



# ***SENSEABLE***<sup>TM</sup>

*The New Family of General Purpose Economical Sensors from TR Electronic*

## **A selection of Our Most Common Presence Detection Solutions**

**[www.trelectronic.com](http://www.trelectronic.com)**  
**[customercare@trelectronic.com](mailto:customercare@trelectronic.com)**

### **USA**

**TOLL FREE:** 800.709.3300  
**TEL:** 248 244 2280  
**FAX:** 248 244 2283

### **CANADA**

**TOLL FREE:** 800.265.9483  
**TEL:** 519 452 1999  
**FAX:** 519 452 1177



Thanks for choosing TR Electronic. Did you know TR Electronic is a major manufacturer and distributor of automation components, sensors and Industrial Ethernet solutions. This catalogue represents only a selection of the presence detections options available to you, under our SENSEable brand. SENSEable is our brand of economical, general purpose sensors with the quality guarantee you've come to expect from TR Electronic.

TR Electronic also has solutions for:



Rotary and Angular Feedback



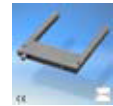
Linear Displacement Transducers



Laser Distance



Intelligent Drives



Photoelectrics



Motion Sensors



Color Detection



Cables, Mounting Hardware and Accessories



IP69K Wash-down Sensors



Safety Light Curtains

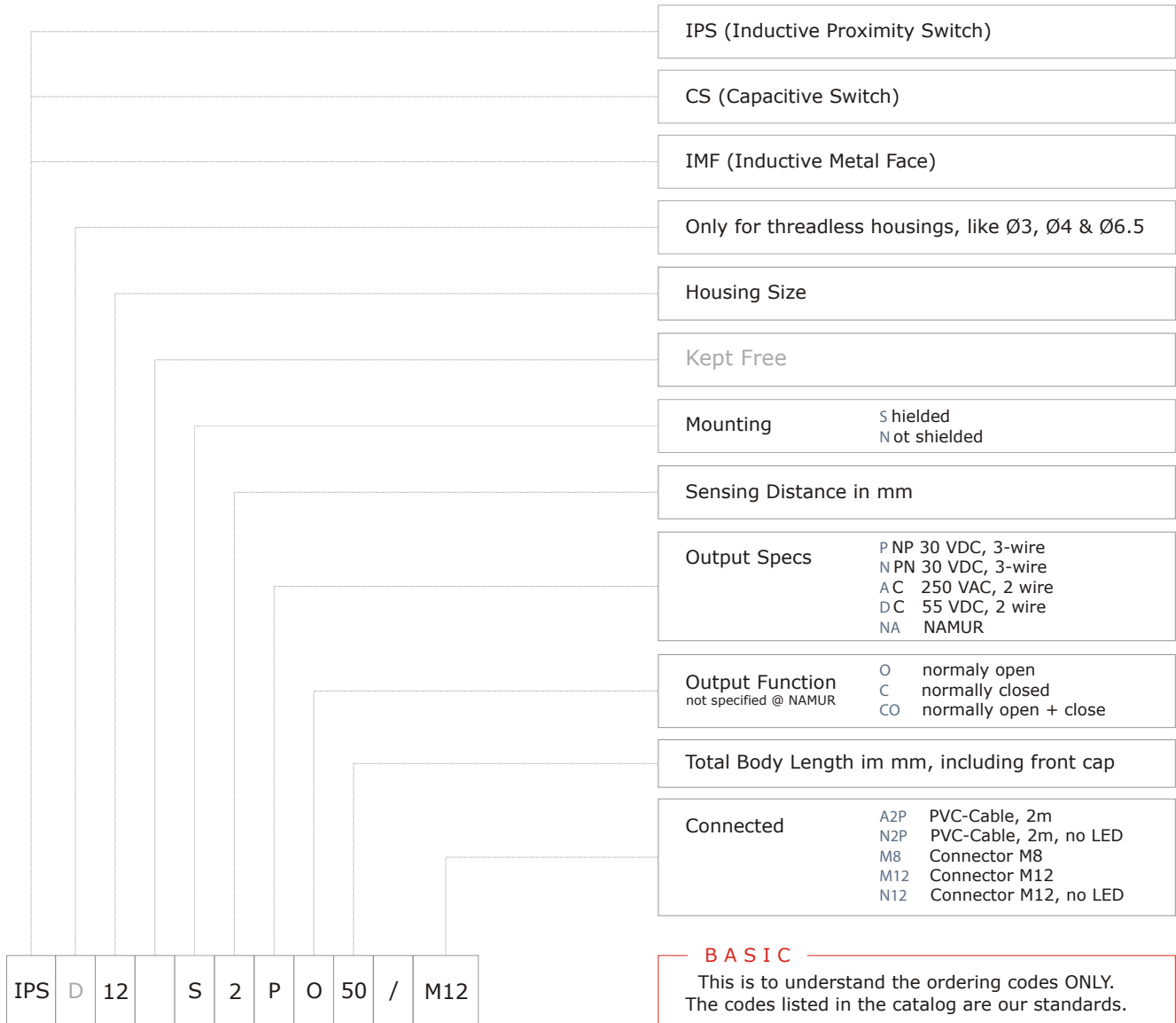
**SENSEABLE™**

Since 1989, TR Electronic North America has become an industry leader in manufacturing and supporting position feedback, drive technology and sensor solutions world-wide. Through its complete line of absolute encoders, linear measurement systems and industrial sensors, TR Electronic is able to deliver exceptional results every time.

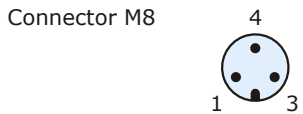
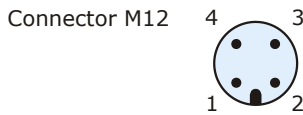
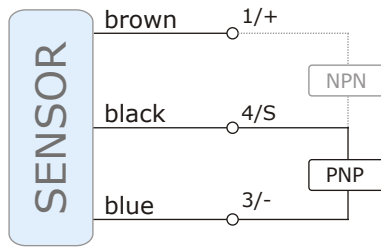
## INDEX

Understanding SENSEable ordering codes.....	3
Inductive Proximity Switches.....	4
<b>Inductive Proximity Switches</b> 10...30 VDC / 20 ...250 VAC.....	45
<b>Inductive Proximity Switches</b> 20...250 VAC.....	48
<b>Inductive Proximity Switches</b> Ferrous / Non-Ferrous Sensing Only.....	53
<b>Inductive Proximity Switches</b> NAMUR.....	54
<b>Inductive Proximity Switches</b> Analog Output.....	56
<b>Inductive Proximity Switches</b> High Pressure Proof -500bar.....	60
<b>Inductive Proximity Switches</b> High Temperature.....	62
<b>Inductive Ring Sensors</b> .....	66
<b>Capacitive Proximity Switches</b> .....	68
<b>Photoelectric Sensors M18 Flat</b> .....	74
<b>Cabling</b> .....	78

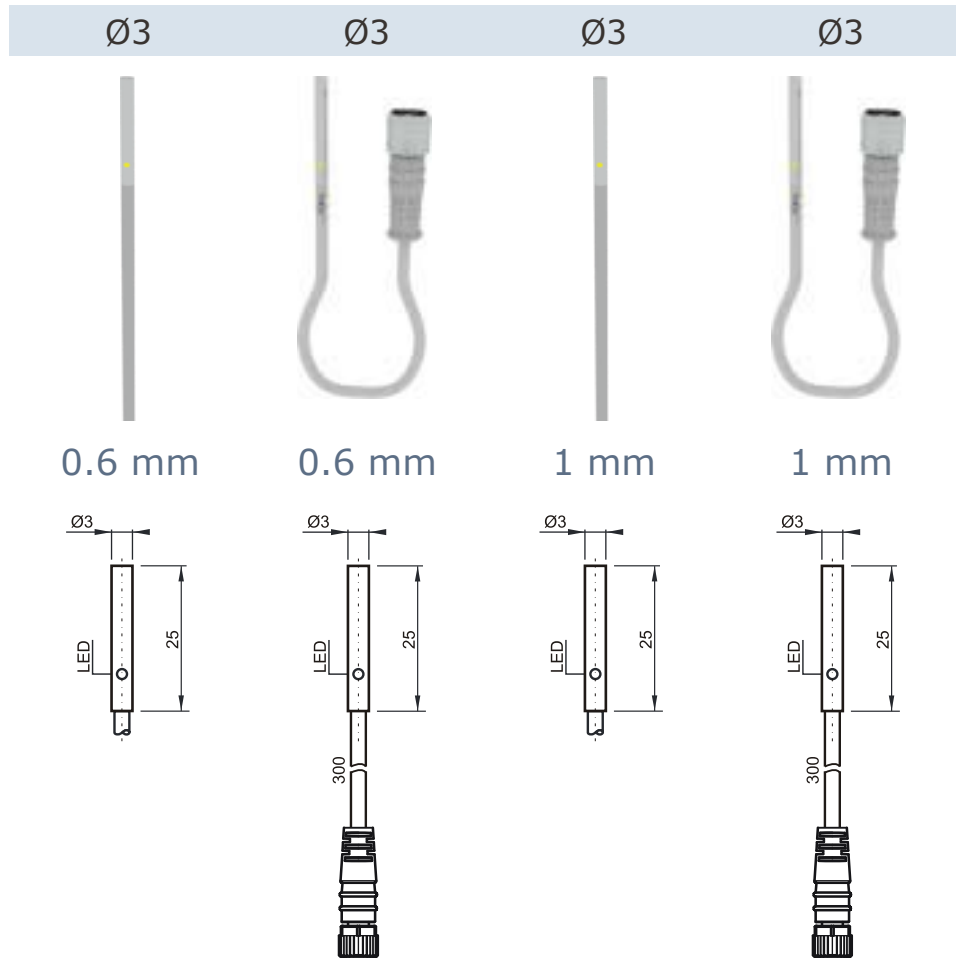
## HOW TO UNDERSTAND *SENSEABLE* ORDERING CODES



Output Schematics



Not to be used for Safety Applications







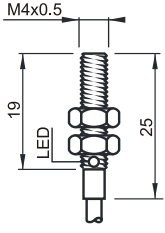
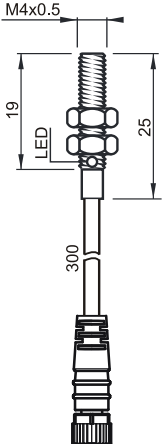
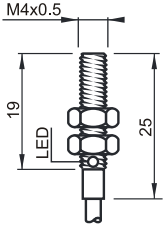
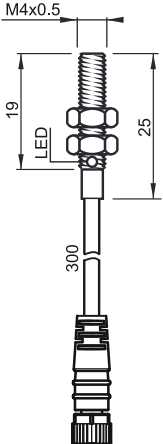
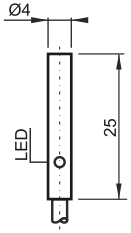
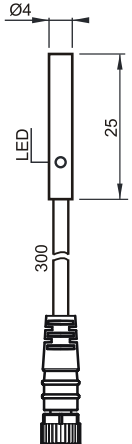


SPECIFICATIONS

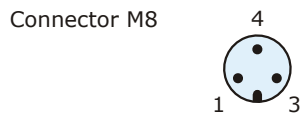
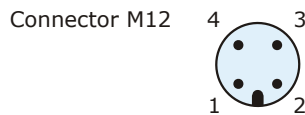
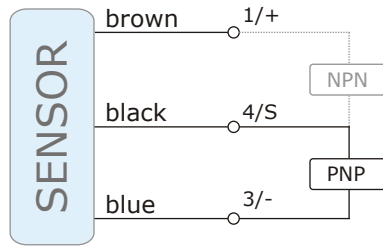
	Ø3 mm	Ø3 mm	Ø3 mm	Ø3 mm
Sensing Distance	0.6 mm - Shielded	0.6 mm - Shielded	1.0 mm - Shielded	1.0 mm - Shielded
Operating Voltage	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire
Current Consumption	< 8 mA	< 8 mA	< 8 mA	< 8 mA
Output Current	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, 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	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
Connected	PVC, 3-pole, 2m	M8, 3-pole, 300 mm	PVC, 3-pole, 2m	M8, 3-pole, 300 mm
Operating-LED				
Article Code				
3-wire NO, PNP	IPSD3 S08PO25/A2P	IPSD3 S08PO25/3P8	IPSD3 S1PO25/A2P	IPSD3 S1PO25/3P8
3-wire NC, PNP	IPSD3 S08PC25/A2P	IPSD3 S08PC25/3P8	IPSD3 S1PC25/A2P	IPSD3 S1PC25/3P8
3-wire NO, NPN	IPSD3 S08NO25/A2P	IPSD3 S08NO25/3P8	IPSD3 S1NO25/A2P	IPSD3 S1NO25/3P8
3-wire NC, NPN	IPSD3 S08NC25/A2P	IPSD3 S08NC25/3P8	IPSD3 S1NC25/A2P	IPSD3 S1NC25/3P8
Recommended Connecting Cable	-	M8/3...	-	M8/3...

Inductive Proximity Switches

## INDUCTIVE

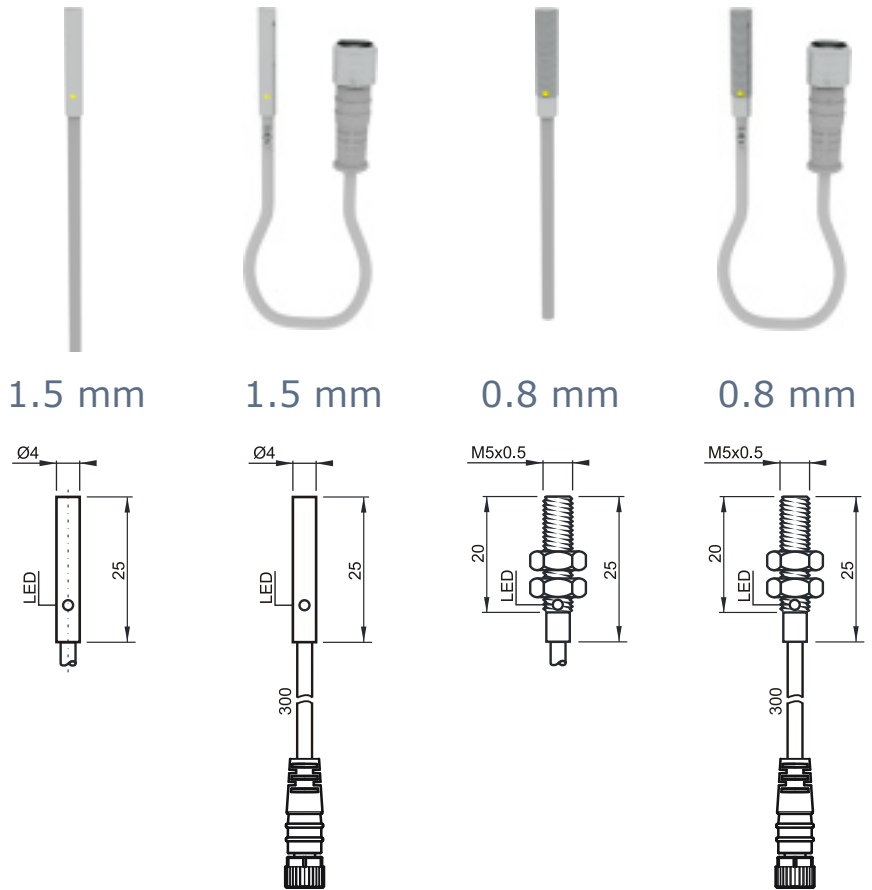
M4	M4	M4	M4	Ø4	Ø4
					
0.6 mm	0.6 mm	1 mm	1 mm	0.8 mm	0.8 mm
					
M4x0.5	M4x0.5	M4x0.5	M4x0.5	Ø4 mm	Ø4 mm
0.6 mm - Shielded	0.6 mm - Shielded	1.0 mm - Shielded	1.0 mm - Shielded	0.8 mm - Shielded	0.8 mm - Shielded
10...30 VDC, 3-wire < 8 mA 200 mA, self-resetting < 1.5 V @ 200 mA 2000 Hz < 1 % (Sn) 3...15 % -25...75 °C IP67 POM Stainless Steel PVC, 3-pole, 2m	10...30 VDC, 3-wire < 8 mA 200 mA, self-resetting < 1.5 V @ 200 mA 2000 Hz < 1 % (Sn) 3...15 % -25...75 °C IP67 POM Stainless Steel M8, 3-pole, 300 mm	10...30 VDC, 3-wire < 8 mA 200 mA, self-resetting < 1.5 V @ 200 mA 2000 Hz < 1 % (Sn) 3...15 % -25...75 °C IP67 POM Stainless Steel PVC, 3-pole, 2m	10...30 VDC, 3-wire < 8 mA 200 mA, self-resetting < 1.5 V @ 200 mA 2000 Hz < 1 % (Sn) 3...15 % -25...75 °C IP67 POM Stainless Steel M8, 3-pole, 300 mm	10...30 VDC, 3-wire < 8 mA 200 mA, self-resetting < 1.5 V @ 200 mA 2000 Hz < 1 % (Sn) 3...15 % -25...75 °C IP67 POM Stainless Steel M12, 3-pole	10...30 VDC, 3-wire < 8 mA 200 mA, self-resetting < 1.5 V @ 200 mA 2000 Hz < 1 % (Sn) 3...15 % -25...75 °C IP67 POM Stainless Steel M8, 3-pole, 300 mm
IPS4 S08PO25/A2P IPS4 S08PC25/A2P IPS4 S08NO25/A2P IPS4 S08NC25/A2P	IPS4 S08PO25/3P8 IPS4 S08PC25/3P8 IPS4 S08NO25/3P8 IPS4 S08NC25/3P8	IPS4 S1PO25/A2P IPS4 S1PC25/A2P IPS4 S1NO25/A2P IPS4 S1NC25/A2P	IPS4 S1PO25/3P8 IPS4 S1PC25/3P8 IPS4 S1NO25/3P8 IPS4 S1NC25/3P8	IPSD4 S08PO25/A2P IPSD4 S08PC25/A2P IPSD4 S08NO25/A2P IPSD4 S08NC25/A2P	IPSD4 S08PO25/3P8 IPSD4 S08PC25/3P8 IPSD4 S08NO25/3P8 IPSD4 S08NC25/3P8
-	M8/3...	-	M8/3...	-	M8/3...

