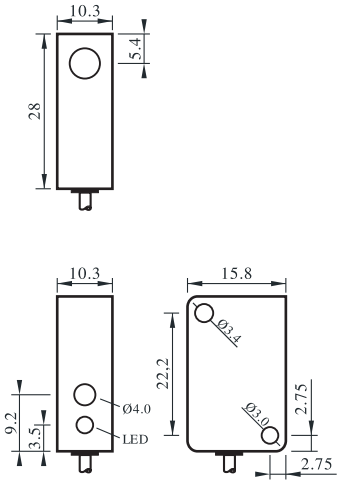
SPECIFICATIONS	16 x 28 x 10 mm	16 x 28 x 10 mm	16 x 28 x 10 mm	16 x 28 x 10 mm
Sensing Distance	1 mm - Shielded	2 mm - Unshielded	2 mm - Shielded	4 mm - Unshielded
Operating Voltage	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire
Reverse Polarity Protection	built-in	built-in	built-in	built-in
Current Consumption	< 8 mA	< 8 mA	< 8 mA	< 8 mA
Current Load Capability	200 mA	200 mA	200 mA	200 mA
Short Circuit Protection	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
Voltage Drop	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
Switching Frequency	2000 Hz	2000 Hz	2000 Hz	1000 Hz
Repeatability	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
Hysteresis	3...15 %	3...15 %	3...15 %	3...15 %
Operating Temperature	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C
Protection Class	IP67	IP67	IP67	IP67
Sensing Head	PBT	PBT	PBT	PBT
Housing Material	PBT	PBT	PBT	PBT
Connection	Connector M8, 3-pole	Connector M8, 3-pole	High-Flex PVC, 2m	High-Flex PVC, 2m
Output Indicator	Integrated	Integrated	Integrated	Integrated
Article Code				
PNP - NO, 3-wire	IPS1628-S1POS/M8	IPS1628-N2POS/M8	IPS1628-S2POS/A2P	IPS1628-N4POS/A2P
PNP - NC, 3-wire	IPS1628-S1PCS/M8	IPS1628-N2PCS/M8	IPS1628-S2PCS/A2P	IPS1628-N4PCS/A2P
PNP - NO+NC, 4-wire				
NPN - NO, 3-wire	IPS1628-S1NOS/M8	IPS1628-N24NOS/M8	IPS1628-S2NOS/A2P	IPS1628-N4NOS/A2P
NPN - NC, 3-wire	IPS1628-S1NCS/M8	IPS1628-N2NCS/M8	IPS1628-S2NCS/A2P	IPS1628-N4NCS/A2P
NPN - NO+NC, 4-wire				
10...55 VDC - NO, 2-wire				
10...55 VDC - NC, 2-wire				
Recommended Connecting Cable	M8/3...	M8/3...	-	-

16x28	16x28	16x28

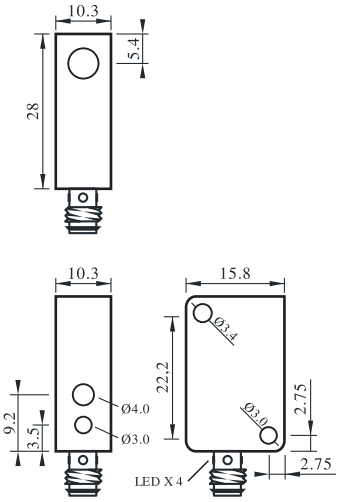
2 mm 4 mm



3 mm 6 mm



3 mm 6 mm

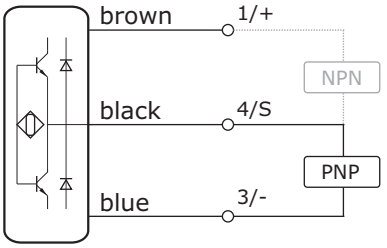


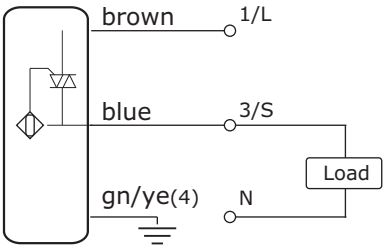
16 x 28 x 10 mm	16 x 28 x 10 mm	16 x 28 x 10 mm	16 x 28 x 10 mm	16 x 28 x 10 mm	16 x 28 x 10 mm
3 mm - Shielded	6 mm - Unshielded	3 mm - Shielded	6 mm - Unshielded	3 mm - Shielded	6 mm - Unshielded
10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire
built-in	built-in	built-in	built-in	built-in	built-in
< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA
200 mA	200 mA	200 mA	200 mA	200 mA	200 mA
built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
2000 Hz	1000 Hz	1000 Hz	500 Hz	1000 Hz	500 Hz
< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
3...15 %	3...15 %	3...15 %	3...15 %	3...15 %	3...15 %
-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C
IP67	IP67	IP67	IP67	IP67	IP67
PBT	PBT	PBT	PBT	PBT	PBT
PBT	PBT	PBT	PBT	PBT	PBT
Connector M8, 3-pole	Connector M8, 3-pole	High-Flex PVC, 2m	High-Flex PVC, 2m	Connector M8, 3-pole	Connector M8, 3-pole
Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
IPS1628-S2POS/M8	IPS1628-N4POS/M8	IPS1628-S3POS/A2P	IPS1628-N6POS/A2P	IPS1628-S3POS/M8	IPS1628-N6POS/M8
IPS1628-S2PCS/M8	IPS1628-N4PCS/M8	IPS1628-S3PCS/A2P	IPS1628-N6PCS/A2P	IPS1628-S3PCS/M8	IPS1628-N6PCS/M8
IPS1628-S2NOS/M8	IPS1628-N4NOS/M8	IPS1628-S3NOS/A2P	IPS1628-N6NOS/A2P	IPS1628-S3NOS/M8	IPS1628-N6NOS/M8
IPS1628-S2NCS/M8	IPS1628-N4NCS/M8	IPS1628-S3NCS/A2P	IPS1628-N6NCS/A2P	IPS1628-S3NCS/M8	IPS1628-N6NCS/M8
M8/3...	M8/3...	-	-	M8/3...	M8/3...

XECRO reserves the right to make minor changes without prior notification.

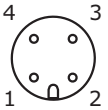
Inductive Proximity Switches
10...30 VDC | 20... 250 VAC

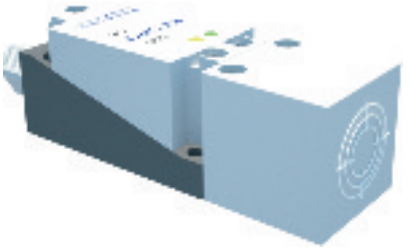
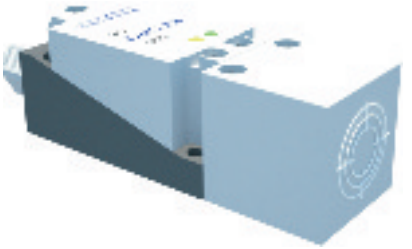
Output Schematics



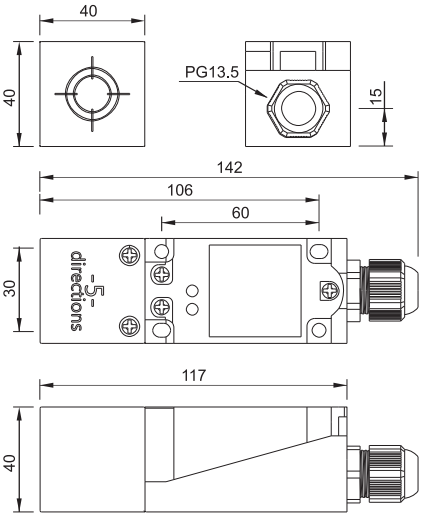


Connector M12

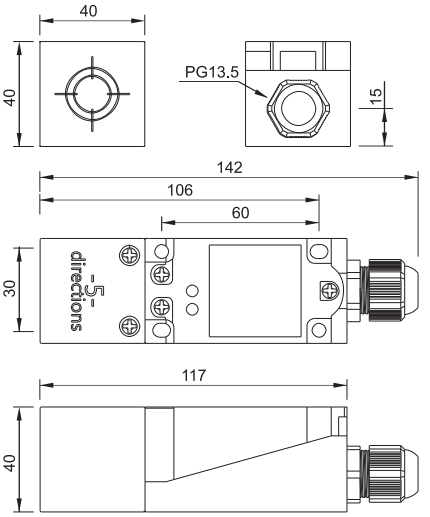


40x40	40x40
	

15 mm



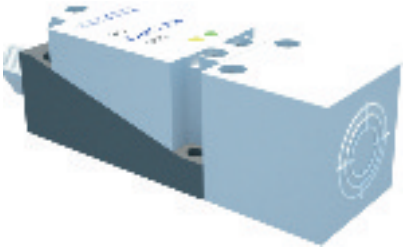
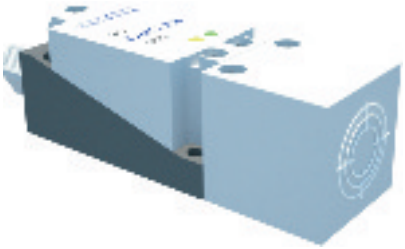
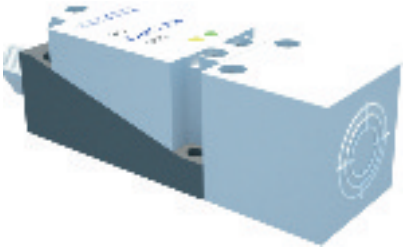
20 mm



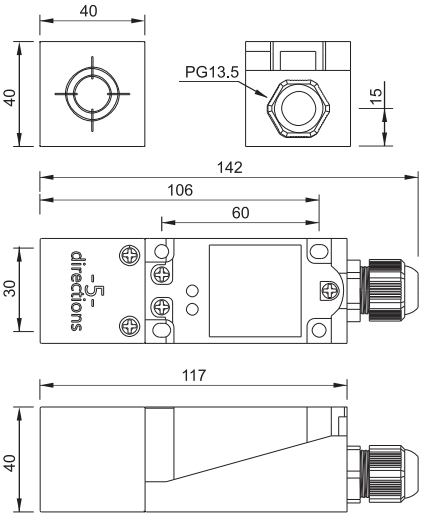
SPECIFICATIONS	40x40 mm	40x40 mm	40x40 mm	40x40 mm
Sensing Distance	15 mm - Shielded	15 mm - Shielded	20 mm - Semi	20 mm - Semi
Operating Voltage	10... 30 | 10... 55 VDC	20... 250 VAC, 2-wire	10... 30 | 10... 55 VDC	20... 250 VAC, 2-wire
Reverse Polarity Protection	built-in	not required	built-in	not required
Idle Current	< 11 mA	< 2 mA (Idle Current)	< 11 mA	< 2 mA (Idle Current)
Current Load Capability	200 mA	400 mA	200 mA	400 mA
Short Circuit Protection	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
Voltage Drop	< 2 V @ 200 mA	< 8 V @ 400 mA	< 2 V @ 200 mA	< 8 V @ 400 mA
Switching Frequency	120 Hz	25 Hz	120 Hz	25 Hz
Repeatability	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
Hysteresis	3...15 %	3...15 %	3...15 %	3...15 %
Operating Temperature	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C
Protection Class	IP67	IP67	IP67	IP67
Sensing Face Material	PBT	PBT	PBT	PBT
Housing Material	PBT	PBT	PBT	PBT
Connection	PG13.5, Terminal	PG13.5, Terminal	PG13.5, Terminal	PG13.5, Terminal
Output Indicator	Integrated	Integrated	Integrated	Integrated
Article Code				
3-wire NO+NC, PNP	IPS40-S15PCOL/PG13		IPS40-S20PCOL/PG13	
3-wire NO+NC, NPN	IPS40-S15NCOL/PG13		IPS40-S20NCOL/PG13	
2-wire NO, 10... 55 VDC	IPS40-S15DOL/PG13		IPS40-S20DOL/PG13	
2-wire NC, 10... 55 VDC	IPS40-S15DCL/PG13		IPS40-S20DCL/PG13	
2-wire NO, 20... 250 VAC		IPS40-S15AOL/PG13		IPS40-S20AOL/PG13
2-wire NC, 20... 250 VAC		IPS40-S15ACL/PG13		IPS40-S20ACL/PG13
Recommended Connecting Cable	-	-	-	-

Inductive Proximity Switches
10…30 VDC | 20… 250 VAC

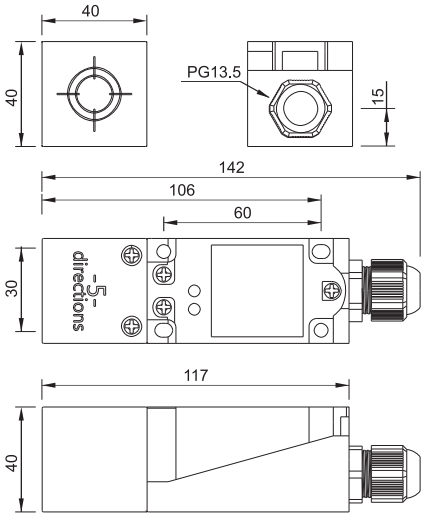
40x40	40x40	40x40

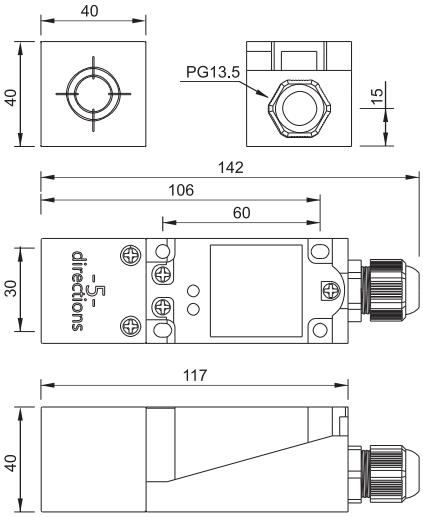
25 mm



30 mm



40 mm

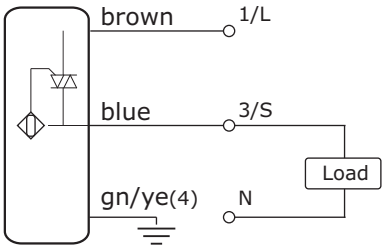


40x40 mm		40x40 mm	40x40 mm	40x40 mm
25 mm - Shielded		30 mm - Unshielded	30 mm - Unshielded	40 mm - Unshielded
10… 30 | 10… 55 VDC		10… 30 | 10… 55 VDC	20… 250 VAC, 2-wire	10… 30 | 10… 55 VDC
built-in		built-in	built-in	built-in
< 11 mA		< 11 mA	< 2 mA (Idle Current)	< 11 mA
200 mA		200 mA	400 mA	200 mA
built-in - self resetting		built-in - self resetting	built-in - self resetting	built-in - self resetting
< 2 V @ 200 mA		< 2 V @ 200 mA	< 8 V @ 400 mA	< 2 V @ 200 mA
120 Hz		120 Hz	25 Hz	120 Hz
< 1 % (Sn)		< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C	-25…75 °C
IP67	IP67	IP67	IP67	IP67
PBT	PBT	PBT	PBT	PBT
PBT	PBT	PBT	PBT	PBT
PG13.5, Terminal		PG13.5, Terminal	PG13.5, Terminal	PG13.5, Terminal
Integrated		Integrated	Integrated	Integrated
IPS40-S25PCOL/PG13		IPS40-N30PCOL/PG13		IPS40-N40PCOL/PG13
IPS40-S25NCOL/PG13		IPS40-N30NCOL/PG13		IPS40-N40NCOL/PG13
		IPS40-N30DOL/PG13		
		IPS40-N30DCL/PG13		
			IPS40-N30AOL/PG13	
			IPS40-N30ACL/PG13	
-		-	-	-

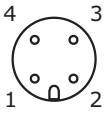
XECRO reserves the right to make minor changes without prior notification.

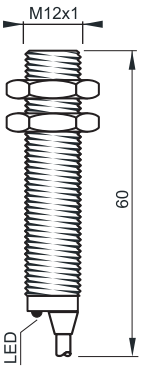
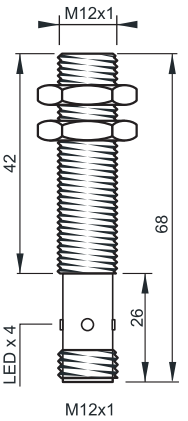
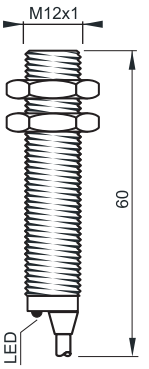
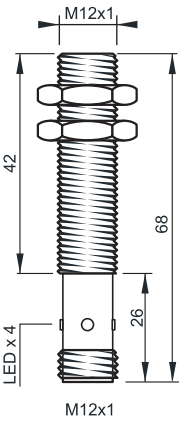
Inductive Proximity Switches
20... 250 VAC

Output Schematics



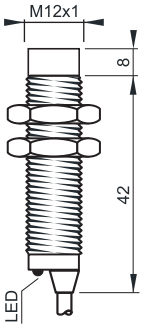
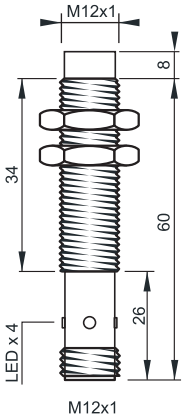
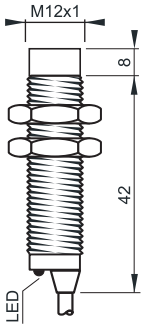
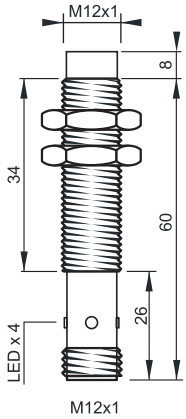
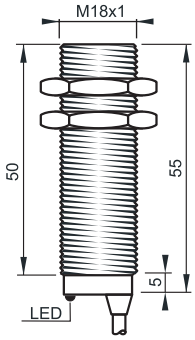
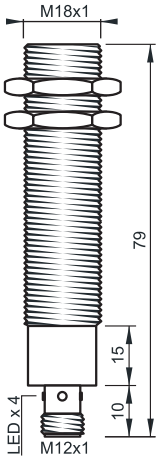
Connector M12



M12	M12	M12	M12
2 mm	2 mm	4 mm	4 mm
			

SPECIFICATIONS	M12x1	M12x1	M12x1	M12x1
Sensing Distance	2 mm - Shielded	2 mm - Shielded	2 mm - Shielded	4 mm - Shielded
Operating Voltage	20... 250 VAC, 2-wire	20... 250 VAC, 2-wire	20... 250 VAC, 2-wire	20... 250 VAC, 2-wire
Reverse Polarity Protection	built-in	built-in	built-in	built-in
Current Consumption	< 3 mA	< 3 mA	< 3 mA	< 3 mA
Current Load Capability	400 mA	400 mA	400 mA	400 mA
Short Circuit Protection	-	-	-	-
Voltage Drop	< 8 V @ 400 mA	< 8 V @ 400 mA	< 8 V @ 400 mA	< 8 V @ 400 mA
Switching Frequency	25 Hz	25 Hz	25 Hz	25 Hz
Repeatability	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
Hysteresis	3...15 %	3...15 %	3...15 %	3...15 %
Operating Temperature	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C
Protection Class	IP67	IP67	IP67	IP67
Sensing Face Material	POM	POM	POM	POM
Housing Material	Plated Brass	Plated Brass	Plated Brass	Plated Brass
Connection	High-Flex PVC, 2m	Connector M12, 4-pole	High-Flex PVC, 2m	Connector M12, 4-pole
Output Indicator	Integrated	Integrated	Integrated	Integrated
Article Code				
2-wire NO, 20... 250 VAC	IPS12-S2AO50/A2P	IPS12-S2AO68/M12	IPS12-S4AO50/A2P	IPS12-S4AO68/M12
2-wire NC, 20... 250 VAC	IPS12-S2AC50/A2P	IPS12-S2AC68/M12	IPS12-S4AC50/A2P	IPS12-S4AC68/M12
Recommended Connecting Cable	-	M12/3	-	M12/3

Inductive Proximity Switches
20... 250 VAC

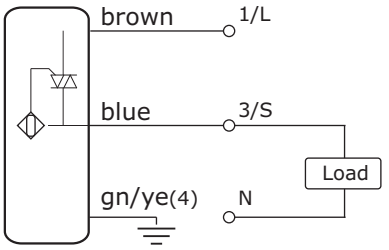
M12	M12	M12	M12	M18	M18
4 mm	4 mm	8 mm	8 mm	5 mm	5 mm
					

M12x1	M12x1	M12x1	M12x1	M18x1	M18x1
4 mm - Unshielded	4 mm - Unshielded	8 mm - Unshielded	8 mm - Unshielded	5 mm - Shielded	5 mm - Shielded
20... 250 VAC, 2-wire	20... 250 VAC, 2-wire	20... 250 VAC, 2-wire	20... 250 VAC, 2-wire	20... 250 VAC, 2-wire	20... 250 VAC, 2-wire
built-in	built-in	built-in	built-in	built-in	built-in
< 3 mA	< 3 mA	< 3 mA	< 3 mA	< 3 mA	< 3 mA
400 mA	400 mA	400 mA	400 mA	400 mA	400 mA
-	-	-	-	-	-
< 8 V @ 400 mA	< 8 V @ 400 mA	< 8 V @ 400 mA	< 8 V @ 400 mA	< 8 V @ 400 mA	< 8 V @ 400 mA
25 Hz	25 Hz	25 Hz	25 Hz	25 Hz	25 Hz
< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
3...15 %	3...15 %	3...15 %	3...15 %	3...15 %	3...15 %
-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C
IP67	IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM	POM
Plated Brass	Plated Brass	Plated Brass	Plated Brass	Plated Brass	Plated Brass
High-Flex PVC, 2m	Connector M12, 4-pole	High-Flex PVC, 2m	Connector M12, 4-pole	High-Flex PVC, 2m	Connector M12, 4-pole
Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
IPS12-N4AO50/A2P	IPS12-N4AO68/M12	IPS12-N8AO50/A2P	IPS12-N8AO68/M12	IPS18-S5AO55/A2P	IPS18-S5AO79/M12
IPS12-N4AC50/A2P	IPS12-N4AC68/M12	IPS12-N8AC50/A2P	IPS12-N8AC68/M12	IPS18-S5AC55/A2P	IPS18-S5AC79/M12
-	M12/3	-	M12/3	-	M12/3

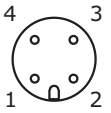
XECRO reserves the right to make minor changes without prior notification.

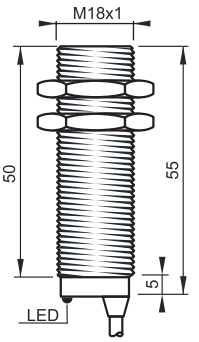
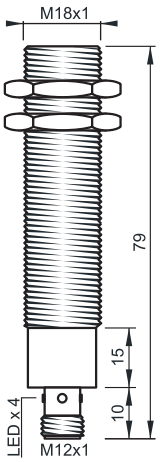
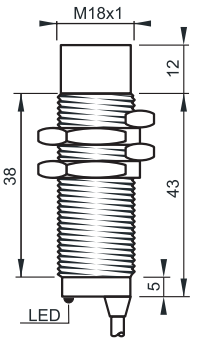
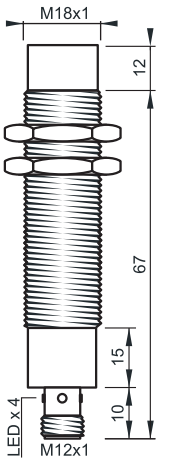
Inductive Proximity Switches
20... 250 VAC

Output Schematics



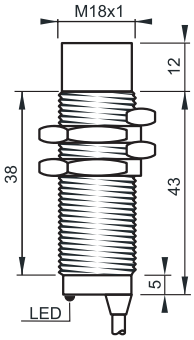
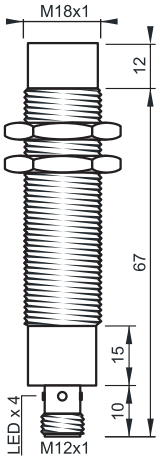
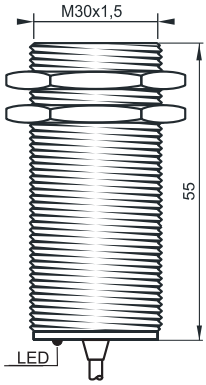
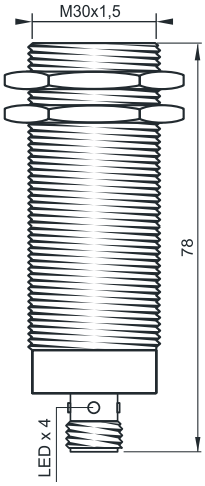
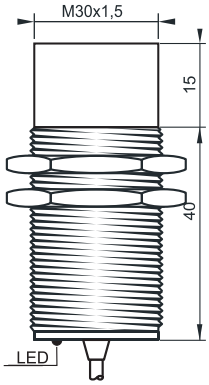
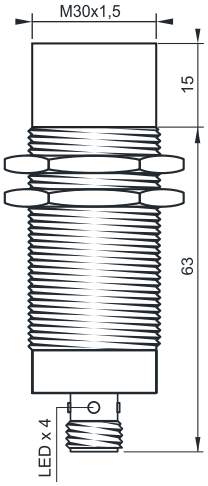
Connector M12



M18	M18	M18	M18
8 mm	8 mm	8 mm	8 mm
			

SPECIFICATIONS	M18x1	M18x1	M18x1	M18x1
Sensing Distance	8 mm - Shielded	8 mm - Shielded	8 mm - Unshielded	8 mm - Unshielded
Operating Voltage	20... 250 VAC, 2-wire	20... 250 VAC, 2-wire	20... 250 VAC, 2-wire	20... 250 VAC, 2-wire
Reverse Polarity Protection	built-in	built-in	built-in	built-in
Current Consumption	< 3 mA	< 3 mA	< 3 mA	< 3 mA
Current Load Capability	400 mA	400 mA	400 mA	400 mA
Short Circuit Protection	-	-	-	-
Voltage Drop	< 8 V @ 400 mA	< 8 V @ 400 mA	< 8 V @ 400 mA	< 8 V @ 400 mA
Switching Frequency	25 Hz	25 Hz	25 Hz	25 Hz
Repeatability	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
Hysteresis	3...15 %	3...15 %	3...15 %	3...15 %
Operating Temperature	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C
Protection Class	IP67	IP67	IP67	IP67
Sensing Face Material	POM	POM	POM	POM
Housing Material	Plated Brass	Plated Brass	Plated Brass	Plated Brass
Connection	High-Flex PVC, 2m	Connector M12, 4-pole	High-Flex PVC, 2m	Connector M12, 4-pole
Output Indicator	Integrated	Integrated	Integrated	Integrated
Article Code				
2-wire NO, 20... 250 VAC	IPS18-S8AO55/A2P	IPS18-S8AO79/M12	IPS18-N8AO55/A2P	IPS18-N8AO79/M12
2-wire NC, 20... 250 VAC	IPS18-S8AC55/A2P	IPS18-S8AC79/M12	IPS18-N8AC55/A2P	IPS18-N8AC79/M12
Recommended Connecting Cable	-	M12/3	-	M12/3

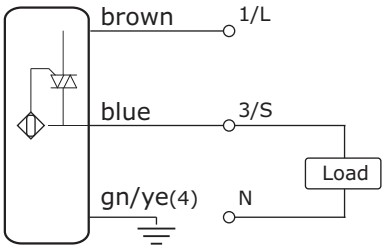
Inductive Proximity Switches
20... 250 VAC

M18	M18	M30	M30	M30	M30
16 mm	16 mm	10 mm	10 mm	15 mm	15 mm
					
M18x1	M18x1	M30x1	M30x1	M30x1	M30x1
16 mm - Unshielded	16 mm - Unshielded	10 mm - Shielded	10 mm - Unshielded	15 mm - Unshielded	15 mm - Unshielded
20... 250 VAC, 2-wire	20... 250 VAC, 2-wire	20... 250 VAC, 2-wire	20... 250 VAC, 2-wire	20... 250 VAC, 2-wire	20... 250 VAC, 2-wire
built-in	built-in	built-in	built-in	built-in	built-in
< 3 mA	< 3 mA	< 3 mA	< 3 mA	< 3 mA	< 3 mA
400 mA	400 mA	400 mA	400 mA	400 mA	400 mA
-	-	-	-	-	-
< 8 V @ 400 mA	< 8 V @ 400 mA	< 8 V @ 400 mA	< 8 V @ 400 mA	< 8 V @ 400 mA	< 8 V @ 400 mA
25 Hz	25 Hz	25 Hz	25 Hz	25 Hz	25 Hz
< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
3...15 %	3...15 %	3...15 %	3...15 %	3...15 %	3...15 %
-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C
IP67	IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM	POM
Plated Brass	Plated Brass	Plated Brass	Plated Brass	Plated Brass	Plated Brass
High-Flex PVC, 2m	Connector M12, 4-pole	High-Flex PVC, 2m	Connector M12, 4-pole	High-Flex PVC, 2m	Connector M12, 4-pole
Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
IPS18-N8AO55/A2P	IPS18-N16AO79/M12	IPS30-S10AO55/A2P	IPS30-S10AO79/M12	IPS30-N15AO55/A2P	IPS30-N15AO79/M12
IPS18-N8AC55/A2P	IPS18-N16AC79/M12	IPS30-S10AC55/A2P	IPS30-S10AC79/M12	IPS30-N15AC55/A2P	IPS30-N15AC79/M12
-	M12/3	-	M12/3	-	M12/3

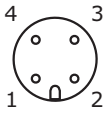
XECRO reserves the right to make minor changes without prior notification.

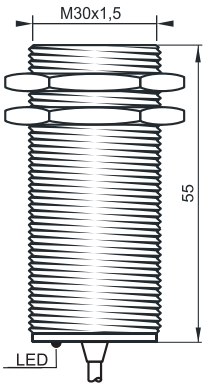
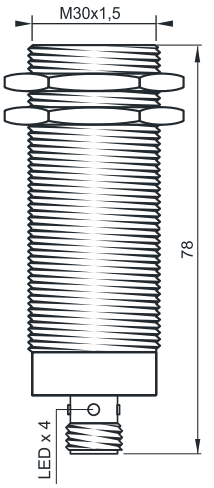
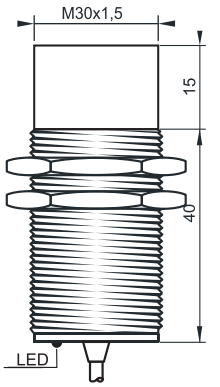
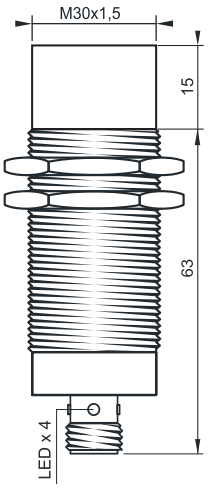
Inductive Proximity Switches
20... 250 VAC

Output Schematics



Connector M12

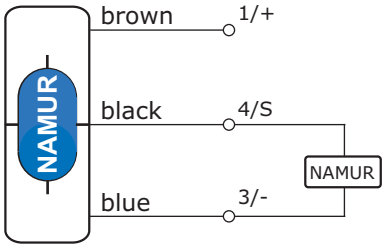


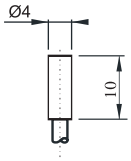
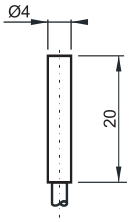
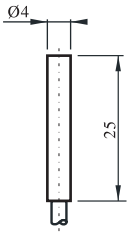
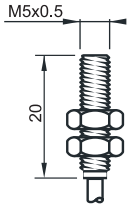
M30	M30	M30	M30
16 mm	16 mm	25 mm	25 mm
			

SPECIFICATIONS	M30x1	M30x1	M30x1	M30x1
Sensing Distance	16 mm - Shielded	16 mm - Shielded	25 mm - Unshielded	25 mm - Unshielded
Operating Voltage	20... 250 VAC	20... 250 VAC	20... 250 VAC	20... 250 VAC
Reverse Polarity Protection	built-in	built-in	built-in	built-in
Current Consumption	< 3 mA	< 3 mA	< 3 mA	< 3 mA
Current Load Capability	400 mA	400 mA	400 mA	400 mA
Short Circuit Protection	by amplifier			
Voltage Drop	< 8 V @ 400 mA	< 8 V @ 400 mA	< 8 V @ 400 mA	< 8 V @ 400 mA
Switching Frequency	25 Hz	25 Hz	25 Hz	25 Hz
Repeatability	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
Hysteresis	3...15 %	3...15 %	3...15 %	3...15 %
Operating Temperature	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C
Protection Class	IP67	IP67	IP67	IP67
Sensing Face Material	POM	POM	POM	POM
Housing Material	Plated Brass	Plated Brass	Plated Brass	Plated Brass
Connection	High-Flex PVC, 2m	Connector M12, 4-pole	High-Flex PVC, 2m	Connector M12, 4-pole
Output Indicator	Integrated	Integrated	Integrated	Integrated
Article Code				
2-wire NO, 20... 250 VAC	IPS30-S16AO55/A2P	IPS30-S16AO79/M12	IPS30-N25AO55/A2P	IPS30-N25AO79/M12
2-wire NC, 20... 250 VAC	IPS30-S16AC55/A2P	IPS30-S16AC79/M12	IPS30-N25AC55/A2P	IPS30-N25AC79/M12
Recommended Connecting Cable	-	M12/3	-	M12/3

Inductive Proximity Switches
NAMUR

Output Schematics



Ø4	Ø4	Ø4	M5
0.8 mm	0.8 mm	0.8 mm	0.8 mm
			

SPECIFICATIONS	Ø4 mm - NAMUR	Ø4 mm - NAMUR	Ø4 mm - NAMUR	M5 - NAMUR
Sensing Distance	0.8 mm - Shielded	0.8 mm - Shielded	0.8 mm - Shielded	0.8 mm - Shielded
Amplified	External	External	External	External
Operating Voltage	6... 12 VDC, NAMUR	6... 12 VDC, NAMUR	6... 12 VDC, NAMUR	6... 12 VDC, NAMUR
Reverse Polarity Protection	built-in	built-in	built-in	built-in
Current On-State	> 2.1 mA	> 2.1 mA	> 2.1 mA	> 2.1 mA
Current Off-State	< 1.1 mA	< 1.1 mA	< 1.1 mA	< 1.1 mA
Short Circuit Protection	by Amplifier	by Amplifier	by Amplifier	by Amplifier
Output-Function	by Amplifier	by Amplifier	by Amplifier	by Amplifier
Switching Frequency	2000 Hz	2000 Hz	2000 Hz	2000 Hz
Repeatability	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
Hysteresis	3...15 %	3...15 %	3...15 %	3...15 %
Operating Temperature	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C
Protection Class	IP67	IP67	IP67	IP67
Sensing Face Material	POM	POM	POM	POM
Housing Material	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303
Connection	High-Flex PVC, 2m	High-Flex PVC, 2m	High-Flex PVC, 2m	High-Flex PVC, 2m
Output Indicator	by Amplifier	by Amplifier	by Amplifier	by Amplifier
NAMUR	IPSD4-S08NA10/N2P	IPSD4-S08NA20/N2P	IPSD4-S08NA25/N2P	IPS5-S08NA20/N2P
Recommended Connecting Cable	-	-	-	-

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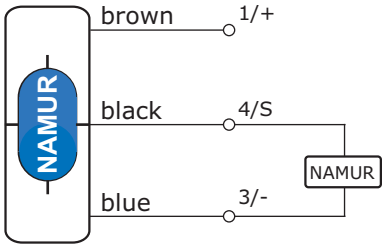
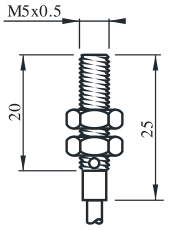
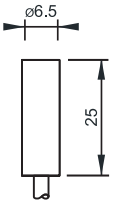
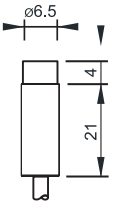
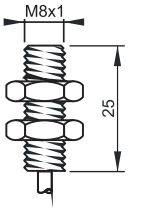
Inductive Proximity Switches
NAMUR

Output Schematics



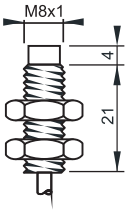
M5	Ø6.5	Ø6.5	M8
0.8 mm	1 mm	2 mm	1 mm
			

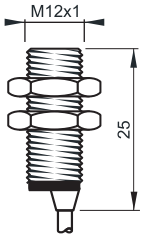
SPECIFICATIONS	M5 - NAMUR	Ø6.5 mm - NAMUR	Ø6.5 mm - NAMUR	M8 - NAMUR
Sensing Distance	0.8 mm - Shielded	1 mm - Shielded	2 mm - Unhielded	1 mm - Shielded
Amplified	External	External	External	External
Operating Voltage	6... 12 VDC, NAMUR	6... 12 VDC, NAMUR	6... 12 VDC, NAMUR	6... 12 VDC, NAMUR
Reverse Polarity Protection	built-in	built-in	built-in	built-in
Current On-State	> 2.1 mA	> 2.1 mA	> 2.1 mA	> 2.1 mA
Current Off-State	< 1.1 mA	< 1.1 mA	< 1.1 mA	< 1.1 mA
Short Circuit Protection	by Amplifier	by Amplifier	by Amplifier	by Amplifier
Output-Function	by Amplifier	by Amplifier	by Amplifier	by Amplifier
Switching Frequency	2000 Hz	2000 Hz	1000 Hz	2000 Hz
Repeatability	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
Hysteresis	3...15 %	3...15 %	3...15 %	3...15 %
Operating Temperature	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C
Protection Class	IP67	IP67	IP67	IP67
Sensing Face Material	POM	POM	POM	POM
Housing Material	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303
Connection	High-Flex PVC, 2m	High-Flex PVC, 2m	High-Flex PVC, 2m	High-Flex PVC, 2m
Output Indicator	by Amplifier	by Amplifier	by Amplifier	by Amplifier
Article Code				
NAMUR	IPS5-S08NA25/N2P	IPSD6-S1NA20/N2P	IPSD6-N2NA25/N2P	IPS8-S1NA25/N2P
Recommended Connecting Cable	-	-	-	-

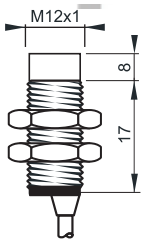
Inductive Proximity Switches
NAMUR

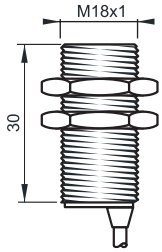
M8	M12	M12	M18	M18	M30

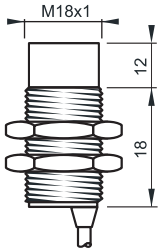
2 mm	2 mm	4 mm	5 mm	8 mm	10 mm

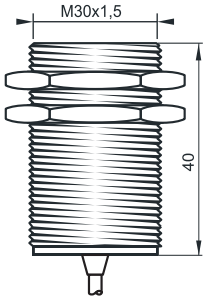












M8 - NAMUR	M12 - NAMUR	M12 - NAMUR	M18 - NAMUR	M18 - NAMUR	M30 - NAMUR
2 mm - Unhielded	2 mm - Shielded	4 mm - Unhielded	5 mm - Shielded	8 mm - Unhielded	10 mm - Shielded
External	External	External	External	External	External
6... 12 VDC, NAMUR	6... 12 VDC, NAMUR	6... 12 VDC, NAMUR	6... 12 VDC, NAMUR	6... 12 VDC, NAMUR	6... 12 VDC, NAMUR
built-in	built-in	built-in	built-in	built-in	built-in
> 2.1 mA	> 2.1 mA	> 2.1 mA	> 2.1 mA	> 2.1 mA	> 2.1 mA
< 1.1 mA	< 1.1 mA	< 1.1 mA	< 1.1 mA	< 1.1 mA	< 1.1 mA
by Amplifier	by Amplifier	by Amplifier	by Amplifier	by Amplifier	by Amplifier
by Amplifier	by Amplifier	by Amplifier	by Amplifier	by Amplifier	by Amplifier
1000 Hz	1000 Hz	500 Hz	500 Hz	300 Hz	300 Hz
< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
3...15 %	3...15 %	3...15 %	3...15 %	3...15 %	3...15 %
-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C
IP67	IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM	POM
1.4305 / SS303	Plated Brass	Plated Brass	Plated Brass	Plated Brass	Plated Brass
High-Flex PVC, 2m	High-Flex PVC, 2m	High-Flex PVC, 2m	High-Flex PVC, 2m	High-Flex PVC, 2m	High-Flex PVC, 2m
by Amplifier	by Amplifier	by Amplifier	by Amplifier	by Amplifier	by Amplifier
IPS8-N2NA25/N2P	IPS12-S1NA25/N2P	IPS12-N2NA25/N2P	IPS18-S5NA30/N2P	IPS18-N8NA30/N2P	IPS30-S10NA40/N2P
-	-	-	-	-	-

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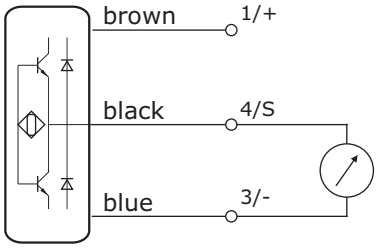
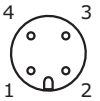
Inductive Proximity Switches
Analog Output

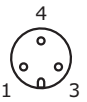
Output Schematics

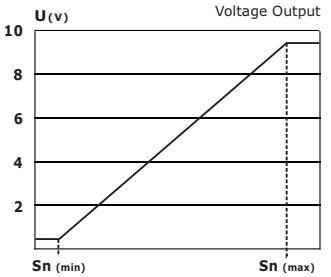


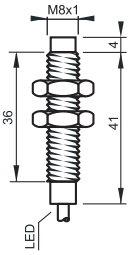
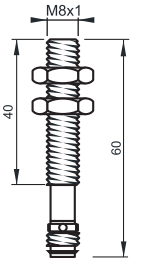
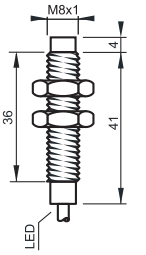
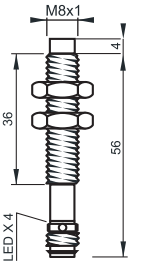
Connector M12



Connector M8

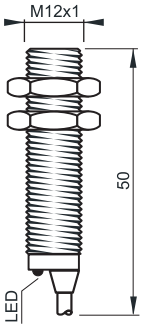
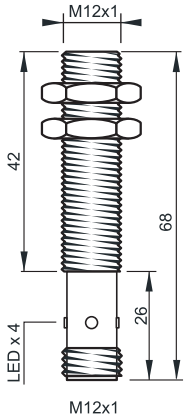
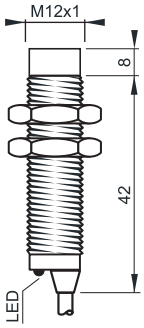
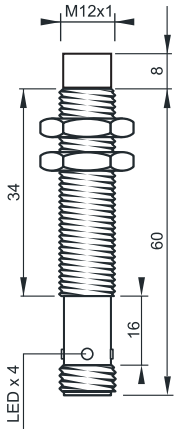
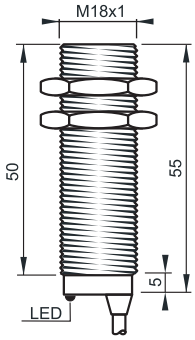
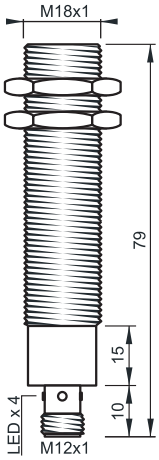




M8	M8	M8	M8
3 mm	3 mm	6 mm	6 mm
			

SPECIFICATIONS	M8x1 Analog	M8x1 Analog	M8x1 Analog	M8x1 Analog
Measuring Distance	0...3 mm	0...3 mm	0...6 mm	0...6 mm
Mounting	Shielded	Shielded	Unshielded	Unshielded
Operating Voltage	18...30 VDC, 3-wire	18...30 VDC, 3-wire	18...30 VDC, 3-wire	18...30 VDC, 3-wire
Reverse Polarity Protection	built-in	built-in	built-in	built-in
Current Consumption	< 25 mA	< 25 mA	< 25 mA	< 25 mA
Load Resistor	> 2 kOhm	> 2 kOhm	> 2 kOhm	> 2 kOhm
Linearity	< 5 % (Sn)	< 5 % (Sn)	< 5 % (Sn)	< 5 % (Sn)
Repeatability	0.02 mm	0.02 mm	0.02 mm	0.02 mm
Output Following Frequency	100 Hz	100 Hz	100 Hz	100 Hz
Temperature Drift	< 5 % (Sn)	< 5 % (Sn)	< 5 % (Sn)	< 5 % (Sn)
Operating Temperature	0...+70 °C	0...+70 °C	0...+70 °C	0...+70 °C
Protection Class	IP67	IP67	IP67	IP67
Sensing Face Material	POM	POM	POM	POM
Housing Material	Chromed Brass	Chromed Brass	Chromed Brass	Chromed Brass
Connection	High-Flex PVC, 2m	Connector M8, 3-pole	High-Flex PVC, 2m	Connector M8, 3-pole
Output Indicator	-	-	-	-
Article Code				
PNP, Analog Voltage (0...10 VDC)	IA8-S3V010/N2P	IA8-S3V010/N8	IA8-N6V010/N2P	IA8-N6V010/N8
Recommended Connecting Cable	-	M8/3...	-	M8/3...

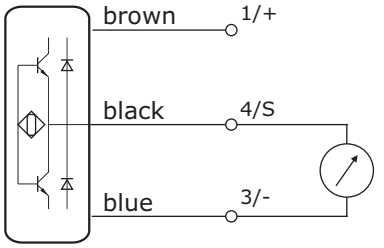
Inductive Proximity Switches
Analog Output

M12	M12	M12	M12	M18	M18
6 mm	6 mm	10 mm	10 mm	10 mm	10 mm
					
M12x1 Analog	M12x1 Analog	M12x1 Analog	M12x1 Analog	M18x1 Analog	M18x1 Analog
0...6 mm	0...6 mm	0...10 mm	0...10 mm	0...10 mm	0...10 mm
Shielded	Shielded	Unshielded	Unshielded	Shielded	Shielded
18...30 VDC, 3-wire	18...30 VDC, 3-wire	18...30 VDC, 3-wire	18...30 VDC, 3-wire	18...30 VDC, 3-wire	18...30 VDC, 3-wire
built-in	built-in	built-in	built-in	built-in	built-in
< 25 mA	< 25 mA	< 25 mA	< 25 mA	< 25 mA	< 25 mA
> 2 kOhm	> 2 kOhm	> 2 kOhm	> 2 kOhm	> 2 kOhm	> 2 kOhm
< 5 % (Sn)	< 5 % (Sn)	< 5 % (Sn)	< 5 % (Sn)	< 5 % (Sn)	< 5 % (Sn)
0.02 mm	0.02 mm	0.02 mm	0.02 mm	0.02 mm	0.02 mm
100 Hz	100 Hz	100 Hz	100 Hz	100 Hz	100 Hz
< 5 % (Sn)	< 5 % (Sn)	< 5 % (Sn)	< 5 % (Sn)	< 5 % (Sn)	< 5 % (Sn)
0...+70 °C	0...+70 °C	0...+70 °C	0...+70 °C	0...+70 °C	0...+70 °C
IP67	IP67	IP67	IP67	IP67	IP67
POM	POM	POM	POM	POM	POM
Chromed Brass	Chromed Brass	Chromed Brass	Chromed Brass	Chromed Brass	Chromed Brass
High-Flex PVC, 2m	Connector M12, 4-pole	High-Flex PVC, 2m	Connector M12, 4-pole	High-Flex PVC, 2m	Connector M12, 4-pole
-	-	-	-	-	-
IA12-S6V010/N2P	IA12-S6V010/N12	IA12-N10V010/N2P	IA12-N10V010/N12	IA18-S10V010/N2P	IA18-S10V010/N12
-	M12/3...	-	M12/3...	-	M12/3...

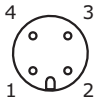
XECRO reserves the right to make minor changes without prior notification.

Inductive Proximity Switches
Analog Output

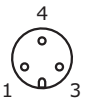
Output Schematics

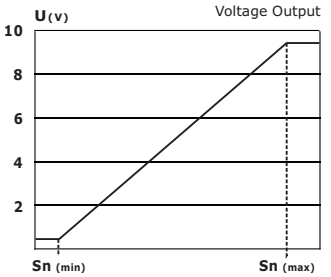


Connector M12

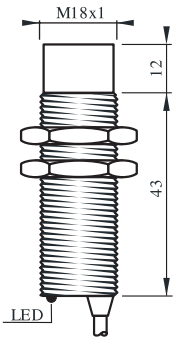
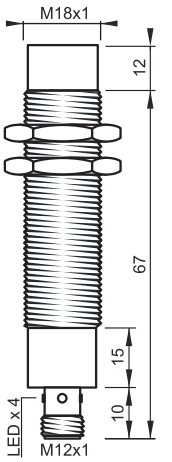
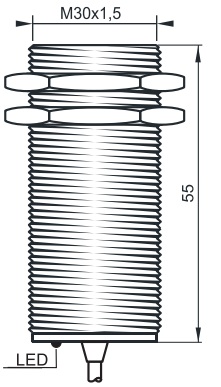
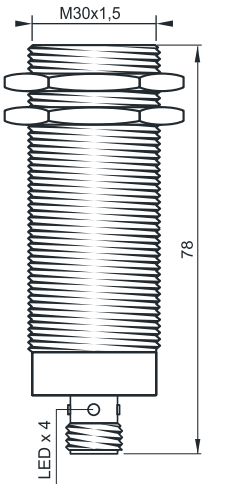


Connector M8





Not to be used for Safety Applications

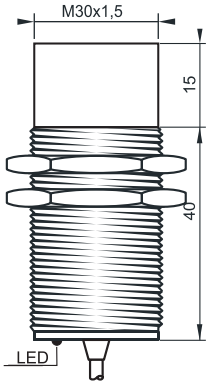
M18	M18	M30	M30
20 mm	20 mm	20 mm	20 mm
			

SPECIFICATIONS	M18x1 Analog	M18x1 Analog	M30x1.5 Analog	M30x1.5 Analog
Measuring Distance	0...20 mm	0...20 mm	0...20 mm	0...20 mm
Mounting	Unshielded	Unshielded	Shielded	Shielded
Operating Voltage	18...30 VDC, 3-wire	18...30 VDC, 3-wire	18...30 VDC, 3-wire	18...30 VDC, 3-wire
Reverse Polarity Protection	built-in	built-in	built-in	built-in
Current Consumption	< 25 mA	< 25 mA	< 25 mA	< 25 mA
Load Resistor	> 2 kOhm	> 2 kOhm	> 2 kOhm	> 2 kOhm
Linearity	< 5 % (Sn)	< 5 % (Sn)	< 5 % (Sn)	< 5 % (Sn)
Repeatability	0.02 mm	0.02 mm	0.02 mm	0.02 mm
Output Following Frequency	100 Hz	100 Hz	100 Hz	100 Hz
Temperature Drift	< 5 % (Sn)	< 5 % (Sn)	< 5 % (Sn)	< 5 % (Sn)
Operating Temperature	0...+70 °C	0...+70 °C	0...+70 °C	0...+70 °C
Protection Class	IP67	IP67	IP67	IP67
Sensing Face Material	POM	POM	POM	POM
Housing Material	Chromed Brass	Chromed Brass	Chromed Brass	Chromed Brass
Connection	High-Flex PVC, 2m	Connector M12, 4-pole	High-Flex PVC, 2m	Connector M12, 4-pole
Output Indicator	-	-	-	-
Article Code				
PNP, Analog Voltage (0...10 VDC)	IA18-N20V010/N2P	IA18-N20V010/M12	IA30-S20V010/N2P	IA30-S20V010/M12
Recommended Connecting Cable	-	M12/3...	-	M12/3...

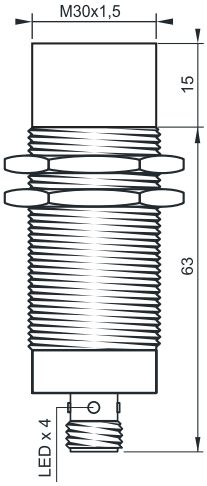
Inductive Proximity Switches
Analog Output

M30	M30

40 mm



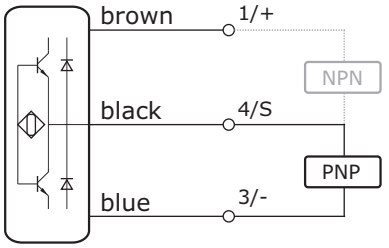
40 mm



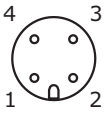
M30x1.5 Analog	M30x1.5 Analog
0...40 mm	0...40 mm
Unshielded	Unshielded
18...30 VDC, 3-wire	18...30 VDC, 3-wire
built-in	built-in
< 25 mA	< 25 mA
> 2 kOhm	> 2 kOhm
< 5 % (Sn)	< 5 % (Sn)
0.02 mm	0.02 mm
100 Hz	100 Hz
< 5 % (Sn)	< 5 % (Sn)
0...+70 °C	0...+70 °C
IP67	IP67
POM	POM
Chromed Brass	Chromed Brass
High-Flex PVC, 2m	Connector M12, 4-pole
-	-
IA30-N40V010/N2P	IA30-N40V010/M12
-	M12/3...

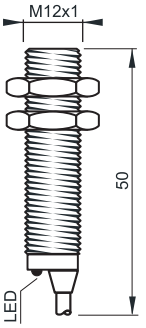
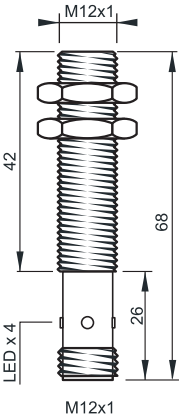
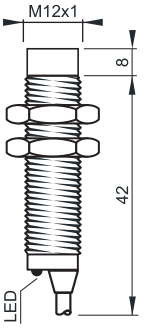
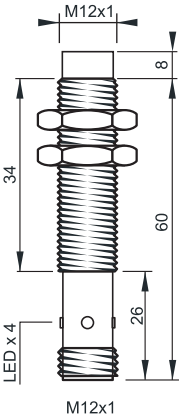
Inductive Proximity Switches
Ferrous / Non-Ferrous Sensing only

Output Schematics



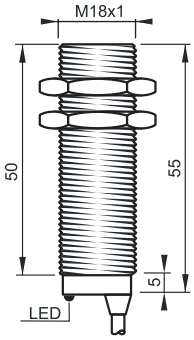
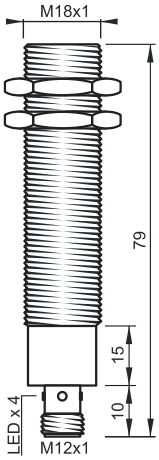
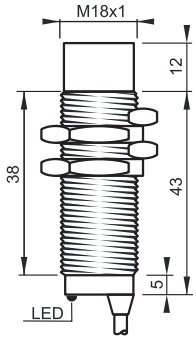
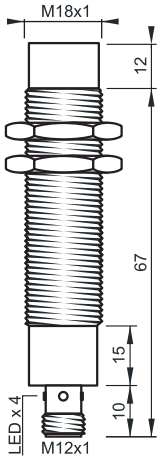
Connector M12



M12	M12	M12	M12
2 mm	2 mm	2 mm	2 mm
			

SPECIFICATIONS	M12x1 - Ferrous	M12x1 - Ferrous	M12x1 - Ferrous	M12x1 - Ferrous
Sensing Distance	2 mm - Shielded	2 mm - Shielded	8 mm - Unshielded	8 mm - Unshielded
Operating Voltage	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire
Reverse Polarity Protection	built-in	built-in	built-in	built-in
Current Consumption	< 8 mA	< 8 mA	< 8 mA	< 8 mA
Current Load Capability	200 mA	200 mA	200 mA	200 mA
Short Circuit Protection	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
Voltage Drop	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
Switching Frequency	2000 Hz	2000 Hz	2000 Hz	2000 Hz
Repeatability	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
Hysteresis	3...15 %	3...15 %	3...15 %	3...15 %
Operating Temperature	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C
Protection Class	IP69k, Conn. IP67	IP69k, Conn. IP67	IP69k, Conn. IP67	IP69k, Conn. IP67
Sensing Face Material	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303
Housing Material	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303
Connection	High-Flex PVC, 2m	Connector M12, 4-pole	High-Flex PVC, 2m	Connector M12, 4-pole
Output Indicator	Integrated	Integrated	Integrated	Integrated
Article Code				
PNP, NO - Ferrous Only	IFE12-S2PO50/A2P	IFE12-S2PO68/M12	IFE12-N4PO50/A2P	IFE12-N4PO68/M12
PNP, NC - Ferrous Only	IFE12-S2PC50/A2P	IFE12-S2PC68/M12	IFE12-N4PC50/A2P	IFE12-N4PC68/M12
NPN, NO - Ferrous Only	IFE12-S2NO50/A2P	IFE12-S2NO68/M12	IFE12-N4NO50/A2P	IFE12-N4NO68/M12
NPN, NC - Ferrous Only	IFE12-S2NC50/A2P	IFE12-S2NC68/M12	IFE12-N4NC50/A2P	IFE12-N4NC68/M12
PNP, NO - Non Ferrous Only	INF12-S2PO50/A2P	INF12-S2PO68/M12	INF12-N4PO50/A2P	INF12-N4PO68/M12
PNP, NC - Non Ferrous Only	INF12-S2PC50/A2P	INF12-S2PC68/M12	INF12-N4PC50/A2P	INF12-N4PC68/M12
NPN, NO - Non Ferrous Only	INF12-S2NO50/A2P	INF12-S2NO68/M12	INF12-N4NO50/A2P	INF12-N4NO68/M12
NPN, NC - Non Ferrous Only	INF12-S2NC50/A2P	INF12-S2NC68/M12	INF12-N4NC50/A2P	INF12-N4NC68/M12
Recommended Connecting Cable				

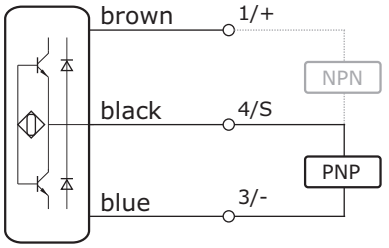
Inductive Proximity Switches
Ferrous / Non-Ferrous Sensing only

M18	M18	M18	M18
5 mm	5 mm	8 mm	8 mm
			
M18x1 - Ferrous	M18x1 - Ferrous	M18x1 - Ferrous	M18x1 - Ferrous
5 mm - Shielded	5 mm - Shielded	8 mm - Unshielded	8 mm - Unshielded
10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire
built-in	built-in	built-in	built-in
< 8 mA	< 8 mA	< 8 mA	< 8 mA
200 mA	200 mA	200 mA	200 mA
built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
1000 Hz	1000 Hz	500 Hz	500 Hz
< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)	< 1 % (Sn)
3...15 %	3...15 %	3...15 %	3...15 %
-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C
IP69k, Conn. IP67	IP69k, Conn. IP67	IP69k, Conn. IP67	IP69k, Conn. IP67
1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303
1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303
High-Flex PVC, 2m	Connector M12, 4-pole	High-Flex PVC, 2m	Connector M12, 4-pole
Integrated	Integrated	Integrated	Integrated
IFE18-S5PO55/A2P	IFE18-S5PO79/M12	IFE18-N8PO55/A2P	IFE18-N8PO79/M12
IFE18-S5PC55/A2P	IFE18-S5PC79/M12	IFE18-N8PC55/A2P	IFE18-N8PC79/M12
IFE18-S5NO55/A2P	IFE18-S5NO79/M12	IFE18-N8NO55/A2P	IFE18-N8NO79/M12
IFE18-S5NC55/A2P	IFE18-S5NC79/M12	IFE18-N8NC55/A2P	IFE18-N8NC79/M12
INF18-S5PO55/A2P	INF18-S5PO79/M12	INF18-N8PO55/A2P	INF18-N8PO79/M12
INF18-S5PC55/A2P	INF18-S5PC79/M12	INF18-N8PC55/A2P	INF18-N8PC79/M12
INF18-S5NO55/A2P	INF18-S5NO79/M12	IFE18-NNFO55/A2P	IFE18-NNFO79/M12
INF18-S5NC55/A2P	INF18-S5NC79/M12	INF18-N8NC55/A2P	INF18-N8NC79/M12

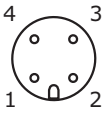
XECRO reserves the right to make minor changes without prior notification.

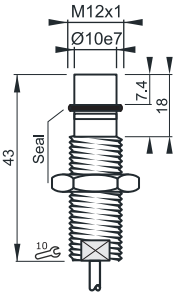
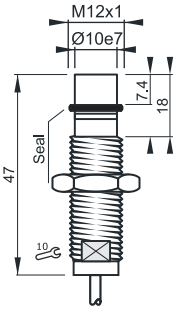
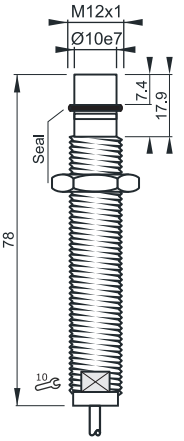
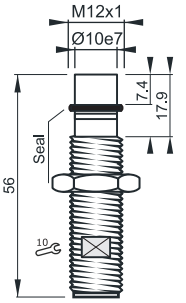
Inductive Proximity Switches
High Pressure Proof (500 bar)

Output Schematics



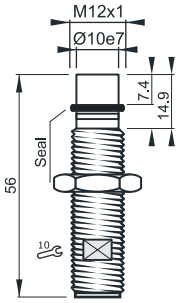
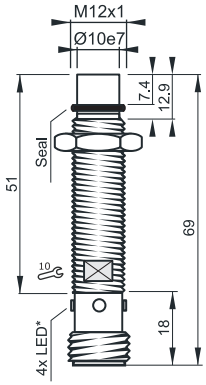
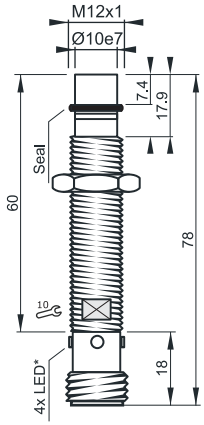
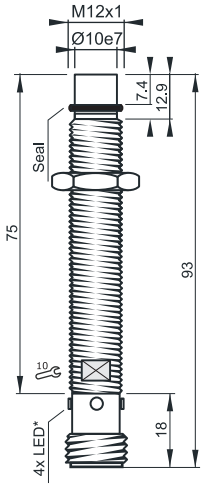
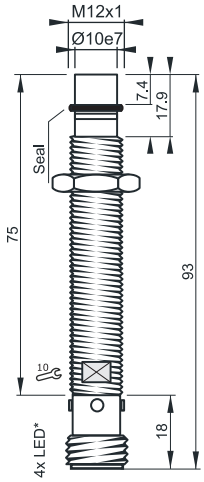
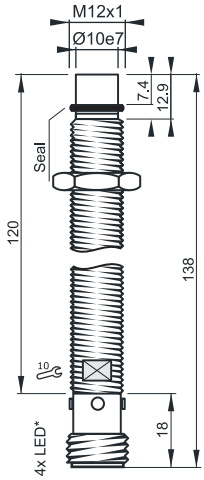
Connector M12



	M12	M12	M12	M12
	1.5 mm	1.5 mm	1.5 mm	1.5 mm
				

SPECIFICATIONS	M12x1 - 500 bar	M12x1 - 500 bar	M12x1 - 500 bar	M12x1 - 500 bar
Sensing Distance	1.5 mm - Shielded	1.5 mm - Shielded	1.5 mm - Shielded	1.5 mm - Shielded
Pressure Tightness	500 bar / 7250 PSI	500 bar / 7250 PSI	500 bar / 7250 PSI	500 bar / 7250 PSI
Operating Voltage	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire
Reverse Polarity Protection	built-in	built-in	built-in	built-in
Current Consumption	< 8 mA	< 8 mA	< 8 mA	< 8 mA
Current Load Capability	200 mA	200 mA	200 mA	200 mA
Short Circuit Protection	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
Voltage Drop	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
Switching Frequency	2000 Hz	2000 Hz	2000 Hz	2000 Hz
Repeatability	< 3 %	< 3 %	< 3 %	< 3 %
Hysteresis	< 20 %	< 20 %	< 20 %	< 20 %
Operating Temperature	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C
Protection Class	IP 69k, IP 67	IP 69k, IP 67	IP 69k, IP 67	IP 69k, IP 67
Sensing Face Material	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303
Housing Material	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303
Connection	High-Flex PVC, 2m	High-Flex PVC, 2m	High-Flex PVC, 2m	Connector M12, 4-pole
Output Indicator	Integrated	Integrated	Integrated	Integrated
Article Code				
PNP, NO	IHP12-S1.5PO43/A2P	IHP12-S1.5PO47/A2P	IHP12-S1.5PO78/A2P	IHP12-S1.5PO56/A12
PNP, NC	IHP12-S1.5PC43/A2P	IHP12-S1.5PC47/A2P	IHP12-S1.5PC78/A2P	IHP12-S1.5PC56/A12
NPN, NO	IHP12-S1.5NO43/A2P	IHP12-S1.5NO47/A2P	IHP12-S1.5NO78/A2P	IHP12-S1.5NO56/A12
NPN, NC	IHP12-S1.5NC43/A2P	IHP12-S1.5NC47/A2P	IHP12-S1.5NC78/A2P	IHP12-S1.5NC56/A12
Recommended Connecting Cable	-	-	-	M12/3...