Output Schematics



Not to be used for Safety Applications

Ø4	Ø4	M5	M5
----	----	----	----









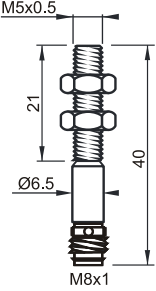
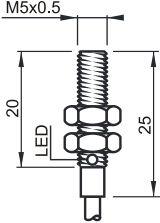
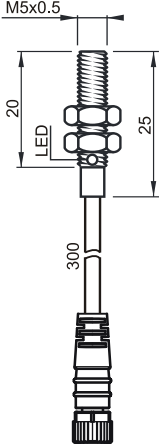
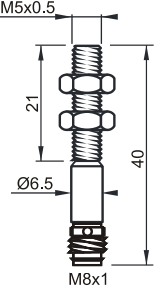
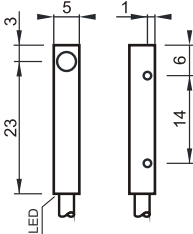
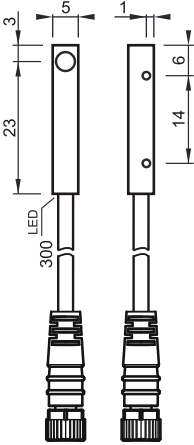
SPECIFICATIONS

	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
Current Consumption	< 8 mA	< 8 mA	< 8 mA	< 8 mA
Output Current	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, 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	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
Connected	M12, 3-pole	M8, 3-pole, 300 mm	PVC, 3-pole, 2m	PVC, 3-pole, 2m
Operating-LED				
Article Code				
3-wire NO, PNP	IPSD4 S1.5PO25/A2P	IPSD4 S1.5PO25/3P8	IPS5 S08PO25/A2P	IPS5 S08PO25/3P8
3-wire NC, PNP	IPSD4 S1.5PC25/A2P	IPSD4 S1.5PC25/3P8	IPS5 S08PC25/A2P	IPS5 S08PC25/3P8
3-wire NO, NPN	IPSD4 S1.5NO25/A2P	IPSD4 S1.5NO25/3P8	IPS5 S08NO25/A2P	IPS5 S08NO25/3P8
3-wire NC, NPN	IPSD4 S1.5NC25/A2P	IPSD4 S1.5NC25/3P8	IPS5 S08NC25/A2P	IPS5 S08NC25/3P8

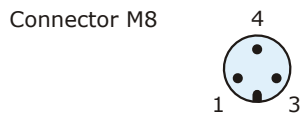
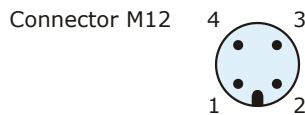
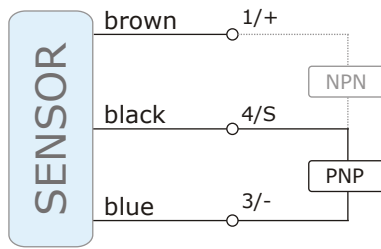
Recommended Connecting Cable

-	M8/3...	-	M8/3...
---	---------	---	---------

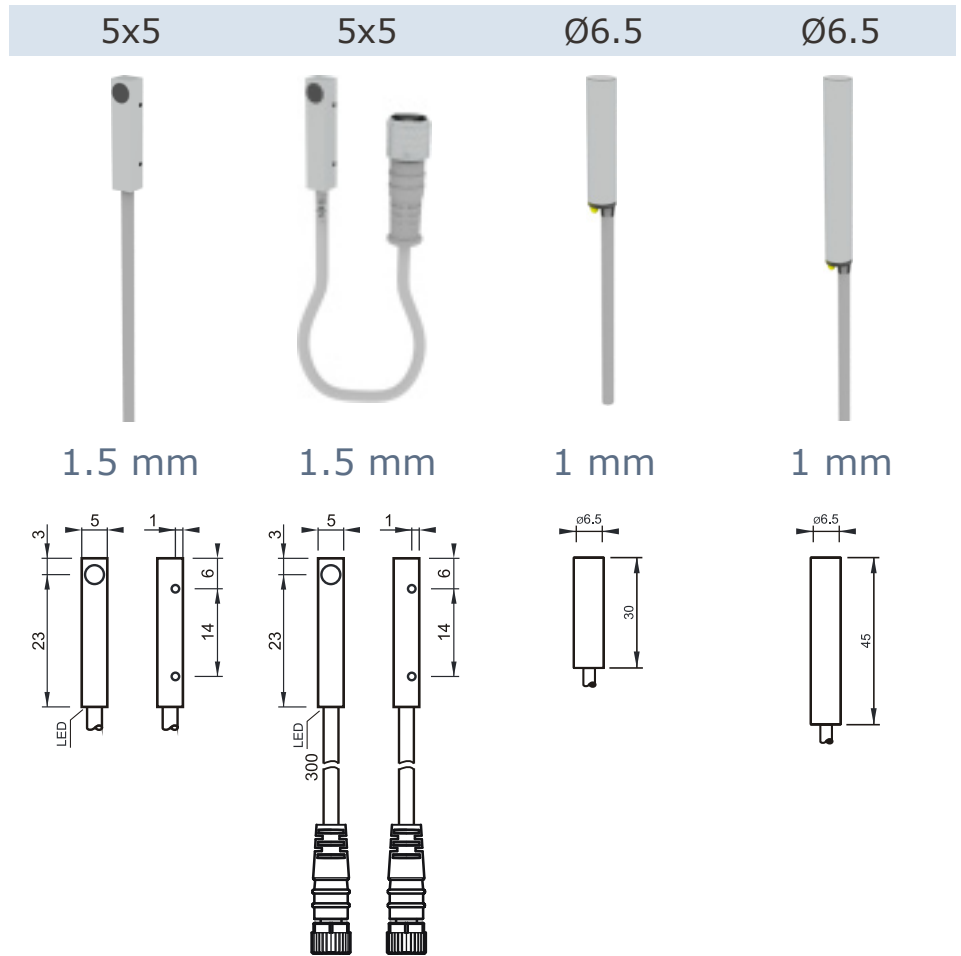
## INDUCTIVE

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 < 8 mA 200 mA, self-resetting < 1.5 V @ 200 mA 2000 Hz < 1 % (Sn) 3...15 % -25...75 °C IP67 POM Stainless Steel M8, 3-pole, 300 mm	10...30 VDC, 3-wire < 8 mA 200 mA, self-resetting < 1.5 V @ 200 mA 2000 Hz < 1 % (Sn) 3...15 % -25...75 °C IP67 POM Stainless Steel PVC, 3-pole, 2m	10...30 VDC, 3-wire < 8 mA 200 mA, self-resetting < 1.5 V @ 200 mA 2000 Hz < 1 % (Sn) 3...15 % -25...75 °C IP67 POM Stainless Steel PVC, 3-pole, 2m	10...30 VDC, 3-wire < 8 mA 200 mA, self-resetting < 1.5 V @ 200 mA 2000 Hz < 1 % (Sn) 3...15 % -25...75 °C IP67 POM Stainless Steel M8, 3-pole, 300 mm	10...30 VDC, 3-wire < 8 mA 200 mA, self-resetting < 1.5 V @ 200 mA 2000 Hz < 1 % (Sn) 3...15 % -25...75 °C IP67 POM Nickel Plated Brass PVC, 3-pole, 2m	10...30 VDC, 3-wire < 8 mA 200 mA, self-resetting < 1.5 V @ 200 mA 1000 Hz < 1 % (Sn) 3...15 % -25...75 °C IP67 POM Nickel Plated Brass M8, 3-pole, 300 mm
IP55 S08PO40/M8 IP55 S08PC40/M8 IP55 S08NO40/M8 IP55 S08NC40/M8	IP55 S1.5PO25/A2P IP55 S1.5PC25/A2P IP55 S1.5NO25/A2P IP55 S1.5NC25/A2P	IP55 S1.5PO25/3P8 IP55 S1.5PC25/3P8 IP55 S1.5NO25/3P8 IP55 S1.5NC25/3P8	IP55 S1.5PO40/M8 IP55 S1.5PC40/M8 IP55 S1.5NO40/M8 IP55 S1.5NC40/M8	IP55 S08PO26/A2P IP55 S08PC 26/A2P IP55 S08NO26/A2P IP55 S08NC26/A2P	IP55 S08PO26/3P8 IP55 S08PC26/3P8 IP55 S08NO26/3P8 IP55 S08NC26/3P8
M8/3...	-	M8/3...	M8/3...	-	M8/3...

## Output Schematics



Not to be  
used for  
Safety  
Applications



## 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
Current Consumption	< 8 mA	< 8 mA	< 8 mA	< 8 mA
Output Current	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, 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	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	Tin-Nickel Plated Brass	Tin-Nickel Plated Brass	Stainless Steel	Stainless Steel
Connected Operating-LED			PVC, 3-pole, 2m	PVC, 3-pole, 2m
<b>Article Code</b>				
3-wire NO, PNP	IPS55 S1.5PO26/A2P	IPS55 S1.5PO26/3P8	IPSD6 S1PO30/A2P	IPSD6 S1PO45/A2P
3-wire NC, PNP	IPS55 S1.5PC26/A2P	IPS55 S1.5PC26/3P8	IPSD6 S1PC30/A2P	IPSD6 S1PC45/A2P
3-wire NO, NPN	IPS55 S1.5NO26/A2P	IPS55 S1.5NO26/3P8	IPSD6 S1NO30/A2P	IPSD6 S1NO45/A2P
3-wire NC, NPN	IPS55 S1.5NC26/A2P	IPS55 S1.5NC26/3P8	IPSD6 S1NC30/A2P	IPSD6 S1NC45/A2P
2-wire NO, 10...55 VDC				IPSD6 S1DO45/A2P
2-wire NC, 10...55 VDC				IPSD6 S1DC45/A2P
Recommended Connecting Cable	-	M8/3...	-	-

## INDUCTIVE

Ø6.5      Ø6.5      Ø6.5      Ø6.5      Ø6.5      Ø6.5



1 mm

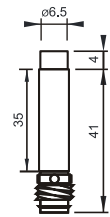
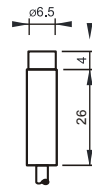
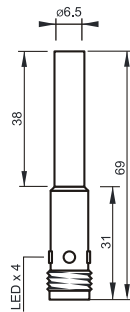
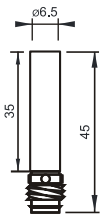
1 mm

1 mm

2 mm

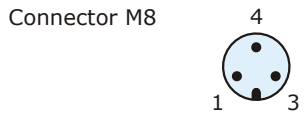
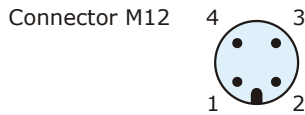
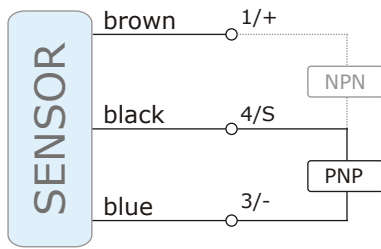
2 mm

2 mm



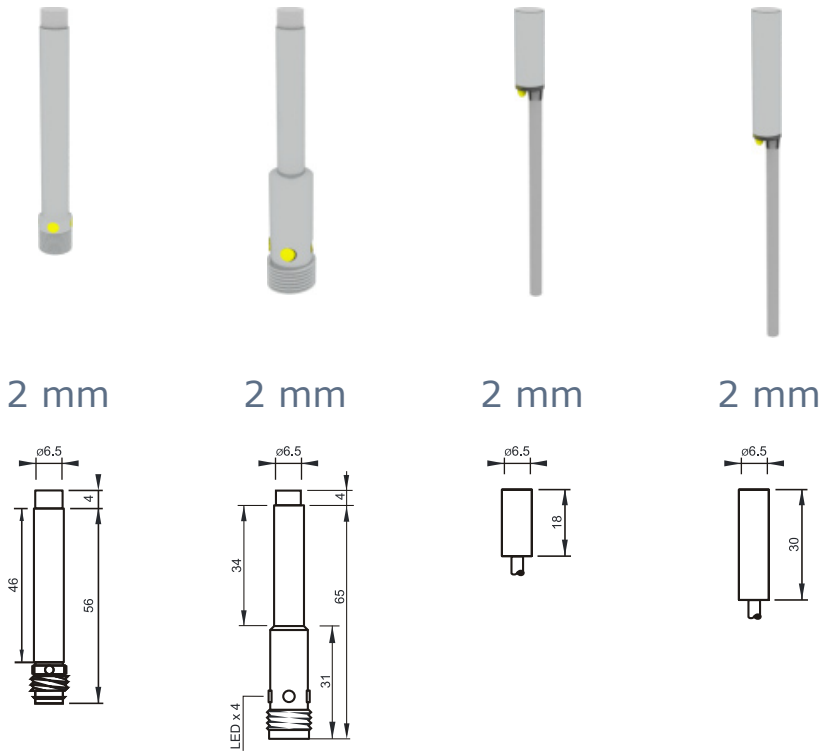
Ø6.5 mm	Ø6.5 mm	Ø6.5 mm	Ø6.5 mm	Ø6.5 mm	Ø6.5 mm
1 mm - Shielded	1 mm - Shielded	1 mm - Shielded	2 mm - Unshielded	2 mm - Unshielded	2 mm - Unshielded
10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA
200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, 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	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
Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
M8, 3-pole, 300 mm	M8, 3-pole, 300 mm	M12, 3-pole	PVC, 3-pole, 2m	PVC, 3-pole, 2m	M8, 3-pole, 300 mm
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...

Output Schematics



Not to be used for Safety Applications

Ø6.5      Ø6.5      Ø6.5      Ø6.5



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
Current Consumption	< 8 mA	< 8 mA	< 8 mA	< 8 mA
Output Current	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, 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	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
Connected	M8, 3-pole, 300 mm	M12, 3-pole	PVC, 3-pole, 2m	PVC, 3-pole, 2m
Operating-LED				

Article Code

3-wire NO, PNP	IPSD6 N2PO60/M8	IPSD6 N2PO69/M12	IPSD6 S2PO18/A2P	IPSD6 S2PO30/A2P
3-wire NC, PNP	IPSD6 N2PC60/M8	IPSD6 S1PC69/M12	IPSD6 S2PC18/A2P	IPSD6 S2PC30/A2P
3-wire NO, NPN	IPSD6 N2NO60/M8	IPSD6 N2NO69/M12	IPSD6 S2NO18/A2P	IPSD6 S2NO30/A2P
3-wire NC, NPN	IPSD6 N2NC60/M8	IPSD6 N2NC69/M12	IPSD6 S2NC18/A2P	IPSD6 S2NC30/A2P
	IPSD6 N2DO60/M8	IPSD6 N2DO69/M12		
	IPSD6 N2DC60/M8	IPSD6 N2DC69/M12		

Recommended Connecting Cable

M8/3...	M12/3...	-	-
---------	----------	---	---

## INDUCTIVE

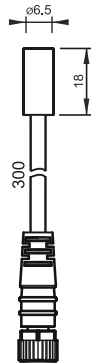
Ø6.5      Ø6.5      Ø6.5      Ø6.5      Ø6.5      Ø6.5



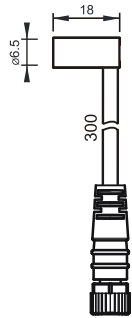
2 mm



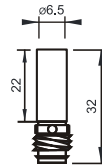
2 mm



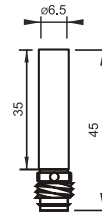
2 mm



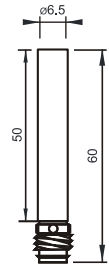
2 mm



2 mm

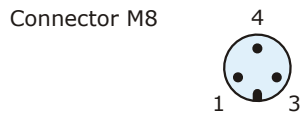
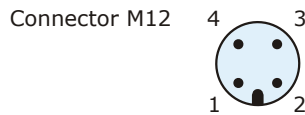
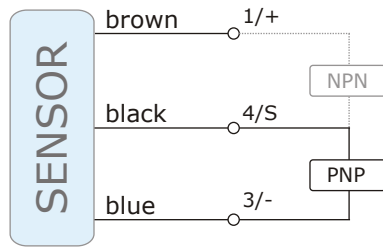


2 mm



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 < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 hie, 3-wire < 8 mA
200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, 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
Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
PVC, 3-pole, 2m	PVC, 3-pole, 2m	PVC, 3-pole, 2m	M8, 3-pole, 300 mm	M8, 3-pole, 300 mm	M8, 3-pole, 300 mm
IPSD6 S2PO45/A2P	IPSD6 S2PO18/3P8	IPSD6 S2PO18/R3P8	IPSD6 S2PO32/M8	IPSD6 S2PO45/M8	IPSD6 S2PO60/M8
IPSD6 S2PC45/A2P	IPSD6 S2PC18/3P8	IPSD6 S2PC18/R3P8	IPSD6 S2PC32/M8	IPSD6 S2PC45/M8	IPSD6 S2PC60/M8
IPSD6 S2NO45/A2P	IPSD6 S2NO18/3P8	IPSD6 S2NO18/R3P8	IPSD6 S2NO32/M8	IPSD6 S2NO45/M8	IPSD6 S2NO60/M8
IPSD6 S2NC45/A2P	IPSD6 S2NC18/3P8	IPSD6 S2NC18/R3P8	IPSD6 S2NC32/M8	IPSD6 S2NC45/M8	IPSD6 S2NC60/M8
-	M8/3...	M8/3...	M8/3...	M8/3...	M8/3...