Inductive Proximity Switches
High Pressure Proof (500 bar)

M12	M12	M12	M12	M12	M12
1.5 mm	1.5 mm	1.5 mm	1.5 mm	1.5 mm	1.5 mm
					

M12x1 - 500 bar	M12x1 - 500 bar	M12x1 - 500 bar	M12x1 - 500 bar	M12x1 - 500 bar	M12x1 - 500 bar
1.5 mm - Shielded	1.5 mm - Shielded	1.5 mm - Shielded	1.5 mm - Shielded	1.5 mm - Shielded	1.5 mm - Shielded
500 bar / 7250 PSI	500 bar / 7250 PSI	500 bar / 7250 PSI	500 bar / 7250 PSI	500 bar / 7250 PSI	500 bar / 7250 PSI
10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire
built-in	built-in	built-in	built-in	built-in	built-in
< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA
200 mA	200 mA	200 mA	200 mA	200 mA	200 mA
built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
2000 Hz	2000 Hz	2000 Hz	2000 Hz	2000 Hz	2000 Hz
< 3 %	< 3 %	< 3 %	< 3 %	< 3 %	< 3 %
< 20 %	< 20 %	< 20 %	< 20 %	< 20 %	< 20 %
-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C
IP 69k, IP 67	IP 69k, IP 67	IP 69k, IP 67	IP 69k, IP 67	IP 69k, IP 67	IP 69k, IP 67
1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303
1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303
Connector M12, 4-pole	Connector M12, 4-pole	Connector M12, 4-pole	Connector M12, 4-pole	Connector M12, 4-pole	Connector M12, 4-pole
Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
IHP12-S1.5PO57/A12	IHP12-S1.5PO69/A12	IHP12-S1.5PO78/A12	IHP12-S1.5PO93/A12	IHP12-S1.5PO94/A12	IHP12-S1.5PO138/A12
IHP12-S1.5PC57/A12	IHP12-S1.5PC69/A12	IHP12-S1.5PC78/A12	IHP12-S1.5PC93/A12	IHP12-S1.5PC94/A12	IHP12-S1.5PC138/A12
IHP12-S1.5NO57/A12	IHP12-S1.5NO69/A12	IHP12-S1.5NO78/A12	IHP12-S1.5NO93/A12	IHP12-S1.5NO94/A12	IHP12-S1.5NO138/A12
IHP12-S1.5NC57/A12	IHP12-S1.5NC69/A12	IHP12-S1.5NC78/A12	IHP12-S1.5NC93/A12	IHP12-S1.5NC94/A12	IHP12-S1.5NC138/A12
M12/3...	M12/3...	M12/3...	M12/3...	M12/3...	M12/3...

XECRO reserves the right to make minor changes without prior notification.

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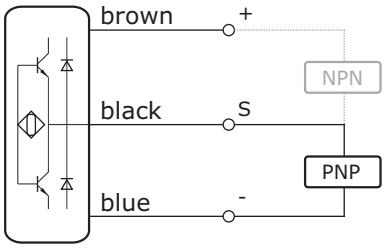
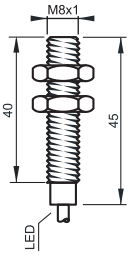
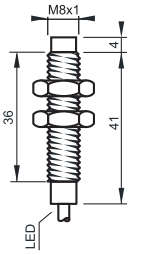
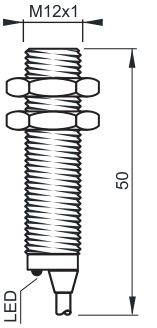
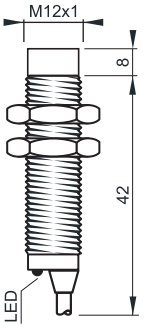
Inductive Proximity Switches
High Temperature

Output Schematics



M8	M8	M12	M12
120 °C	120 °C	120 °C	120 °C
			

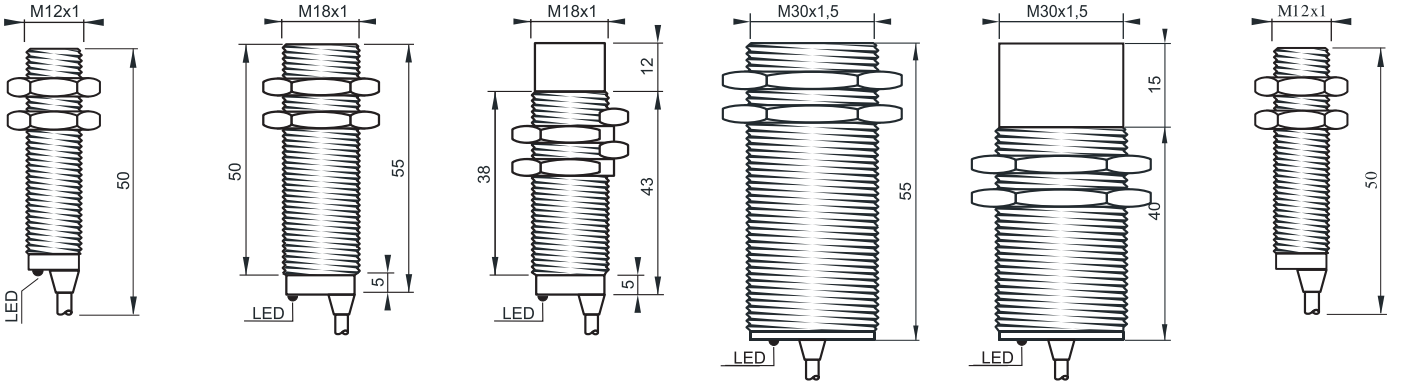
SPECIFICATIONS	M8x1 - 120 °C	M8x1 - 120 °C	M12x1 - 120 °C	M12x1 - 120 °C
Sensing Distance	2 mm - Shielded	4 mm - Unshielded	2 mm - Shielded	4 mm - Unshielded
Amplifier	Fully Embedded	Fully Embedded	Fully Embedded	Fully Embedded
Operating Voltage	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire
Reverse Polarity Protection	built-in	built-in	built-in	built-in
Current Consumption	< 8 mA	< 8 mA	< 8 mA	< 8 mA
Current Load Capability	120 mA	120 mA	120 mA	120 mA
Short Circuit Protection	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
Voltage Drop	< 2 V @ 120 mA	< 2 V @ 120 mA	< 2 V @ 120 mA	< 2 V @ 120 mA
Switching Frequency	1000 Hz	1000 Hz	1000 Hz	1000 Hz
Repeatability	< 3 %	< 3 %	< 3 %	< 3 %
Hysteresis	3...15 %	3...15 %	3...15 %	3...15 %
Operating Temperature	-25...+120 °C	-25...+120 °C	-25...+120 °C	-25...+120 °C
Thermal Stress	permanent	permanent	permanent	permanent
Protection Class	IP 67	IP 67	IP 67	IP 67
Housing Material	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303
Connection	2m, PTFE or Silicone	2m, PTFE or Silicone	2m, PTFE or Silicone	2m, PTFE or Silicone
Output Indicator	* Integrated	* Integrated	* Integrated	* Integrated
Article Code				
PTFE Cable - PNP, NO	IHT8-S2APO45/A2T	IHT8-N4APO45/A2T	IHT12-S2APO50/A2T	IHT12-N4APO50/A2T
PTFE Cable - PNP, NC	IHT8-S2APC45/A2T	IHT8-N4APC45/A2T	IHT12-S2APC50/A2T	IHT12-N4APC50/A2T
PTFE Cable - NPN, NO	IHT8-S2ANO45/A2T	IHT8-N4ANO45/A2T	IHT12-S2ANO50/A2T	IHT12-N4ANO50/A2T
PTFE Cable - NPN, NC	IHT8-S2ANC45/A2T	IHT8-N4ANC45/A2T	IHT12-S2ANC50/A2T	IHT12-N4ANC50/A2T
Silicone Cable - PNP, NO	IHT8-S2APO45/A2S	IHT8-N4APO45/A2S	IHT12-S2APO50/A2S	IHT12-N4APO50/A2S
Silicone Cable - PNP, NC	IHT8-S2APC45/A2S	IHT8-N4APC45/A2S	IHT12-S2APC50/A2S	IHT12-N4APC50/A2S
Silicone Cable - NPN, NO	IHT8-S2ANO45/A2S	IHT8-N4ANO45/A2S	IHT12-S2ANO50/A2S	IHT12-N4ANO50/A2S
Silicone Cable - NPN, NC	IHT8-S2ANC45/A2S	IHT8-N4ANC45/A2S	IHT12-S2ANC50/A2S	IHT12-N4ANC50/A2S

* Only for mechanical setup - LED possibly dies if operated at temperatures beyond 130 °C (266 °F). LED functionality is not covered by warranty !

Inductive Proximity Switches
High Temperature

M12	M18	M18	M30	M30	M12

120 °C	120 °C	120 °C	120 °C	120 °C	150 °C



M12x1 - 120 °C	M18x1 - 120 °C	M18x1 - 120 °C	M30x1.5 - 120 °C	M30x1.5 - 120 °C	M12x1 - 150 °C
4 mm - Shielded	5 mm - Shielded	8 mm - Unshielded	10 mm - Shielded	15 mm - Unshielded	2 mm - Shielded
Fully Embedded	Fully Embedded	Fully Embedded	Fully Embedded	Fully Embedded	Fully Embedded
10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire
built-in	built-in	built-in	built-in	built-in	built-in
< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA
120 mA	150 mA	150 mA	150 mA	150 mA	120 mA
built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
< 2 V @ 120 mA	< 2 V @ 150 mA	< 2 V @ 150 mA	< 2 V @ 150 mA	< 2 V @ 150 mA	< 2 V @ 120 mA
1000 Hz	800 Hz	500 Hz	300 Hz	150 Hz	1000 Hz
< 3 %	< 3 %	< 3 %	< 3 %	< 3%	< 3 %
3...15 %	3...15 %	3...15 %	3...15 %	3...15 %	3...15 %
-25...+120 °C	-25...+120 °C	-25...+120 °C	-25...+120 °C	-25...+120 °C	-25...+120 °C
permanent	permanent	permanent	permanent	permanent	permanent
IP 67	IP 67	IP 67	IP 67	IP 67	IP 67
1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303
2m, PTFE or Silicone	2m, PTFE or Silicone	2m, PTFE or Silicone	2m, PTFE or Silicone	2m, PTFE or Silicone	2m, PTFE or Silicone
* Integrated	* Integrated	* Integrated	* Integrated	* Integrated	On Request
IHT12-S4APO50/A2T	IHT18-S5APO55/A2T	IHT18-N8APO55/A2T	IHT30-S10APO55/A2T	IHT30-N15APO55/A2T	IHT12-S2BPO50/N2T
IHT12-S4APC50/A2T	IHT18-S5APC55/A2T	IHT18-N8APC55/A2T	IHT30-S10APC55/A2T	IHT30-N15APC55/A2T	IHT12-S2BPC50/N2T
IHT12-S4ANO50/A2T	IHT18-S5ANO55/A2T	IHT18-N8ANO55/A2T	IHT30-S10ANO55/A2T	IHT30-N15ANO55/A2T	IHT12-S2BNO50/N2T
IHT12-S4ANC50/A2T	IHT18-S5ANC55/A2T	IHT18-N8ANC55/A2T	IHT30-S10ANC55/A2T	IHT30-N15ANC55/A2T	IHT12-S2BNC50/N2T
IHT12-S4APO50/A2S	IHT18-S5APO55/A2S	IHT18-N8APO55/A2S	IHT30-S10APO55/A2S	IHT30-N15APO55/A2S	IHT12-S2BPO50/N2S
IHT12-S4APC50/A2S	IHT18-S5APC55/A2S	IHT18-N8APC55/A2S	IHT30-S10APC55/A2S	IHT30-N15APC55/A2S	IHT12-S2BPC50/N2S
IHT12-S4ANO50/A2S	IHT18-S5ANO55/A2S	IHT18-N8ANO55/A2S	IHT30-S10ANO55/A2S	IHT30-N15ANO55/A2S	IHT12-S2BNO50/N2S
IHT12-S4ANC50/A2S	IHT18-S5ANC55/A2S	IHT18-N8ANC55/A2S	IHT30-S10ANC55/A2S	IHT30-N15ANC55/A2S	IHT12-S2BNC50/N2S

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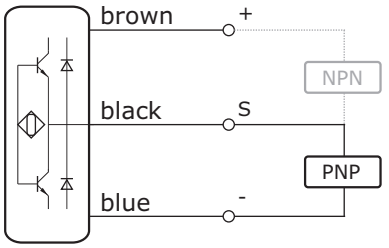
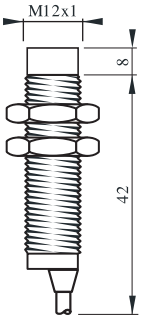
Inductive Proximity Switches
High Temperature

Output Schematics

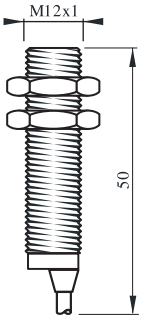


M12	M12	M18	M18

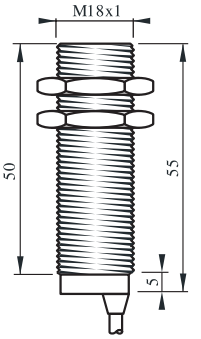
150 °C



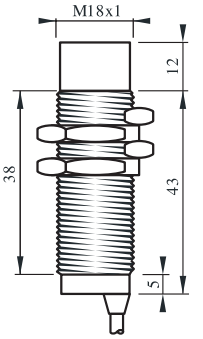
150 °C



150 °C



150 °C



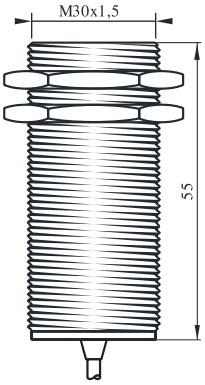
SPECIFICATIONS	M12x1 - 150 °C	M12x1 - 150 °C	M18x1 - 150 °C	M18x1 - 150 °C
Sensing Distance	4 mm - Unshielded	4 mm - Shielded	5 mm - Shielded	8 mm - Unshielded
Amplifier	Fully Embedded	Fully Embedded	Fully Embedded	Fully Embedded
Operating Voltage	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire
Reverse Polarity Protection	built-in	built-in	built-in	built-in
Current Consumption	< 8 mA	< 8 mA	< 8 mA	< 8 mA
Current Load Capability	120 mA	120 mA	150 mA	150 mA
Short Circuit Protection	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
Voltage Drop	< 2 V @ 120 mA	< 2 V @ 120 mA	< 2 V @ 150 mA	< 2 V @ 150 mA
Switching Frequency	1000 Hz	1000 Hz	900 Hz	500 Hz
Repeatability	< 3 %	< 3 %	< 3 %	< 3 %
Hysteresis	3...15 %	3...15 %	3...15 %	3...15 %
Operating Temperature	-25...+150 °C	-25...+150 °C	-25...+150 °C	-25...+150 °C
Thermal Stress	permanent	permanent	permanent	permanent
Protection Class	IP 67	IP 67	IP 67	IP 67
Housing Material	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303
Connection	2m, PTFE or Silicone	2m, PTFE or Silicone	2m, PTFE or Silicone	2m, PTFE or Silicone
Output Indicator	On Request	On Request	On Request	On Request
Article Code				
PTFE Cable - PNP, NO	IHT12-N4BPO50/N2T	IHT12-S4BPO50/N2T	IHT18-S5BPO55/N2T	IHT18-N8BPO55/N2T
PTFE Cable - PNP, NC	IHT12-N4BPC50/N2T	IHT12-S4BPC50/N2T	IHT18-S5BPC55/N2T	IHT18-N8BPC55/N2T
PTFE Cable - NPN, NO	IHT12-N4BNO50/N2T	IHT12-S4BNO50/N2T	IHT18-S5BNO55/N2T	IHT18-N8BNO55/N2T
PTFE Cable - NPN, NC	IHT12-N4BNC50/N2T	IHT12-S4BNC50/N2T	IHT18-S5BNC55/N2T	IHT18-N8BNC55/N2T
Silicone Cable - PNP, NO	IHT12-N4BPO50/N2S	IHT12-S4BPO50/N2S	IHT18-S5BPO55/N2S	IHT18-N8BPO55/N2S
Silicone Cable - PNP, NC	IHT12-N4BPC50/N2S	IHT12-S4BPC50/N2S	IHT18-S5BPC55/N2S	IHT18-N8BPC55/N2S
Silicone Cable - NPN, NO	IHT12-N4BNO50/N2S	IHT12-S4BNO50/N2S	IHT18-S5BNO55/N2S	IHT18-N8BNO55/N2S
Silicone Cable - NPN, NC	IHT12-N4BNC50/N2S	IHT12-S4BNC50/N2S	IHT18-S5BNC55/N2S	IHT18-N8BNC55/N2S

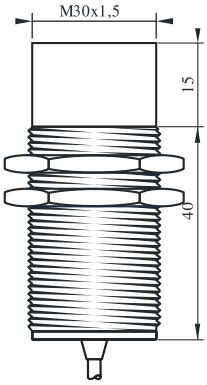
* Only for mechanical setup - LED possibly dies if operated at temperatures beyond 130 °C (266 °F). LED functionality is not covered by warranty !

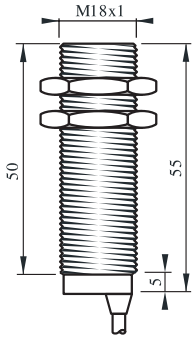
Inductive Proximity Switches
High Temperature

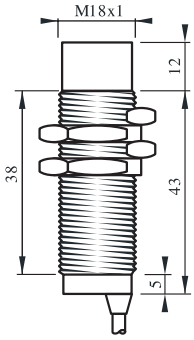
M30	M30	M18	M18	M30	M30

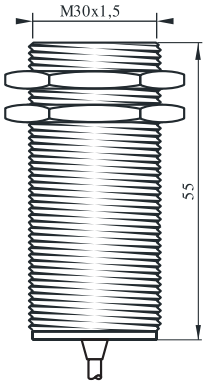
150 °C	150 °C	180 °C	180 °C	180 °C	180 °C

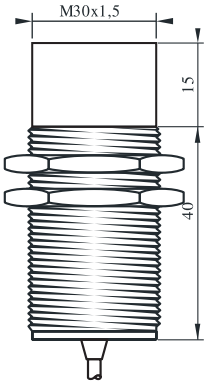










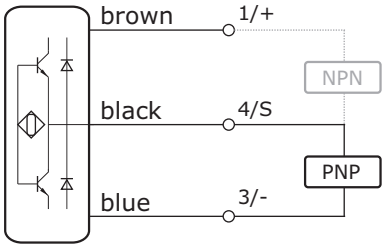


M30x1.5 - 150 °C	M30x1.5 - 150 °C	M18x1 - 180 °C	M18x1 - 180 °C	M30x1.5 - 180 °C	M30x1.5 - 180 °C
10 mm - Shielded	15 mm - Unshielded	5 mm - Shielded	8 mm - Unshielded	10 mm - Shielded	15 mm - Unshielded
Fully Embedded	Fully Embedded	Fully Embedded	Fully Embedded	Fully Embedded	Fully Embedded
10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire
built-in	built-in	built-in	built-in	built-in	built-in
< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA	< 8 mA
150 mA	150 mA	120 mA	120 mA	120 mA	120 mA
built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
< 2 V @ 150 mA	< 2 V @ 150 mA	< 2 V @ 120 mA	< 2 V @ 120 mA	< 2 V @ 120 mA	< 2 V @ 120 mA
300 Hz	150 Hz	800 Hz	500 Hz	300 Hz	150 Hz
< 3 %	< 3%	< 3 %	< 3 %	< 3 %	< 3%
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
-25…+150 °C	-25…+150 °C	-25…+150 °C	-25…+150 °C	-25…+150 °C	-25…+150 °C
permanent	permanent	permanent	permanent	permanent	permanent
IP 67	IP 67	IP 67	IP 67	IP 67	IP 67
1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303
2m, PTFE or Silicone	2m, PTFE or Silicone	2m, PTFE or Silicone	2m, PTFE or Silicone	2m, PTFE or Silicone	2m, PTFE or Silicone
On Request	On Request	-	-	-	-
IHT30-S10BPO55/N2T	IHT30-N15BPO55/N2T	IHT18-S5CPO55/N2T	IHT18-N8CPO55/N2T	IHT30-S10CPO55/N2T	IHT30-N15CPO55/N2T
IHT30-S10BPC55/N2T	IHT30-N15BPC55/N2T	IHT18-S5CPC55/N2T	IHT18-N8CPC55/N2T	IHT30-S10CPC55/N2T	IHT30-N15CPC55/N2T
IHT30-S10BNO55/N2T	IHT30-N15BNO55/N2T	IHT18-S5CNO55/N2T	IHT18-N8CNO55/N2T	IHT30-S10CNO55/N2T	IHT30-N15CNO55/N2T
IHT30-S10BNC55/N2T	IHT30-N15BNC55/N2T	IHT18-S5CNC55/N2T	IHT18-N8CNC55/N2T	IHT30-S10CNC55/N2T	IHT30-N15CNC55/N2T
IHT30-S10BPO55/N2S	IHT30-N15BPO55/N2S	IHT18-S5CPO55/N2S	IHT18-N8CPO55/N2S	IHT30-S10CPO55/N2S	IHT30-N15CPO55/N2S
IHT30-S10BPC55/N2S	IHT30-N15BPC55/N2S	IHT18-S5CPC55/N2S	IHT18-N8CPC55/N2S	IHT30-S10CPC55/N2S	IHT30-N15CPC55/N2S
IHT30-S10BNO55/N2S	IHT30-N15BNO55/N2S	IHT18-S5CNO55/N2S	IHT18-N8CNO55/N2S	IHT30-S10CNO55/N2S	IHT30-N15CNO55/N2S
IHT30-S10BNC55/N2S	IHT30-N15BNC55/N2S	IHT18-S5CNC55/N2S	IHT18-N8CNC55/N2S	IHT30-S10CNC55/N2S	IHT30-N15CNC55/N2S

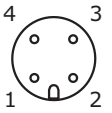
XECRO reserves the right to make minor changes without prior notification.

Inductive Ring Sensors

Output Schematics



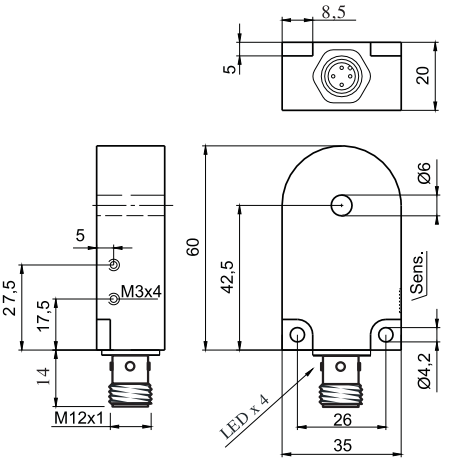
Connector M12



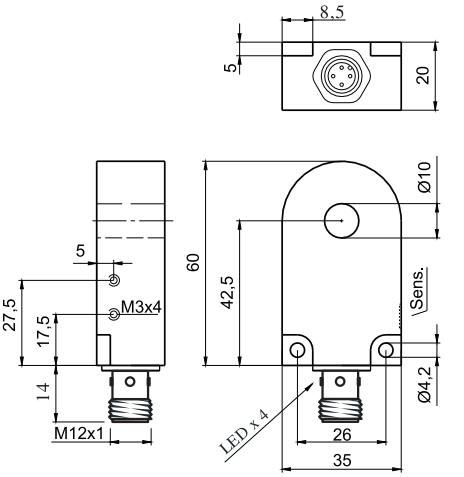
Ø 6 mm

Ø 10 mm

Ø 1.0 mm



Ø 1.5 mm

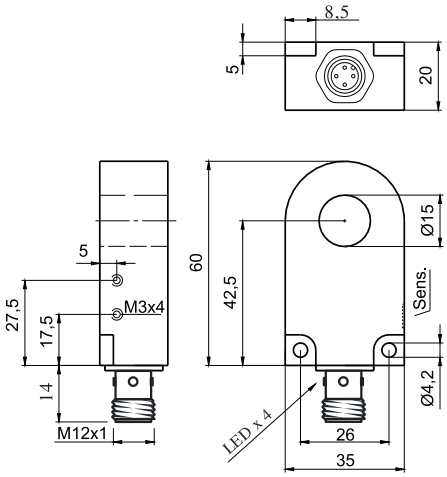


SPECIFICATIONS	Ø 6 mm	Ø 10 mm
Sensitivity	adjustable, > Ø1 mm steel ball	adjustable, > Ø1.5 mm steel ball
Operating Voltage	10...30 VDC, 3-wire	10...30 VDC, 3-wire
Reverse Polarity Protection	built-in	built-in
Current Consumption	< 10 mA	< 10 mA
Current Load Capability	200 mA	200 mA
Short Circuit Protection	built-in - self resetting	built-in - self resetting
Voltage Drop	2 V @ 200 mA	2 V @ 200 mA
Adjustment	Multi-Turn-Pot.	Multi-Turn-Pot.
Object Speed - Min. / Max.	- | 45 mS (147 ft/s)	- | 45 mS (147 ft/s)
Response / Release Time	0.5 / 100 ms	0.5 / 100 ms
Operating Temperature	-25... +70°C	-25... +70°C
Protection Class	IP67	IP67
Housing Material	PBT	PBT
Ring Material	Nylon	Nylon
Mounting Distance to Metal	> 5 mm	> 5 mm
Connection	Connector M12, 4-pole	Connector M12, 4-pole
AA1400	Integrated	Integrated
Article Code		
PNP, NO	IR06S-PO100/M12	IR10S-PO100/M12
PNP, NC	IR06S-PC100/M12	IR10S-PC100/M12
NPN, NO	IR06S-NO100/M12	IR10S-NO100/M12
NPN, NC	IR06S-NC100/M12	IR10S-NC100/M12

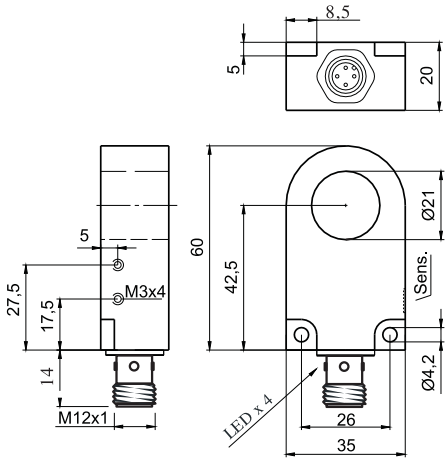
Ø 15 mm

Ø 21 mm

Ø 2.0 mm



Ø 2.8 mm

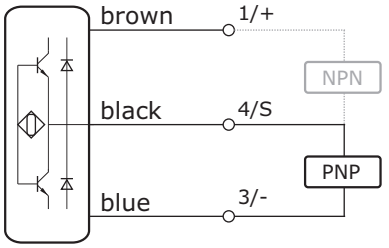


Ø 15 mm	Ø 21 mm
djustable, > Ø2 mm steel ball	adjustable, > Ø2.5 mm steel ball
10…30 VDC, 3-wire	10…30 VDC, 3-wire
built-in	built-in
< 10 mA	< 10 mA
200 mA	200 mA
built-in - self resetting	built-in - self resetting
2 V @ 200 mA	2 V @ 200 mA
Multi-Turn-Pot.	Multi-Turn-Pot.
- | 40 mS (131 ft/s)	- | 35 mS (115 ft/s)
0.5 / 100 ms	0.5 / 100 ms
-25… +70°C	-25… +70°C
IP67	IP67
PBT	PBT
Nylon	Nylon
> 5 mm	> 5 mm
Connector M12, 4-pole	Connector M12, 4-pole
Integrated	Integrated
IR15S-PO100/M12	IR21S-PO100/M12
IR15S-PC100/M12	IR21S-PC100/M12
IR15S-NO100/M12	IR21S-NO100/M12
IR15S-NC100/M12	IR21S-NC100/M12

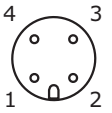
XECRO reserves the right to make minor changes without prior notification.