Output Schematics



Not to be used for Safety Applications

Ø6.5	Ø6.5	Ø6.5	Ø6.5
------	------	------	------

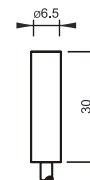
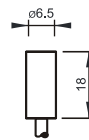
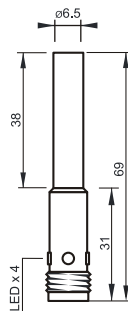


2 mm

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
Current Consumption	< 8 mA	< 8 mA	< 8 mA	< 8 mA
Output Current	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, 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	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
Connected	M12, 3-pole	PVC, 3-pole, 2m	PVC, 3-pole, 2m	PVC, 3-pole, 2m
Operating-LED				

**Article Code**

3-wire NO, PNP	IPSD6 S2PO69/M12	IPSD6 S3PO18/A2P	IPSD6 S3PO30/A2P	IPSD6 S3PO45/A2P
3-wire NC, PNP	IPSD6 S2PC69/M12	IPSD6 S3PC18/A2P	IPSD6 S3PC30/A2P	IPSD6 S3PC45/A2P
3-wire NO, NPN	IPSD6 S2NO69/M12	IPSD6 S3NO18/A2P	IPSD6 S3NO30/A2P	IPSD6 S3NO45/A2P
3-wire NC, NPN	IPSD6 S2NC69/M12	IPSD6 S3NC18/A2P	IPSD6 S3NC30/A2P	IPSD6 S3NC45/A2P

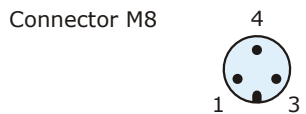
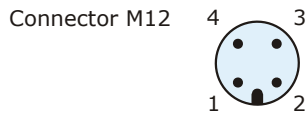
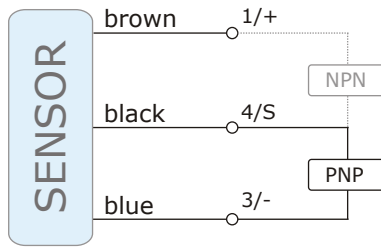
Recommended Connecting Cable

M12/3...	-	-	-
----------	---	---	---

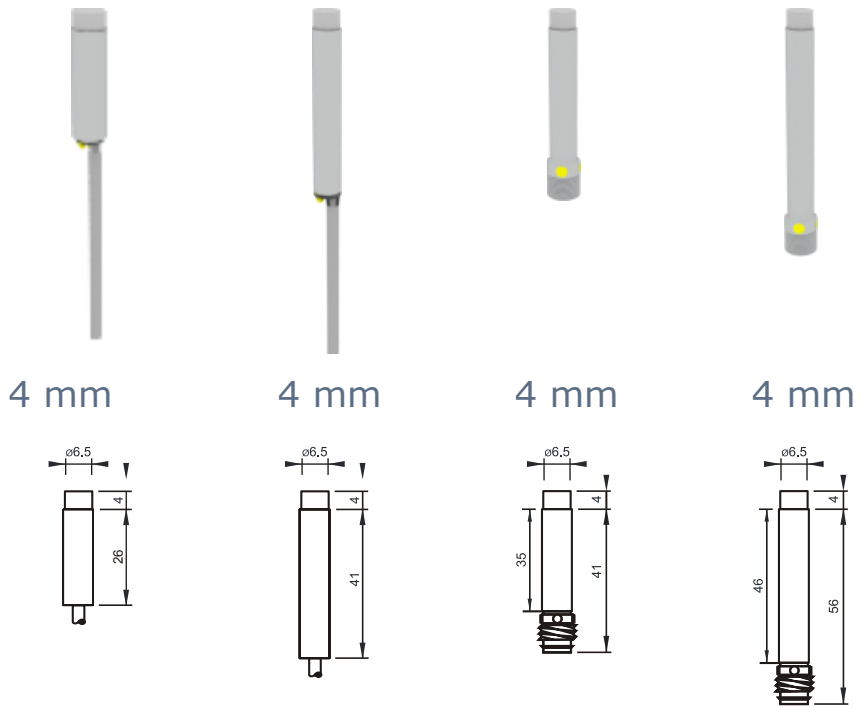
## INDUCTIVE

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 < 8 mA 200 mA, self-resetting < 1.5 V @ 200 mA 2000 Hz < 1 % (Sn) 3...15 % -25...75 °C IP67 POM Stainless Steel PVC, 3-pole, 2m	10...30 VDC, 3-wire < 8 mA 200 mA, self-resetting < 1.5 V @ 200 mA 2000 Hz < 1 % (Sn) 3...15 % -25...75 °C IP67 POM Stainless Steel PVC, 3-pole, 2m	10...30 VDC, 3-wire < 8 mA 200 mA, self-resetting < 1.5 V @ 200 mA 2000 Hz < 1 % (Sn) 3...15 % -25...75 °C IP67 POM Stainless Steel M8, 3-pole	10...30 VDC, 3-wire < 8 mA 200 mA, self-resetting < 1.5 V @ 200 mA 1000 Hz < 1 % (Sn) 3...15 % -25...75 °C IP67 POM Stainless Steel M8, 3-pole	10...30 VDC, 3-wire < 8 mA 200 mA, self-resetting < 1.5 V @ 200 mA 1000 Hz < 1 % (Sn) 3...15 % -25...75 °C IP67 POM Stainless Steel M8, 3-pole	10...30 VDC, 3-wire < 8 mA 200 mA, self-resetting < 1.5 V @ 200 mA 1000 Hz < 1 % (Sn) 3...15 % -25...75 °C IP67 POM Stainless Steel M12, 3-pole
IPSD6 S3PO18/3P8 IPSD6 S3PC18/3P8 IPSD6 S3NO18/3P8 IPSD6 S3NC18/3P8	IPSD6 S3PO18/R3P8 IPSD6 S3PC18/R3P8 IPSD6 S3NO18/R3P8 IPSD6 S3NC18/R3P8	IPSD6 S3PO32/M8 IPSD6 S3PC32/M8 IPSD6 S3NO32/M8 IPSD6 S3NC32/M8	IPSD6 S3PO45/M8 IPSD6 S3PC45/M8 IPSD6 S3NO45/M8 IPSD6 S3NC45/M8	IPSD6 S3PO60/M8 IPSD6 S3PC60/M8 IPSD6 S3NO60/M8 IPSD6 S3NC60/M8	IPSD6 S3PO70/M12 IPSD6 S3PC70/M12 IPSD6 S3NO70/M12 IPSD6 S3NC70/M12
M8/3...	M8/3...	M8/3...	M8/3...	M8/3...	M12/3...

Output Schematics



Ø6.5      Ø6.5      Ø6.5      Ø6.5



Not to be used for Safety Applications

**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
Current Consumption	< 8 mA	< 8 mA	< 8 mA	< 8 mA
Output Current	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, 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	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
Connected	PVC, 3-pole, 2m	PVC, 3-pole, 2m	M8, 3-pole	M8, 3-pole
Operating-LED				

**Article Code**

3-wire NO, PNP	IPSD6 N4PO30/A2P	IPSD6 N4PO45/A2P	IPSD6 N4PO45/M8	IPSD6 N4PO60/M8
3-wire NC, PNP	IPSD6 N4PC30/A2P	IPSD6 N4PC45/A2P	IPSD6 N4PC45/M8	IPSD6 N4PC60/M8
3-wire NO, NPN	IPSD6 N4NO30/A2P	IPSD6 N4NO45/A2P	IPSD6 N4NO45/M8	IPSD6 N4NO60/M8
3-wire NC, NPN	IPSD6 N4NC30/A2P	IPSD6 N4NC45/A2P	IPSD6 N4NC45/M8	IPSD6 N4NC60/M8

2-wire NO, 10...55 VDC  
 2-wire NC, 10...55 VDC  
 Recommended Connecting Cable

-      -      M8/3...      M8/3...

## INDUCTIVE

Ø6.5      Ø6.5      Ø6.5      Ø6.5      Ø6.5      Ø6.5



4 mm

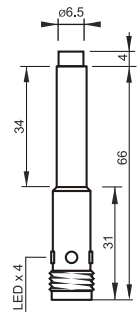
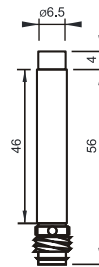
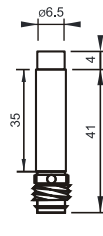
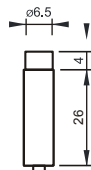
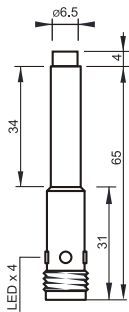
6 mm

6 mm

6 mm

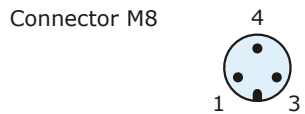
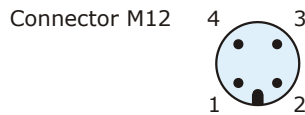
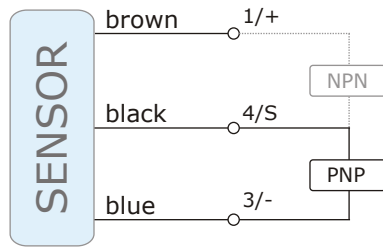
6 mm

6 mm



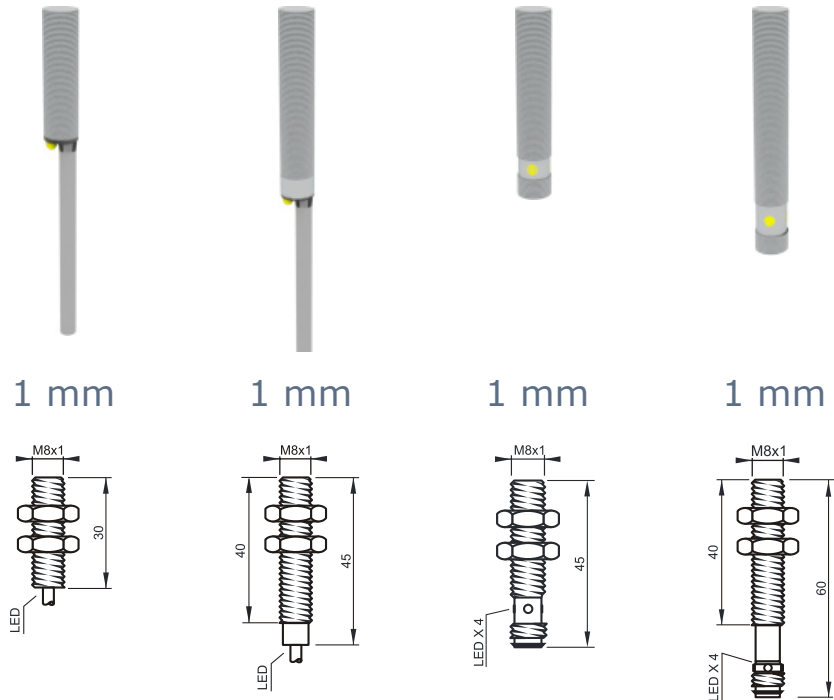
Ø6.5 mm	Ø6.5 mm	Ø6.5 mm	Ø6.5 mm	Ø6.5 mm	Ø6.5 mm
4 mm - Unshielded	6 mm - Unshielded	6 mm - Unshielded	6 mm - Unshielded	6 mm - Unshielded	6 mm - Unshielded
10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA
200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, 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
Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
M12, 3-pole	PVC, 3-pole, 2m	PVC, 3-pole, 2m	M8, 3-pole	M8, 3-pole	M12, 3-pole
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



Not to be used for Safety Applications

M8 M8 M8 M8



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
Current Consumption	< 8 mA	< 8 mA	< 8 mA	< 8 mA
Output Current	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, 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	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
Connected	PVC, 3-pole, 2m	PVC, 3-pole, 2m	M8, 3-pole	M8, 3-pole
Operating-LED				

Article Code

3-wire NO, PNP	IPS8 S1PO30/A2P	IPS8 S1PO45/A2P	IPS8 S1PO45/M8	IPS8 S1PO60/M8
3-wire NC, PNP	IPS8 S1PC30/A2P	IPS8 S1PC45/A2P	IPS8 S1PC45/M8	IPS8 S1PC60/M8
3-wire NO, NPN	IPS8 S1NO30/A2P	IPS8 S1NO45/A2P	IPS8 S1NO45/M8	IPS8 S1NO60/M8
3-wire NC, NPN	IPS8 S1NC30/A2P	IPS8 S1NC45/A2P	IPS8 S1NC45/M8	IPS8 S1NC60/M8
2-wire NO, 10...55 VDC		IPS8 S1DO45/A2P		IPS8 S1DO60/M8
2-wire NC, 10...55 VDC		IPS8 S1DC45/A2P		IPS8 S1DC60/M8

Recommended Connecting Cable

-	-	M8/3...	M8/3...
---	---	---------	---------

Inductive Proximity Switches

## INDUCTIVE

M8	M8	M8	M8	M8	M8
----	----	----	----	----	----



1 mm

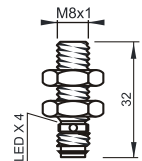
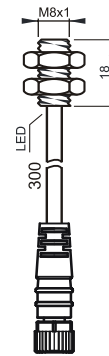
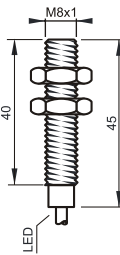
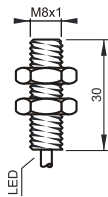
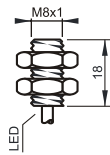
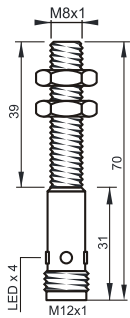
2 mm

2 mm

2 mm

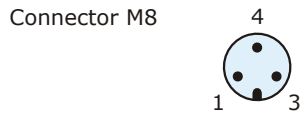
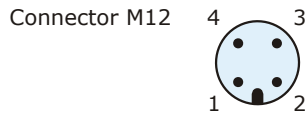
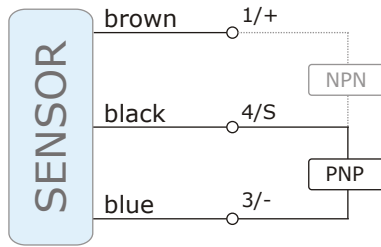
2 mm

2 mm

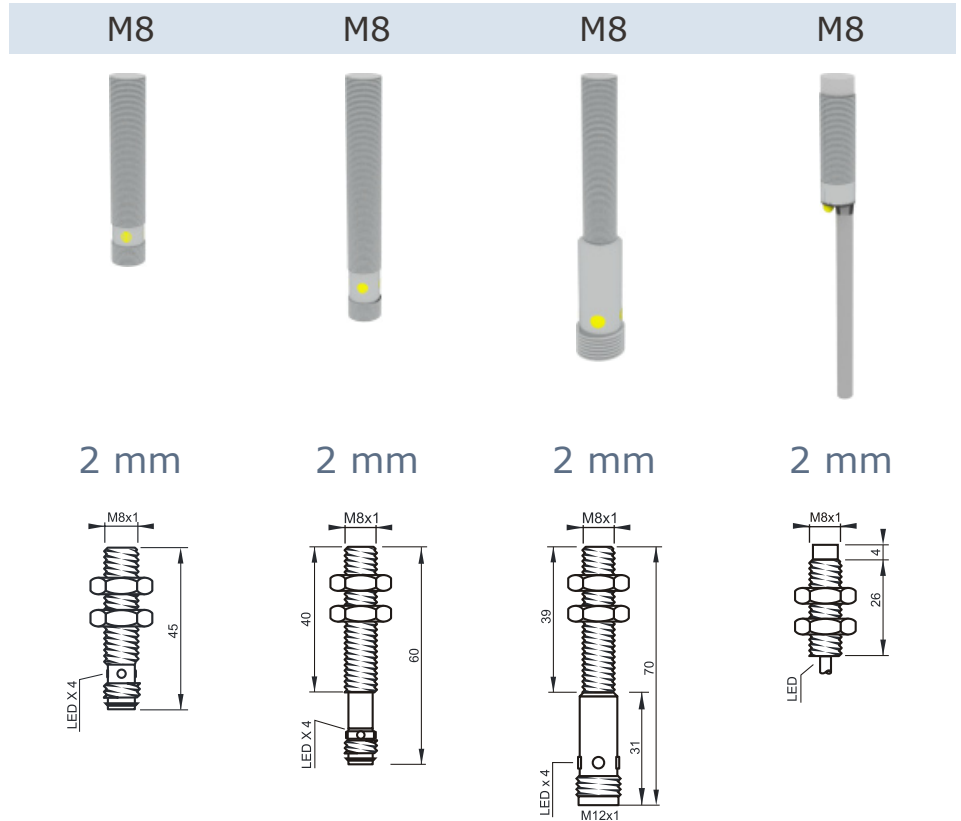


M8x1	M8x1	M8x1	M8x1	M8x1	M8x1
1 mm - Shielded	2 mm - Shielded	2 mm - Shielded	2 mm - Shielded	2 mm - Shielded	2 mm - Shielded
10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA
200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, 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
Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
M8, 3-pole	PVC, 3-pole, 2m	PVC, 3-pole, 2m	PVC, 3-pole, 2m	PVC, 3-pole, 2m	M8, 3-pole
IPS8 S1PO70/M12	IPS8 S2PO18/A2P	IPS8 S2PO30/A2P	IPS8 S2PO45/A2P	IPS8 S2PO18/3P8	IPS8 S2PO32/M8
IPS8 S1PC70/M12	IPS8 S2PC18/A2P	IPS8 S2PC30/A2P	IPS8 S2PC45/A2P	IPS8 S2PC18/3P8	IPS8 S2PC32/M8
IPS8 S1NO70/M12	IPS8 S2NO18/A2P	IPS8 S2NO30/A2P	IPS8 S2NO45/A2P	IPS8 S2NO18/3P8	IPS8 S2NO32/M8
IPS8 S1NC70/M12	IPS8 S2NC18/A2P	IPS8 S2NC30/A2P	IPS8 S2NC45/A2P	IPS8 S2NC18/3P8	IPS8 S2NC32/M8
IPS8 S1DO70/M12					
IPS8 S1DC70/M12					
M8/3...	-	-	-	M8/3...	M8/3...

Output Schematics



Not to be used for Safety Applications



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
Current Consumption	< 8 mA	< 8 mA	< 8 mA	< 8 mA
Output Current	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, 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	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
Connected	M8, 3-pole	M8, 3-pole	M12, 3-pole	PVC, 3-pole, 2m
Operating-LED				
Article Code				
3-wire NO, PNP	IPS8 S2PO45/M8	IPS8 S2PO60/M8	IPS8 S2PO70/M12	IPS8 N2PO30/A2P
3-wire NC, PNP	IPS8 S2PC45/M8	IPS8 S2PC60/M8	IPS8 S2PC70/M12	IPS8 N2PC30/A2P
3-wire NO, NPN	IPS8 S2NO45/M8	IPS8 S2NO60/M8	IPS8 S2NO70/M12	IPS8 N2NO30/A2P
3-wire NC, NPN	IPS8 S2NC45/M8	IPS8 S2NC60/M8	IPS8 S2NC70/M12	IPS8 N2NC30/A2P

Recommended Connecting Cable

M8/3...

M8/3...

M12/3...

-

## INDUCTIVE

### M8 M8 M8 M8 M8 M8



2 mm

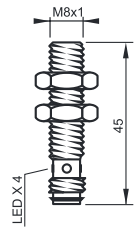
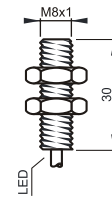
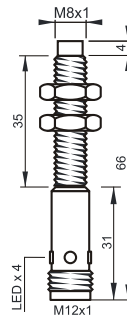
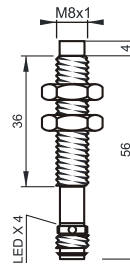
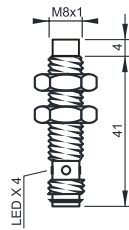
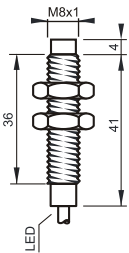
2 mm

2 mm

2 mm

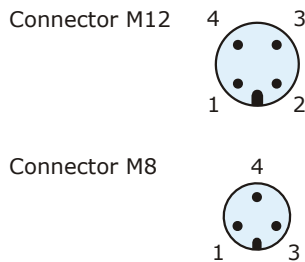
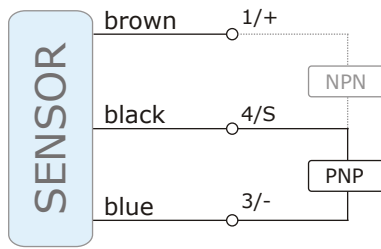
2 mm

2 mm

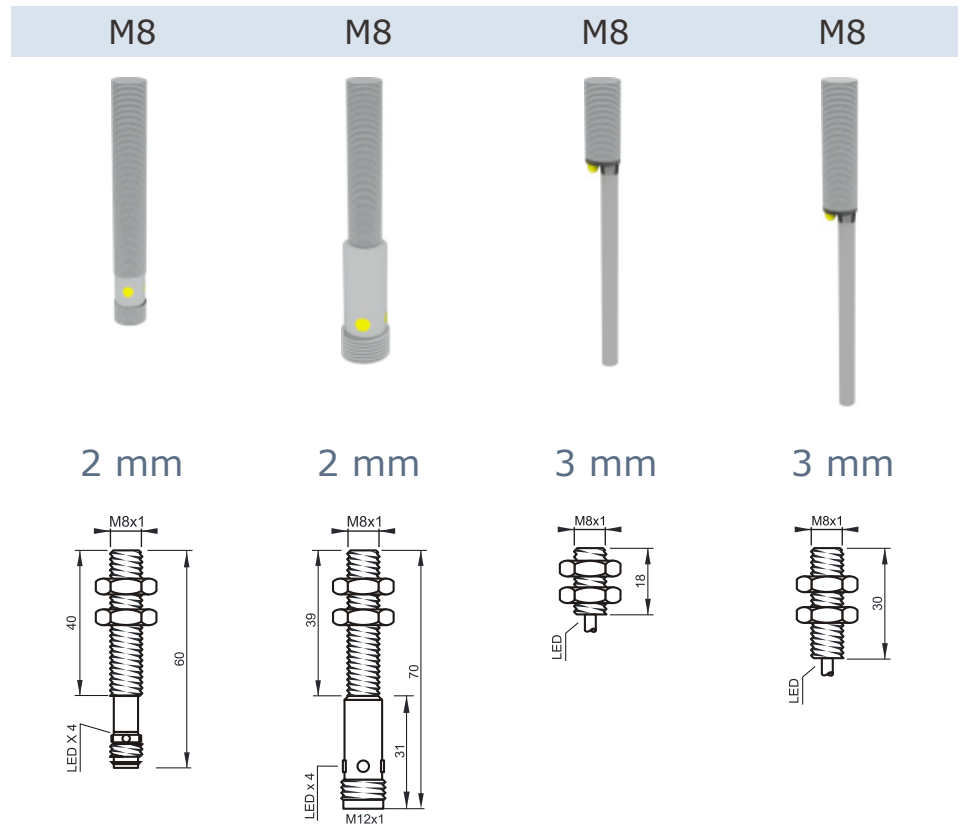


M8x1	M8x1	M8x1	M8x1	M8 Metal Face	M8 Metal Face
2 mm - Unshielded	2 mm - Unshielded	2 mm - Unshielded	2 mm - Unshielded	2 mm - Shielded	2 mm - Shielded
10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA
200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, 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	IP68, Conn. IP67	IP68, Conn. IP67
POM	POM	POM	POM	Stainless Steel	Stainless Steel
Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
PVC, 3-pole, 2m	M8, 3-pole	M8, 3-pole	M8, 3-pole	M12, 3-pole	M12, 3-pole
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...

Output Schematics



Not to be used for Safety Applications



**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
Current Consumption	< 8 mA	< 8 mA	< 8 mA	< 8 mA
Output Current	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, 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	IP68, Conn. IP67	IP68, Conn. IP67	IP67	IP67
Sensing Face Material	Stainless Steel	Stainless Steel	POM	POM
Housing Material	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
Connected	M12, 3-pole	M12, 3-pole	PVC, 3-pole, 2m	PVC, 3-pole, 2m
Operating-LED				
<b>Article Code</b>				
3-wire NO, PNP	IMF8 S2PO60/M8	IMF8 S2PO70/M12	IPS8 S3PO18/A2P	IPS8 S3PO30/A2P
3-wire NC, PNP	IMF8 S2PC60/M8	IMF8 S2PC70/M12	IPS8 S3PC18/A2P	IPS8 S3PC30/A2P
3-wire NO, NPN	IMF8 S2NO60/M8	IMF8 S2NO70/M12	IPS8 S3NO18/A2P	IPS8 S3NO30/A2P
3-wire NC, NPN	IMF8 S2NC60/M8	IMF8 S2NC70/M12	IPS8 S3NC18/A2P	IPS8 S3NC30/A2P

Recommended Connecting Cable

M8/3...

M12/3...

-

-

## INDUCTIVE

M8 M8 M8 M8 M8 M8



3 mm

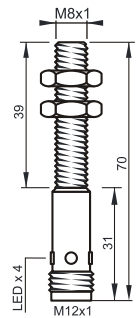
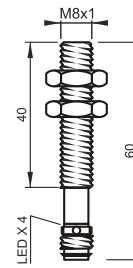
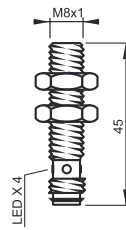
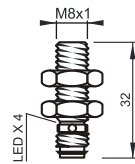
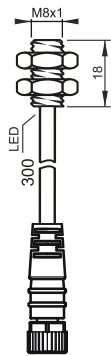
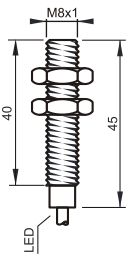
3 mm

3 mm

3 mm

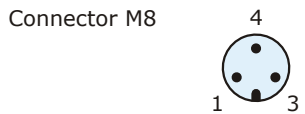
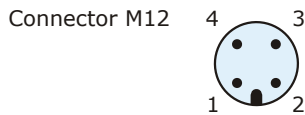
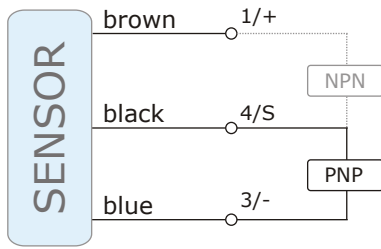
3 mm

3 mm



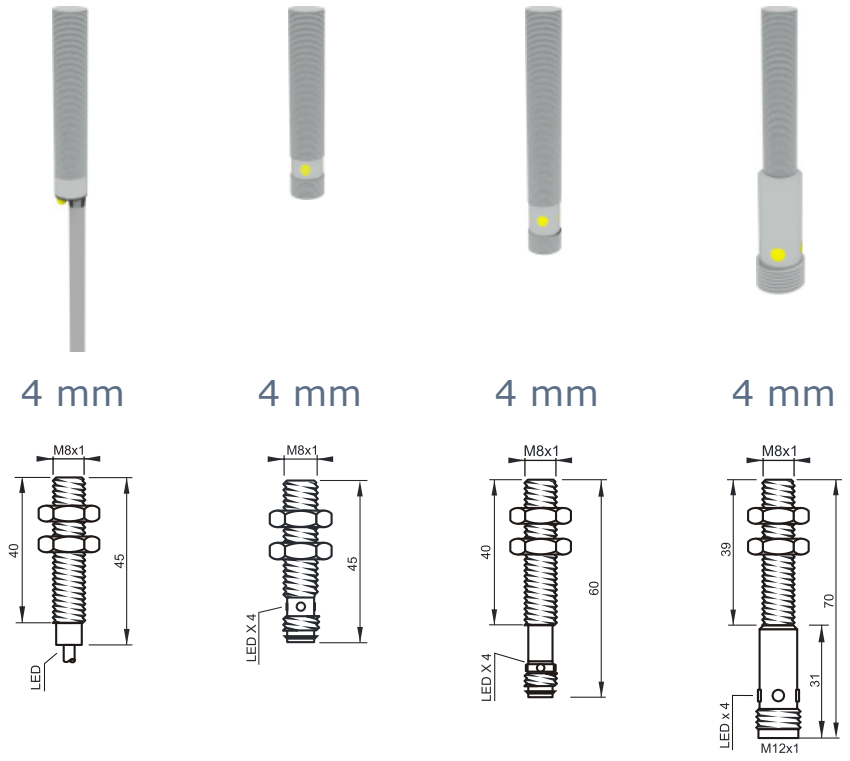
M8x1	M8x1	M8x1	M8x1	M8x1	M8x1
3 mm - Shielded	3 mm - Shielded	3 mm - Shielded	3 mm - Shielded	3 mm - Shielded	3 mm - Shielded
10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA
200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, 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	2000 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
Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
PVC, 3-pole, 2m	PVC, 3-pole, 2m	M8, 3-pole	M8, 3-pole	M8, 3-pole	M12, 3-pole
IPS8 S3PO45/A2P IPS8 S3PC45/A2P IPS8 S3NO45/A2P IPS8 S3NC45/A2P	IPS8 S3PO18/3P8 IPS8 S3PC18/3P8 IPS8 S3NO18/3P8 IPS8 S3NC18/3P8	IPS8 S3PO32/M8 IPS8 S3PC32/M8 IPS8 S3NO32/M8 IPS8 S3NC32/M8	IPS8 S3PO45/M8 IPS8 S3PC45/M8 IPS8 S3NO45/M8 IPS8 S3NC45/M8	IPS8 S3PO60/M8 IPS8 S3PC60/M8 IPS8 S3NO60/M8 IPS8 S3NC60/M8	IPS8 S3PO70/M12 IPS8 S3PC70/M12 IPS8 S3NO70/M12 IPS8 S3NC70/M12
-	M8/3...	M8/3...	M8/3...	M8/3...	M12/3...

Output Schematics



Not to be used for Safety Applications

M8 M8 M8 M8



SPECIFICATIONS

	M8x1	M8x1	M8x1	M8x1
Sensing Distance	4 mm - Shielded	4 mm - Shielded	4 mm - Shielded	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
Current Consumption	< 8 mA	< 8 mA	< 8 mA	< 8 mA
Output Current	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, 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	Tin-Nickel Plated Brass	Tin-Nickel Plated Brass	Tin-Nickel Plated Brass	Stainless Steel
Connected Operating-LED				M12, 3-pole
Article Code				
3-wire NO, PNP	IPS8 S4PO45/A2P	IPS8 S4PO45/M8	IPS8 S4PO60/M8	IPS8 S4PO70/M12
3-wire NC, PNP	IPS8 S4PC45/A2P	IPS8 S4PC45/M8	IPS8 S4PC60/M8	IPS8 S4PC70/M12
3-wire NO, NPN	IPS8 S4NO45/A2P	IPS8 S4NO45/M8	IPS8 S4NO60/M8	IPS8 S4NO70/M12
3-wire NC, NPN	IPS8 S4NC45/A2P	IPS8 S4NC45/M8	IPS8 S4NC60/M8	IPS8 S4NC70/M12
Recommended Connecting Cable	-	M8/3...	M8/3...	M12/3...

Inductive Proximity Switches

## INDUCTIVE

### M8 M8 M8 M8 M8 M8



4 mm

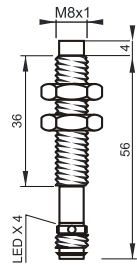
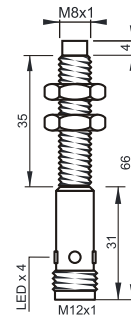
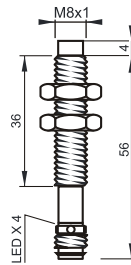
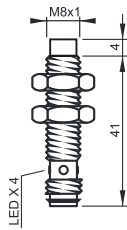
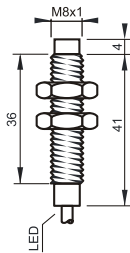
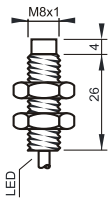
4 mm

4 mm

4 mm

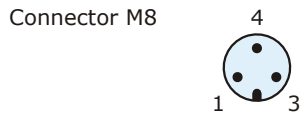
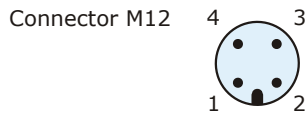
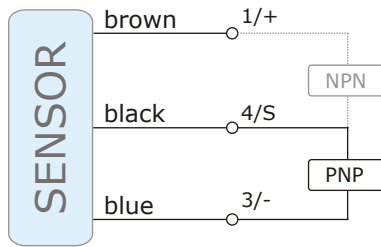
4 mm

4 mm



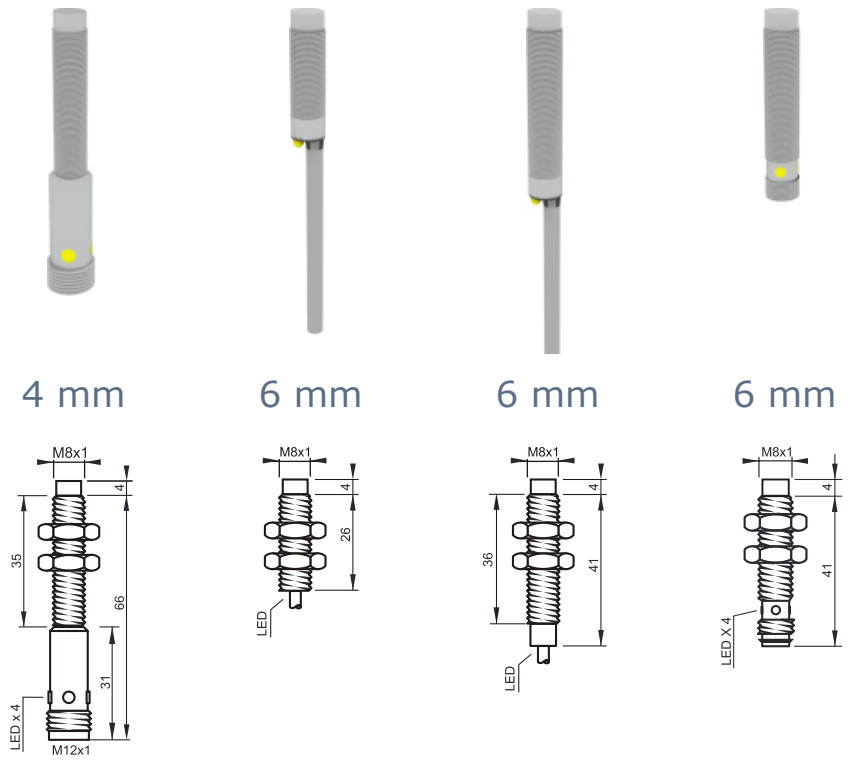
M8x1	M8x1	M8x1	M8x1	M8x1	M8 Metal Face
4 mm - Unshielded	4 mm - Unshielded	4 mm - Unshielded	4 mm - Unshielded	4 mm - Unshielded	4 mm - Unshielded
10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA
200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, 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	IP68, Conn. IP67
POM	POM	POM	POM	POM	Stainless Steel
Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
PVC, 3-pole, 2m	PVC, 3-pole, 2m	M8, 3-pole	M8, 3-pole	M12, 3-pole	M12, 3-pole
IPS8 N4PO30/A2P	IPS8 N4PO45/A2P	IPS8 N4PO45/M8	IPS8 N4PO60/M8	IPS8 N4PO70/M12	IMF8 N4PO60/M8
IPS8 N4PC30/A2P	IPS8 N4PC45/A2P	IPS8 N4PC45/M8	IPS8 N4PC60/M8	IPS8 N4PC70/M12	IMF8 N4PC60/M8
IPS8 N4NO30/A2P	IPS8 N4NO45/A2P	IPS8 N4NO45/M8	IPS8 N4NO60/M8	IPS8 N4NO70/M12	IMF8 N4NO60/M8
IPS8 N4NC30/A2P	IPS8 N4NC45/A2P	IPS8 N4NC45/M8	IPS8 N4NC60/M8	IPS8 N4NC70/M12	IMF8 N4NC60/M8
-	-	M8/3...	M8/3...	M12/3...	M8/3...

Output Schematics



Not to be used for Safety Applications

M8 M8 M8 M8









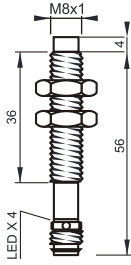
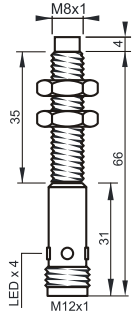
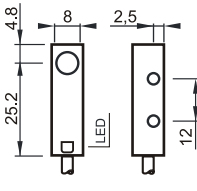
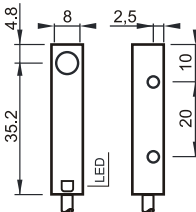
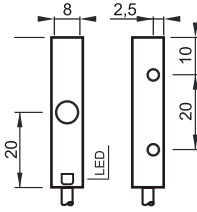
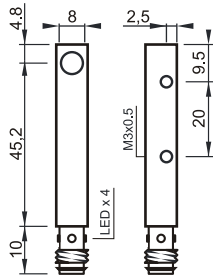
SPECIFICATIONS

	M8 Metal Face	M8x1	M8x1	M8x1
Sensing Distance	4 mm - Unshielded	6 mm - Unshielded	6 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
Current Consumption	< 8 mA	< 8 mA	< 8 mA	< 8 mA
Output Current	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, 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	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	IP68, Conn. IP67	IP67	IP67	IP67
Sensing Face Material	Stainless Steel	POM	POM	POM
Housing Material	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
Connected	M12, 3-pole	PVC, 3-pole, 2m	PVC, 3-pole, 2m	M8, 3-pole
Operating-LED				
Article Code				
3-wire NO, PNP	IMF8 N4PO70/M12	IPS8 N6PO30/A2P	IPS8 N6PO45/A2P	IPS8 N6PO45/M8
3-wire NC, PNP	IMF8 N4PC70/M12	IPS8 N6PC30/A2P	IPS8 N6PC45/A2P	IPS8 N6PC45/M8
3-wire NO, NPN	IMF8 N4NO70/M12	IPS8 N6NO30/A2P	IPS8 N6NO45/A2P	IPS8 N6NO45/M8
3-wire NC, NPN	IMF8 N4NC70/M12	IPS8 N6NC30/A2P	IPS8 N6NC45/A2P	IPS8 N6NC45/M8

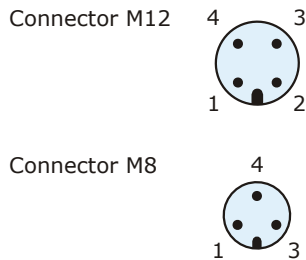
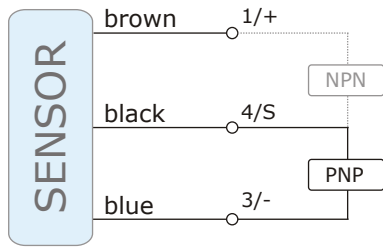
Recommended Connecting Cable

M12/3... - - M8/3...