Capacitive Proximity Switches

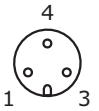
Output Schematics

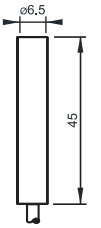
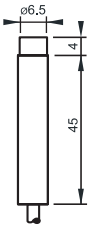
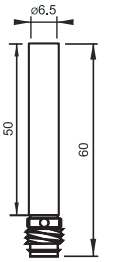
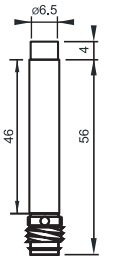


Connector M12



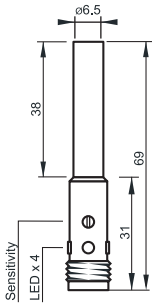
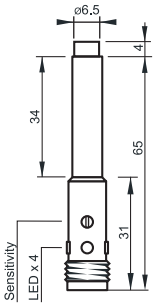
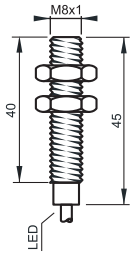
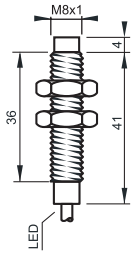
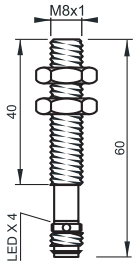
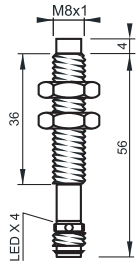
Connector M8



	Ø6.5	Ø6.5	Ø6.5	Ø6.5
	2 mm	4 mm	2 mm	4 mm
				

SPECIFICATIONS	Ø 6.5	Ø 6.5	Ø 6.5	Ø 6.5
Sensing Distance (Sn)	2 mm - shielded	4 mm - unshielded	2 mm - shielded	4 mm - unshielded
Operating Voltage	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire
Reverse Polarity Protection	built-in	built-in	built-in	built-in
Current Consumption	< 9 mA	< 9 mA	< 9 mA	< 9 mA
Current Load Capability	200 mA	200 mA	200 mA	200 mA
Short Circuit Protection	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
Voltage Drop	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
Adjustment	-	-	-	-
Switching Frequency	100 Hz	100 Hz	100 Hz	100 Hz
Repeatability	< 4 %	< 4 %	< 4 %	< 4 %
Hysteresis	3...15 %	3...15 %	3...15 %	3...15 %
Operating Temperature	-25...+70 °C	-25...+70 °C	-25...+70 °C	-25...+70 °C
Temperature Drift	< 10 % (Sn)	< 10 % (Sn)	< 10 % (Sn)	< 10 % (Sn)
Protection Class	IP 67	IP 67	IP 67	IP 67
Housing Material	Plated Brass	Plated Brass	Plated Brass	Plated Brass
Connection	High-Flex PVC, 2m	High-Flex PVC, 2m	Connector M8, 3-pole	Connector M8, 3-pole
Output Indicator	Integrated	Integrated	Integrated	Integrated
Article Code				
PNP, NO	CSD6-S2PO45/A2P	CSD6-N4PO45/A2P	CSD6-S2PO60/M8	CSD6-N4PO60/M8
PNP, NC	CSD6-S2PC45/A2P	CSD6-N4PC45/A2P	CSD6-S2PC60/M8	CSD6-N4PC60/M8
NPN, NO	CSD6-S2NO45/A2P	CSD6-N4NO45/A2P	CSD6-S2NO60/M8	CSD6-N4NO60/M8
NPN, NC	CSD6-S2NC45/A2P	CSD6-N4NC45/A2P	CSD6-S2NC60/M8	CSD6-N4NC60/M8
Recommended Connecting Cable	-	-	M8/3...	M8/3...

Capacitive Proximity Switches

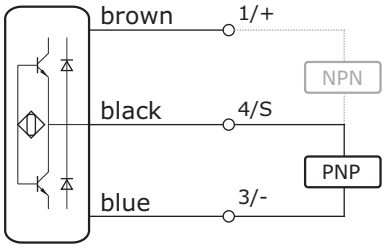
Ø6.5	Ø6.5	M8	M8	M8	M8
2 mm	4 mm	2 mm	4 mm	2 mm	4 mm
					

Ø 6.5	Ø 6.5	M8x1	M8x1	M8x1	M8x1
2 mm - shielded	4 mm - unshielded	2 mm - shielded	4 mm - unshielded	2 mm - shielded	4 mm - unshielded
10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire
built-in	built-in	built-in	built-in	built-in	built-in
< 9 mA	< 9 mA	< 9 mA	< 9 mA	< 9 mA	< 9 mA
200 mA	200 mA	200 mA	200 mA	200 mA	200 mA
built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
Adjustable, Multi-Turn	Adjustable, Multi-Turn	-	-	-	-
100 Hz	100 Hz	100 Hz	100 Hz	100 Hz	100 Hz
< 4 %	< 4 %	< 4 %	< 4 %	< 4 %	< 4 %
3...15 %	3...15 %	3...15 %	3...15 %	3...15 %	3...15 %
-25...+70 °C	-25...+70 °C	-25...+70 °C	-25...+70 °C	-25...+70 °C	-25...+70 °C
< 10 % (Sn)	< 10 % (Sn)	< 10 % (Sn)	< 10 % (Sn)	< 10 % (Sn)	< 10 % (Sn)
IP 67	IP 67	IP 67	IP 67	IP 67	IP 67
Plated Brass	Plated Brass	Plated Brass	Plated Brass	Plated Brass	Plated Brass
Connector M12, 4-pole	Connector M12, 4-pole	High-Flex PVC, 2m	High-Flex PVC, 2m	Connector M8, 3-pole	Connector M8, 3-pole
Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
CSD6-S2PO70/M12	CSD6-N4PO70/M12	CS8-S2PO45/A2P	CS8-N4PO45/A2P	CS8-S2PO60/M8	CS8-N4PO60/M8
CSD6-S2PC70/M12	CSD6-N4PC70/M12	CS8-S2PC45/A2P	CS8-N4PC45/A2P	CS8-S2PC60/M8	CS8-N4PC60/M8
CSD6-S2NO70/M12	CSD6-N4NO70/M12	CS8-S2NO45/A2P	CS8-N4NO45/A2P	CS8-S2NO60/M8	CS8-N4NO60/M8
CSD6-S2NC70/M12	CSD6-N4NC70/M12	CS8-S2NC45/A2P	CS8-N4NC45/A2P	CS8-S2NC60/M8	CS8-N4NC60/M8
M12/3...	M12/3...	-	-	M8/3...	M8/3...

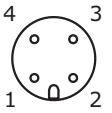
XECRO reserves the right to make minor changes without prior notification.

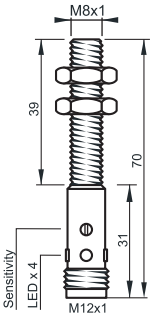
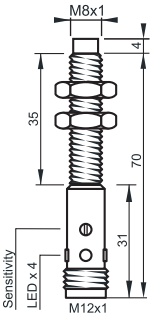
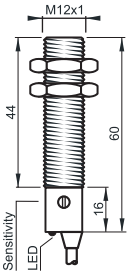
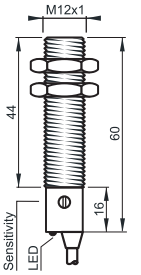
Capacitive Proximity Switches

Output Schematics



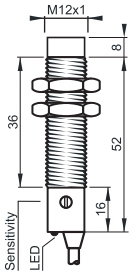
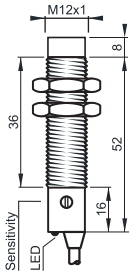
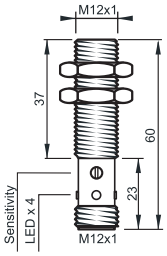
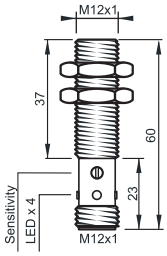
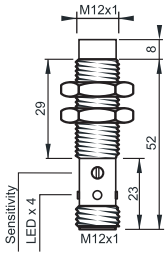
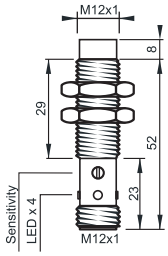
Connector M12



	M8	M8	M12	M12
	2 mm	4 mm	4 mm	6 mm
				

SPECIFICATIONS	M8x1	M8x1	M12x1	M12x1
Sensing Distance (Sn)	2 mm - shielded	4 mm - unshielded	4 mm - shielded	6 mm - shielded
Operating Voltage	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire
Reverse Polarity Protection	built-in	built-in	built-in	built-in
Current Consumption	< 9 mA	< 9 mA	< 9 mA	< 9 mA
Current Load Capability	200 mA	200 mA	200 mA	200 mA
Short Circuit Protection	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
Voltage Drop	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
Adjustment	Adjustable, Multi-Turn	Adjustable, Multi-Turn	Adjustable, Multi-Turn	Adjustable, Multi-Turn
Switching Frequency	100 Hz	100 Hz	100 Hz	100 Hz
Repeatability	< 4 %	< 4 %	< 4 %	< 4 %
Hysteresis	3...15 %	3...15 %	3...15 %	3...15 %
Operating Temperature	-25...+70 °C	-25...+70 °C	-25...+70 °C	-25...+70 °C
Temperature Drift	< 10 % (Sn)	< 10 % (Sn)	< 10 % (Sn)	< 10 % (Sn)
Protection Class	IP 67	IP 67	IP 67	IP 67
Housing Material	Plated Brass	Plated Brass	Plated Brass	Plated Brass
Connection	Connector M12, 4-pole	Connector M12, 4-pole	High-Flex PVC, 2m	High-Flex PVC, 2m
Output Indicator	Integrated	Integrated	Integrated	Integrated
Article Code				
PNP, NO	CS8-S2PO70/M12	CS8-N4PO70/M12	CS12-S4PO60/A2P	CS12-S6PO60/A2P
PNP, NC	CS8-S2PC70/M12	CS8-N4PC70/M12	CS12-S4PC60/A2P	CS12-S6PC60/A2P
NPN, NO	CS8-S2NO70/M12	CS8-N4NO70/M12	CS12-S4NO60/A2P	CS12-S6NO60/A2P
NPN, NC	CS8-S2NC70/M12	CS8-N4NC70/M12	CS12-S4NC60/A2P	CS12-S6NC60/A2P
Recommended Connecting Cable	M12/3...	M12/3...	-	-

Capacitive Proximity Switches

M12	M12	M12	M12	M12	M12
8 mm	10 mm	4 mm	6 mm	8 mm	10 mm
					

M12x1	M12x1	M12x1	M12x1	M12x1	M12x1
8 mm - unshielded	10 mm - unshielded	4 mm - shielded	6 mm - shielded	8 mm - unshielded	10 mm - unshielded
10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire
built-in	built-in	built-in	built-in	built-in	built-in
< 9 mA	< 9 mA	< 9 mA	< 9 mA	< 9 mA	< 9 mA
200 mA	200 mA	200 mA	200 mA	200 mA	200 mA
built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
Adjustable, Multi-Turn	Adjustable, Multi-Turn	Adjustable, Multi-Turn	Adjustable, Multi-Turn	Adjustable, Multi-Turn	Adjustable, Multi-Turn
100 Hz	100 Hz	100 Hz	100 Hz	100 Hz	100 Hz
< 4 %	< 4 %	< 4 %	< 4 %	< 4 %	< 4 %
3...15 %	3...15 %	3...15 %	3...15 %	3...15 %	3...15 %
-25...+70 °C	-25...+70 °C	-25...+70 °C	-25...+70 °C	-25...+70 °C	-25...+70 °C
< 10 % (Sn)	< 10 % (Sn)	< 10 % (Sn)	< 10 % (Sn)	< 10 % (Sn)	< 10 % (Sn)
IP 67	IP 67	IP 67	IP 67	IP 67	IP 67
Plated Brass	Plated Brass	Plated Brass	Plated Brass	Plated Brass	Plated Brass
High-Flex PVC, 2m	High-Flex PVC, 2m	Connector M12, 4-pole	Connector M12, 4-pole	Connector M12, 4-pole	Connector M12, 4-pole
Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
CS12-N8PO60/A2P	CS12-N10PO60/A2P	CS12-S4PO60/M12	CS12-S6PO60/M12	CS12-N8PO60/M12	CS12-N10PO60/M12
CS12-N8PC60/A2P	CS12-N10PC60/A2P	CS12-S4PC60/M12	CS12-S6PC60/M12	CS12-N8PC60/M12	CS12-N10PC60/M12
CS12-N8NO60/A2P	CS12-N10NO60/A2P	CS12-S4NO60/M12	CS12-S6NO60/M12	CS12-N8NO60/M12	CS12-N10NO60/M12
CS12-N8NC60/A2P	CS12-N10NC60/A2P	CS12-S4NC60/M12	CS12-S6NC60/M12	CS12-N8NC60/M12	CS12-N10NC60/M12
-	-	M12/3...	M12/3...	M12/3...	M12/3...

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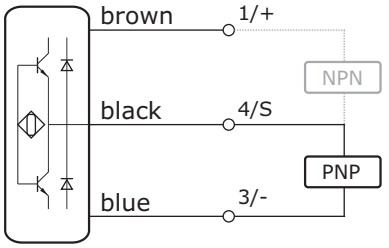
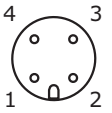
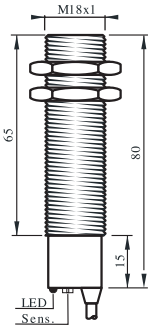
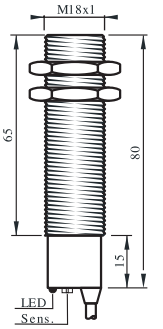
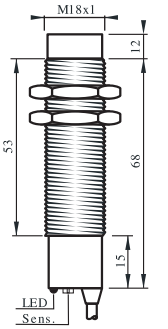
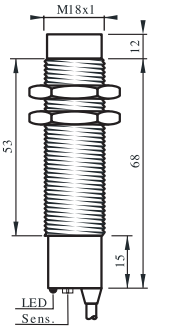
Capacitive Proximity Switches

Output Schematics



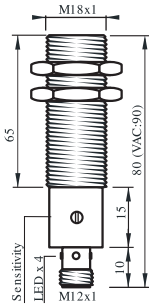
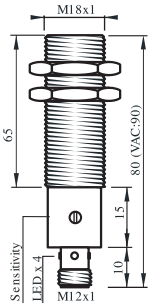
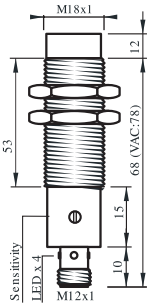
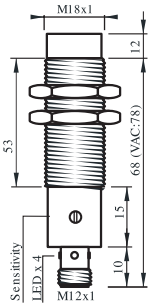
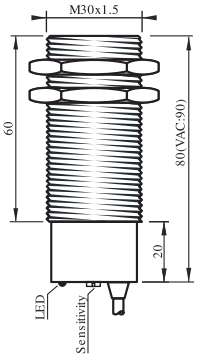
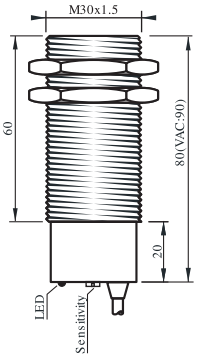
Connector M12



M18	M18	M18	M18
8 mm	12 mm	15 mm	20 mm
			

SPECIFICATIONS	M18x1	M18x1	M18x1	M18x1
Sensing Distance (Sn)	8 mm - shielded	12 mm - shielded	15 mm - unshielded	20 mm - unshielded
Operating Voltage	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire
Reverse Polarity Protection	built-in	built-in	built-in	built-in
Current Consumption	< 9 mA	< 9 mA	< 9 mA	< 9 mA
Current Load Capability	200 mA	200 mA	200 mA	200 mA
Short Circuit Protection	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
Voltage Drop	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
Adjustment	Adjustable, Multi-Turn	Adjustable, Multi-Turn	Adjustable, Multi-Turn	Adjustable, Multi-Turn
Switching Frequency	100 Hz	100 Hz	100 Hz	100 Hz
Repeatability	< 4 %	< 4 %	< 4 %	< 4 %
Hysteresis	3...15 %	3...15 %	3...15 %	3...15 %
Operating Temperature	-25...+70 °C	-25...+70 °C	-25...+70 °C	-25...+70 °C
Temperature Drift	< 10 % (Sn)	< 10 % (Sn)	< 10 % (Sn)	< 10 % (Sn)
Protection Class	IP 67	IP 67	IP 67	IP 67
Housing Material	Plated Brass	Plated Brass	Plated Brass	Plated Brass
Connection	High-Flex PVC, 2m	High-Flex PVC, 2m	High-Flex PVC, 2m	High-Flex PVC, 2m
Output Indicator	Integrated	Integrated	Integrated	Integrated
Article Code				
PNP, NO	CS18-S8PO80/A2P	CS18-S12PO80/A2P	CS18-N15PO80/A2P	CS18-N20PO80/A2P
PNP, NC	CS18-S8PC80/A2P	CS18-S12PC80/A2P	CS18-N15PC80/A2P	CS18-N20PC80/A2P
NPN, NO	CS18-S8NO80/A2P	CS18-S12NO80/A2P	CS18-N15NO80/A2P	CS18-N20NO80/A2P
NPN, NC	CS18-S8NC80/A2P	CS18-S12NC80/A2P	CS18-N15NC80/A2P	CS18-N20NC80/A2P
2-wire+Ground NO, 20...250 VAC	see next section	-	see next section	-
2-wire+Ground NC, 20...250 VAC	see next section	-	see next section	-
Recommended Connecting Cable	-	-	-	-

Capacitive Proximity Switches

M18	M18	M18	M18	M30	M30
8 mm	12 mm	15 mm	20 mm	20 mm	25 mm
					

M18x1	M18x1	M18x1	M18x1	M30x1.5	M30x1.5
8 mm - shielded	12 mm - shielded	15 mm - unshielded	20 mm - unshielded	20 mm - shielded	25 mm - shielded
10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire
built-in	built-in	built-in	built-in	built-in	built-in
< 9 mA	< 9 mA	< 9 mA	< 9 mA	< 9 mA	< 9 mA
200 mA	200 mA	200 mA	200 mA	200 mA	200 mA
built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
Adjustable, Multi-Turn	Adjustable, Multi-Turn	Adjustable, Multi-Turn	Adjustable, Multi-Turn	Adjustable, Multi-Turn	Adjustable, Multi-Turn
100 Hz	100 Hz	100 Hz	100 Hz	100 Hz	100 Hz
< 4 %	< 4 %	< 4 %	< 4 %	< 4 %	< 4 %
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
-25…+70 °C	-25…+70 °C	-25…+70 °C	-25…+70 °C	-25…+70 °C	-25…+70 °C
< 10 % (Sn)	< 10 % (Sn)	< 10 % (Sn)	< 10 % (Sn)	< 10 % (Sn)	< 10 % (Sn)
IP 67	IP 67	IP 67	IP 67	IP 67	IP 67
Plated Brass	Plated Brass	Plated Brass	Plated Brass	Plated Brass	Plated Brass
Connector M12, 4-pole	Connector M12, 4-pole	Connector M12, 4-pole	Connector M12, 4-pole	High-Flex PVC, 2m	High-Flex PVC, 2m
Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
CS18-S8PO80/M12	CS18-S12PO80/M12	CS18-N15PO80/M12	CS18-N20PO80/M12	CS30-S20PO80/A2P	CS30-S25PO80/A2P
CS18-S8PO80/M12	CS18-S12PO80/M12	CS18-N15PO80/M12	CS18-N20PO80/M12	CS30-S20PC80/A2P	CS30-S25PC80/A2P
CS18-S8NO80/M12	CS18-S12NO80/M12	CS18-N15NO80/M12	CS18-N20NO80/M12	CS30-S20NO80/A2P	CS30-S25NO80/A2P
CS18-S8NC80/M12	CS18-S12NC80/M12	CS18-N15NC80/M12	CS18-N20NC80/M12	CS30-S20NC80/A2P	CS30-S25NC80/A2P
see next section	-	-	-	see next section	-
see next section	-	-	-	see next section	-
M12/3…	M12/3…	M12/3…	M12/3…	-	-

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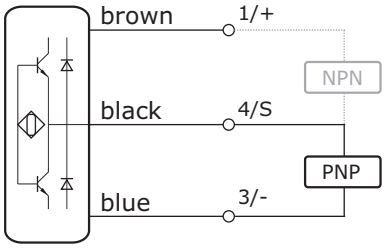
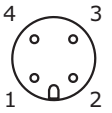
Capacitive Proximity Switches

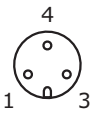
Output Schematics

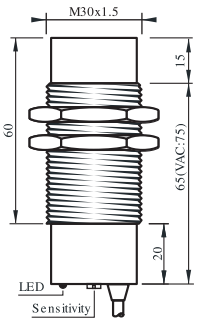
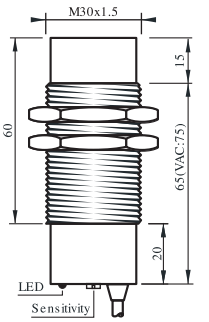
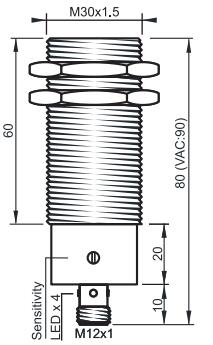
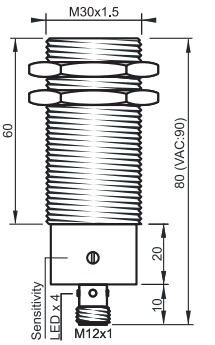


Connector M12



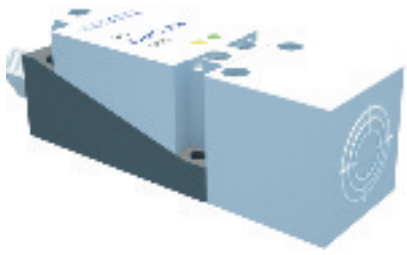
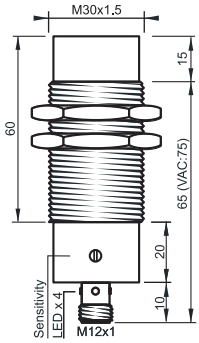
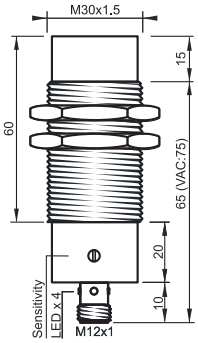
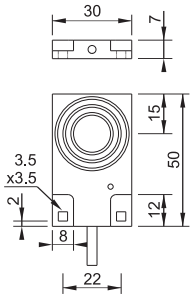
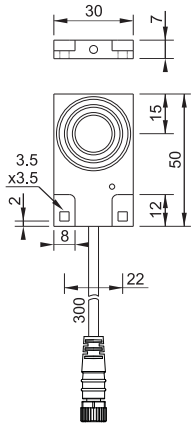
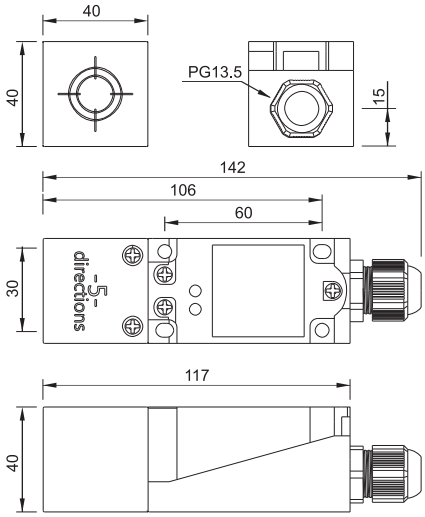
Connector M8



	M30	M30	M30	M30
	30 mm	35 mm	20 mm	25 mm
				

SPECIFICATIONS	M30x1.5	M30x1.5	M30x1.5	M30x1.5
Sensing Distance (Sn)	30 mm - Unshielded	35 mm - Unshielded	20 mm - Shielded	25 mm - Shielded
Operating Voltage	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire
Reverse Polarity Protection	built-in	built-in	built-in	built-in
Current Consumption	< 9 mA	< 9 mA	< 9 mA	< 9 mA
Current Load Capability	200 mA	200 mA	200 mA	200 mA
Short Circuit Protection	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
Voltage Drop	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
Adjustment	Adjustable, Multi-Turn	Adjustable, Multi-Turn	Adjustable, Multi-Turn	Adjustable, Multi-Turn
Switching Frequency	100 / 25 Hz	100 Hz	100 / 25 Hz	100 Hz
Repeatability	< 4 %	< 4 %	< 4 %	< 4 %
Hysteresis	3...15 %	3...15 %	3...15 %	3...15 %
Operating Temperature	-25...+70 °C	-25...+70 °C	-25...+70 °C	-25...+70 °C
Temperature Drift	< 10 % (Sn)	< 10 % (Sn)	< 10 % (Sn)	< 10 % (Sn)
Protection Class	IP 67	IP 67	IP 67	IP 67
Housing Material	Plated Brass	Plated Brass	Plated Brass	Plated Brass
Connection	High-Flex PVC, 2m	High-Flex PVC, 2m	Connector M12, 4-pole	Connector M12, 4-pole
Output Indicator	Integrated	Integrated	Integrated	Integrated
Article Code				
PNP, NO	CS30-N30PO80/A2P	CS30-N35PO80/A2P	CS30-S20PO80/M12	CS30-S25PO80/M12
PNP, NC	CS30-N30PC80/A2P	CS30-N35PC80/A2P	CS30-S20PC80/M12	CS30-S25PC80/M12
NPN, NO	CS30-N30NO80/A2P	CS30-N35NO80/A2P	CS30-S20NO80/M12	CS30-S25NO80/M12
NPN, NC	CS30-N30NC80/A2P	CS30-N35NC80/A2P	CS30-S20NC80/M12	CS30-S25NC80/M12
2-wire+Ground NO, 20...250 VAC	see next section	-	see next section	-
2-wire+Ground NC, 20...250 VAC	see next section	-	see next section	-
Recommended Connecting Cable	-	-	M12/3...	M12/3...

Capacitive Proximity Switches

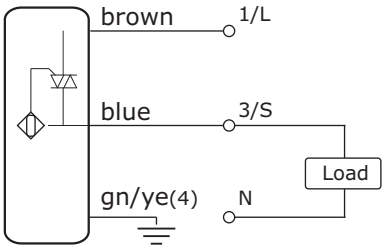
M30	M30	30x50	30x50	40x40	
					
30 mm	35 mm	6 mm	6 mm	20 mm	30 mm
					

M30x1.5	M30x1.5	30x50	30x50	40x40 mm	40x40 mm
30 mm - Unshielded	35 mm - Unshielded	6 mm - Shielded	6 mm - Shielded	20 mm - Shielded	30 mm - Unshielded
10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire	10…30 VDC, 3-wire
built-in	built-in	built-in	built-in	built-in	built-in
< 9 mA	< 9 mA	< 9 mA	< 9 mA	< 10 mA	< 10 mA
200 mA	200 mA	200 mA	200 mA	200 mA	200 mA
built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
Adjustable, Multi-Turn	Adjustable, Multi-Turn	Adjustable, Multi-Turn	Adjustable, Multi-Turn	Adjustable, Multi-Turn	Adjustable, Multi-Turn
100 / 25 Hz	100 Hz	100 Hz	100 Hz	100 / 25 Hz	100 Hz
< 4 %	< 4 %	< 4 %	< 4 %	< 5 %	< 5 %
3…15 %	3…15 %	3…15 %	3…15 %	3…15 %	3…15 %
-25…+70 °C	-25…+70 °C	-25…+70 °C	-25…+70 °C	-25…+70 °C	-25…+70 °C
< 10 % (Sn)	< 10 % (Sn)	< 10 % (Sn)	< 10 % (Sn)	< 10 % (Sn)	< 10 % (Sn)
IP 67	IP 67	IP 67	IP 67	IP 67	IP 67
Plated Brass	Plated Brass	PBT	PBT	PBT	PBT
Connector M12, 4-pole	Connector M12, 4-pole	High-Flex PVC, 2m	Conn. M8, 3-pole, 30cm	PG13.5, Terminal	PG13.5, Terminal
Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
CS30-N30PO80/M12	CS30-N35PO80/M12	CS3050-S6PO7/A2P	CS3050-S6PO7/3P8	CS40-S20POL/PG13	CS40-N30POL/PG13
CS30-N30PC80/M12	CS30-N35PC80/M12	CS3050-S6PC7/A2P	CS3050-S6PC7/3P8	CS40-S20PCL/PG13	CS40-N30PCL/PG13
CS30-N30NO80/M12	CS30-N35NO80/M12	CS3050-S6NO7/A2P	CS3050-S6NO7/3P8	CS40-S20NOL/PG13	CS40-N30NOL/PG13
CS30-N30NC80/M12	CS30-N35NC80/M12	CS3050-S6NC7/A2P	CS3050-S6NC7/3P8	CS40-S20NCL/PG13	CS40-N30NCL/PG13
see next section	-	-	-	see next section	see next section
see next section	-	-	-	see next section	see next section
M12/3…	M12/3…	-	M8/3…	-	-

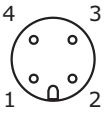
XECRO reserves the right to make minor changes without prior notification.

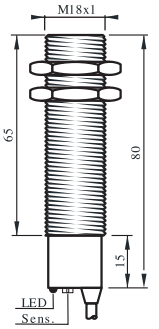
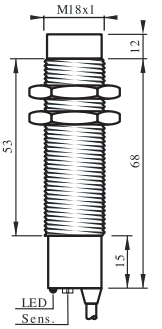
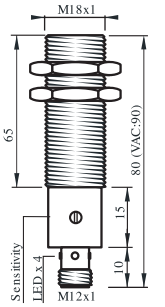
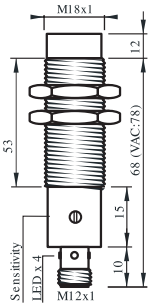
Capacitive Proximity Switches
20... 250 VAC

Output Schematics



Connector M12

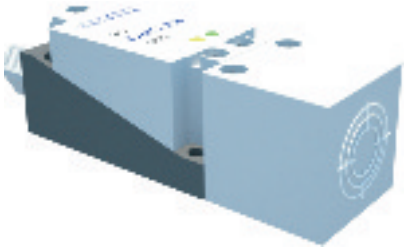


	M18	M18	M18	M18
	8 mm	15 mm	8 mm	15 mm
				

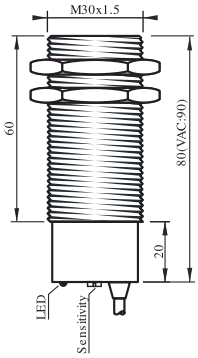
SPECIFICATIONS	M18x1	M18x1	M18x1	M18x1
Sensing Distance (Sn)	8 mm - Shielded	15 mm - Unshielded	8 mm - Shielded	15 mm - Unshielded
Operating Voltage	20... 250 VAC, 2-wire	20... 250 VAC, 2-wire	20... 250 VAC, 2-wire	20... 250 VAC, 2-wire
Reverse Polarity Protection	not required	not required	not required	not required
Current Consumption	< 2 mA (Idle Current)	< 2 mA (Idle Current)	< 2 mA (Idle Current)	< 2 mA (Idle Current)
Current Load Capability	400 mA	400 mA	400 mA	400 mA
Short Circuit Protection	-	-	-	-
Voltage Drop	8 V @ 400 mA	8 V @ 400 mA	8 V @ 400 mA	8 V @ 400 mA
Adjustment	Adjustable, Multi-Turn	Adjustable, Multi-Turn	Adjustable, Multi-Turn	Adjustable, Multi-Turn
Switching Frequency	25 Hz	25 Hz	25 Hz	25 Hz
Repeatability	< 4 %	< 4 %	< 4 %	< 4 %
Hysteresis	3...15 %	3...15 %	3...15 %	3...15 %
Operating Temperature	-25...+70 °C	-25...+70 °C	-25...+70 °C	-25...+70 °C
Temperature Drift	< 10 % (Sn)	< 10 % (Sn)	< 10 % (Sn)	< 10 % (Sn)
Protection Class	IP 67	IP 67	IP 67	IP 67
Housing Material	Plated Brass	Plated Brass	Plated Brass	Plated Brass
Connection	2m, PVC	2m, PVC	Connector M12, 4-pole	Connector M12, 4-pole
Output Indicator	Integrated	Integrated	Integrated	Integrated
Article Code				
2-wire+Ground NO, 20...250 VAC	CS18-S8AO90/A2P	CS18-N15AO90/A2P	CS18-S8AO90/M12	CS18-N15AO80/M12
2-wire+Ground NC, 20...250 VAC	CS18-S8AC90/A2P	CS18-N15AC90/A2P	CS18-S8AC90/M12	CS18-N15AC80/M12
Recommended Connecting Cable	-	-	M12/3...	M12/3...