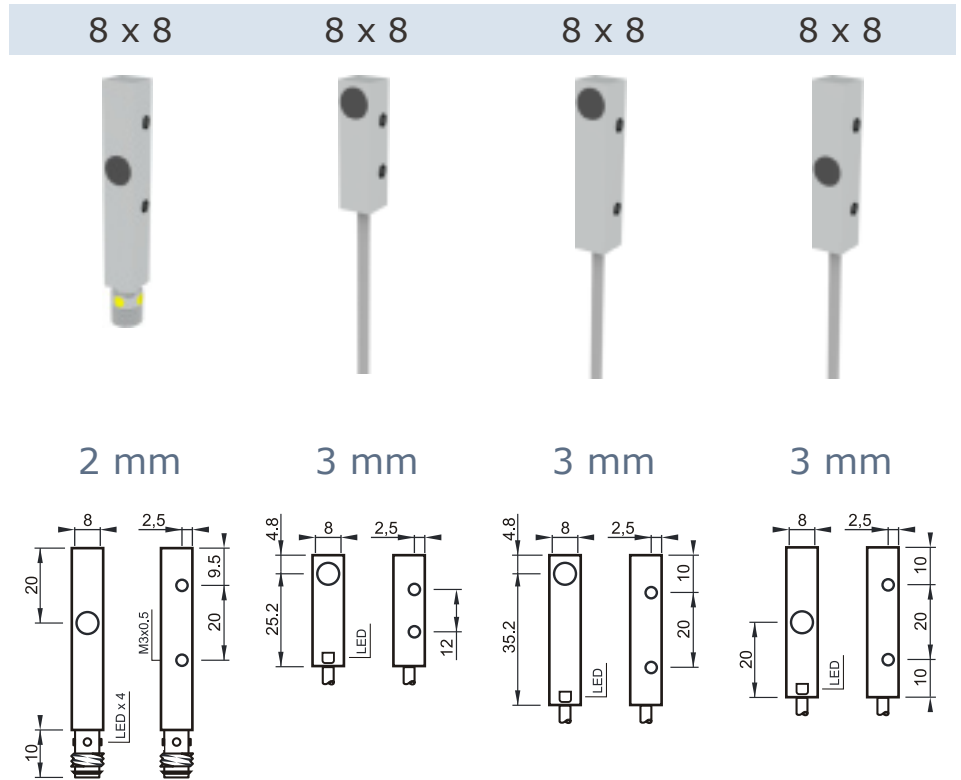
## INDUCTIVE

M8	M8	8 x 8	8 x 8	8 x 8	8 x 8
					
6 mm	6 mm	2 mm	2 mm	2 mm	2 mm
					
M8x1	M8x1	8 x 8	8 x 8	8 x 8	8 x 8
6 mm - Unshielded	6 mm - Unshielded	2 mm - Shielded	2 mm - Shielded	2 mm - Shielded	2 mm - Shielded
10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA
200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, 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	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
Stainless Steel	Stainless Steel	Nickel Plated Brass	Nickel Plated Brass	Nickel Plated Brass	Nickel Plated Brass
M8, 3-pole	M12, 3-pole	PVC, 3-pole, 2m	PVC, 3-pole, 2m	PVC, 3-pole, 2m	M8, 3-pole
IPS8 N6PO60/M8	IPS8 N6PO70/M12	IPS88 S2PO30/A2P	IPS88 S2PO40/A2P	IPS88 S2PO40C/A2P	IPS88 S2PO60/M8
IPS8 N6PC60/M8	IPS8 N6PC70/M12	IPS88 S2PC30/A2P	IPS88 S2PC40/A2P	IPS88 S2PC40C/A2P	IPS88 S2PC60/M8
IPS8 N6NO60/M8	IPS8 N6NO70/M12	IPS88 S2NO30/A2P	IPS88 S2NO40/A2P	IPS88 S2NO40C/A2P	IPS88 S2NO60/M8
IPS8 N6NC60/M8	IPS8 N6NC70/M12	IPS88 S2NC30/A2P	IPS88 S2NC40/A2P	IPS88 S2NC40C/A2P	IPS88 S2NC60/M8
M8/3...	M12/3...	-	-	-	M8/3...

Output Schematics



Not to be used for Safety Applications



**SPECIFICATIONS**

	8 x 8	8 x 8	8 x 8	8 x 8
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
Current Consumption	< 8 mA	< 8 mA	< 8 mA	< 8 mA
Output Current	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, 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	Nickel Plated Brass	Nickel Plated Brass	Nickel Plated Brass	Nickel Plated Brass
Connected	M8, 3-pole	PVC, 3-pole, 2m	PVC, 3-pole, 2m	PVC, 3-pole, 2m
Operating-LED				
<b>Article Code</b>				
3-wire NO, PNP	IPS88 S2PO60C/M8	IPS88 S3PO30/A2P	IPS88 S3PO40/A2P	IPS88 S3PO40C/A2P
3-wire NC, PNP	IPS88 S2PC60C/M8	IPS88 S3PC30/A2P	IPS88 S3PC40/A2P	IPS88 S3PC40C/A2P
3-wire NO, NPN	IPS88 S2NO60C/M8	IPS88 S3NO30/A2P	IPS88 S3NO40/A2P	IPS88 S3NO40C/A2P
3-wire NC, NPN	IPS88 S2NC60C/M8	IPS88 S3NC30/A2P	IPS88 S3NC40/A2P	IPS88 S3NC40C/A2P
2-wire NO, 10...55 VDC				
2-wire NC, 10...55 VDC				
Recommended Connecting Cable	M8/3...	-	-	-

## INDUCTIVE

8 x 8	8 x 8	M12	M12	M12	M12
-------	-------	-----	-----	-----	-----



3 mm

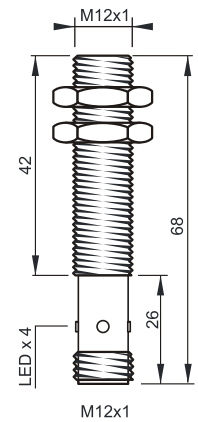
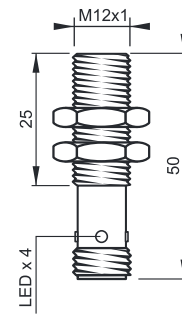
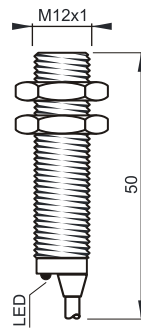
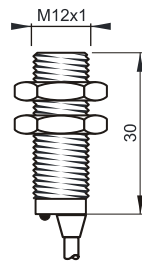
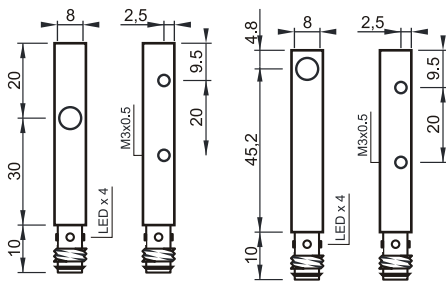
3 mm

2 mm

2 mm

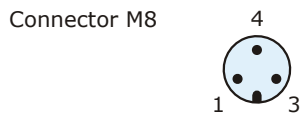
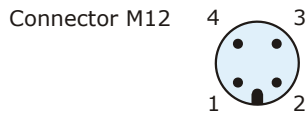
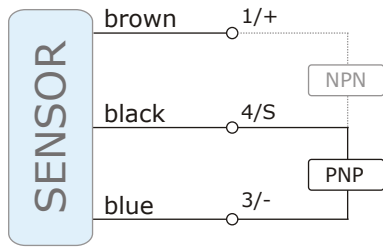
2 mm

2 mm

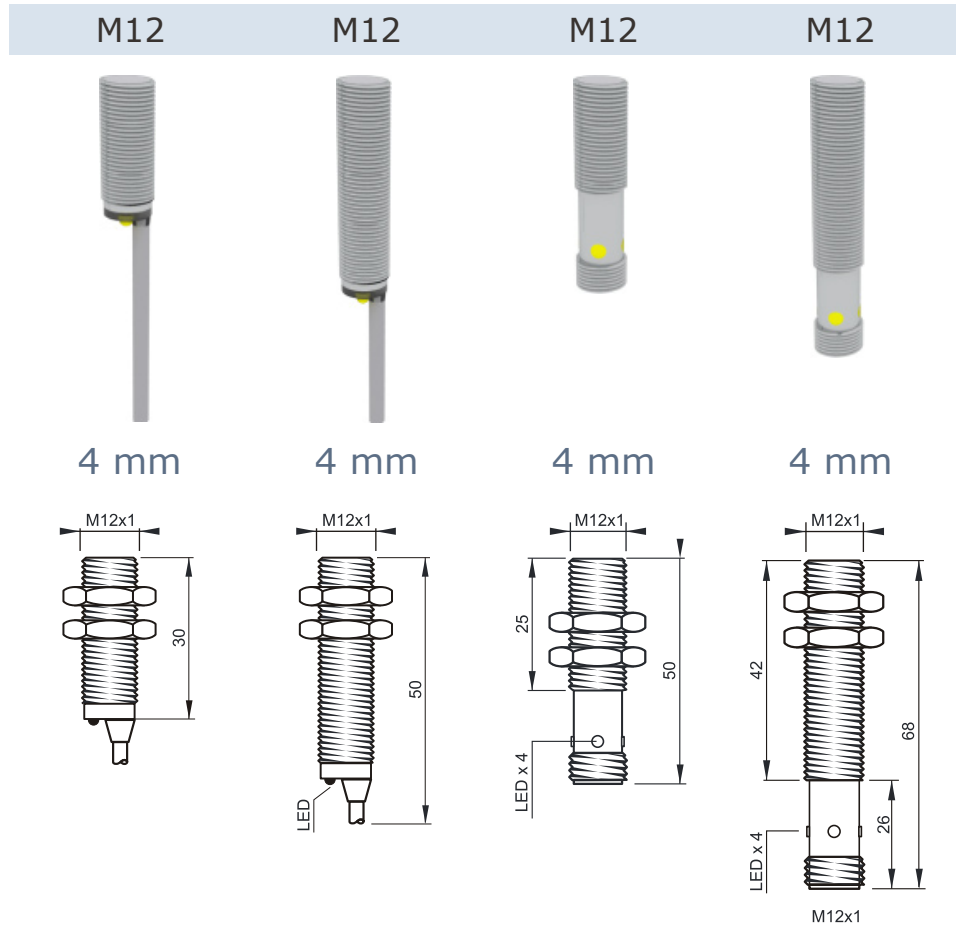


8 x 8	8 x 8	M12x1	M12x1	M12x1	M12x1
3 mm - Shielded	3mm - -Shielded	2 mm - Shielded	2 mm - Shielded	2 mm - Shielded	2 mm - Shielded
10...30 VDC, 3-wire < 8 mA	10...30 VDC,3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA
200 mA, self- resetting	200 ma, self- resetting	200 mA, self- resetting	200 mA, self- resetting	200 mA, self- resetting	200 mA, 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
Nickel Plated Brass	Nickel Plated Brass	Tin-Nickel Plated Brass	Tin-Nickel Plated Brass	Tin-Nickel Plated Brass	Tin-Nickel Plated Brass
M8, 3-pole	M8, 3-pole				
IPS88 S3PO60C/M8	IPS88 S3PO60/M8	IPS12 S2PO30/A2P	IPS12 S2PO50/A2P	IPS12 S2PO50/M12	IPS12 S2PO68/M12
IPS88 S3PC60C/M8	IPS88 S3PC60/M8	IPS12 S2PC30/A2P	IPS12 S2PC50/A2P	IPS12 S2PC50/M12	IPS12 S2PC68/M12
IPS88 S3NO60C/M8	IPS88 S3NO60/M8	IPS12 S2NO30/A2P	IPS12 S2NO50/A2P	IPS12 S2NO50/M12	IPS12 S2NO68/M12
IPS88 S3NC60C/M8	IPS88 S3NC60/M8	IPS12 S2NC30/A2P	IPS12 S2NC50/A2P	IPS12 S2NC50/M12	IPS12 S2NC68/M12
		IPS12 S2DO30/A2P	IPS12 S2DO50/A2P	IPS12 S2DO50/M12	IPS12 S2DO68/M12
		IPS12 S2DC30/A2P	IPS12 S2DC50/A2P	IPS12 S2DC50/M12	IPS12 S2DC68/M12
M8/3...	M8/3...	-	-	M12/3...	M12/3...

Output Schematics



Not to be used for Safety Applications



SPECIFICATIONS

	M12x1	M12x1	M12x1	M12x1
Sensing Distance	4 mm - Shielded	4 mm - Shielded	4 mm - Shielded	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
Current Consumption	< 8 mA	< 8 mA	< 8 mA	< 8 mA
Output Current	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, 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	Tin-Nickel Plated Brass	Tin-Nickel Plated Brass	Tin-Nickel Plated Brass	Tin-Nickel Plated Brass
Connected Operating-LED				
Article Code				
3-wire NO, PNP	IPS12 S4PO30/A2P	IPS12 S4PO50/A2P	IPS12 S4PO50/M12	IPS12 S4PO68/M12
3-wire NC, PNP	IPS12 S4PC30/A2P	IPS12 S4PC50/A2P	IPS12 S4PC50/M12	IPS12 S4PC68/M12
3-wire NO, NPN	IPS12 S4NO30/A2P	IPS12 S4NO50/A2P	IPS12 S4NO50/M12	IPS12 S4NO68/M12
3-wire NC, NPN	IPS12 S4NC30/A2P	IPS12 S4NC50/A2P	IPS12 S4NC50/M12	IPS12 S4NC68/M12
2-wire NO, 10...55 VDC		IPS12 S4DO50/A2P		IPS12 S4DO68/M12
2-wire NC, 10...55 VDC		IPS12 S4DC50/A2P		IPS12 S4DC68/M12
Recommended Connecting Cable	-	-	M12/3...	M12/3...

## INDUCTIVE

### M12 M12 M12 M12 M12 M12



4 mm

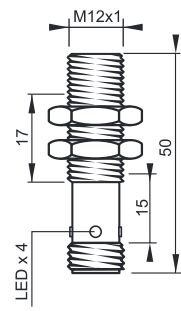
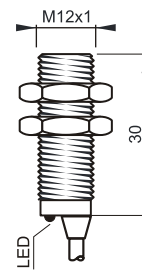
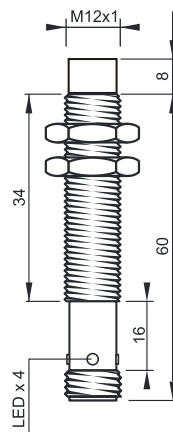
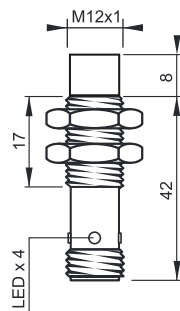
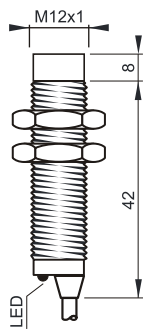
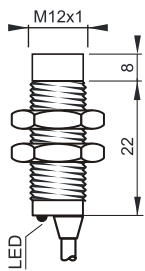
4 mm

4 mm

4 mm

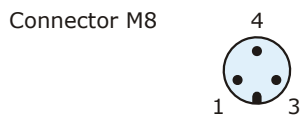
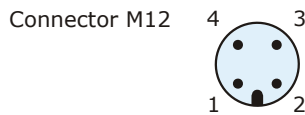
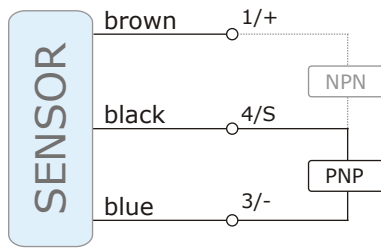
4 mm

4 mm



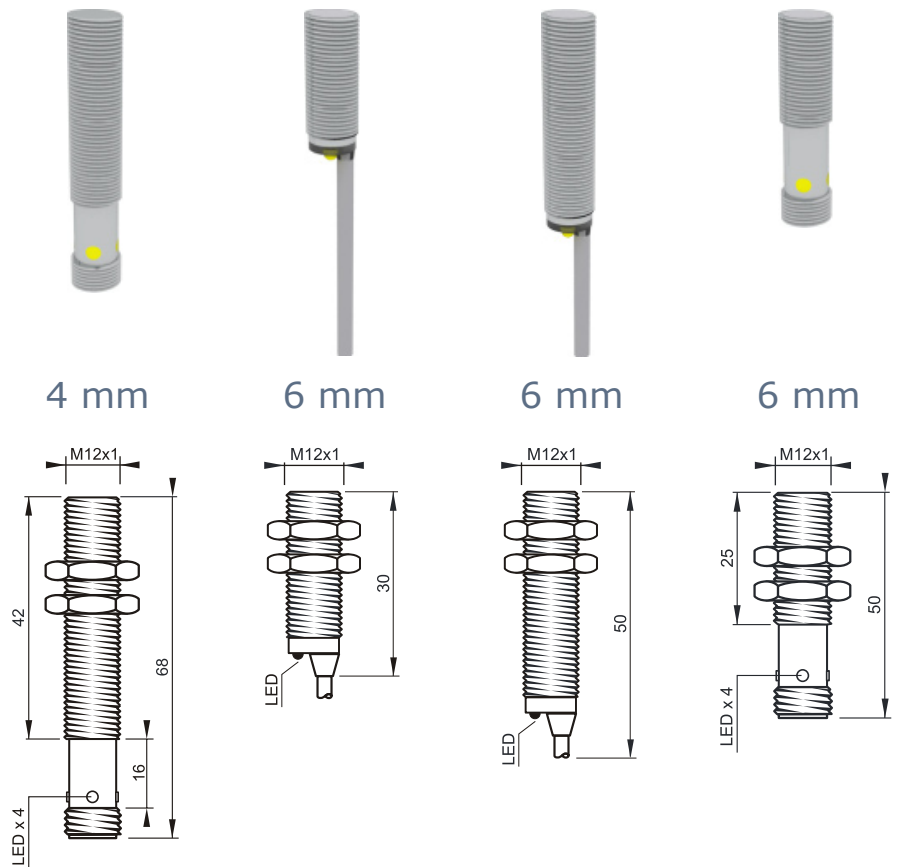
M12x1	M12x1	M12x1	M12x1	M12 Metal Face	M12 Metal Face
4 mm - Unshielded	4 mm - Unshielded	4 mm - Unshielded	4 mm - Unshielded	4 mm - Shielded	4 mm - Shielded
10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA
200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, 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	IP68, Conn. IP67	IP68, Conn. IP67
POM	POM	POM	POM	Stainless Steel	Stainless Steel
Tin-Nickel Plated Brass	Tin-Nickel Plated Brass	Tin-Nickel Plated Brass	Tin-Nickel Plated Brass	Stainless Steel	Stainless Steel
				M12, 3-pole	M12, 3-pole
IPS12 N4PO30/A2P	IPS12 N4PO50/A2P	IPS12 N4PO50/M12	IPS12 N4PO68/M12	IMF12 S4PO30/A2P	IMF12 S4PO50/M12
IPS12 N4PC30/A2P	IPS12 N4PC50/A2P	IPS12 N4PC50/M12	IPS12 N4PC68/M12	IMF12 S4PC30/A2P	IMF12 S4PC50/M12
IPS12 N4NO30/A2P	IPS12 N4NO50/A2P	IPS12 N4NO50/M12	IPS12 N4NO68/M12	IMF12 S4NO30/A2P	IMF12 S4NO50/M12
IPS12 N4NC30/A2P	IPS12 N4NC50/A2P	IPS12 N4NC50/M12	IPS12 N4NC68/M12	IMF12 S4NC30/A2P	IMF12 S4NC50/M12
IPS12 N4DO30/A2P	IPS12 N4DO50/A2P	IPS12 N4DO50/M12	IPS12 N4DO68/M12		
IPS12 N4DC30/A2P	IPS12 N4DC50/A2P	IPS12 N4DC50/M12	IPS12 N4DC68/M12		
-	-	M12/3...	M12/3...	-	M12/3...