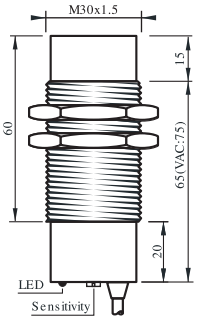
Capacitive Proximity Switches
20... 250 VAC

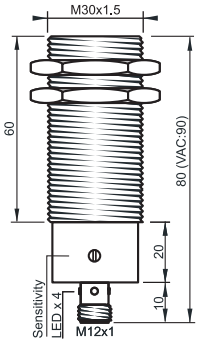
M30	M30	M30	M30	40x40

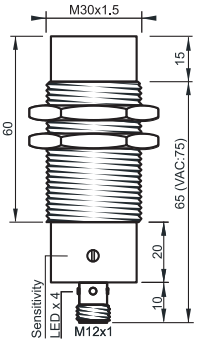


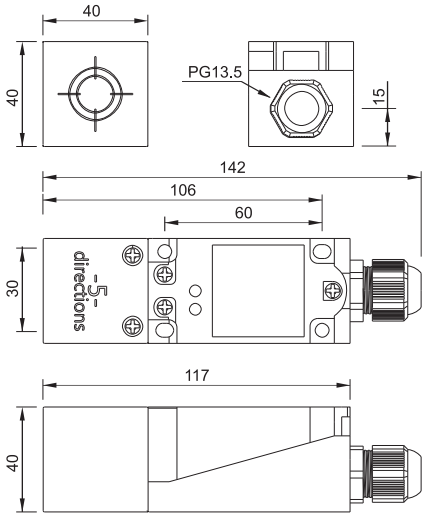
20 mm	30 mm	20 mm	30 mm	20 mm	30 mm









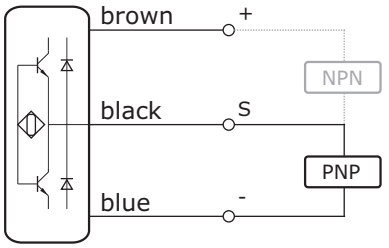


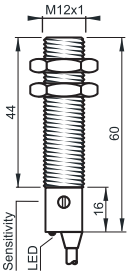
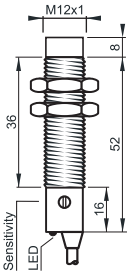
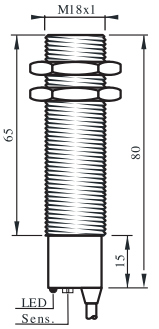
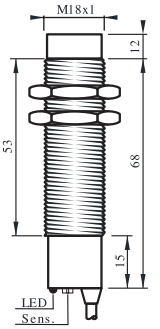
M30x1.5	M30x1.5	M30x1.5	M30x1.5	40x40 mm	40x40 mm
20 mm - Shielded	30 mm - Unshielded	20 mm - Shielded	30 mm - Unshielded	20 mm - Shielded	30 mm - Unshielded
20... 250 VAC, 2-wire	20... 250 VAC, 2-wire	20... 250 VAC, 2-wire	20... 250 VAC, 2-wire	20... 250 VAC, 2-wire	20... 250 VAC, 2-wire
not required	not required	not required	not required	not required	not required
< 2 mA (Idle Current)	< 2 mA (Idle Current)	< 2 mA (Idle Current)	< 2 mA (Idle Current)	< 2 mA (Idle Current)	< 2 mA (Idle Current)
400 mA	400 mA	400 mA	400 mA	400 mA	400 mA
-	-	-	-	-	-
8 V @ 400 mA	8 V @ 400 mA	8 V @ 400 mA	8 V @ 400 mA	8 V @ 400 mA	8 V @ 400 mA
Adjustable, Multi-Turn	Adjustable, Multi-Turn	Adjustable, Multi-Turn	Adjustable, Multi-Turn	Adjustable, Multi-Turn	Adjustable, Multi-Turn
25 Hz	25 Hz	25 Hz	25 Hz	25 Hz	25 Hz
< 4 %	< 4 %	< 4 %	< 4 %	< 5 %	< 5 %
3...15 %	3...15 %	3...15 %	3...15 %	3...15 %	3...15 %
-25...+70 °C	-25...+70 °C	-25...+70 °C	-25...+70 °C	-25...+70 °C	-25...+70 °C
< 10 % (Sn)	< 10 % (Sn)	< 10 % (Sn)	< 10 % (Sn)	< 10 % (Sn)	< 10 % (Sn)
IP 67	IP 67	IP 67	IP 67	IP 67	IP 67
Plated Brass	Plated Brass	Plated Brass	Plated Brass	PBT	PBT
2m, PVC	2m, PVC	M12, 4-polos	M12, 4-polos	PG13.5, Terminal	PG13.5, Terminal
Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
CS30-S20AO90/A2P	CS30-N30AO80/A2P	CS30-S20AO80/M12	CS30-N30AO80/M12	CS40-S20AOL/PG13	CS40 N30AOL/PG13
CS30-S20AC90/A2P	CS30-N30AC80/A2P	CS30-S20AC80/M12	CS30-N30AC80/M12	CS40-S20ACL/PG13	CS40 N30ACL/PG13
-	-	M12/3...	M12/3...	-	-

XECRO reserves the right to make minor changes without prior notification.

Capacitive Proximity Switches
High Temperature

Output Schematics



M12	M12	M18	M18
4 mm	8 mm	8 mm	15 mm
			

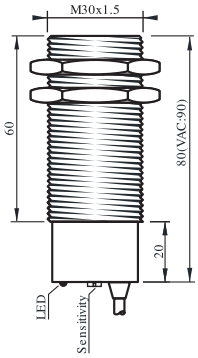
SPECIFICATIONS	M12x1	M12x1	M18x1	M18x1
Sensing Distance (Sn)	4 mm - Shielded	8 mm - Unshielded	8 mm - shielded	15 mm - Unshielded
Operating Voltage	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire
Reverse Polarity Protection	built-in	built-in	built-in	built-in
Current Consumption	< 9 mA	< 9 mA	< 9 mA	< 9 mA
Current Load Capability	200 mA	200 mA	200 mA	200 mA
Short Circuit Protection	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
Voltage Drop	2 V @ 200 mA	2 V @ 200 mA	2 V @ 200 mA	2 V @ 200 mA
Adjustment	Adjustable, Multi-Turn	Adjustable, Multi-Turn	Adjustable, Multi-Turn	Adjustable, Multi-Turn
Switching Frequency	100 Hz	100 Hz	100 / 25 Hz	100 / 25 Hz
Repeatability	< 4 %	< 4 %	< 4 %	< 4 %
Hysteresis	3...15 %	3...15 %	3...15 %	3...15 %
Operating Temperature	-25...+120 °C	-25...+120 °C	-25...+120 °C	-25...+120 °C
Thermal Stress	permanent	permanent	permanent	permanent
Protection Class	IP 67	IP 67	IP 67	IP 67
Housing Material	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303	1.4305 / SS303
Connection	2m, PTFE or Silicone	2m, PTFE or Silicone	2m, PTFE or Silicone	2m, PTFE or Silicone
Output Indicator	Integrated	Integrated	Integrated	Integrated
Article Code				
PTFE Cable - PNP, NO	CHT12-S4PO60/A2T	CHT12-N8PO60/A2T	CHT18-S8PO80/A2T	CHT18-N15PO80/A2T
PTFE Cable - PNP, NC	CHT12-S4PC60/A2T	CHT12-N8PC60/A2T	CHT18-S8PC80/A2T	CHT18-N15PC80/A2T
PTFE Cable - NPN, NO	CHT12-S4NO60/A2T	CHT12-N8NO60/A2T	CHT18-S8NO80/A2T	CHT18-N15NO80/A2T
PTFE Cable - NPN, NC	CHT12-S4NC60/A2T	CHT12-N8NC60/A2T	CHT18-S8NC80/A2T	CHT18-N15NC80/A2T
Silicone Cable - PNP, NO	CHT12-S4PO60/A2S	CHT12-N8PO60/A2S	CHT18-S8PO80/A2S	CHT18-N15PO80/A2S
Silicone Cable - PNP, NC	CHT12-S4PC60/A2S	CHT12-N8PC60/A2S	CHT18-S8PC80/A2S	CHT18-N15PC80/A2S
Silicone Cable - NPN, NO	CHT12-S4NO60/A2S	CHT12-N8NO60/A2S	CHT18-S8NO80/A2S	CHT18-N15NO80/A2S
Silicone Cable - NPN, NC	CHT12-S4NC60/A2S	CHT12-N8NC60/A2S	CHT18-S8NC80/A2S	CHT18-N15NC80/A2S
Recommended Connecting Cable	-	-	-	-

* Only for mechanical setup - LED possibly dies if operated at temperatures beyond 130 °C (266 °F). LED functionality is not covered by warranty !

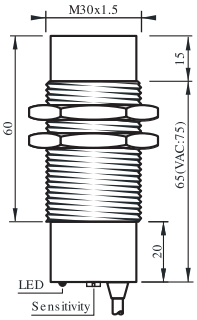
Capacitive Proximity Switches
High Temperature

M30	M30

20 mm



30 mm

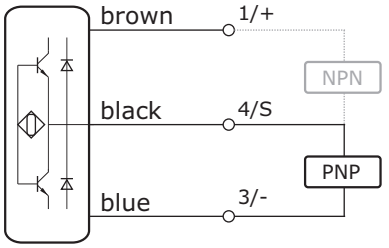


M30x1.5	M30x1.5
20 mm - shielded	30 mm - Unshielded
10…30 VDC, 3-wire	10…30 VDC, 3-wire
built-in	built-in
< 9 mA	< 9 mA
200 mA	200 mA
built-in - self resetting	built-in - self resetting
2 V @ 200 mA	2 V @ 200 mA
Adjustable, Multi-Turn	Adjustable, Multi-Turn
100 / 25 Hz	100 / 25 Hz
< 4 %	< 4 %
3…15 %	3…15 %
-25…+120 °C	-25…+120 °C
permanent	permanent
IP 67	IP 67
1.4305 / SS303	1.4305 / SS303
2m, PTFE or Silicone	2m, PTFE or Silicone
Integrated	Integrated
CHT30-S20PO80/A2T	CHT30-N30PO80/A2T
CHT30-S20PC80/A2T	CHT30-N30PC80/A2T
CHT30-S20NO80/A2T	CHT30-N30NO80/A2T
CHT30-S20NC80/A2T	CHT30-N30NC80/A2T
CHT30-S20PO80/A2S	CHT30-N30PO80/A2S
CHT30-S20PC80/A2S	CHT30-N30PC80/A2S
CHT30-S20NO80/A2S	CHT30-N30NO80/A2S
CHT30-S20NC80/A2S	CHT30-N30NC80/A2S
-	-

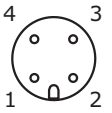
XECRO reserves the right to make minor changes without prior notification.

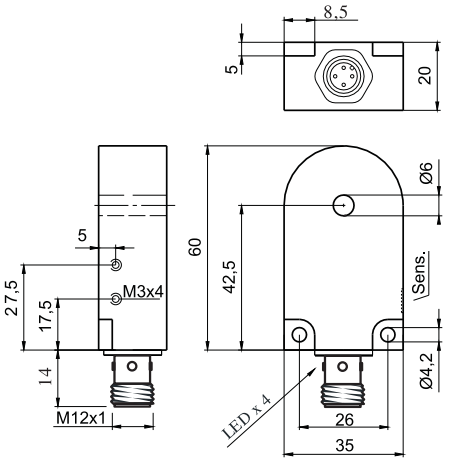
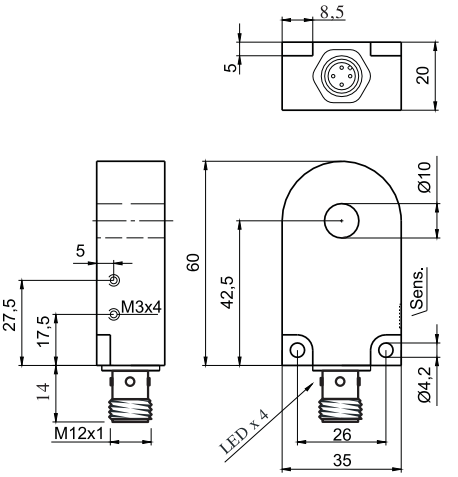
Capacitive Ring Sensors

Output Schematics



Connector M12

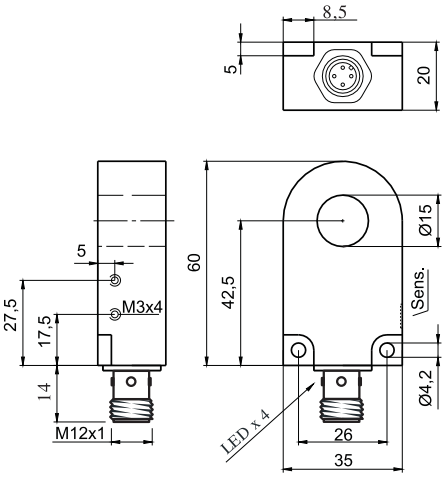


Ø 6 mm	Ø 10 mm
adjustable	adjustable
	

SPECIFICATIONS	Ø 6 mm	Ø 10 mm
Sensitivity	adjustable	adjustable
Operating Voltage	10...30 VDC, 3-wire	10...30 VDC, 3-wire
Reverse Polarity Protection	built-in	built-in
Current Consumption	< 10 mA	< 10 mA
Current Load Capability	200 mA	200 mA
Short Circuit Protection	built-in - self resetting	built-in - self resetting
Voltage Drop	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
Adjustment	Multi-Turn-Pot.	Multi-Turn-Pot.
Object Speed - Min. / Max.	not suitable for detecting fast objects	not suitable for detecting fast objects
Hysteresis	3...15 %	3...15 %
Operating Temperature	-25... +70°C	-25... +70°C
Protection Class	IP67	IP67
Housing Material	PBT	PBT
Ring Material	Nylon	Nylon
Mounting Distance to Metal	> 5 mm	> 5 mm
Connection	Connector M12, 4-pole	Connector M12, 4-pole
Output Indicator	Integrated	Integrated
Article Code		
PNP, NO	CR06S-PO/M12	CR10S-PO/M12
PNP, NC	CR06S-PC/M12	CR10S-PC/M12
NPN, NO	CR06S-NO/M12	CR10S-NO/M12
NPN, NC	CR06S-NC/M12	CR10S-NC/M12

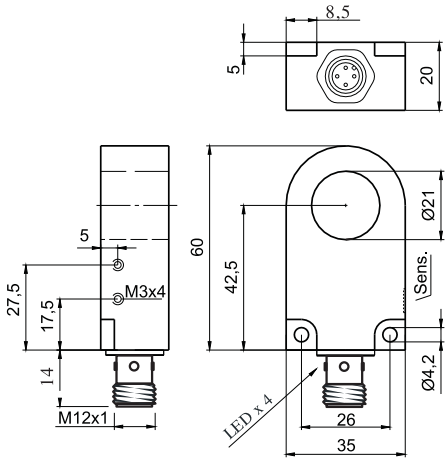
Ø 15 mm

adjustable



Ø 21 mm

adjustable



Ø 15 mm	Ø 21 mm
adjustable	adjustable
10…30 VDC, 3-wire	10…30 VDC, 3-wire
built-in	built-in
< 10 mA	< 10 mA
200 mA	200 mA
built-in - self resetting	built-in - self resetting
< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
Multi-Turn-Pot.	Multi-Turn-Pot.
not suitable for detecting fast objects	not suitable for detecting fast objects
3…15 %	3…15 %
-25… +70°C	-25… +70°C
IP67	IP67
PBT	PBT
Nylon	Nylon
> 5 mm	> 5 mm
Connector M12, 4-pole	Connector M12, 4-pole
Integrated	Integrated
CR15S-PO/M12	CR21S-PO/M12
CR15S-PC/M12	CR21S-PC/M12
CR15S-NO/M12	CR21S-NO/M12
CR15S-NC/M12	CR21S-NC/M12

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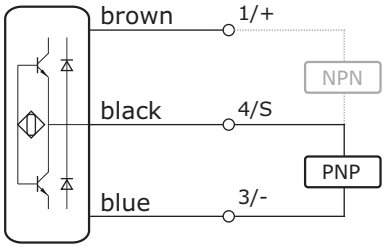
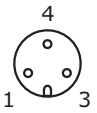
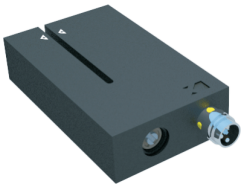
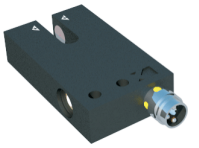
Fork-Light-Barriers

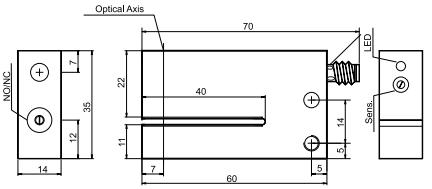
Output Schematics

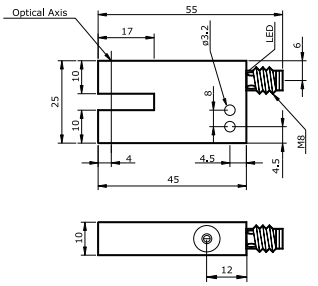


Connector M8



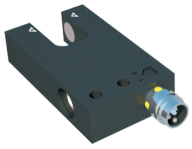
	02 mm	05 mm
		

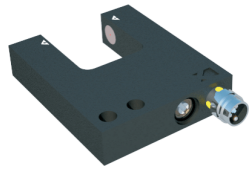


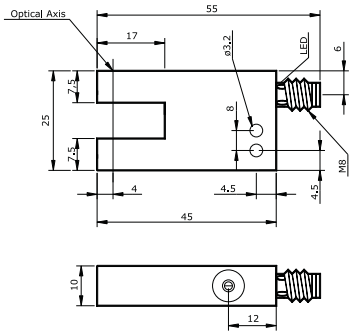


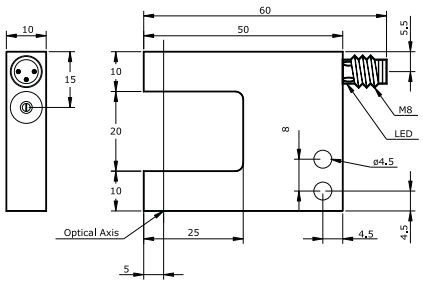
SPECIFICATIONS	FLE 02...	FLE 05...
Operating Voltage	10...35 VDC, 3-wire	10...35 VDC, 3-wire
Current Consumption	< 30 mA	< 30 mA
Current Load Capability	200 mA	200 mA
Reverse Polarity Protection	built-in	built-in
Voltage Drop	2.5 V @ 200 mA	2.5 V @ 200 mA
Switching Frequency	2.5 Khz	2.5 KHz
Short Circuit Protection	built-in - self resetting	built-in - self resetting
Resolution	Ø 0.5 mm	Ø 0.5 mm
Adjustment	270° Potentiometer	270° Potentiometer
Switching Hysteresis	< 0.2 mm	< 0.2 mm
Repeatability	0.01 mm	0.01 mm
Operating Temperature	-10...+60 °C	-10...+60 °C
Ambient Light Immunity	70.000 lux	70.000 lux
Isolation Voltage	500 V	500 V
Housing Material	Aluminum	Aluminum
Protection Class	IP 67	IP 67
Optical Elements	Infrared / Glass Window	Infrared / Glass Window
Article Code		
PNP, NO		FLI05-PO/M8
PNP, NC		FLI05-PC/M8
PNP, NO/NC	FLI02-PS/M8	
NPN, NO		FLI05-NO/M8
NPN, NC		FLI05-NC/M8
NPN, NO/NC	FLI02-NS/M8	
Recommended Connecting Cable	M8/3...	M8/3...

10 mm	20 mm









FLE 10…	FLE 20…
10…35 VDC, 3-wire	10…35 VDC, 3-wire
< 30 mA	< 30 mA
200 mA	200 mA
built-in	built-in
2.5 V @ 200 mA	2.5 V @ 200 mA
2.5 KHz	2.5 kHz
built-in - self resetting	built-in - self resetting
Ø 0.5 mm	Ø0.3mm
270° Potentiometer	270° Potentiometer
< 0.2 mm	< 0.2 mm
0.01 mm	0.01 mm
-10…+60 °C	-10…+60 °C
70.000 lux	70.000 lux
500 V	500 V
Aluminum	Aluminum
IP 67	IP 67
Infrared / Glass Window	Red-Light / Glass Window
FLI10-PO/M8	FLE20-PO/M8
FLI10-PC/M8	FLE20-PC/M8
FLI10-NO/M8	FLE20-NO/M8
FLI10-NC/M8	FLE20-NC/M8
M8/3…	M8/3…

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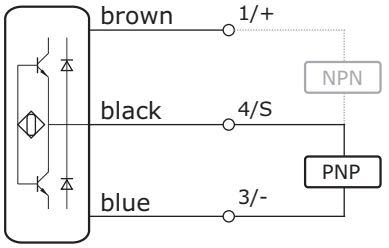
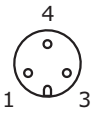
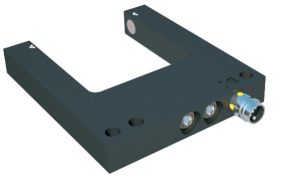
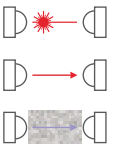
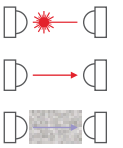
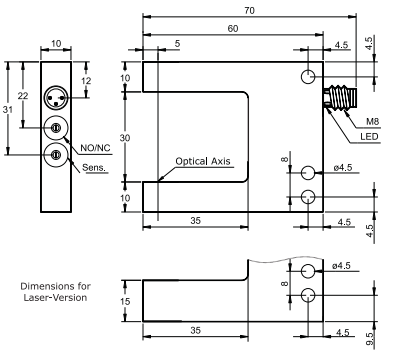
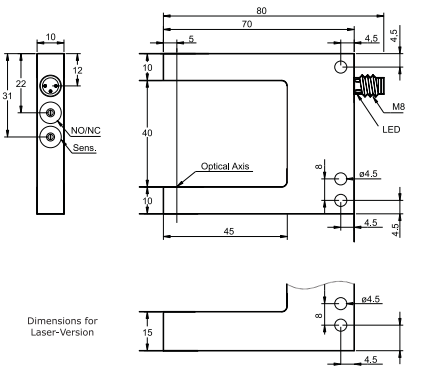
Fork-Light-Barriers

Output Schematics



Connector M8

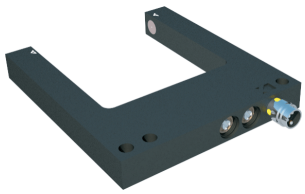


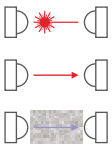
30 mm	40 mm
	
	
	

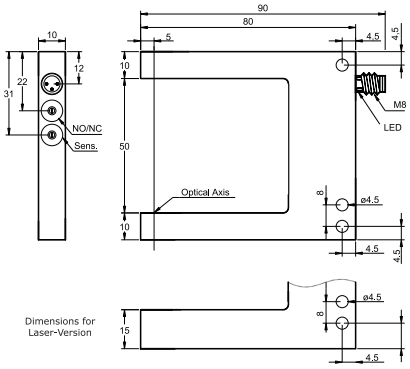
SPECIFICATIONS	FLx 30...	FLx 40...
Operating Voltage	10...35 VDC, 3-wire	10...35 VDC, 3-wire
Current Consumption	< 30 mA	< 30 mA
Current Load Capability	200 mA	200 mA
Reverse Polarity Protection	built-in	built-in
Voltage Drop	2.5 V @ 200 mA	2.5 V @ 200 mA
Switching Frequency	Red-light: 2.5 kHz | laser: 10 kHz	Red-light: 2.5 kHz | laser: 10 kHz
Short Circuit Protection	built-in - self resetting	built-in - self resetting
Resolution	Red-light: Ø0.3mm | laser: Ø0.03 mm	Red-light: Ø0.3mm | laser: Ø0.03 mm
Adjustment	270° Potentiometer	270° Potentiometer
Switching Hysteresis	< 0.2 mm	< 0.2 mm
Repeatability	0.01 mm	0.01 mm
Operating Temperature	-10...+60 °C	-10...+60 °C
Ambient Light Immunity	50.000 lux	50.000 lux
Isolation Voltage	500 V	500 V
Housing Material	Aluminum	Aluminum
Protection Class	IP 67	IP 67
Optical Elements	Red-Light / Laser Glass Window	Red-Light / Laser Glass Window
Article Code		
PNP, NO / NC - Red-Light	FLE30-PS/M8	FLE40-PS/M8
NPN, NC / NC - Red-Light	FLE30-NS/M8	FLE40-NS/M8
PNP, NO / NC - Laser	FLA30-PS/M8	On Request
NPN, NO / NC - Laser	FLA30-NS/M8	On Request
PNP, NO / NC - Dirt Immune	FLD30-PS/M8	FLD40-PS/M8
NPN, NO / NC - Dirt Immune	FLD30-NS/M8	FLD40-NS/M8
Recommended Connecting Cable	M8/3...	M8/3...

Fork-Light-Barriers

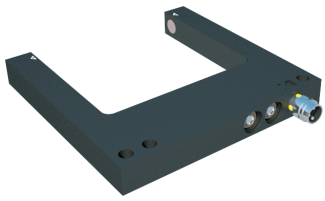
50 mm

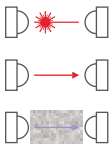


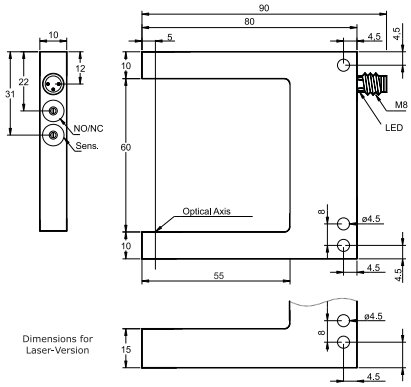




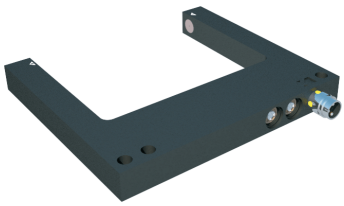
60 mm

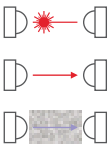


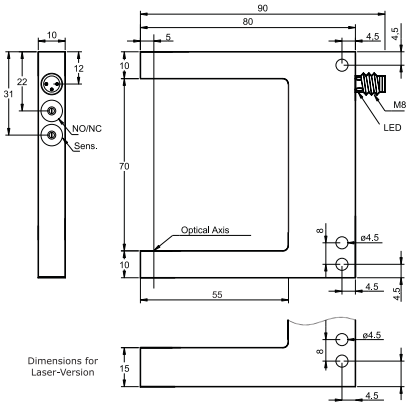




70 mm







FLx 50...	FLx 60...	FLx 70...
10...35 VDC, 3-wire	10...35 VDC, 3-wire	10...35 VDC, 3-wire
< 30 mA	< 30 mA	< 30 mA
200 mA	200 mA	200 mA
built-in	built-in	built-in
2.5 V @ 200 mA	2.5 V @ 200 mA	2.5 V @ 200 mA
Red-light: 2.5 kHz | laser: 10 kHz	Red-light: 2.5 kHz | laser: 10 kHz	Red-light: 2.5 kHz | laser: 10 kHz
built-in - self resetting	built-in - self resetting	built-in - self resetting
Red-light: Ø0.3mm | laser: Ø0.03 mm	Ø 0.03 mm	Red-light: Ø0.3mm | laser: Ø0.03 mm
270° Potentiometer	270° Potentiometer	270° Potentiometer
< 0.2 mm	< 0.2 mm	< 0.2 mm
0.01 mm	0.01 mm	0.01 mm
-10...+60 °C	-10...+60 °C	-10...+60 °C
50.000 lux	50.000 lux	50.000 lux
500 V	500 V	500 V
Aluminum	Aluminum	Aluminum
IP 67	IP 67	IP 67
Red-Light / Laser Glass Window	Red-Light / Laser Glass Window	Red-Light / Laser Glass Window
FLE50-PS/M8	FLE60-PS/M8	FLE70-PS/M8
FLE50-NS/M8	FLE60-NS/M8	FLE70-NS/M8
FLA50-PS/M8	On Request	On Request
FLA50-NS/M8	On Request	On Request
FLD50-PS/M8	FLD60-PS/M8	FLD70-PS/M8
FLD50-NS/M8	FLD60-NS/M8	FLD70-NS/M8
M8/3...	M8/3...	M8/3...

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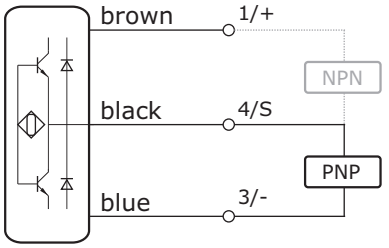
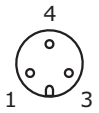
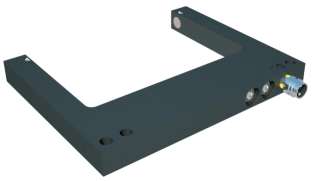
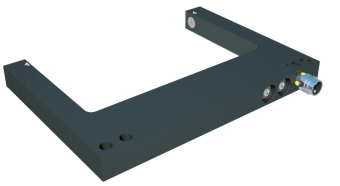
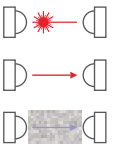
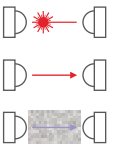
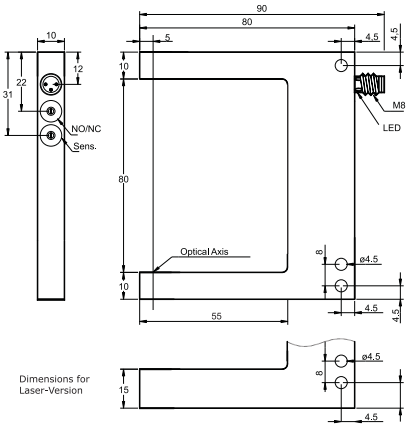
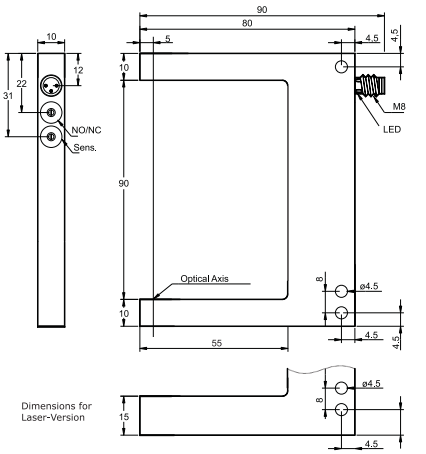
Fork-Light-Barriers

Output Schematics



Connector M8

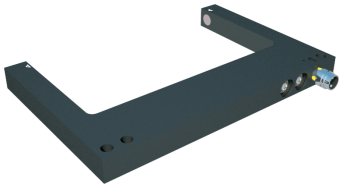


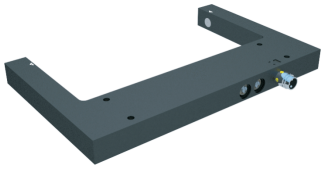
80 mm	90 mm
	
	
	

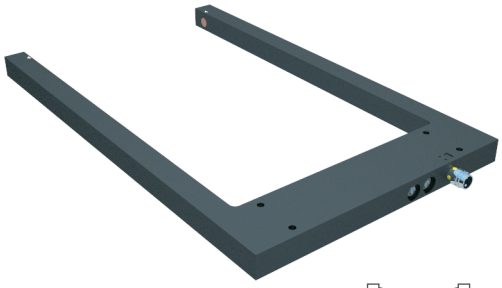
SPECIFICATIONS	FLx 80...	FLx 90...
Operating Voltage	10...35 VDC, 3-wire	10...35 VDC, 3-wire
Current Consumption	< 30 mA	< 30 mA
Current Load Capability	200 mA	200 mA
Reverse Polarity Protection	built-in	built-in
Voltage Drop	2.5 V @ 200 mA	2.5 V @ 200 mA
Switching Frequency	Red-light: 2.5 kHz | laser: 10 kHz	Red-light: 2.5 kHz | laser: 10 kHz
Short Circuit Protection	built-in - self resetting	built-in - self resetting
Resolution	Red-light: Ø0.3mm | laser: Ø0.03 mm	Red-light: Ø0.3mm | laser: Ø0.3 mm
Adjustment	270° Potentiometer	270° Potentiometer
Switching Hysteresis	< 0.2 mm	< 0.2 mm
Repeatability	0.01 mm	0.01 mm
Operating Temperature	-10...+60 °C	-10...+60 °C
Ambient Light Immunity	50.000 lux	70.000 lux
Isolation Voltage	500 V	500 V
Housing Material	Aluminum	Aluminum
Protection Class	IP 67	IP 67
Optical Elements	Red-Light / Laser Glass Window	Red-Light / Laser Glass Window
Article Code		
PNP, NO / NC - Red-Light	FLE80-PS/M8	FLE90-PS/M8
NPN, NC / NC - Red-Light	FLE80-NS/M8	FLE90-NS/M8
PNP, NO / NC - Laser	FLA80-PS/M8	On Request
NPN, NO / NC - Laser	FLA80-NS/M8	On Request
PNP, NO / NC - Dirt Immune	FLD80-PS/M8	FLD90-PS/M8
NPN, NO / NC - Dirt Immune	FLD80-NS/M8	FLD90-NS/M8
Recommended Connecting Cable	M8/3...	M8/3...

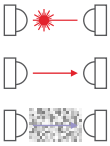
Fork-Light-Barriers

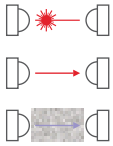
100 mm	120 mm	120/205 mm

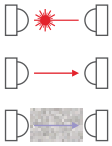


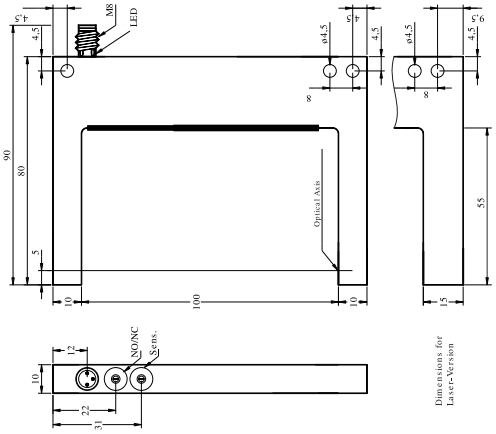


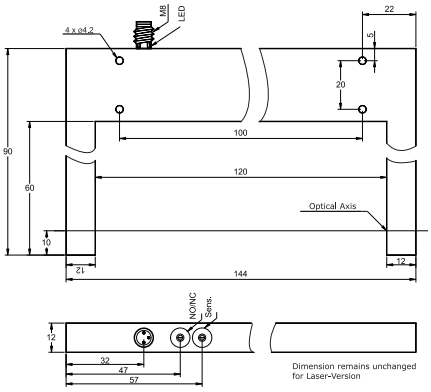


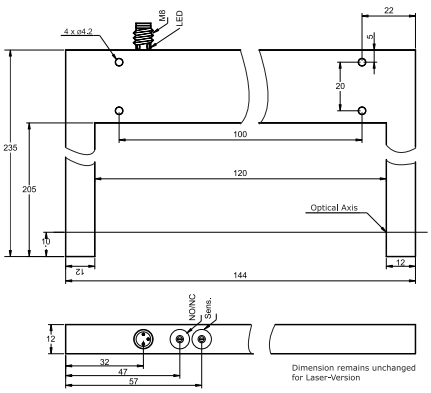












FLx 100…	FLx 120…	FLx 120/205…
10…35 VDC, 3-wire	10…35 VDC, 3-wire	10…35 VDC, 3-wire
< 30 mA	< 30 mA	< 30 mA
200 mA	200 mA	200 mA
built-in	built-in	built-in
2.5 V @ 200 mA	2.5 V @ 200 mA	2.5 V @ 200 mA
Red-light: 2.5 kHz | laser: 10 kHz	Red-light: 2.5 kHz | laser: 10 kHz	Red-light: 2.5 kHz | laser: 10 kHz
built-in - self resetting	built-in - self resetting	built-in - self resetting
Red-light: Ø0.3mm | laser: Ø0.3 mm	Ø 0.03 mm	Red-light: Ø 0.3mm | laser: Ø0.03 mm
270° Potentiometer	270° Potentiometer	270° Potentiometer
< 0.2 mm	< 0.2 mm	< 0.2 mm
0.01 mm	0.01 mm	0.01 mm
-10…+60 °C	-10…+60 °C	-10…+60 °C
70.000 lux	50.000 lux	50.000 lux
500 V	500 V	500 V
Aluminum	Aluminum	Aluminum
IP 67	IP 67	IP 67
Red-Light / Laser Glass Window	Red-Light / Laser Glass Window	Red-Light / Laser Glass Window
FLE100-PS/M8	FLE120-PS/M8	FLE12-/205 PS/M8
FLE100-NS/M8	FLE120-NS/M8	FLE12-/205 NS/M8
On Request	FLA120-PS/M8	FLA12-/205 PS/M8
On Request	FLA120-NS/M8	FLA12-/205 NS/M8
FLD100-PS/M8	FLD120-PS/M8	FLD12-/205 PS/M8
FLD100-NS/M8	FLD120-NS/M8	FLD12-/205 NS/M8
M8/3…	M8/3…	M8/3…

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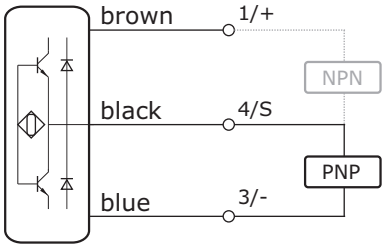
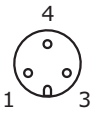
Fork-Light-Barriers

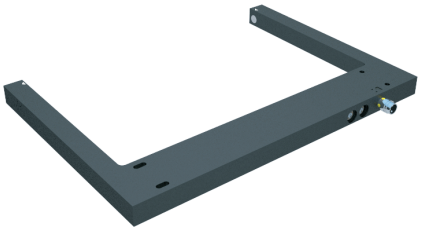
Output Schematics

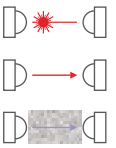


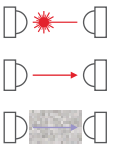
Connector M8

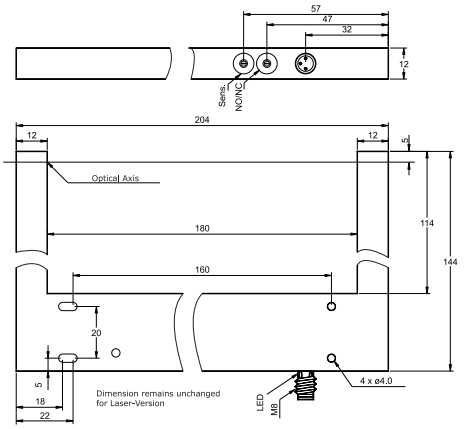


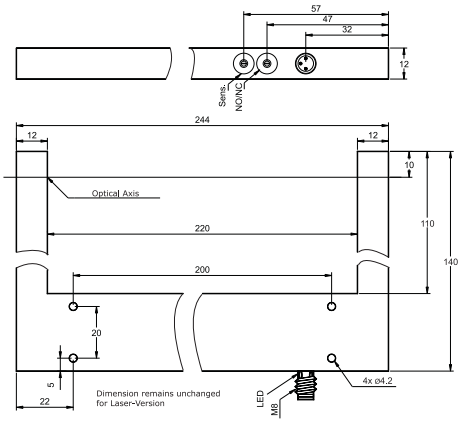
180 mm	220 mm







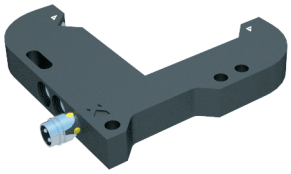
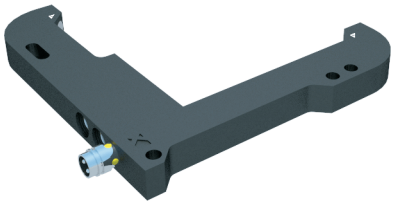
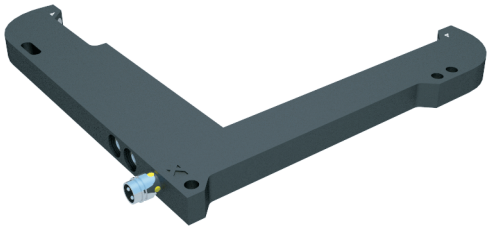


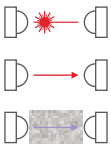
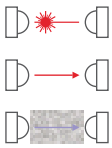
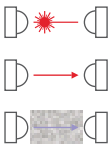


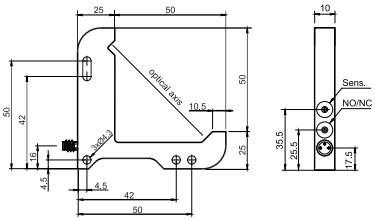
SPECIFICATIONS	FLx 180...	FLx 220...
Operating Voltage	10...35 VDC, 3-wire	10...35 VDC, 3-wire
Current Consumption	< 30 mA	< 30 mA
Current Load Capability	200 mA	200 mA
Reverse Polarity Protection	built-in	built-in
Voltage Drop	2.5 V @ 200 mA	2.5 V @ 200 mA
Switching Frequency	Red-light: 2.5 kHz | laser: 10 kHz	Red-light: 2.5 kHz | laser: 10 kHz
Short Circuit Protection	built-in - self resetting	built-in - self resetting
Resolution	Red-light: Ø0.3mm | laser: Ø0.03 mm	Red-light: Ø0.3mm | laser: Ø0.03 mm
Adjustment	270° Potentiometer	270° Potentiometer
Switching Hysteresis	< 0.2 mm	< 0.2 mm
Repeatability	0.01 mm	0.01 mm
Operating Temperature	-10...+60 °C	-10...+60 °C
Ambient Light Immunity	50.000 lux	50.000 lux
Isolation Voltage	500 V	500 V
Housing Material	Aluminum	Aluminum
Protection Class	IP 67	IP 67
Optical Elements	Red-Light / Laser Glass Window	Red-Light / Laser Glass Window
Article Code		
PNP, NO / NC - Red-Light	FLE180-PS/M8	FLE220-PS/M8
NPN, NC / NC - Red-Light	FLE180-NS/M8	FLE220-NS/M8
PNP, NO / NC - Laser	FLA180-PS/M8	FLA220-PS/M8
NPN, NO / NC - Laser	FLA180-NS/M8	FLA220-NS/M8
PNP, NO / NC - Dirt Immune	FLD180-PS/M8	FLD220-PS/M8
NPN, NO / NC - Dirt Immune	FLD180-NS/M8	FLD220-NS/M8
Recommended Connecting Cable	M8/3...	M8/3...

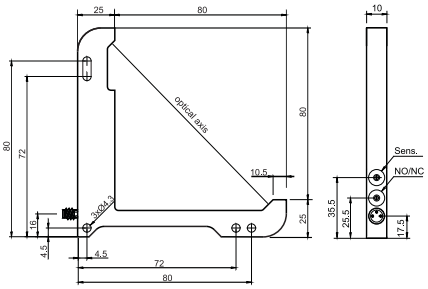
Fork-Light-Barriers

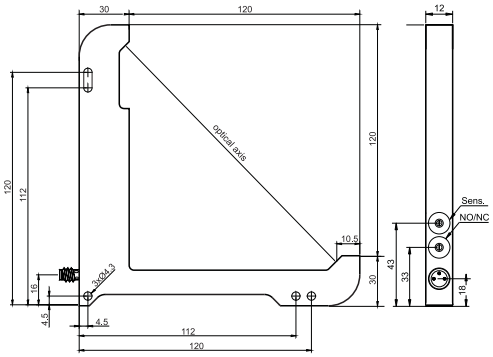
50 mm	80 mm	120 mm







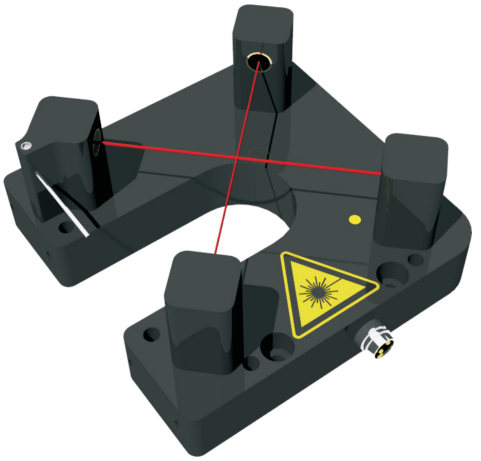
LLx50...	LLx 80...	LLx 120...
10...35 VDC, 3-wire	10...35 VDC, 3-wire	10...35 VDC, 3-wire
< 30 mA	< 30 mA	< 30 mA
200 mA	200 mA	200 mA
built-in	built-in	built-in
2.5 V @ 200 mA	2.5 V @ 200 mA	2.5 V @ 200 mA
Red-light, IR: 2.5 kHz | laser: 10 kHz	Red-light, IR: 2.5 kHz | laser: 10 kHz	Red-light, IR: 2.5 kHz | laser: 10 kHz
built-in - self resetting	built-in - self resetting	built-in - self resetting
270° Potentiometer	270° Potentiometer	270° Potentiometer
< 0.2 mm	< 0.2 mm	< 0.2 mm
0.01 mm	0.01 mm	0.01 mm
-10...+60 °C	-10...+60 °C	-10...+60 °C
50.000 lux	50.000 lux	50.000 lux
500 V	500 V	500 V
Aluminum	Aluminum	Aluminum
IP 67	IP 67	IP 67
Infrared / Red-Light / Laser Glass Window	Infrared / Red-Light / Laser Glass Window	Infrared / Red-Light / Laser Glass Window
LLE50-PS/M8	LLE80-PS/M8	LLE120-PS/M8
LLE50-NS/M8	LLE80-NS/M8	LLE120-NS/M8
LLA50-PS/M8	LLA80-PS/M8	LLA120-PS/M8
LLA50-NS/M8	LLA80-NS/M8	LLA120-NS/M8
LLD50-PS/M8	LLD80-PS/M8	LLD120-PS/M8
LLD50-NS/M8	LLD80-NS/M8	LLD120-NS/M8
M8/3...	M8/3...	M8/3...

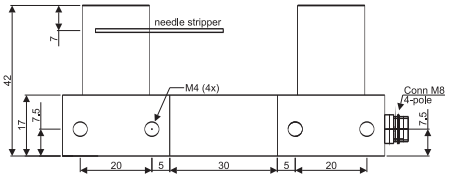
XECRO reserves the right to make minor changes without prior notification.

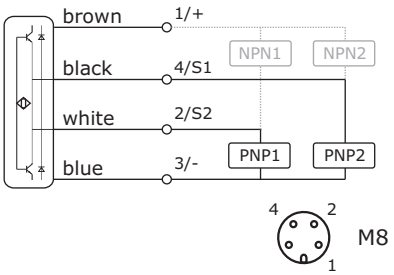
POU 9042...

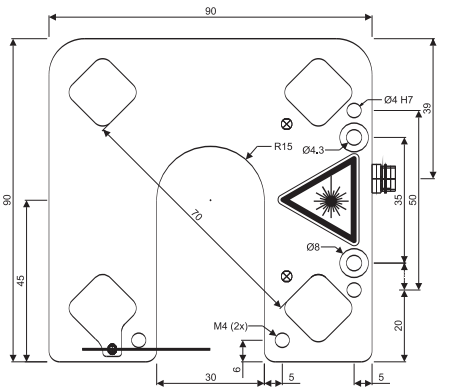
Robotics Point-of-Origin Unit

This POU from XECRO has been designed for robots and other automatic multiple-axis-systems. It provides two precisly mounted, independent, highspeed laser light barriers. Time consuming calibration and complicated fitting is not necessary. Due to the raised laser domes and the performance of the barriers, the robot can pass the center point at full speed, enabling the controller to verify or re-align its point of origin without interrupting the operation.







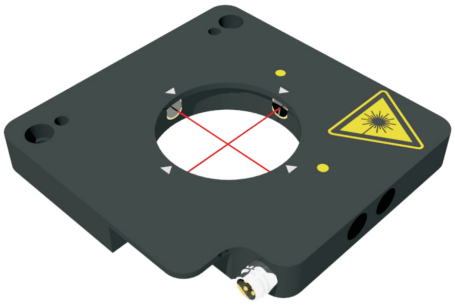


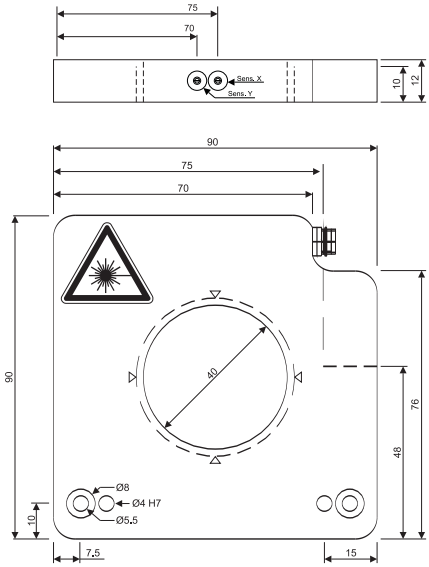
SPECIFICATIONS	POU 9042...
Operating Voltage	10...35 VDC, 3-wire
Current Consumption	< 50 mA
Current Load Capability	2x 200 mA
Reverse Polarity Protection	built-in
Voltage Drop	2.5 V @ 200 mA
Switching Frequency	10 KHz
Short Circuit Protection	built-in - self resetting
Resolution	Ø 0.2 mm
Adjustment	2x 270° Potentiometer
Switching Hysteresis	< 0.2 mm
Repeatability	0.01 mm
Operating Temperature	-10...+60 °C
Ambient Light Immunity	50.000 lux
Isolation Voltage	500 V
Housing Material	Aluminum
Protection Class	IP 67
Optical Elements	Laser, Class 2

Article Code	
PNP, NO	POU-9042 PO / M8
PNP, NC	POU-9042 PC / M8
NPN, NO	POU-9042 NO / M8
NPN, NC	POU-9042 NC / M8

Recommended Connecting Cable	M8/4...

POU 9012...





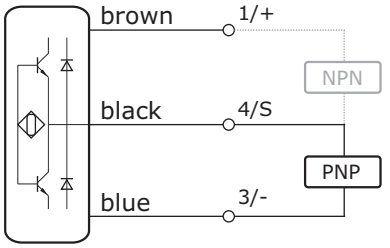
POU 9012...

10...35 VDC, 3-wire
< 50 mA
2x 200 mA
built-in
2.5 V @ 200 mA
10 KHz
built-in - self resetting
Ø 0.2 mm
2x 270° Potentiometer
< 0.2 mm
0.01 mm
-10...+60 °C
50.000 lux
500 V
Aluminum
IP 67
Laser, Class 2

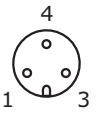
POU-9012 PO / M8
POU-9012 PC / M8
POU-9012 NO / M8
POU-9012 NC / M8

M8/4...

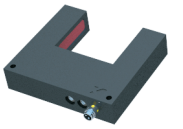
Output Schematics



Connector M8



OPF 50



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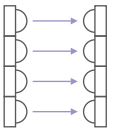
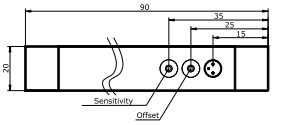
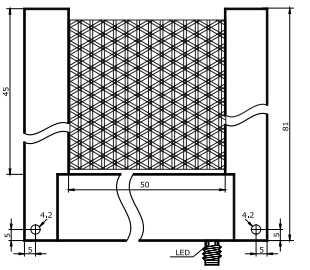
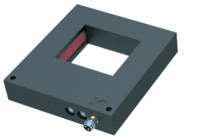


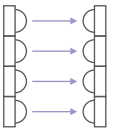


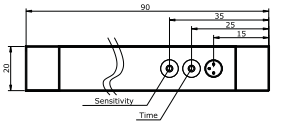


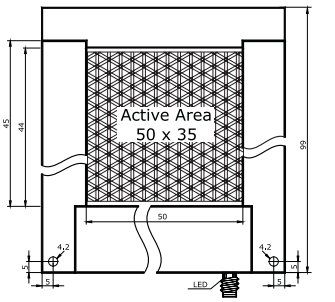
OPFT 50



Detecting

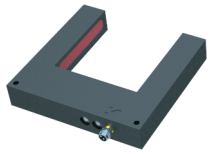


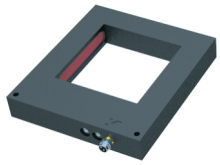


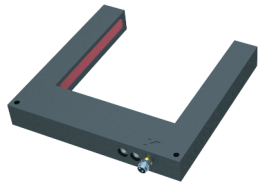


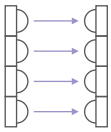
SPECIFICATIONS	50 x 35	OPFT 50
Operating Voltage	10…35 VDC, 3-wire	10…35 VDC, 3-wire
Current Consumption	< 70 mA	< 70 mA
Current Load Capability	200 mA	200 mA
Reverse Polarity Protection	built-in	built-in
Voltage Drop	2.5 V @ 200 mA	2.5 V @ 200 mA
Switching Frequency	1 KHz	1 KHz
Short Circuit Protection	built-in - self resetting	built-in - self resetting
Resolution	Ø 0.5 mm	Ø 0.5 mm
Sensitivity	270° Potentiometer	270° Potentiometer
Time Delay	0…150 ms, dynamic mode only	0…150 ms, dynamic mode only
Repeatability	0.1 mm	0.1 mm
Operating Temperature	-10…+60 °C	-10…+60 °C
Ambient Light Immunity	10.000 lux	10.000 lux
Isolation Voltage	500 V	500 V
Housing Material	Aluminum	Aluminum
Protection Class	IP 67	IP 67
Optical Elements	Infrared - PMMA Window	Infrared - PMMA Window
Article Code		
PNP, NO	OPF50-PO150/M8	OPFT50-PO150/M8
PNP, NC	OPF50-PC150/M8	OPFT50-PC150/M8
NPN, NO	OPF50-NO150/M8	OPFT50-NO150/M8
NPN, NC	OPF50-NC150/M8	OPFT50-NC150/M8
Recommended Connecting Cable	M8/3…	M8/3…

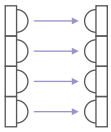
OPF 70	OPFT 70	OPF 100

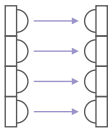


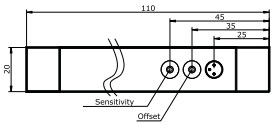


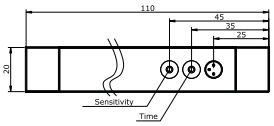


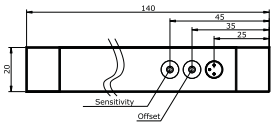
Detecting 

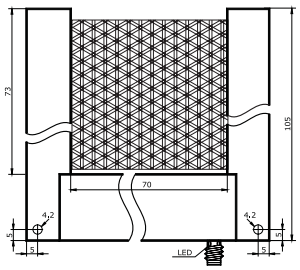
Detecting 

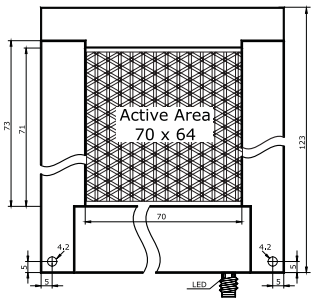
Detecting 

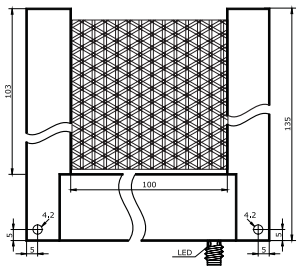








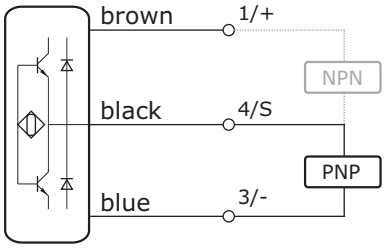




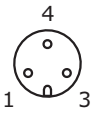
OPF 70	OPFT 70	OPF 100
10…35 VDC, 3-wire	10…35 VDC, 3-wire	10…35 VDC, 3-wire
< 70 mA	< 70 mA	< 70 mA
200 mA	200 mA	200 mA
built-in	built-in	built-in
2.5 V @ 200 mA	2.5 V @ 200 mA	2.5 V @ 200 mA
1 KHz	1 KHz	1 KHz
built-in - self resetting	built-in - self resetting	built-in - self resetting
Ø 0.8 mm	Ø 0.8 mm	Ø 1.5 mm
270° Potentiometer	270° Potentiometer	270° Potentiometer
0…150 ms, dynamic mode only	0…150 ms, dynamic mode only	0…150 ms, dynamic mode only
0.1 mm	0.1 mm	0.1 mm
-10…+60 °C	-10…+60 °C	-10…+60 °C
10.000 lux	10.000 lux	10.000 lux
500 V	500 V	500 V
Aluminum	Aluminum	Aluminum
IP 67	IP 67	IP 67
Infrared - PMMA Window	Infrared - PMMA Window	Infrared - PMMA Window
OPF70-PO150/M8	OPFT70-PO150/M8	OPF100-PO150/M8
OPF70-PC150/M8	OPFT70-PC150/M8	OPF100-PC150/M8
OPF70-NO150/M8	OPFT70-NO150/M8	OPF100-NO150/M8
OPF70-NC150/M8	OPFT70-NC150/M8	OPF100-NC150/M8
M8/3…	M8/3…	M8/3…

XECRO reserves the right to make minor changes without prior notification.

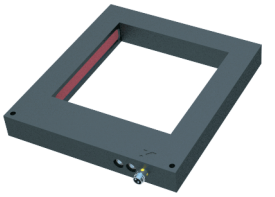
Output Schematics



Connector M8



OPFT 100



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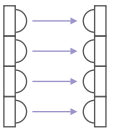
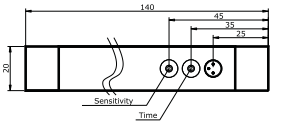
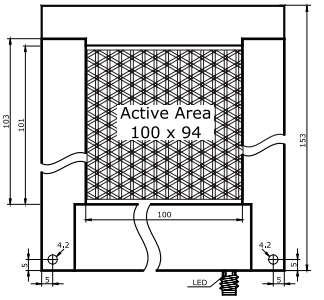
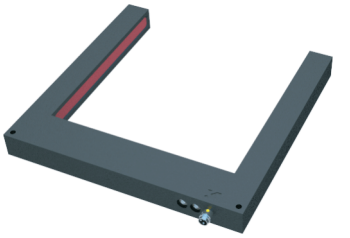


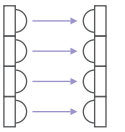


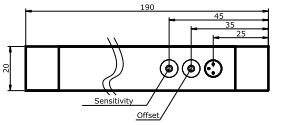


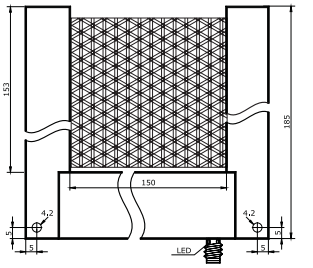
OPF 150



Detecting

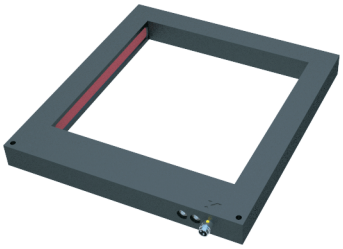


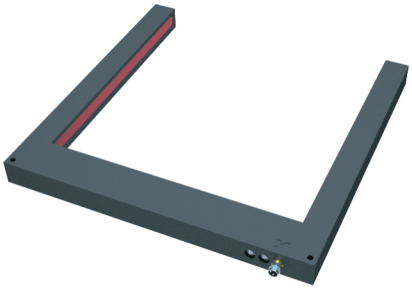


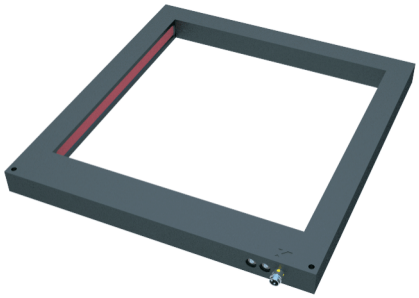


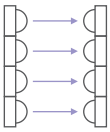
SPECIFICATIONS	OPFT 100	OPF 150
Operating Voltage	10…35 VDC, 3-wire	10…35 VDC, 3-wire
Current Consumption	< 70 mA	< 70 mA
Current Load Capability	200 mA	200 mA
Reverse Polarity Protection	built-in	built-in
Voltage Drop	2.5 V @ 200 mA	2.5 V @ 200 mA
Switching Frequency	1 KHz	1 KHz
Short Circuit Protection	built-in - self resetting	built-in - self resetting
Resolution	Ø 1.5 mm	Ø 3.0 mm
Sensitivity	270° Potentiometer	270° Potentiometer
Time Delay	0…150 ms, dynamic mode only	0…150 ms, dynamic mode only
Repeatability	0.1 mm	0.1 mm
Operating Temperature	-10…+60 °C	-10…+60 °C
Ambient Light Immunity	10.000 lux	10.000 lux
Isolation Voltage	500 V	500 V
Housing Material	Aluminum	Aluminum
Protection Class	IP 67	IP 67
Optical Elements	Infrared - PMMA Window	Infrared - PMMA Window
Article Code		
PNP, NO	OPFT100-PO150/M8	OPF150-PO150/M8
PNP, NC	OPFT100-PC150/M8	OPF150-PC150/M8
NPN, NO	OPFT100-NO150/M8	OPF150-NO150/M8
NPN, NC	OPFT100-NC150/M8	OPF150-NC150/M8
Recommended Connecting Cable	M8/3…	M8/3…

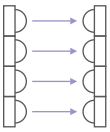
OPFT 150	OPF 200	OPFT 200

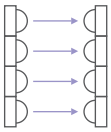


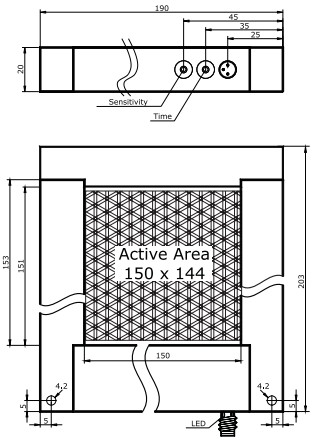


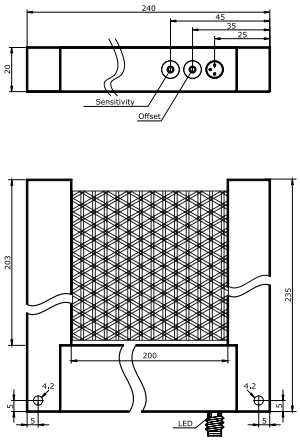


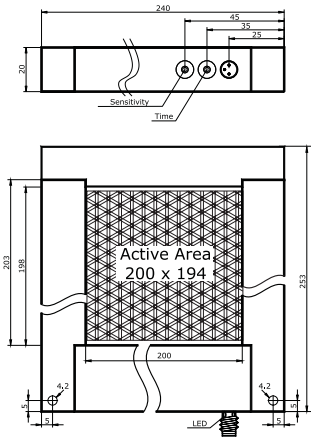
Detecting 

Detecting 

Detecting 



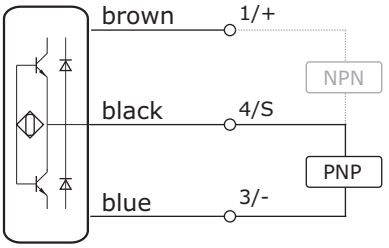


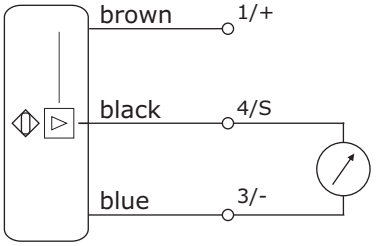


OPFT 150	OPF 200	OPFT 200
10…35 VDC, 3-wire	10…35 VDC, 3-wire	10…35 VDC, 3-wire
< 70 mA	< 70 mA	< 70 mA
200 mA	200 mA	200 mA
built-in	built-in	built-in
2.5 V @ 200 mA	2.5 V @ 200 mA	2.5 V @ 200 mA
1 KHz	1 KHz	1 KHz
built-in - self resetting	built-in - self resetting	built-in - self resetting
Ø 3.0 mm	Ø 4.0 mm	Ø 4.0 mm
270° Potentiometer	270° Potentiometer	270° Potentiometer
0…150 ms, dynamic mode only	0…150 ms, dynamic mode only	0…150 ms, dynamic mode only
0.1 mm	0.1 mm	0.1 mm
-10…+60 °C	-10…+60 °C	-10…+60 °C
10.000 lux	10.000 lux	10.000 lux
500 V	500 V	500 V
Aluminum	Aluminum	Aluminum
IP 67	IP 67	IP 67
Infrared - PMMA Window	Infrared - PMMA Window	Infrared - PMMA Window
OPFT150-PO150/M8	OPF200-PO150/M8	OPFT200-PO150/M8
OPFT150-PC150/M8	OPF200-PC150/M8	OPFT200-PC150/M8
OPFT150-NO150/M8	OPF200-NO150/M8	OPFT200-NO150/M8
OPFT150-NC150/M8	OPF200-NC150/M8	OPFT200-NC150/M8
M8/3…	M8/3…	M8/3…

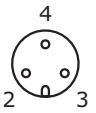
XECRO reserves the right to make minor changes without prior notification.