Output Schematics



Not to be used for Safety Applications

M12 M12 M12 M12



SPECIFICATIONS

	M12 Metal Face	M12x1	M12x1	M12x1
Sensing Distance	4 mm - Shielded	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
Current Consumption	< 8 mA	< 8 mA	< 8 mA	< 8 mA
Output Current	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, 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	800 Hz	800 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	IP68, Conn. IP67	IP67	IP67	IP67
Sensing Face Material	Stainless Steel	POM	POM	POM
Housing Material	Stainless Steel	Tin-Nickel Plated Brass	Tin-Nickel Plated Brass	Tin-Nickel Plated Brass
Connected Operating-LED	M12, 3-pole			
Article Code				
3-wire NO, PNP	IMF12 S4PO68/M12	IPS12 S6PO30/A2P	IPS12 S6PO50/A2P	IPS12 S6PO50/M12
3-wire NC, PNP	IMF12 S4PC68/M12	IPS12 S6PC30/A2P	IPS12 S6PC50/A2P	IPS12 S6PC50/M12
3-wire NO, NPN	IMF12 S4NO68/M12	IPS12 S6NO30/A2P	IPS12 S6NO50/A2P	IPS12 S6NO50M12
3-wire NC, NPN	IMF12 S4NC68/M12	IPS12 S6NC30/A2P	IPS12 S6NC50/A2P	IPS12 S6NC50M12

Recommended Connecting Cable

M12/3... - - M12/3...

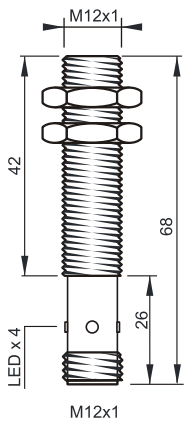
Inductive Proximity Switches

## INDUCTIVE

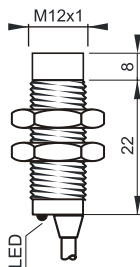
M12 M12 M12 M12 M12 M12



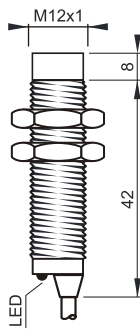
6 mm



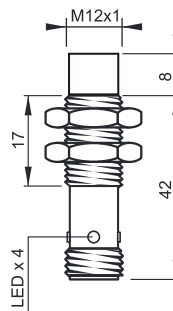
8 mm



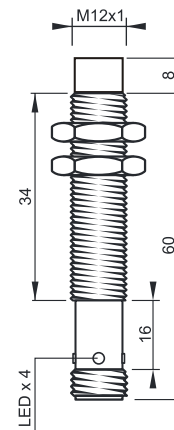
8 mm



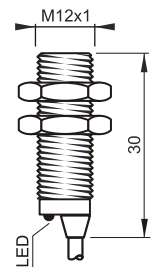
8 mm



8 mm

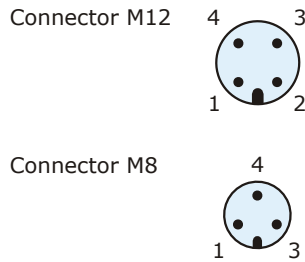
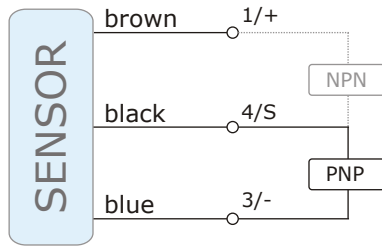


8 mm



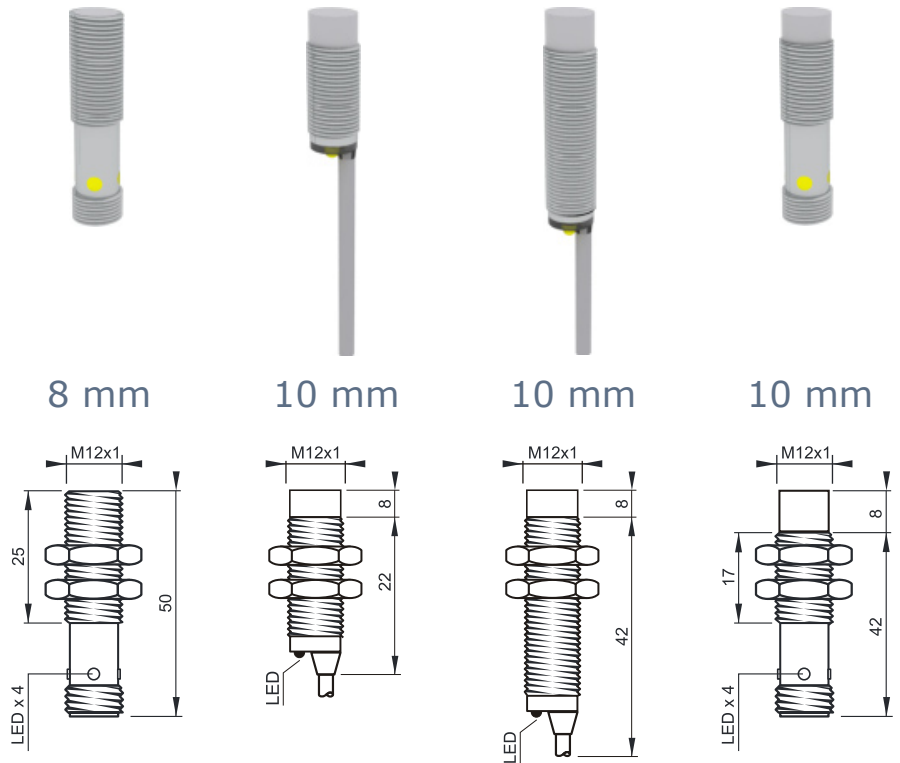
M12x1	M12x1	M12x1	M12x1	M12x1	M12x1
6 mm - Shielded	8 mm - Unshielded	8 mm - Unshielded	8 mm - Unshielded	8 mm - Unshielded	8 mm - Shielded
10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA
200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, 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	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
Tin-Nickel Plated Brass	Tin-Nickel Plated Brass	Tin-Nickel Plated Brass	Tin-Nickel Plated Brass	Tin-Nickel Plated Brass	Tin-Nickel Plated Brass
IPS12 S6PO68/M12 IPS12 S6PC68/M12 IPS12 S6NO68/M12 IPS12 S6NC68/M12	IPS12 N8PO30/A2P IPS12 N8PC30/A2P IPS12 N8NO30/A2P IPS12 N8NC30/A2P	IPS12 N8PO50/A2P IPS12 N8PC50/A2P IPS12 N8NO50/A2P IPS12 N8NC50/A2P	IPS12 N8PO50/M12 IPS12 N8PC50/M12 IPS12 N8NO50/M12 IPS12 N8NC50/M12	IPS12 N8PO68/M12 IPS12 N8PC68/M12 IPS12 N8NO68/M12 IPS12 N8NC68/M12 IPS12 N8DO68/M12 IPS12 N8DC68/M12	IPS12 S8PO30/M12 IPS12 S8PC30/M12 IPS12 S8NO30/M12 IPS12 S8NC30/M12
M12/3...	-	-	M12/3...	M12/3...	-

Output Schematics



Not to be used for Safety Applications

M12 M12 M12 M12



SPECIFICATIONS

	M12x1	M12x1	M12x1	M12x1
Sensing Distance	8 mm - Shielded	10 mm - Unshielded	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
Current Consumption	< 8 mA	< 8 mA	< 8 mA	< 8 mA
Output Current	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, 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	400 Hz	400 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	Tin-Nickel Plated Brass	Tin-Nickel Plated Brass	Tin-Nickel Plated Brass	Tin-Nickel Plated Brass
Connected	Operating-LED			
Article Code				
3-wire NO, PNP	IPS12 S8PO50/M12	IPS12 N10PO30/A2P	IPS12 N10PO50/A2P	IPS12 N10PO50/M12
3-wire NC, PNP	IPS12 S8PC50/M12	IPS12 N10PC30/A2P	IPS12 N10PC50/A2P	IPS12 N10PC50/M12
3-wire NO, NPN	IPS12 S8NO50/M12	IPS12 N10NO30/A2P	IPS12 N10NO50/A2P	IPS12 N10NO50/M12
3-wire NC, NPN	IPS12 S8NC50/M12	IPS12 N10NC30/A2P	IPS12 N10NC50/A2P	IPS12 N10NC50/M12
2-wire NO, 10...55 VDC				
2-wire NC, 10...55 VDC				
Recommended Connecting Cable	M12/3...	-	-	M12/3...

## INDUCTIVE

M12	M18	M18	M18	M18	M18
-----	-----	-----	-----	-----	-----



10 mm

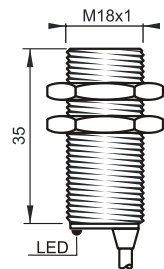
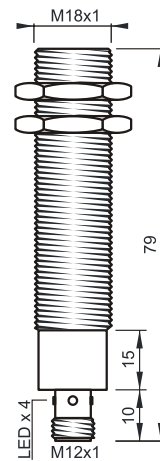
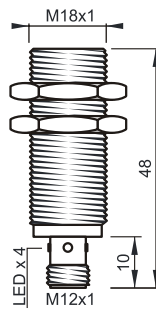
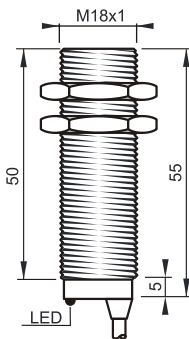
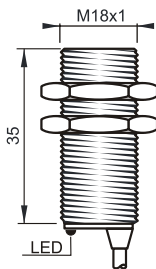
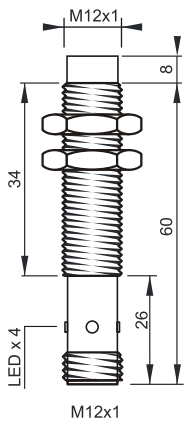
5 mm

5 mm

5 mm

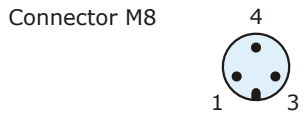
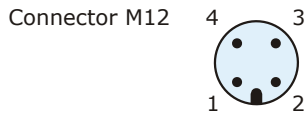
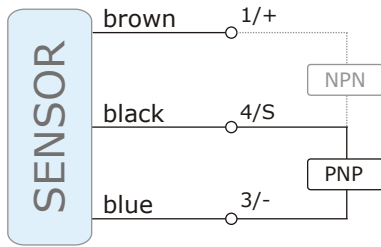
5 mm

8 mm



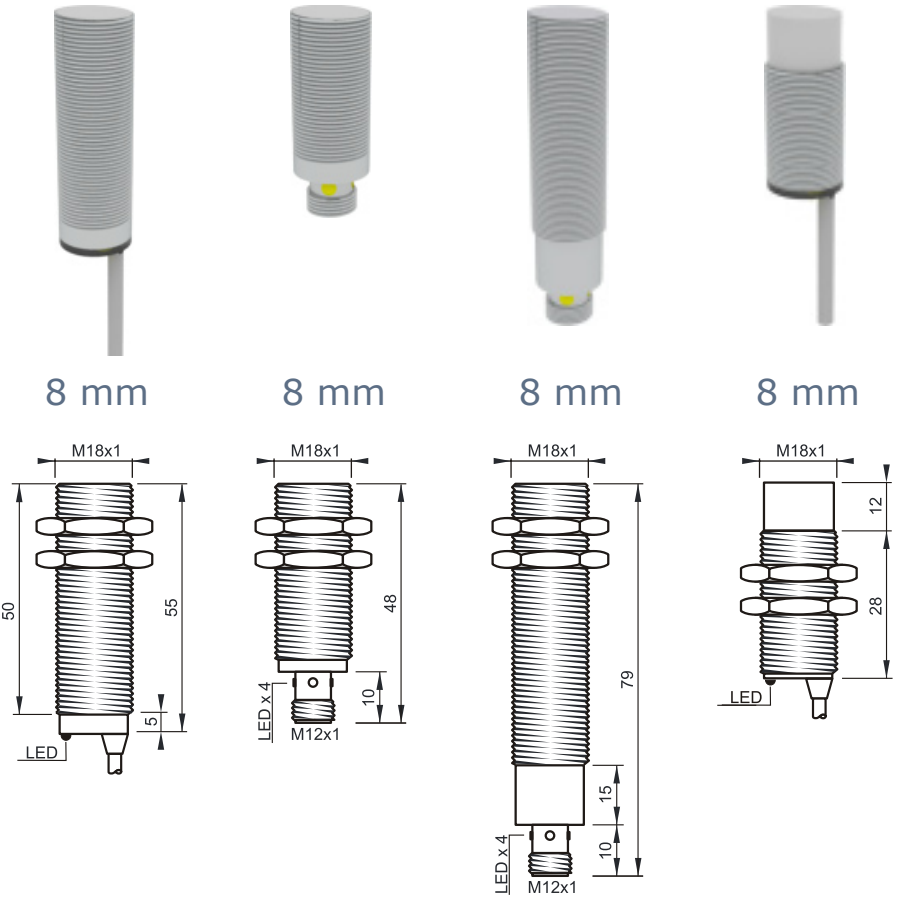
M12x1	M18x1	M18x1	M18x1	M18x1	M18x1
10 mm - Unshielded	5 mm - Shielded	5 mm - Shielded	5 mm - Shielded	5 mm - Shielded	8 mm - Shielded
10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA
200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, 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	300 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
Tin-Nickel Plated Brass	Tin-Nickel Plated Brass	Tin-Nickel Plated Brass	Tin-Nickel Plated Brass	Tin-Nickel Plated Brass	Tin-Nickel Plated Brass
IPS12 N10PO68/M12	IPS18 S5PO35/A2P	IPS18 S5PO55/A2P	IPS179S5PO48/M12	IPS18 S5PO48/M12	IPS18 S8PO35/A2P
IPS12 N10PC68/M12	IPS18 S5PC35/A2P	IPS18 S5PC55/A2P	IPS179S5PC48/M12	IPS18 S5PC48/M12	IPS18 S8PC35/A2P
IPS12 N10NO68/M12	IPS18 S5NO35/A2P	IPS18 S5NO55/A2P	IPS179S5NO48/M12	IPS18 S5NO48/M12	IPS18 S8NO35/A2P
IPS12 N10NC68/M12	IPS18 S5NC35/A2P	IPS18 S5NC55/A2P	IPS18 S5NC79/M12	IPS18 S5NC48/M12	IPS18 S8NC35/A2P
	IPS18 S5DO35/A2P	IPS18 S5DO55/A2P	IPS18 S5DO79/M12	IPS18 S5DO48/M12	IPS18 S8DO35/A2P
	IPS18 S5DC35/A2P	IPS18 S5DC55/A2P	IPS18 S5DC79/M12	IPS18 S5DC48/M12	IPS18 S8DC35/A2P
M12/3...	-	-	M12/3...	M12/3...	-

Output Schematics



Not to be used for Safety Applications

M18 M18 M18 M18



SPECIFICATIONS

	M18x1	M18x1	M18x1	M18x1
Sensing Distance	8 mm - Shielded	8 mm - Shielded	8 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
Current Consumption	< 8 mA	< 8 mA	< 8 mA	< 8 mA
Output Current	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, 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	300 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	Tin-Nickel Plated Brass	Tin-Nickel Plated Brass	Tin-Nickel Plated Brass	Tin-Nickel Plated Brass
Connected				
Operating-LED				
Article Code				
3-wire NO, PNP	IPS18 S8PO55/A2P	IPS18 S8PO48/M12	IPS18 S8PO79/M12	IPS18 N8PO40/A2P
3-wire NC, PNP	IPS18 S8PC55/A2P	IPS18 S8PC48/M12	IPS18 S8PC79/M12	IPS18 N8PC40/A2P
3-wire NO, NPN	IPS18 S8NO55/A2P	IPS18 S8NO48/M12	IPS18 S8NO79/M12	IPS18 N8NO40/A2P
3-wire NC, NPN	IPS18 S8NC55/A2P	IPS18 S8NC48/M12	IPS18 S8NC79/M12	IPS18 N8NC40/A2P
2-wire NO, 10...55 VDC	IPS18 S8DO55/A2P	IPS18 S8DO48/M12	IPS18 S8DO79/M12	IPS18 N8DO40/A2P
2-wire NC, 10...55 VDC	IPS18 S8DC55/A2P	IPS18 S8DC48/M12	IPS18 S8DC79/M12	IPS18 N8DC40/A2P
Recommended Connecting Cable	-	M12/3...	M12/3...	-

## INDUCTIVE

M18	M18	M18	M18	M18	M18
-----	-----	-----	-----	-----	-----



8 mm

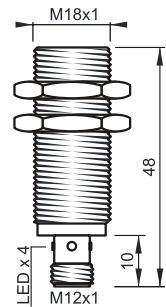
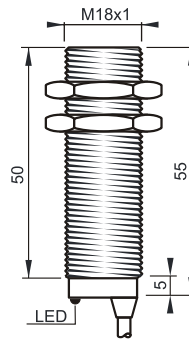
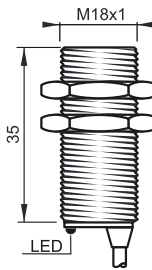
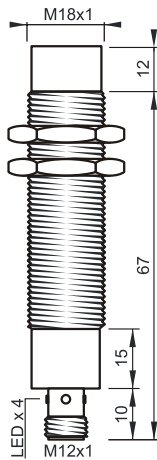
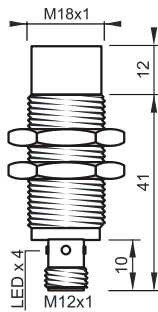
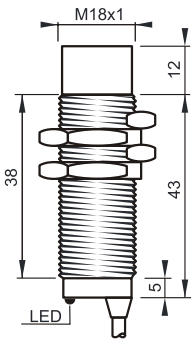
8 mm

8 mm

12 mm

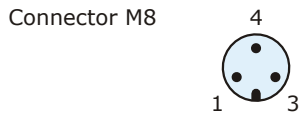
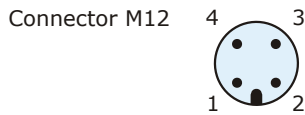
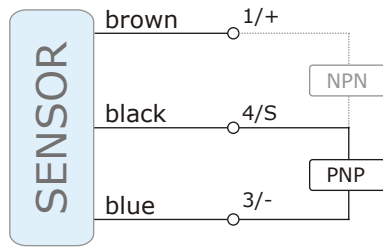
12 mm

12 mm

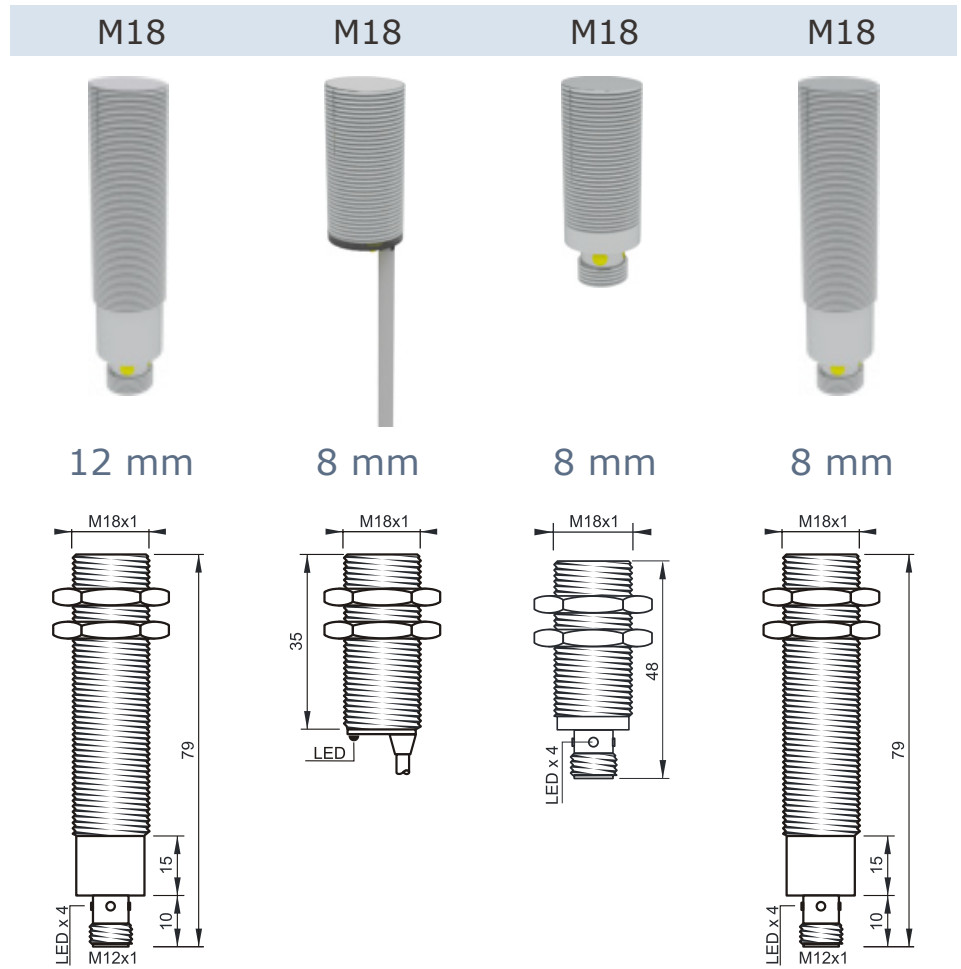


M18x1	M18x1	M18x1	M18x1	M18x1	M18x1
8 mm - Unshielded	8 mm - Unshielded	8 mm - Unshielded	12 mm - Shielded	12 mm - Shielded	12 mm - Shielded
10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA
200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, 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	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
Tin-Nickel Plated Brass	Tin-Nickel Plated Brass	Tin-Nickel Plated Brass	Tin-Nickel Plated Brass	Tin-Nickel Plated Brass	Tin-Nickel Plated Brass
IPS18 N8PO55/A2P	IPS18 N8PO53/M12	IPS18 N8PO79/M12	IPS18 S12PO35/A2P	IPS18 S12PO55/A2P	IPS18 S12PO48/M12
IPS18 N8PC55/A2P	IPS18 N8PC53/M12	IPS18 N8PC79/M12	IPS18 S12PC35/A2P	IPS18 S12PC55/A2P	IPS18 S12PC48/M12
IPS18 N8NO55/A2P	IPS18 N8NO53/M12	IPS18 N8NO79/M12	IPS18 S12NO35/A2P	IPS18 S12NO55/A2P	IPS18 S12NO48/M12
IPS18 N8NC55/A2P	IPS18 N8NC53/M12	IPS18 N8NC79/M12	IPS18 S12NC35/A2P	IPS18 S12NC55/A2P	IPS18 S12NC48/M12
IPS18 N8DO55/A2P	IPS18 N8DO53/M12	IPS18 N8DO79/M12			
IPS18 N8DC55/A2P	IPS18 N8DC53/M12	IPS18 N8DC79/M12			
-	M12/3...	M12/3...	-	-	M12/3...

Output Schematics



Not to be used for Safety Applications



SPECIFICATIONS

	M18x1	M18 Metal Face	M18 Metal Face	M18 Metal Face
Sensing Distance	12 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
Current Consumption	< 8 mA	< 8 mA	< 8 mA	< 8 mA
Output Current	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, 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	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	IP68, Conn. IP67	IP68, Conn. IP67	IP68, Conn. IP67
Sensing Face Material	POM	Stainless Steel	Stainless Steel	Stainless Steel
Housing Material	Tin-Nickel Plated Brass	Stainless Steel	Stainless Steel	Stainless Steel
Connected		PVC, 3-pole, 2m	M12, 3-pole	M12, 3-pole
Operating-LED				
Article Code				
3-wire NO, PNP	IPS18 S12PO79/M12	IMF18 S8PO35/A2P	IMF18 S8PO48/M12	IMF18 S8PO79/M12
3-wire NC, PNP	IPS18 S12PC79/M12	IMF18 S8PC35/A2P	IMF18 S8PC48/M12	IMF18 S8PC79/M12
3-wire NO, NPN	IPS18 S12NO79/M12	IMF18 S8NO35/A2P	IMF18 S8NO48/M12	IMF18 S8NO79/M12
3-wire NC, NPN	IPS18 S12NC79/M12	IMF18 S8NC35/A2P	IMF18 S8NC48/M12	IMF18 S8NC79/M12
2-wire NO, 10...55 VDC				
2-wire NC, 10...55 VDC				
Recommended Connecting Cable	M12/3...	-	M12/3...	M12/3...

## INDUCTIVE

M18	M18	M18	M18	M18	M18
-----	-----	-----	-----	-----	-----



16 mm

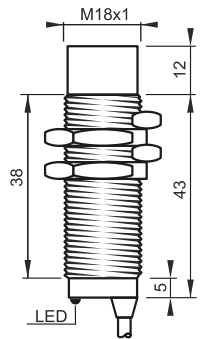
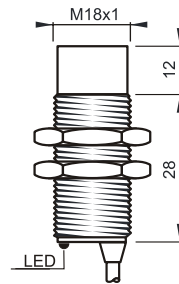
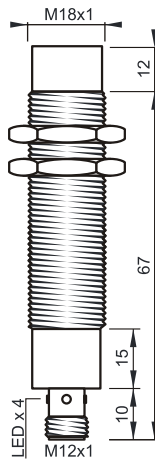
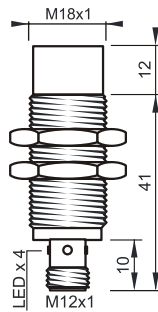
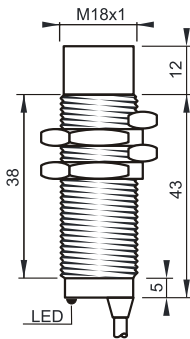
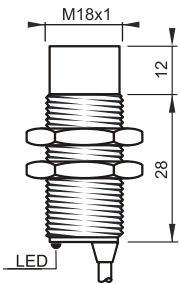
16 mm

16 mm

16 mm

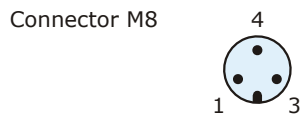
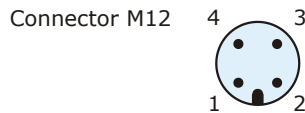
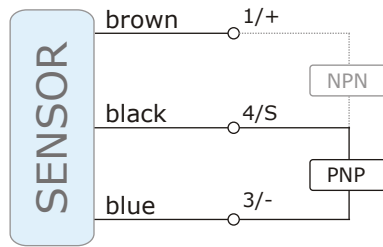
20 mm

20 mm



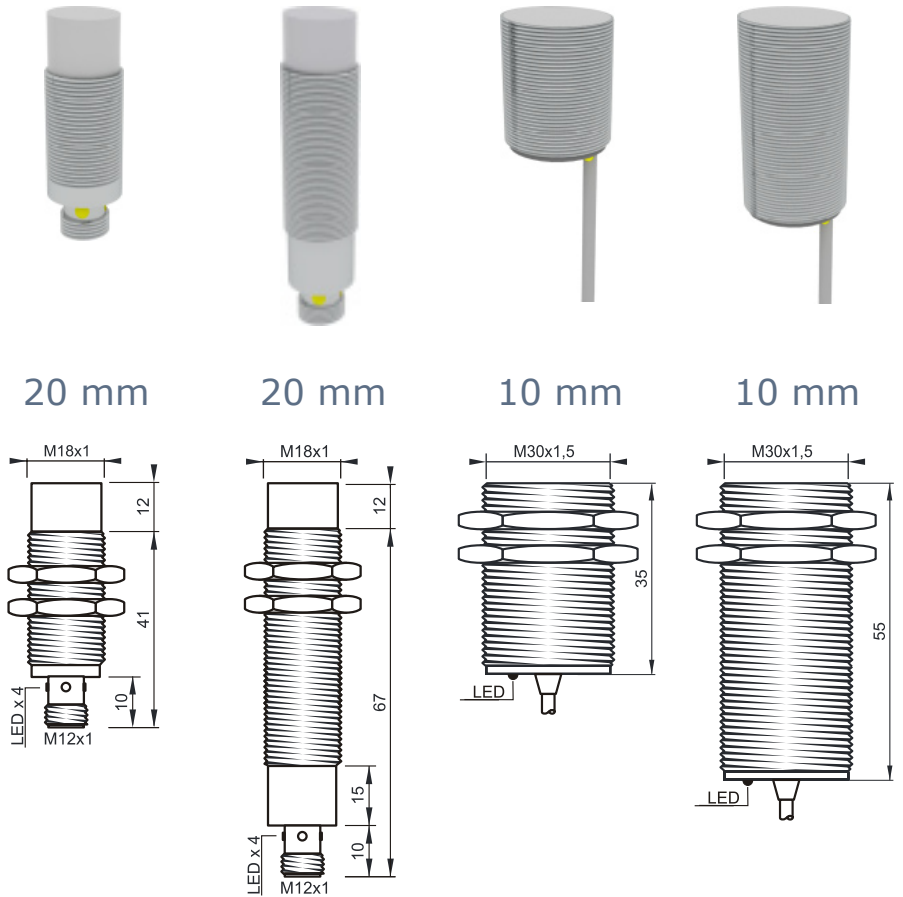
M18x1	M18x1	M18x1	M18x1	M18x1	M18x1
16 mm - Unshielded	16 mm - Unshielded	16 mm - Unshielded	16 mm - Unshielded	20 mm - Unshielded	20 mm - Unshielded
10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA
200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, 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
Tin-Nickel Plated Brass	Tin-Nickel Plated Brass	Tin-Nickel Plated Brass	Tin-Nickel Plated Brass	Tin-Nickel Plated Brass	Tin-Nickel Plated Brass
IPS18 N16PO40/A2P	IPS18 N16PO55/A2P	IPS18 N16PO53/M12	IPS18 N16PO79/M12	IPS18 N20PO40/A2P	IPS18 N20PO55/A2P
IPS18 N16PC40/A2P	IPS18 N16PC55/A2P	IPS18 N16PC53/M12	IPS18 N16PC79/M12	IPS18 N20PC40/A2P	IPS18 N20PC55/A2P
IPS18 N16NO40/A2P	IPS18 N16NO55/A2P	IPS18 N16NO53/M12	IPS18 N16NO79/M12	IPS18 N20NO40/A2P	IPS18 N20NO55/A2P
IPS18 N16NC40/A2P	IPS18 N16NC55/A2P	IPS18 N16NC53/M12	IPS18 N16NC79/M12	IPS18 N20NC40/A2P	IPS18 N20NC55/A2P
IPS18 N16DO40/A2P	IPS18 N16DO55/A2P	IPS18 N16DO53/M12	IPS18 N16DO79/M12		
IPS18 N16DC40/A2P	IPS18 N16DC55/A2P	IPS18 N16DC53/M12	IPS18 N16DC79/M12		
-	-	M12/3...	M12/3...	-	-

## Output Schematics



Not to be used for Safety Applications

M18	M18	M30	M30
-----	-----	-----	-----



## SPECIFICATIONS

	M18x1	M18x1	M30x1.5	M30x1.5
Sensing Distance	20 mm - Unshielded	20 mm - Unshielded	10 mm - Shielded	10 mm - Shielded
Operating Voltage	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire
Current Consumption	< 8 mA	< 8 mA	< 8 mA	< 8 mA
Output Current	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, 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	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	Tin-Nickel Plated Brass	Tin-Nickel Plated Brass	Nickel Plated Brass	Nickel Plated Brass
Connected Operating-LED			PVC, 3-pole, 2m	PVC, 3-pole, 2m
Article Code				
3-wire NO, PNP	IPS18 N20PO53/M12	IPS18 N20PO79/M12	IPS30 S10PO35/A2P	IPS30 S10PO55/A2P
3-wire NC, PNP	IPS18 N20PC53/M12	IPS18 N20PC79/M12	IPS30 S10PC35/A2P	IPS30 S10PC55/A2P
3-wire NO, NPN	IPS18 N20NO53/M12	IPS18 N20NO79/M12	IPS30 S10NO35/A2P	IPS30 S10NO55/A2P
3-wire NC, NPN	IPS18 N20NC53/M12	IPS18 N20NC79/M12	IPS30 S10NC35/A2P	IPS30 S10NC55/A2P
2-wire NO, 10...55 VDC			IPS30 S10DO35/A2P	IPS30 S10DO55/A2P
2-wire NC, 10...55 VDC			IPS30 S10DC35/A2P	IPS30 S10DC55/A2P
Recommended Connecting Cable	M12/3...	M12/3...	-	-

## INDUCTIVE

M30 M30 M30 M30 M30 M30



10 mm

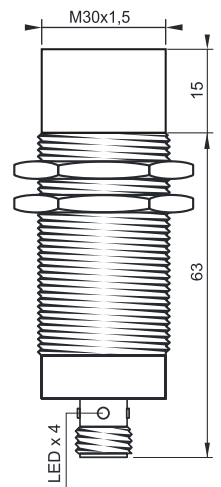
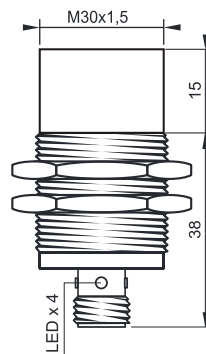
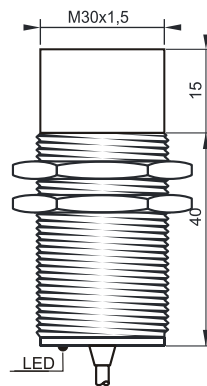
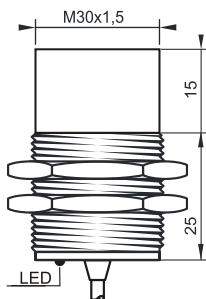
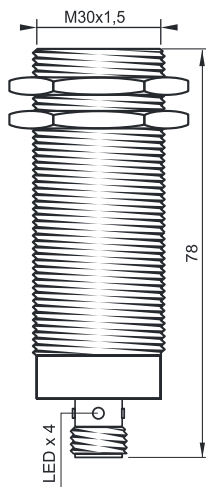
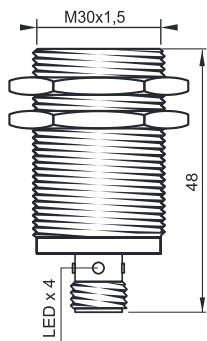
10 mm

15 mm

15 mm

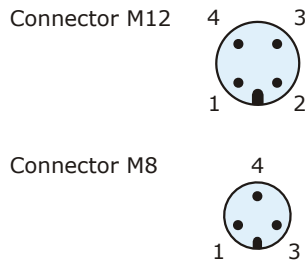
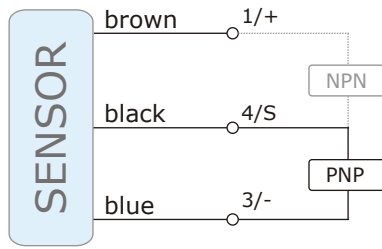
15 mm

15 mm



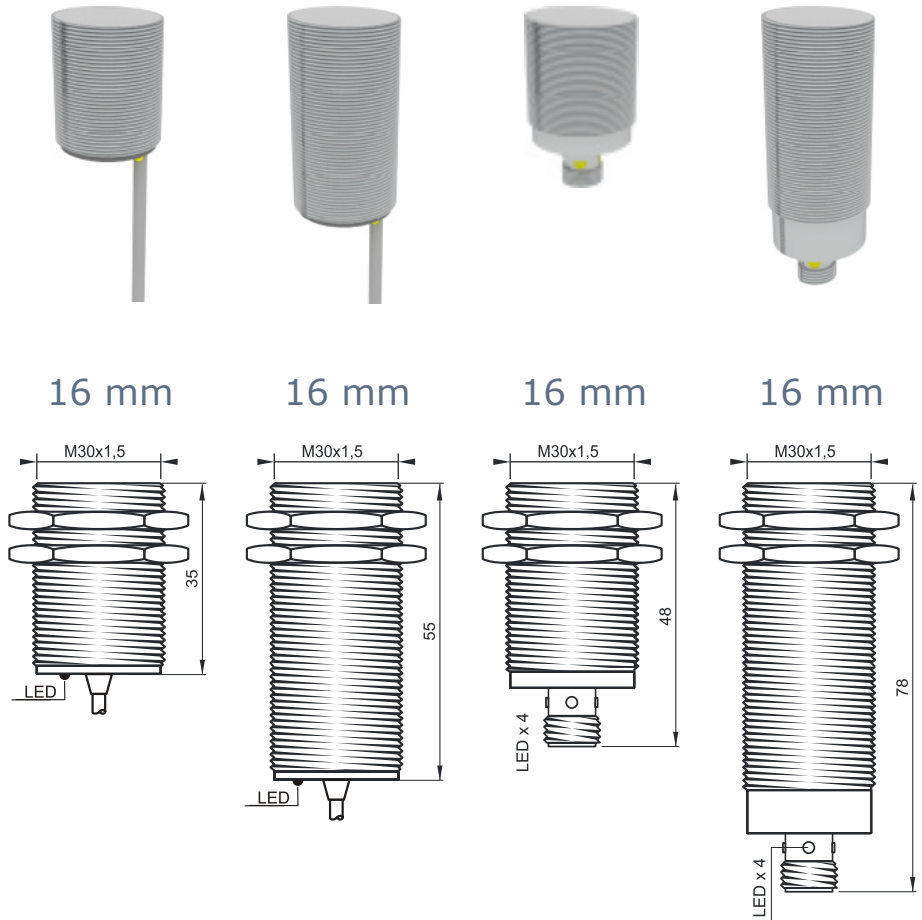
M30x1.5	M30x1.5	M30x1.5	M30x1.5	M30x1.5	M30x1.5
10 mm - Shielded	10 mm - Shielded	15 mm - Unshielded	15 mm - Unshielded	15 mm - Unshielded	15 mm - Unshielded
10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA
200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, 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	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
Nickel Plated Brass	Nickel Plated Brass	Nickel Plated Brass	Nickel Plated Brass	Nickel Plated Brass	Nickel Plated Brass
M12, 3-pole	M12, 3-pole	PVC, 3-pole, 2m	PVC, 3-pole, 2m	M12, 3-pole	M12, 3-pole
IPS30 S10PO48/M12	IPS30 S10PO79/M12	IPS30 N15PO40/A2P	IPS30 N15PO55/A2P	IPS30 N15PO53/M12	IPS30 N15PO79/M12
IPS30 S10PC48/M12	IPS30 S10PC79/M12	IPS30 N15PC40/A2P	IPS30 N15PC55/A2P	IPS30 N15PC53/M12	IPS30 N15PC79/M12
IPS30 S10NO48/M12	IPS30 S10NO79/M12	IPS30 N15NO40/A2P	IPS30 N15NO55/A2P	IPS30 N15NO53/M12	IPS30 N15NO79/M12
IPS30 S10NC48/M12	IPS30 S10NC79/M12	IPS30 N15NC40/A2P	IPS30 N15NC55/A2P	IPS30 N15NC53/M12	IPS30 N15NC79/M12
IPS30 S10DO48/M12	IPS30 S10DO79/M12	IPS30 N15DO40/A2P	IPS30 N15DO55/A2P	IPS30 N15DO53/M12	IPS30 N15DO79/M12
IPS30 S10DC48/M12	IPS30 S10DC79/M12	IPS30 N15DC40/A2P	IPS30 N15DC55/A2P	IPS30 N15DC53/M12	IPS30 N15DC79/M12
M12/3...	M12/3...	-	-	M12/3...	M12/3...