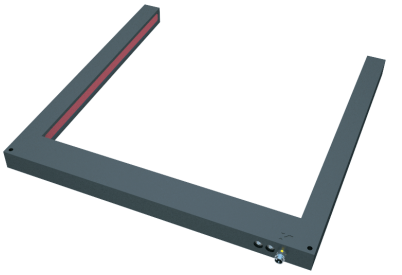
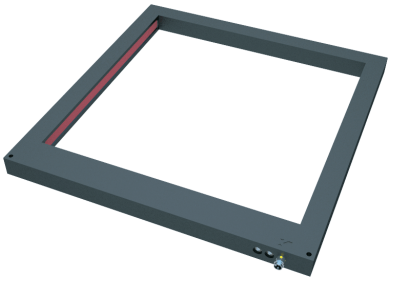
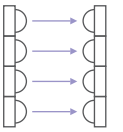
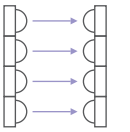
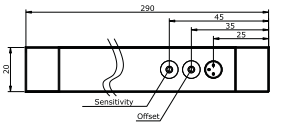
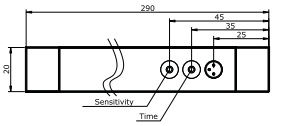
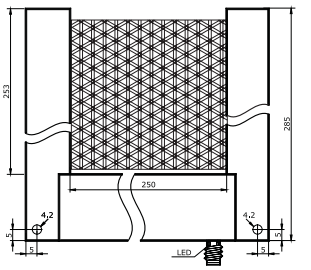
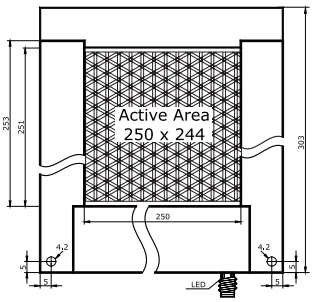
Output Schematics





Connector M8

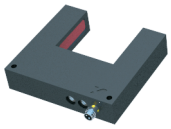
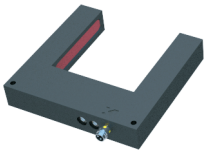
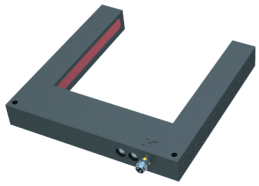


	OPF 250	OPFT 250
		
	Detecting 	Detecting 
		
		

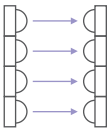
SPECIFICATIONS	OPF 250	OPFT 250
Operating Voltage	10…35 VDC, 3-wire	10…35 VDC, 3-wire
Current Consumption	< 70 mA	< 70 mA
Current Load Capability	200 mA	200 mA
Reverse Polarity Protection	built-in	built-in
Voltage Drop	2.5 V @ 200 mA	2.5 V @ 200 mA
Switching Frequency	1 KHz	1 KHz
Short Circuit Protection	built-in - self resetting	built-in - self resetting
Resolution	Ø 6.0 mm	Ø 6.0 mm
Sensitivity	270° Potentiometer	270° Potentiometer
Time Delay	0…150 ms, dynamic mode only	0…150 ms, dynamic mode only
Repeatability	0.1 mm	0.1 mm
Operating Temperature	-10…+60 °C	-10…+60 °C
Ambient Light Immunity	10.000 lux	10.000 lux
Isolation Voltage	500 V	500 V
Housing Material	Aluminum	Aluminum
Protection Class	IP 67	IP 67
Optical Elements	Infrared - PMMA Window	Infrared - PMMA Window
Article Code		
PNP, NO	OPF250-PO150/M8	OPFT250-PO150/M8
PNP, NC	OPF250-PC150/M8	OPFT250-PC150/M8
NPN, NO	OPF250-NO150/M8	OPFT250-NO150/M8
NPN, NC	OPF250-NC150/M8	OPFT250-NC150/M8
PNP, Analog Voltage (0…10 VDC)		
Recommended Connecting Cable	M8/3…	M8/3…

Frame-Light-Barriers
Analog Output

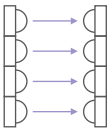
50 - analog	70 - analog	100 - analog

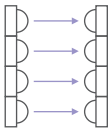
Measuring

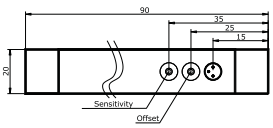


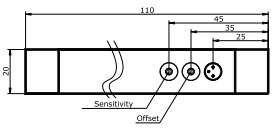
Measuring

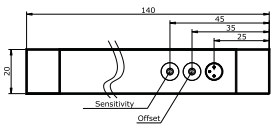


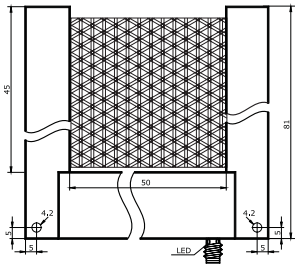
Measuring

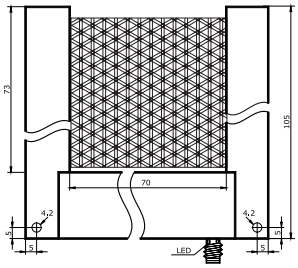


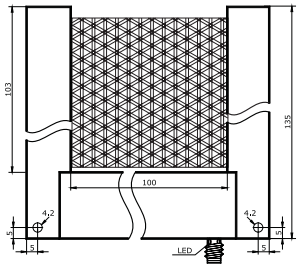












OPF 50	OPF 70	OPF 100
24 VDC, 3-wire	24 VDC, 3-wire	24 VDC, 3-wire
< 70 mA	< 70 mA	< 70 mA
10 mA, short-circuit-proof	10 mA, short-circuit-proof	10 mA, short-circuit-proof
built-in	built-in	built-in
0…10 / 10…0 VDC, selectable	0…10 / 10…0 VDC, selectable	0…10 / 10…0 VDC, selectable
1 KHz	1 KHz	1 KHz
built-in - self resetting	built-in - self resetting	built-in - self resetting
Ø 0.5 mm	Ø 0.8 mm	Ø 1.5 mm
0…1 VDC, Ramp adjustable	0…11 VDC, Ramp adjustable	0…11 VDC, Ramp adjustable
-	-	-
0.3 mm	0.3 mm	0.3 mm
-10…+60 °C	-10…+60 °C	-10…+60 °C
10.000 lux	10.000 lux	10.000 lux
500 V	500 V	500 V
Aluminum	Aluminum	Aluminum
IP 67	IP 67	IP 67
Infrared - PMMA Window	Infrared - PMMA Window	Infrared - PMMA Window
OPF50-AV010/M8	OPF70-AV010/M8	OPF100-AV010/M8
M8/3…	M8/3…	M8/3…

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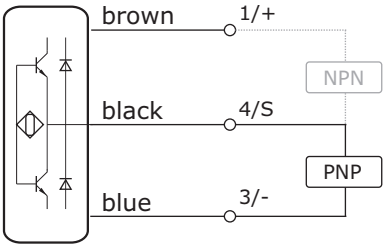
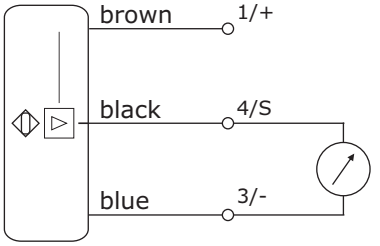
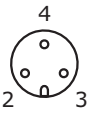
Frame-Light-Barriers
Analog Output

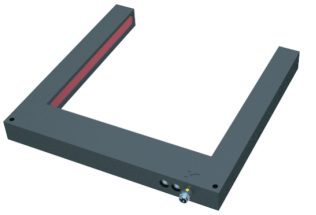
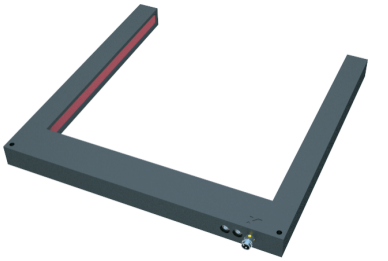
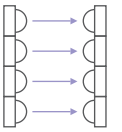
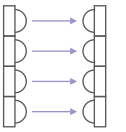
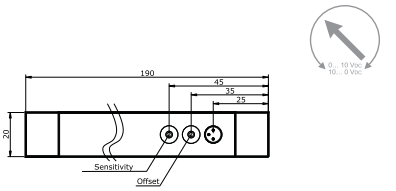
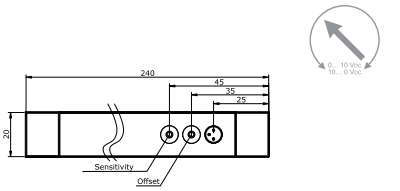
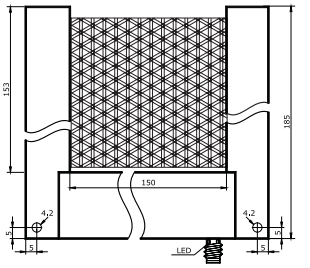
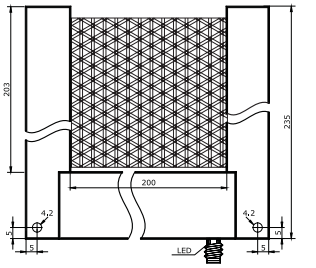
Output Schematics





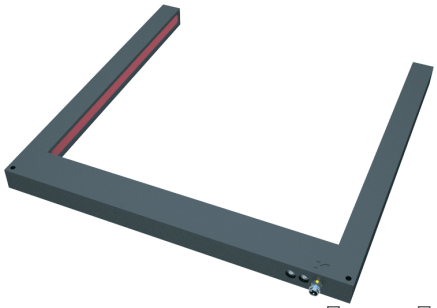
Connector M8



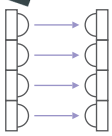
	150 - analog	200 - analog
		
	Measuring 	Measuring 
		
		

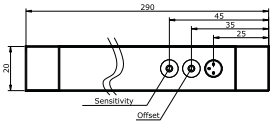
SPECIFICATIONS	OPF 150	OPF 200
Operating Voltage	24 VDC, 3-wire	24 VDC, 3-wire
Current Consumption	< 70 mA	< 70 mA
Current Load Capability	10 mA, short-circuit-proof	10 mA, short-circuit-proof
Reverse Polarity Protection	built-in	built-in
Voltage Drop	0…10 / 10…0 VDC, selectable	0…10 / 10…0 VDC, selectable
Switching Frequency	1 KHz	1 KHz
Short Circuit Protection	built-in - self resetting	built-in - self resetting
Resolution	Ø 4.0 mm	Ø 4.0 mm
Sensitivity	0…11 VDC, Ramp adjustable	0…11 VDC, Ramp adjustable
Time Delay	-	-
Repeatability	0.3 mm	0.3 mm
Operating Temperature	-10…+60 °C	-10…+60 °C
Ambient Light Immunity	10.000 lux	10.000 lux
Isolation Voltage	500 V	500 V
Housing Material	Aluminum	Aluminum
Protection Class	IP 67	IP 67
Optical Elements	Infrared - PMMA Window	Infrared - PMMA Window
Article Code		
PNP, NO		
PNP, NC		
NPN, NO		
NPN, NC		
PNP, Analog Voltage (0…10 VDC)	OPF150-AV010/M8	OPF200-AV010/M8
Recommended Connecting Cable	M8/3…	M8/3…

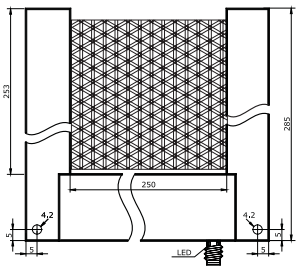
250 - analog



Measuring







OPF 250

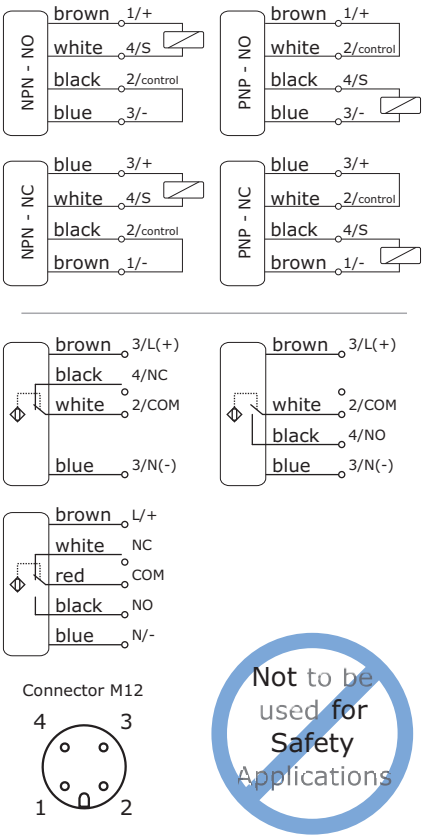
24 VDC, 3-wire
< 70 mA
10 mA, short-circuit-proof
built-in
0…10 / 10…0 VDC, selectable
1 KHz
built-in - self resetting
Ø 6.0 mm
0…11 VDC, Ramp adjustable
-
0.3 mm
-10…+60 °C
10.000 lux
500 V
Aluminum
IP 67
Infrared - PMMA Window

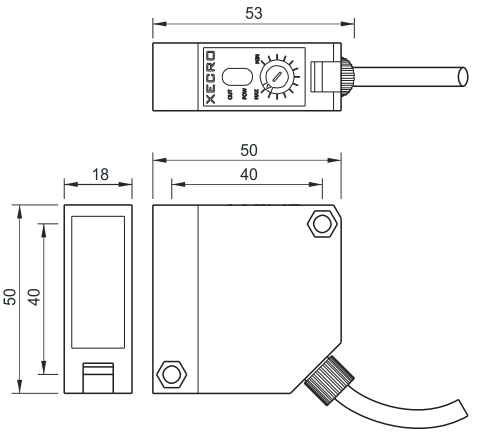
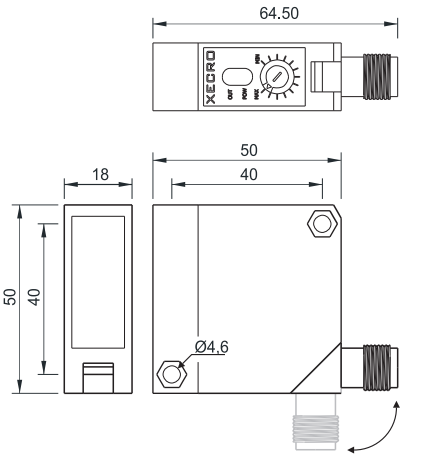
OPF250-AV010/M8

M8/3…

Photoelectric Sensors
Cubic 50x50

Output Schematics

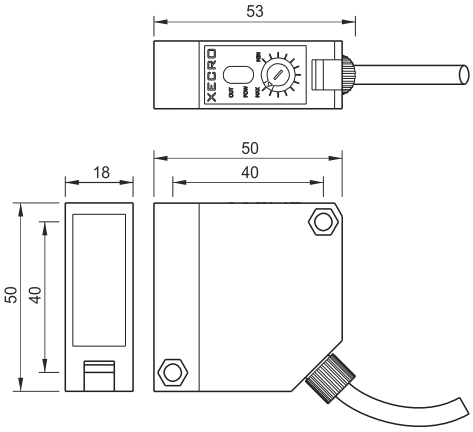
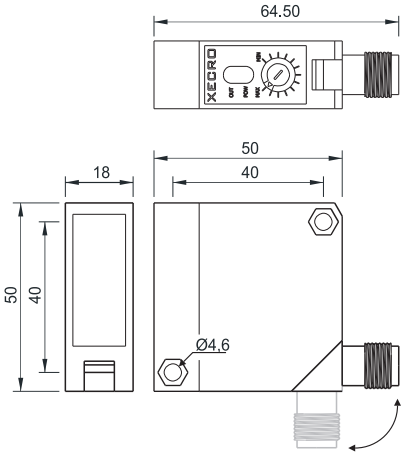
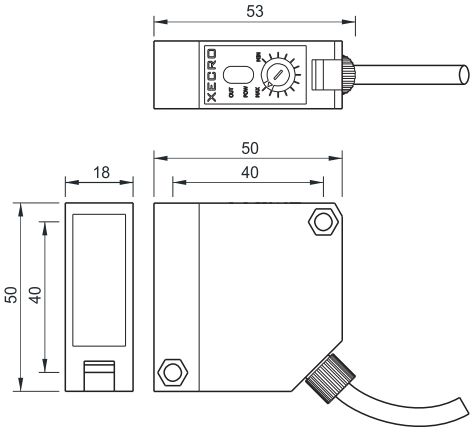


	50x50	50x50
	2000 mm	2000 mm
		

SPECIFICATIONS

	Diffuse Reflective		Diffuse Reflective	
Operating Distance	300... 2000 mm	300... 2000 mm	300... 2000 mm	300... 2000 mm
Output Function	PNP, NPN, NO, NC	Relay, NO + NC	PNP, NPN, NO, NC	Relay, NO | NC
Operating Voltage	10... 30 VDC	24... 240 VDC/VAC	10... 30 VDC	24... 240 VDC/VAC
Reverse Polarity Protection	built-in	built-in	built-in	built-in
Current Consumption	< 37 mA	< 2.2 W	< 37 mA	< 2.2 W
Current Load Capability	200 mA	1A / 230VAC	200 mA	1A / 230VAC
Short Circuit Protection	built-in - self resetting		built-in - self resetting	
Voltage Drop	< 2 V @ 200 mA	-	< 2 V @ 200 mA	-
Switching Frequency	500 Hz	10 Hz	500 Hz	10 Hz
Response Time	< 1 ms	< 25 ms	< 1 ms	< 25 ms
Hysteresis	~10%	~10%	~10%	~10%
Operating Temperature	-25... 55 °C	-25... 55 °C	-25... 55 °C	-25... 55 °C
Ambient Light Immunity	10.000 lux	10.000 lux	10.000 lux	10.000 lux
Protection Class	IP65	IP65	IP65	IP65
Housing Material	ABS, Lens PMMA	ABS, Lens PMMA	ABS, Lens PMMA	ABS, Lens PMMA
Connection	PVC, 5-pole, 2m	PVC, 5-pole, 2m	Connector M12, 4-pole	Connector M12, 4-pole
Output Indicator	Integrated	Integrated	Integrated	Integrated
Article Code				
PNP, NPN, NO, NC programmable	OD50-D2PNCO/A2P		OD50-D2PNCO/M12	
Relay SPST, NO				OD50-D2AO/M12
Relay SPST, NC				OD50-D2AC/M12
Relay SPDT, NO + NC		OD50-D2ACO/A2P		
Transmitter				
Mouting Bracket	included	included	included	included
Recommended Connecting Cable	-	-	M12/4...	M12/4...

Photoelectric Sensors
Cubic 50x50

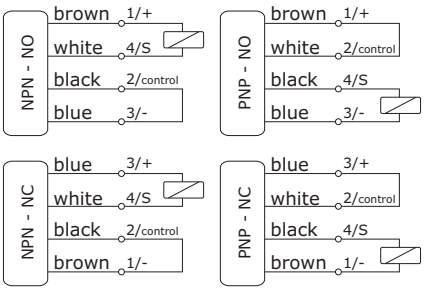
50x50	50x50	50x50
6000 mm	6000 mm	10000 m
		

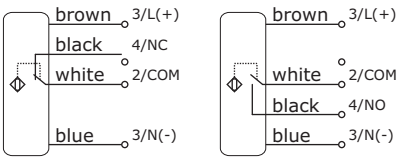
Polarized Reflective		Polarized Reflective		Retro Reflective	
6000 mm	6000 mm	6000 mm	6000 mm	10000 m	10000 m
PNP, NPN, NO, NC	Relay, NO + NC	PNP, NPN, NO, NC	Relay, NO | NC	PNP, NPN, NO, NC	Relay, NO + NC
10... 30 VDC	24... 240 VDC/VAC	10... 30 VDC	24... 240 VDC/VAC	10... 30 VDC	24... 240 VDC/VAC
built-in	built-in	built-in	built-in	built-in	built-in
< 37 mA	< 2.2 W	< 37 mA	< 2.2 W	< 37 mA	< 2.2 W
200 mA	1A / 230VAC	200 mA	1A / 230VAC	200 mA	1A / 230VAC
built-in - self resetting		built-in - self resetting		built-in - self resetting	
< 2 V @ 200 mA	-	< 2 V @ 200 mA	-	< 2 V @ 200 mA	-
500 Hz	10 Hz	500 Hz	10 Hz	500 Hz	10 Hz
< 1 ms	< 25 ms	< 1 ms	< 25 ms	< 1 ms	< 25 ms
~10%	~10%	~10%	~10%	~10%	~10%
-25... 55 °C	-25... 55 °C	-25... 55 °C	-25... 55 °C	-25... 55 °C	-25... 55 °C
10.000 lux	10.000 lux	10.000 lux	10.000 lux	10.000 lux	10.000 lux
IP65	IP65	IP65	IP65	IP65	IP65
ABS, Lens PMMA	ABS, Lens PMMA	ABS, Lens PMMA	ABS, Lens PMMA	ABS, Lens PMMA	ABS, Lens PMMA
PVC, 5-pole, 2m	PVC, 5-pole, 2m	Connector M12, 4-pole	Connector M12, 4-pole	PVC, 5-pole, 2m	PVC, 5-pole, 2m
Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
OD50-P6PNCO/A2P		OD50-P6PNCO/M12		OD50-N10PNCO/A2P	
			OD50-P6AO/M12		
			OD50-P6AC/M12		
	OD50-P6ACO/A2P				OD50-N10ACO/A2P
included	included	included	included	included	included
-	-	M12/4...	M12/4...	-	-

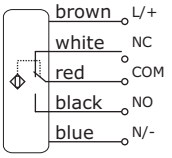
XECRO reserves the right to make minor changes without prior notification.

Photoelectric Sensors
Cubic 50x50

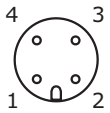
Output Schematics





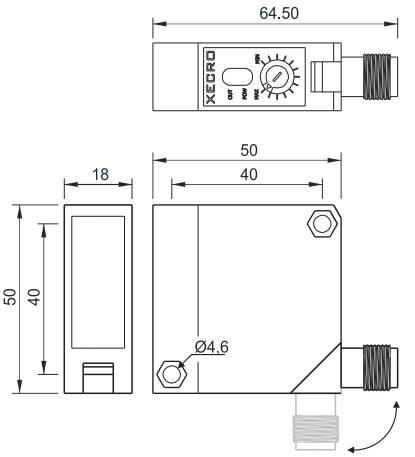


Connector M12

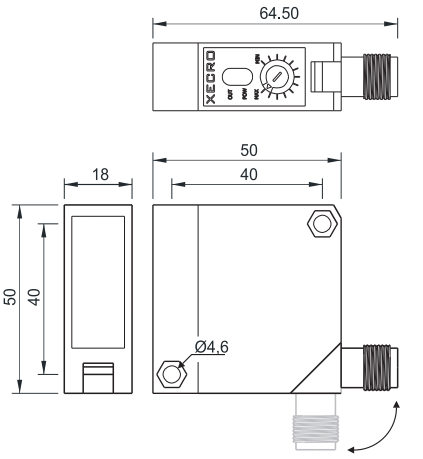


50x50	50x50

10000 m



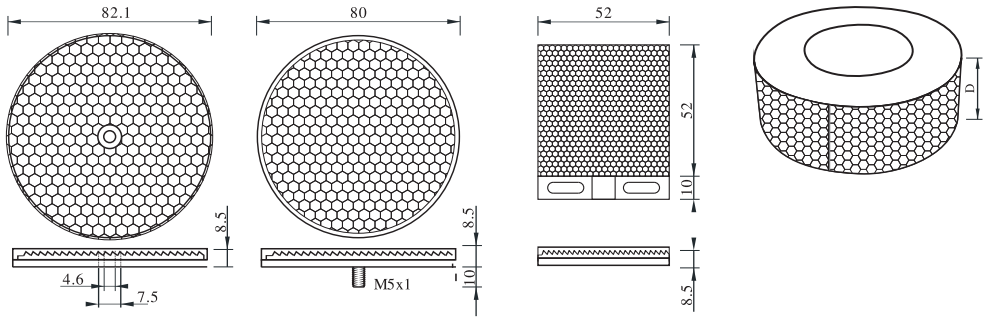
18000 mm



SPECIFICATIONS

	Retro Reflective		Through Beam	
Operating Distance	10000 m	10000 m	18000 mm	18000 mm
Output Function	PNP, NPN, NO, NC	Relay, NO | NC	PNP, NPN, NO, NC	Relay, NO | NC
Operating Voltage	10... 30 VDC	24... 240 VDC/VAC	10... 30 VDC	24... 240 VDC/VAC
Reverse Polarity Protection	built-in	built-in	built-in	built-in
Current Consumption	< 37 mA	< 2.2 W	< 37 mA	< 2.2 W
Current Load Capability	200 mA	1A / 230VAC	200 mA	1A / 230VAC
Short Circuit Protection	built-in - self resetting		built-in - self resetting	
Voltage Drop	< 2 V @ 200 mA	-	< 2 V @ 200 mA	-
Switching Frequency	500 Hz	10 Hz	500 Hz	10 Hz
Response Time	< 1 ms	< 25 ms	< 1 ms	< 25 ms
Hysteresis	~10%	~10%	~10%	~10%
Operating Temperature	-25... 55 °C	-25... 55 °C	-25... 55 °C	-25... 55 °C
Ambient Light Immunity	10.000 lux	10.000 lux	10.000 lux	10.000 lux
Protection Class	IP65	IP65	IP65	IP65
Housing Material	ABS, Lens PMMA	ABS, Lens PMMA	ABS, Lens PMMA	ABS, Lens PMMA
Connection	Connector M12, 4-pole	Connector M12, 4-pole	PVC, 5-pole, 2m	PVC, 5-pole, 2m
Output Indicator	Integrated	Integrated	Integrated	Integrated
Article Code				
PNP, NPN, NO, NC programmable	OD50-N10PNCO/M12		OD50-R18PNCO/A2P	
Relay SPST, NO		OD50-N10AO/M12		
Relay SPST, NC		OD50-N10AC/M12		
Relay SPDT, NO + NC				OD50-R18ACO/M12
Transmitter			OD50-T18D/M12	OD50-T18A/M12
Mouting Bracket	included	included	included	included
Recommended Connecting Cable	M12/4...	M12/4...	M12/4...	M12/4...

	MR82	MR80	MQ51	PTR
	150,00%	100,00%	90,00%	70,00%



Specifications	High Performance	Standard Round	Standard Cubic	Performance Tape
Distance with Reference to Product Codes	150,00%	100,00%	90,00%	70,00%
Mounting	Thru Hole	M5x1	Thru Hole	Self-Adhesive
One Reel				45.7 m | 150 ft
Cut Tape				4.57 m | 15 ft
Cover Material	PMMA	PMMA	PMMA	PMMA
Back Cover Material	PMMA	PMMA	PMMA	PMMA
Reflector	MR82	MR80	MQ51	
Complete Reel, 25 mm wide				PTR25-W
Cut Tape 25 mm wide				PTR25-W/50
Complete Reel, 50 mm wide				PTR50-W
Cut Tape 50 mm wide				PTR50-W/50
Complete Reel, 100 mm wide				PTR100-W
Cut Tape 100 mm wide				PTR100-W/50

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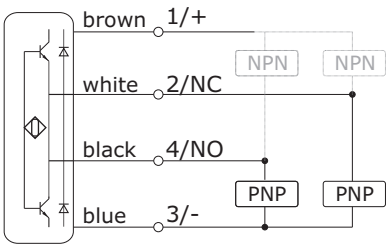
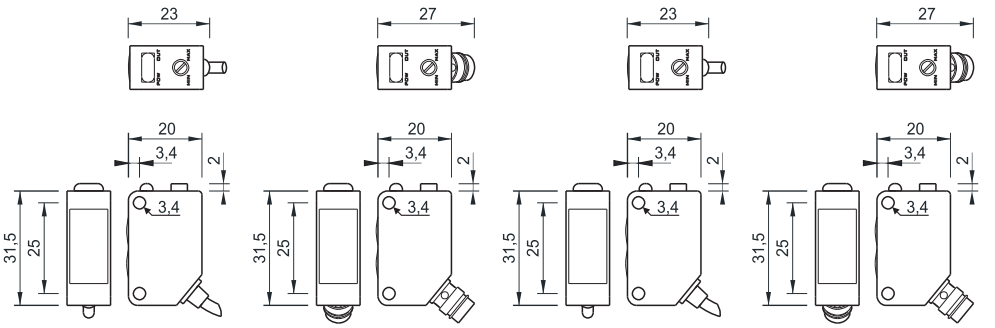
Output Schematics

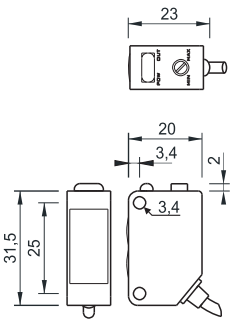
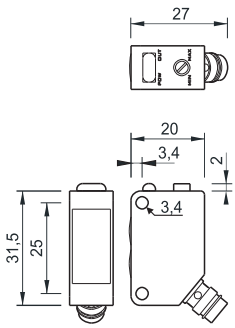
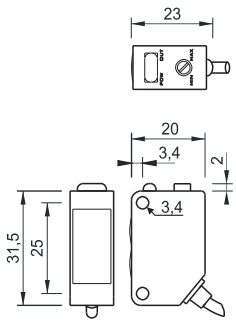
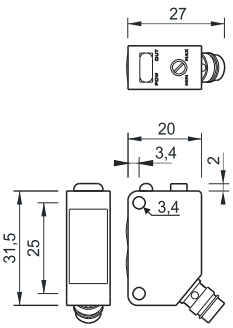
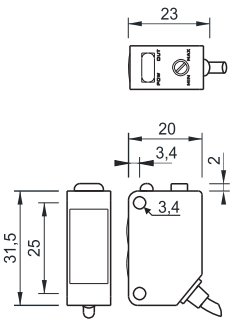
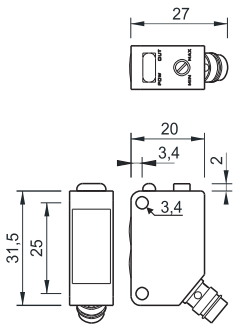


Connector M8

31x20	31x20	31x20	31x20
700 mm	700 mm	1800 mm	1800 mm
			

SPECIFICATIONS	Diffuse Reflective	Diffuse Reflective	Polarized Reflective	Polarized Reflective
Operating Distance	10... 700 mm	10... 700 mm	100... 1800 mm	100... 1800 mm
Output Function	NO + NC	NO + NC	NO + NC	NO + NC
Operating Voltage	10... 30 VDC, 4-wire	10... 30 VDC, 4-wire	10... 30 VDC, 4-wire	10... 30 VDC, 4-wire
Reverse Polarity Protection	built-in	built-in	built-in	built-in
Current Consumption	< 37 mA	< 37 mA	< 37 mA	< 37 mA
Current Load Capability	100 mA, self-resetting	100 mA, self-resetting	100 mA, self-resetting	100 mA, self-resetting
Short Circuit Protection	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
Voltage Drop	< 2 V @ 100 mA	< 2 V @ 100 mA	< 2 V @ 100 mA	< 2 V @ 100 mA
Switching Frequency	500 Hz	500 Hz	500 Hz	500 Hz
Response Time	< 1 ms	< 1 ms	< 1 ms	< 1 ms
Hysteresis	~13%	~13%	~13%	~13%
Operating Temperature	-25... 55 °C	-25... 55 °C	-25... 55 °C	-25... 55 °C
Ambient Light Immunity	6.000 lux	6.000 lux	6.000 lux	6.000 lux
Protection Class	IP67	IP67	IP67	IP67
Housing Material	ABS, Lens PMMA	ABS, Lens PMMA	ABS, Lens PMMA	ABS, Lens PMMA
Connection	PVC, 4-pole	Connector M8, 4-pole	PVC, 4-pole	Connector M8, 4-pole
Output Indicator	Integrated	Integrated	Integrated	Integrated
Article Code				
PNP, NO + NC	OD31-D07PCO/A2P	OD31-D07PCO/M8	OD31-P2PCO/A2P	OD31-P2PCO/M8
NPN, NO + NC	OD31-D07NCO/A2P	OD31-D07NCO/M8	OD31-P2PNO/A2P	OD31-P2PNO/M8
Transmitter				
Mouting Bracket	included	included	included	included
Recommended Connecting Cable	-	M8/4...	-	M8/4...

Photoelectric Sensors
Miniature

31x20	31x20	31x20	31x20	31x20	31x20
4000 mm	4000 mm	600 mm	600 mm	9000 mm	9000 mm
					

Retro Reflective	Retro Reflective	Translucent Objects	Translucent Objects	Through Beam	Through Beam
150... 4000 mm	150... 4000 mm	600 mm	600 mm	9000 mm	9000 mm
NO + NC	NO + NC	NO + NC	NO + NC	NO + NC	NO + NC
10... 30 VDC, 4-wire	10... 30 VDC, 4-wire	10... 30 VDC, 4-wire	10... 30 VDC, 4-wire	10... 30 VDC, 4-wire	10... 30 VDC, 4-wire
built-in	built-in	built-in	built-in	built-in	built-in
< 37 mA	< 37 mA	< 37 mA	< 37 mA	< 37 mA	< 37 mA
100 mA, self-resetting	100 mA, self-resetting	100 mA, self-resetting	100 mA, self-resetting	100 mA, self-resetting	100 mA, self-resetting
built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
< 2 V @ 100 mA	< 2 V @ 100 mA	< 2 V @ 100 mA	< 2 V @ 100 mA	< 2 V @ 100 mA	< 2 V @ 100 mA
500 Hz	500 Hz	500 Hz	500 Hz	500 Hz	500 Hz
< 1 ms	< 1 ms	< 1 ms	< 1 ms	< 1 ms	< 1 ms
~13%	~13%	~13%	~13%	~13%	~13%
-25... 55 °C	-25... 55 °C	-25... 55 °C	-25... 55 °C	-25... 55 °C	-25... 55 °C
6.000 lux	6.000 lux	6.000 lux	6.000 lux	6.000 lux	6.000 lux
IP67	IP67	IP67	IP67	IP67	IP67
ABS, Lens PMMA	ABS, Lens PMMA	ABS, Lens PMMA	ABS, Lens PMMA	ABS, Lens PMMA	ABS, Lens PMMA
PVC, 4-pole	Connector M8, 4-pole	PVC, 4-pole	Connector M8, 4-pole	PVC, 4-pole	Connector M8, 4-pole
Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
OD31-N4PCO/A2P OD31-N4PNO/A2P	OD31-N4PCO/M8 OD31-N4PNO/M8	OD31-L06PCO/A2P OD31-L06PNO/A2P	OD31-L06PCO/M8 OD31-L06PNO/M8	OD31-R9PCO/A2P OD31-R9PNO/A2P OD31-T9D/A2P	OD31-R9PCO/M8 OD31-R9PNO/M8 OD31-T9D/M8
included	included	included	included	included	included
-	M8/4...	-	M8/4...	-	M8/4...

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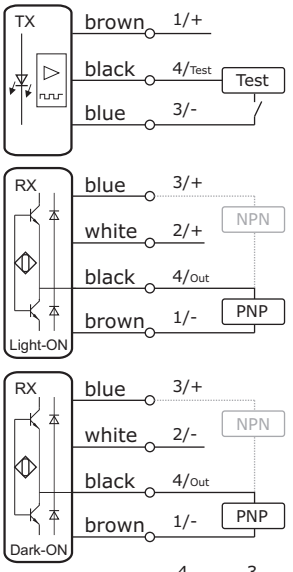
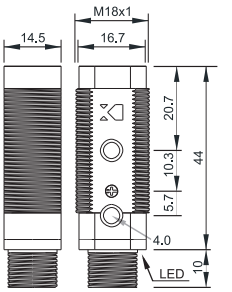
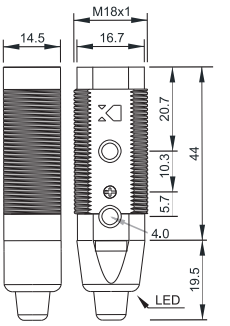
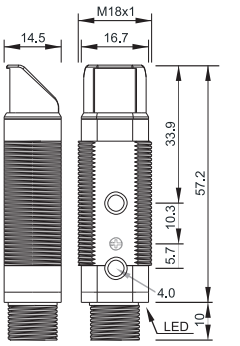
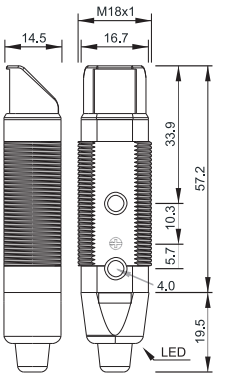
Photoelectric Sensors
M18 - Flat

Output Schematics

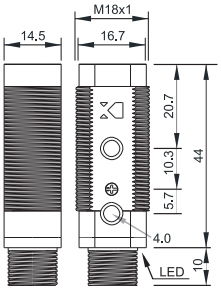
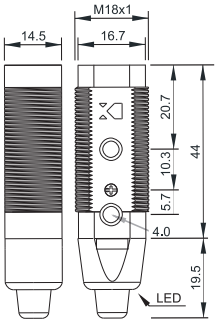
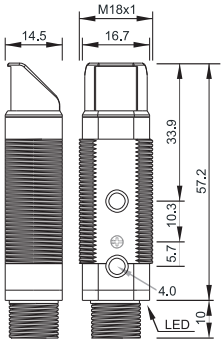
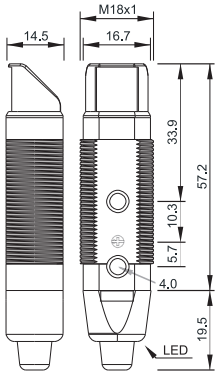
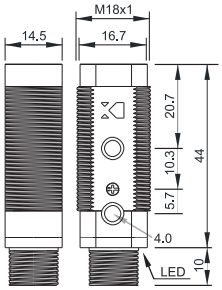
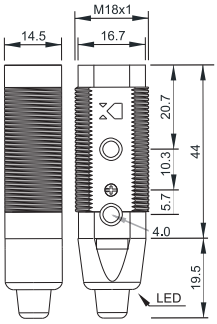


Connector M12

	M18x1	M18x1	M18x1	M18x1
	400 mm	400 mm	320 mm	320 mm
				

SPECIFICATIONS	Diffuse Reflective	Diffuse Reflective	Diffuse Reflective	Diffuse Reflective
Operating Distance	0... 400 mm	0... 400 mm	0... 320 mm	0... 320 mm
Output Function	NO | NC	NO | NC	NO | NC	NO | NC
Operating Voltage	10... 30 VDC, 3-wire	10... 30 VDC, 3-wire	10... 30 VDC, 3-wire	10... 30 VDC, 3-wire
Reverse Polarity Protection	built-in	built-in	built-in	built-in
Current Consumption	< 30 mA	< 30 mA	< 30 mA	< 30 mA
Current Load Capability	100 mA, self-resetting	100 mA, self-resetting	100 mA, self-resetting	100 mA, self-resetting
Short Circuit Protection	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
Voltage Drop	< 2 V @ 100 mA	< 2 V @ 100 mA	< 2 V @ 100 mA	< 2 V @ 100 mA
Switching Frequency	1000 Hz	1000 Hz	1000 Hz	1000 Hz
Response Time	< 1 ms	< 1 ms	< 1 ms	< 1 ms
Hysteresis	~13%	~13%	~13%	~13%
Operating Temperature	-25... 55 °C	-25... 55 °C	-25... 55 °C	-25... 55 °C
Ambient Light Immunity	10.000 lux	10.000 lux	10.000 lux	10.000 lux
Protection Class	IP67	IP67	IP67	IP67
Housing Material	Chromed Brass	Chromed Brass	Chromed Brass	Chromed Brass
Connection	Connector M12, 4-pole	2m, PVC	Connector M12, 4-pole	2m, PVC
Output Indicator	Integrated	Integrated	Integrated	Integrated
Article Code				
PNP, NO + NC	OD18FA-D04PSB/M12	OD18FA-D04PSB/A2P	OD18FR-D03PSB/M12	OD18FR-D03PSB/A2P
NPN, NO + NC	OD18FA-D04NSB/M12	OD18FA-D04NSB/A2P	OD18FR-D03NSB/M12	OD18FR-D03NSB/A2P
Transmitter				
Recommended Connecting Cable	M12/4...	-	M12/4...	-

Photoelectric Sensors
M18 - Flat

M18x1	M18x1	M18x1	M18x1	M18x1	M18x1
2000 mm	2000 mm	1600 mm	1600 mm	1400 mm	1400 mm
					

Retro Reflective	Retro Reflective	Retro Reflective	Retro Reflective	Polarized Reflective	Polarized Reflective
0... 2000 mm	0... 2000 mm	0... 1600 mm	0... 1600 mm	0... 1400 mm	0... 1400 mm
NO | NC	NO | NC	NO | NC	NO | NC	NO | NC	NO | NC
10... 30 VDC, 3-wire	10... 30 VDC, 3-wire	10... 30 VDC, 3-wire	10... 30 VDC, 3-wire	10... 30 VDC, 3-wire	10... 30 VDC, 3-wire
built-in	built-in	built-in	built-in	built-in	built-in
< 30 mA	< 30 mA	< 30 mA	< 30 mA	< 30 mA	< 30 mA
100 mA, self-resetting	100 mA, self-resetting	100 mA, self-resetting	100 mA, self-resetting	100 mA, self-resetting	100 mA, self-resetting
built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
< 2 V @ 100 mA	< 2 V @ 100 mA	< 2 V @ 100 mA	< 2 V @ 100 mA	< 2 V @ 100 mA	< 2 V @ 100 mA
1000 Hz	1000 Hz	1000 Hz	1000 Hz	1000 Hz	1000 Hz
< 1 ms	< 1 ms	< 1 ms	< 1 ms	< 1 ms	< 1 ms
~13%	~13%	~13%	~13%	~13%	~13%
-25... 55 °C	-25... 55 °C	-25... 55 °C	-25... 55 °C	-25... 55 °C	-25... 55 °C
10.000 lux	10.000 lux	10.000 lux	10.000 lux	10.000 lux	10.000 lux
IP67	IP67	IP67	IP67	IP67	IP67
Chromed Brass	Chromed Brass	Chromed Brass	Chromed Brass	Chromed Brass	Chromed Brass
Connector M12, 4-pole	2m, PVC	Connector M12, 4-pole	2m, PVC	Connector M12, 4-pole	2m, PVC
Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
OD18FA-N2PSB/M12	OD18FA-N2PSB/A2P	OD18FR-N016PSB/M12	OD18FR-N016PSB/A2P	OD18FA-P014PSB/M12	OD18FA-P014PSB/A2P
OD18FA-N2NSB/M12	OD18FA-N2NSB/A2P	OD18FR-N016NSB/M12	OD18FR-N016NSB/A2P	OD18FA-P014NSB/M12	OD18FA-P014NSB/A2P
M12/4...	-	M12/4...	-	M12/4...	-

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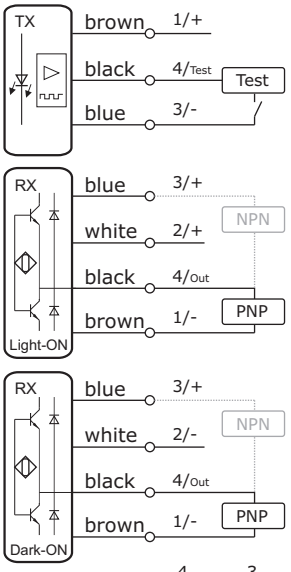
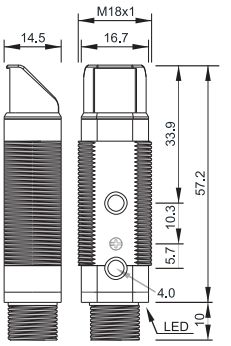
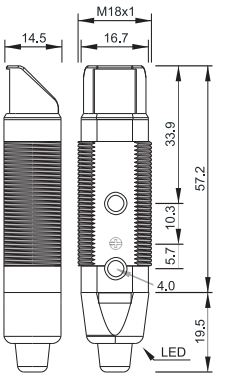
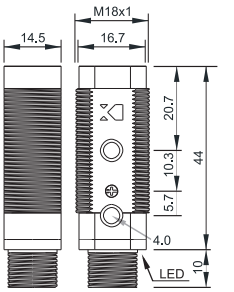
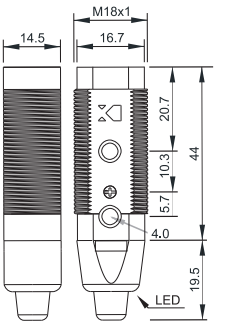
Photoelectric Sensors
M18 - Flat

Output Schematics

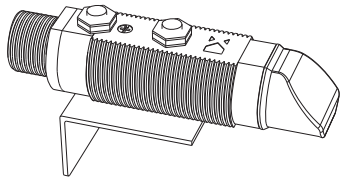


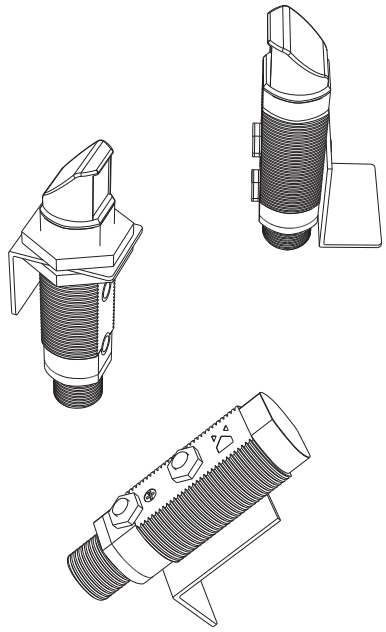
Connector M12

	M18x1	M18x1	M18x1	M18x1
	1200 mm	1200 mm	10000 mm	10000 mm
				

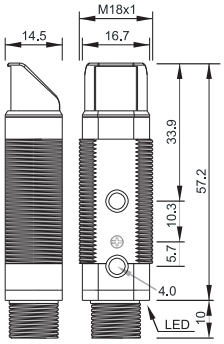
SPECIFICATIONS	Polarized Reflective	Polarized Reflective	Through Beam	Through Beam
Operating Distance	0... 1200 mm	0... 1200 mm	0... 10000 mm	0... 10000 mm
Output Function	NO | NC	NO | NC	NO | NC	NO | NC
Operating Voltage	10... 30 VDC, 3-wire	10... 30 VDC, 3-wire	10... 30 VDC, 3-wire	10... 30 VDC, 3-wire
Reverse Polarity Protection	built-in	built-in	built-in	built-in
Current Consumption	< 30 mA	< 30 mA	< 30 mA	< 30 mA
Current Load Capability	100 mA, self-resetting	100 mA, self-resetting	100 mA, self-resetting	100 mA, self-resetting
Short Circuit Protection	built-in - self resetting	built-in - self resetting	built-in - self resetting	built-in - self resetting
Voltage Drop	< 2 V @ 100 mA	< 2 V @ 100 mA	< 2 V @ 100 mA	< 2 V @ 100 mA
Switching Frequency	1000 Hz	1000 Hz	1000 Hz	1000 Hz
Response Time	< 1 ms	< 1 ms	< 1 ms	< 1 ms
Hysteresis	~13%	~13%	~13%	~13%
Operating Temperature	-25... 55 °C	-25... 55 °C	-25... 55 °C	-25... 55 °C
Ambient Light Immunity	10.000 lux	10.000 lux	10.000 lux	10.000 lux
Protection Class	IP67	IP67	IP67	IP67
Housing Material	Chromed Brass	Chromed Brass	Chromed Brass	Chromed Brass
Connection	Connector M12, 4-pole	2m, PVC	Connector M12, 4-pole	2m, PVC
Output Indicator	Integrated	Integrated	Integrated	Integrated
Article Code				
PNP, NO + NC	OD18FR-P012PSB/M12	OD18FR-P012PSB/A2P	OD18FA-R10PSB/M12	OD18FA-R10PSB/A2P
NPN, NO + NC	OD18FR-P012NSB/M12	OD18FR-P012NSB/A2P	OD18FA-R10NSB/M12	OD18FA-R10NSB/A2P
Transmitter			OD18FA-T12B/M12	OD18FA-T12B/A2P
Recommended Connecting Cable	M12/4...	-	M12/4...	-

M18x1	M18x1	Flexible Mountings

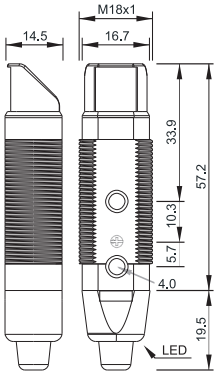




9500 mm



9500 mm



Through Beam	Through Beam
0... 9500 mm	0... 9500 mm
NO | NC	NO | NC
10... 30 VDC, 3-wire	10... 30 VDC, 3-wire
built-in	built-in
< 30 mA	< 30 mA
100 mA, self-resetting	100 mA, self-resetting
built-in - self resetting	built-in - self resetting
< 2 V @ 100 mA	< 2 V @ 100 mA
1000 Hz	1000 Hz
< 1 ms	< 1 ms
~13%	~13%
-25... 55 °C	-25... 55 °C
10.000 lux	10.000 lux
IP67	IP67
Chromed Brass	Chromed Brass
Connector M12, 4-pole	2m, PVC
Integrated	Integrated
OD18FR-R095PSB/M12	OD18FR-R095PSB/A2P
OD18FR-R095NSB/M12	OD18FR-R095NSB/A2P
OD18FR-T95B/M12	OD18FR-T95B/A2P
M12/4...	-

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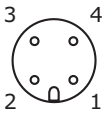
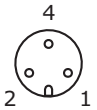
Connecting Cables
PUR-coated

Mounting Details

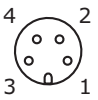
Connector M12

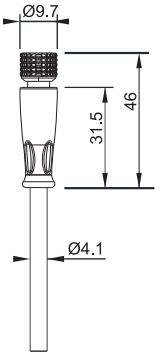
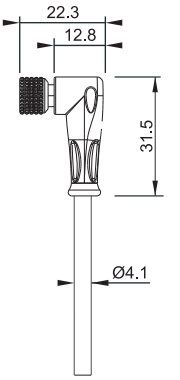
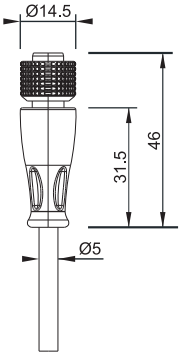
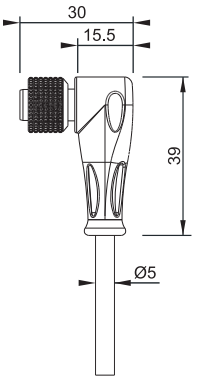


Connector M8



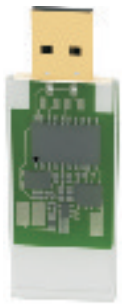
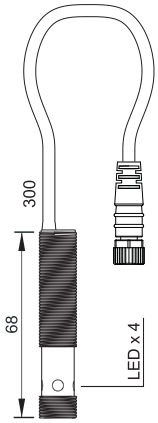
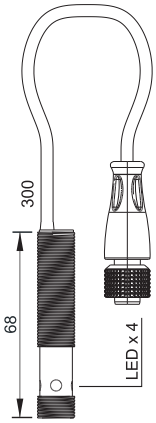
Connector M8



M8, axial	M8, radial	M12, axial	M12, radial
PUR	PUR	PUR	PUR
			

SPECIFICATIONS	M8, axial	M8, radial	M12, axial	M12, radial
Cross Section	0.14 mm²	0.14 mm²	0.25 mm²	0.25 mm²
Maximum Voltage	100 VDC, 60 VAC	100 VDC, 60 VAC	300 VDC, 250 VAC	300 VDC, 250 VAC
Maximum Current	3 A	3 A	4 A	4 A
Isolation Voltage	1500 V	1500 V	2000 V	2000 V
Operating Voltage				
Reverse Polarity Protection				
Output Current				
Short Circuit Protection				
Output Type				
Voltage Drop				
Operating Temperature	-20... +85 °C	-20... +85 °C	-20... +85 °C	-20... +85 °C
Protection Class	IP67	IP67	IP67	IP67
Contact Material	CU-SN, Gold Plated	CU-SN, Gold Plated	CU-SN, Gold Plated	CU-SN, Gold Plated
Connector Material	Polyurethane (PUR)	Polyurethane (PUR)	Polyurethane (PUR)	Polyurethane (PUR)
Cable Material	PUR coated PVC	PUR coated PVC	PUR coated PVC	PUR coated PVC
Housing Material				
Article Code				
3 leads, 2 m length	M8/3FA-2U	M8/3FR-2U	M12/3FA-2U	M12/3FR-2U
3 leads, 5m length	M8/3FA-5U	M8/3FR-5U	M12/3FA-5U	M12/3FR-5U
3 leads, 10 m length	M8/3FA-10U	M8/3FR-10U	M12/3FA-10U	M12/3FR-10U
4 leads, 2 m length	M8/4FA-2U	M8/4FR-2U	M12/4FA-2U	M12/4FR-2U
4 leads, 5 m length	M8/4FA-5U	M8/4FR-5U	M12/4FA-5U	M12/4FR-5U
4 leads, 10 m length	M8/4FA-10U	M8/4FR-10U	M12/4FA-10U	M12/4FR-10U
4 leads, 10 m length	M8/4FA-10U	M8/4FR-10U	M12/4FA-10U	M12/4FR-10U
UTM NPN|PNP Auto-Detect Input				
UNI-PROG				

Universal Timer Module
Timer + Type Conversion

UTM for M8	UTM for M12	UNI-PROG	UNI-PROG
			
			
M12 - M8 Pig-Tail	M12 - M12 Pig-Tail	USB	SERIAL
10… 30 VDC	10… 30 VDC		
built-in	built-in		
200 mA	200 mA		
built-in - self resetting	built-in - self resetting		
PNP | NPN / NO | NC	PNP | NPN / NO | NC		
< 1.5 V @ 100 mA	< 1.5 V @ 100 mA		
-20… +75 °C	-20… +75 °C		
IP67	IP67		
CU-SN, Gold Plated	CU-SN, Gold Plated		
PVC	PVC		
PVC, 3-pole	PVC, 3-pole		
Plated Brass	Plated Brass		
UTM12-PNCO60/3P8	UTM12-PNCO60/3P12		
		UNI-PROG_USB	UNI-PROG_SER

On Rising Edge
ON-Delay by constant Signal
ON-Delay by single Impulse
Fleeting-Contact

On Falling Edge
OFF-Delay with Reset
ON-Delay without Reset
Fleeting-Contact

Monitoring
Speed-Monitor
Jam-Detection
Stand-Still / Activity
» NO / NC Selectable

Flashing
Start with ON when Signal
Start with OFF when Signal
Start with ON when No Signal
Start with OFF when No Signal

Digital
Invert Output
Toggle on Rising Edge
Toggle on Falling Edge
Impulse Divider

Conversion
Make NPN from PNP
Make PNP from NPN
Make NO from NC
Make NC from NO

Security
Password Protection
Detect Unauthorized Changes

The compact timer module (UTM) from **XECRO** has been developed to upgrade most sensors with nearly unlimited timer options. It can be easily spliced into the connection cable and has many useful features. The programable time intervals range from as little as a millisecond up to 4.6 hours. The UTM has a PNP/NPN input with autodetect-function as well as a PNP/NPN output, so that also type conversions, in combination with timer functionality, are possible. For common applications such as an impulse stretch, the UTM can be delivered pre-programmed; individual programming is however possible via XECROs UNI-PROG, connected to the USB-port of PCs running Windows.

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most reliable sensor technology

inductive • capacitive • optoelectronics • touch 'n indicators

Inductive Sensors

PNP / NPN	2-wire DC	2-wire AC	NAMUR	Temperature Proof	Pressure Proof	Analog Voltage	SHIELDED / UNSHIELDED	0.6 mm	0.8 mm	1.0 mm	1.5 mm	2.0 mm	3.0 mm	4.0 mm	5.0 mm	6.0 mm	8.0 mm	10 mm	12 mm	15 mm	16 mm	20 mm	22 mm	25 mm	30 mm	40 mm	50 mm
➤			➤				Ø3 / M4	0.6																			
➤							Ø3 / M4			1.0																	
➤			➤				Ø4 / M5		0.8																		
➤							Ø4 / M5				1.5																
➤							5 x 5 mm		0.8																		
➤							5 x 5 mm				1.5																
➤			➤				Ø6.5 mm			1.0																	
➤			➤				Ø6.5 mm					2.0															
➤						➤	Ø6.5 mm						3.0														
➤			➤				Ø6.5 mm							4.0													
➤						➤	Ø6.5 mm									6.0											
➤			➤	➤			M8			1.0																	
➤			➤	➤			M8					2.0															
➤						➤	M8						3.0														
➤			➤	➤			M8							4.0													
➤						➤	M8									6.0											
➤							8 x 8 mm			1.0																	
➤							8 x 8 mm					2.0															
➤							8 x 8 mm						3.0														
➤	➤	➤	➤	➤	➤		M12					2.0															
➤	➤	➤	➤	➤			M12							4.0													
➤						➤	M12									6.0											
➤	➤	➤	➤				M12										8.0										
➤						➤	M12											10									
➤	➤	➤	➤	➤			M18								5.0												
➤	➤	➤	➤	➤			M18										8.0										
						➤	M18											10									
➤							M18												12								
➤	➤	➤	➤				M18													16							
➤						➤	M18														20						
➤	➤	➤	➤	➤			M30											10									
➤	➤	➤	➤	➤			M30													15							
➤	➤	➤	➤				M30													16							
➤						➤	M30														20						
➤							M30															22					
➤	➤	➤	➤				M30																25				
➤						➤	M30																		40		
➤							M30																				50
➤	➤	➤					40 x40 mm													15							
➤	➤	➤					40 x40 mm														20						
➤	➤	➤					40 x40 mm																	30			
➤							40 x40 mm																		40		
➤							40 x40 mm																				50

10V

QUAD

4xSn

10V

XECRO

most reliable sensor technology

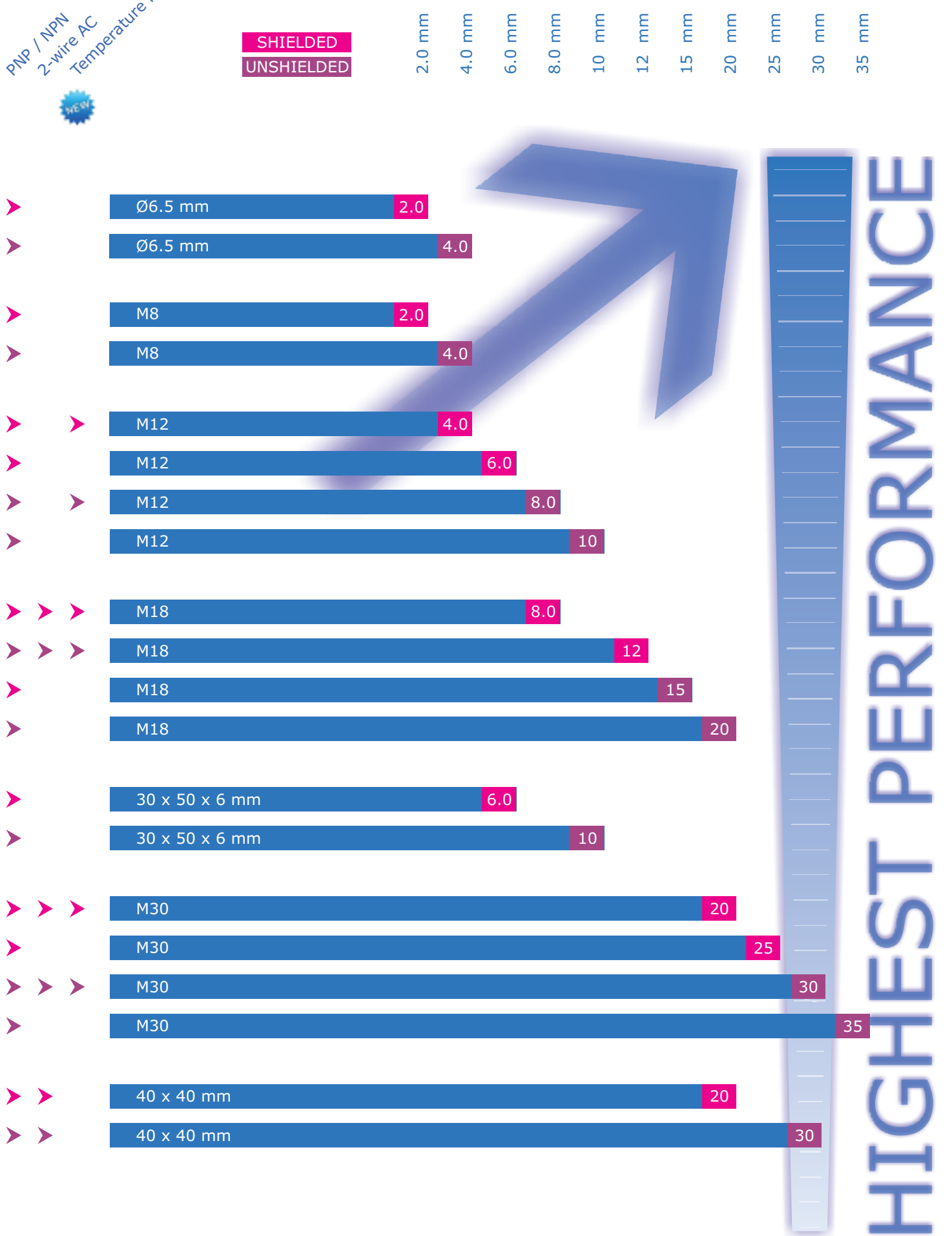
inductive • capacitive • optoelectronics • touch 'n indicators

CAPACITIVE SENSORS

PNP / NPN
2-wire AC
Temperature Proof

NEW

SHIELDED
UNSHIELDED



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XECRO GmbH
Doehrbruch 24
30559 Hannover, Germany
Phone +49 511 696041040
Fax +49 511 6960410409
info@xecro.com
http://www.xecro.com

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