Output Schematics



Not to be used for Safety Applications

M30 M30 M30 M30



SPECIFICATIONS

	M30x1.5	M30x1.5	M30x1.5	M30x1.5
Sensing Distance	16 mm - Shielded	16 mm - Shielded	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
Current Consumption	< 8 mA	< 8 mA	< 8 mA	< 8 mA
Output Current	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, 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	Nickel Plated Brass	Nickel Plated Brass	Nickel Plated Brass	Nickel Plated Brass
Connected	PVC, 3-pole, 2m	PVC, 3-pole, 2m	M12, 3-pole	M12, 3-pole
Operating-LED				

Article Code

3-wire NO, PNP	IPS30 S16PO35/A2P	IPS30 S16PO55/A2P	IPS30 S16PO48/M12	IPS30 S16PO79/M12
3-wire NC, PNP	IPS30 S16PC35/A2P	IPS30 S16PC55/A2P	IPS30 S16PC48/M12	IPS30 S16PC79/M12
3-wire NO, NPN	IPS30 S16NO35/A2P	IPS30 S16NO55/A2P	IPS30 S16NO48/M12	IPS30 S16NO79/M12
3-wire NC, NPN	IPS30 S16NC35/A2P	IPS30 S16NC55/A2P	IPS30 S16NC48/M12	IPS30 S16NC79/M12
2-wire NO, 10...55 VDC	IPS30 S16DO35/A2P	IPS30 S16DO55/A2P	IPS30 S16DO48/M12	IPS30 S16DO79/M12
2-wire NC, 10...55 VDC	IPS30 S16DC35/A2P	IPS30 S16DC55/A2P	IPS30 S16DC48/M12	IPS30 S16DC79/M12
Recommended Connecting Cable	-	-	M12/3...	M12/3...

Inductive Proximity Switches

## INDUCTIVE

M30 M30 M30 M30 M30 M30



16 mm

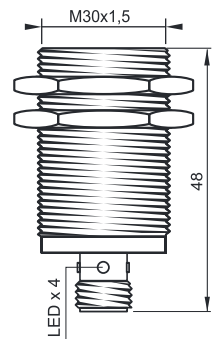
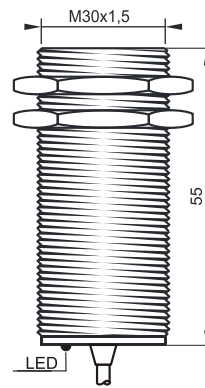
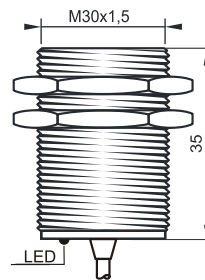
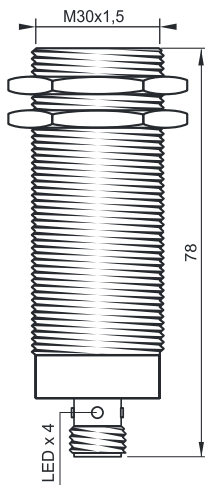
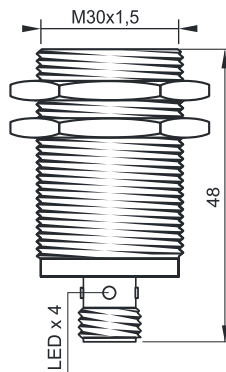
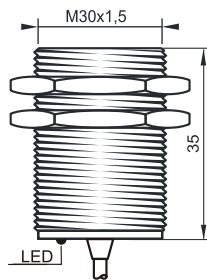
16 mm

16 mm

22 mm

22 mm

22 mm



M30 Metal Face

M30 Metal Face

M30 Metal Face

M30x1.5

M30x1.5

M30x1.5

16 mm - Shielded

16 mm - Shielded

16 mm - Shielded

22 mm - Shielded

22 mm - Shielded

22 mm - Shielded

10...30 VDC, 3-wire  
< 8 mA

10...30 VDC, 3-wire  
< 8 mA

10...30 VDC, 3-wire  
< 8 mA

10...30 VDC, 3-wire  
< 8 mA

10...30 VDC, 3-wire  
< 8 mA

10...30 VDC, 3-wire  
< 8 mA

200 mA, self-  
resetting

200 mA, self-  
resetting

200 mA, self-  
resetting

200 mA, self-  
resetting

200 mA, self-  
resetting

200 mA, 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

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

IP68, Conn. IP67

IP68, Conn. IP67

IP68, Conn. IP67

IP67

IP67

IP67

Stainless Steel

Stainless Steel

Stainless Steel

PBT

POM

POM

Stainless Steel

Stainless Steel

Stainless Steel

PBT

Nickel Plated Brass

Nickel Plated Brass

M12, 3-pole

M12, 3-pole

M12, 3-pole

PVC, 3-pole, 2m

PVC, 3-pole, 2m

M12, 3-pole

IMF30 S16PO35/A2P

IMF30 S16PO48/M12

IMF30 S16PO79/M12

IPS30 S22PO35/A2P

IPS30 S22PO55/A2P

IPS30 S22PO48/M12

IMF30 S16PC35/A2P

IMF30 S16PC48/M12

IMF30 S16PC79/M12

IPS30 S22PC35/A2P

IPS30 S22PC55/A2P

IPS30 S22PC48/M12

IMF30 S16NO35/A2P

IMF30 S16NO48/M12

IMF30 S16NO79/M12

IPS30 S22NO35/A2P

IPS30 S22NO55/A2P

IPS30 S22NO48/M12

IMF30 S16NC35/A2P

IMF30 S16NC48/M12

IMF30 S16NC79/M12

IPS30 S22NC35/A2P

IPS30 S22NC55/A2P

IPS30 S22NC48/M12

-

M12/3...

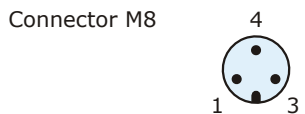
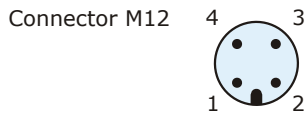
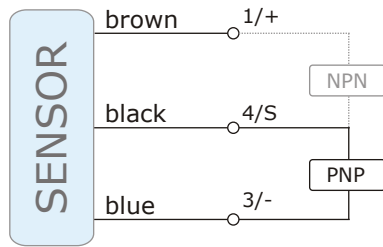
M12/3...

-

-

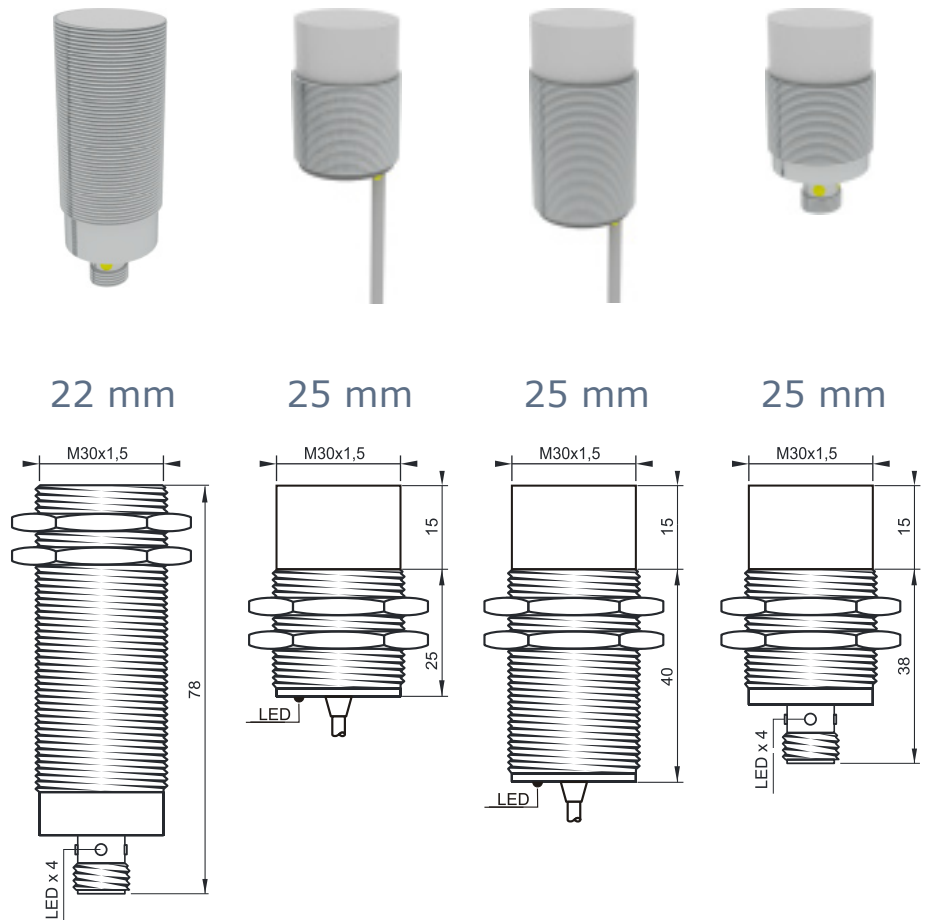
M12/3...

Output Schematics



Not to be used for Safety Applications

M30 M30 M30 M30



SPECIFICATIONS

	M30x1.5	M30x1.5	M30x1.5	M30x1.5
Sensing Distance	22 mm - Shielded	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
Current Consumption	< 8 mA	< 8 mA	< 8 mA	< 8 mA
Output Current	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, 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	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	Nickel Plated Brass	Nickel Plated Brass	Nickel Plated Brass	Nickel Plated Brass
Connected	M12, 3-pole	PVC, 3-pole, 2m	PVC, 3-pole, 2m	M12, 3-pole
Operating-LED				
Article Code				
3-wire NO, PNP	IPS30 S22PO79/M12	IPS30 N25PO40/A2P	IPS30 N25PO55/A2P	IPS30 N25PO53/M12
3-wire NC, PNP	IPS30 S22PC79/M12	IPS30 N25PC40/A2P	IPS30 N25PC55/A2P	IPS30 N25PC53/M12
3-wire NO, NPN	IPS30 S22NO79/M12	IPS30 N25NO40/A2P	IPS30 N25NO55/A2P	IPS30 N25NO53/M12
3-wire NC, NPN	IPS30 S22NC79/M12	IPS30 N25NC40/A2P	IPS30 N25NC55/A2P	IPS30 N25NC53/M12
2-wire NO, 10...55 VDC		IPS30 N25DO40/A2P	IPS30 N25DO55/A2P	IPS30 N25DO53/M12
2-wire NC, 10...55 VDC		IPS30 N25DC40/A2P	IPS30 N25DC55/A2P	IPS30 N25DC53/M12
Recommended Connecting Cable	M12/3...	-	-	M12/3...

## INDUCTIVE

M30 M30 M30 M30 M30 M30



25 mm

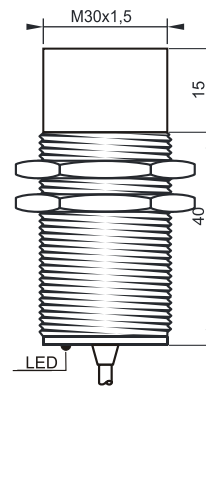
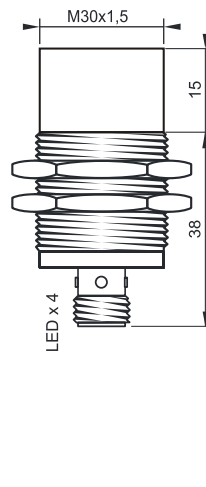
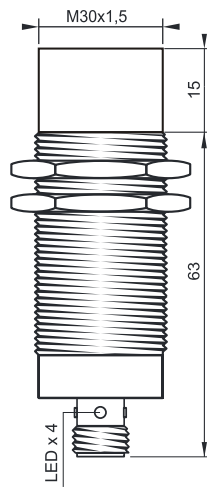
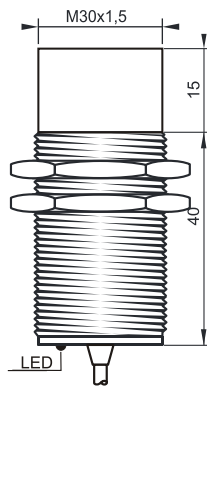
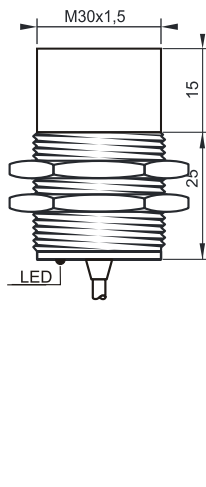
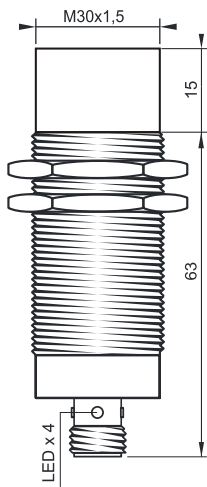
40 mm

40 mm

40 mm

40 mm

50 mm



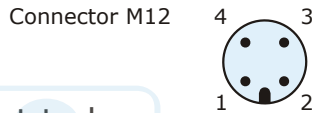
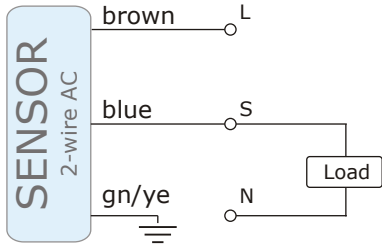
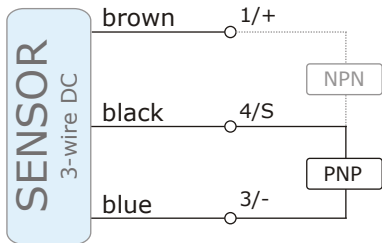
M30x1.5	M30x1.5	M30x1.5	M30x1.5	M30x1.5	M30x1.5
25 mm - Unshielded	40 mm - Unshielded	40 mm - Unshielded	40 mm - Unshielded	40 mm - Unshielded	50 mm - Unshielded
10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA	10...30 VDC, 3-wire < 8 mA
200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, 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	PBT	POM	POM	POM	POM
Nickel Plated Brass M12, 3-pole	Nickel Plated Brass PVC, 3-pole, 2m	Nickel Plated Brass PVC, 3-pole, 2m	Nickel Plated Brass M12, 3-pole	Nickel Plated Brass M12, 3-pole	Nickel Plated Brass PVC, 3-pole, 2m
IPS30 N25PO79/M12	IPS30 N40PO40/A2P	IPS30 N40PO55/A2P	IPS30 N40PO79/M12	IPS30 N40PO53/M12	IPS30 N50PO55/A2P
IPS30 N25PC79/M12	IPS30 N40PC40/A2P	IPS30 N40PC55/A2P	IPS30 N40PC79/M12	IPS30 N40PC53/M12	IPS30 N50PC55/A2P
IPS30 N25NO79/M12	IPS30 N40NO40/A2P	IPS30 N40NO55/A2P	IPS30 N40NO79/M12	IPS30 N40NO53/M12	IPS30 N50NO55/A2P
IPS30 N25NC79/M12	IPS30 N40NC40/A2P	IPS30 N40NC55/A2P	IPS30 N40NC79/M12	IPS30 N40NC53/M12	IPS30 N50NC55/A2P
IPS30 N25DO79/M12					
IPS30 N25DC79/M12					
M12/3...	-	-	M12/3...	M12/3...	-



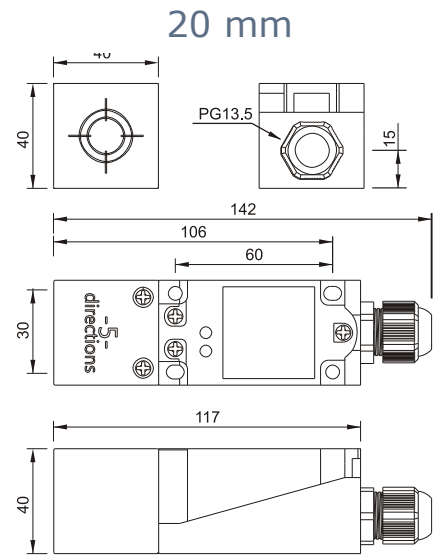
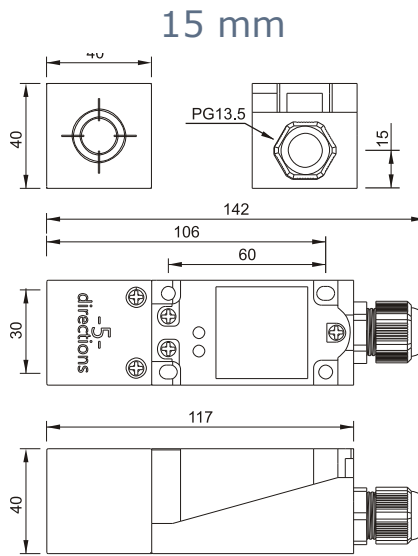
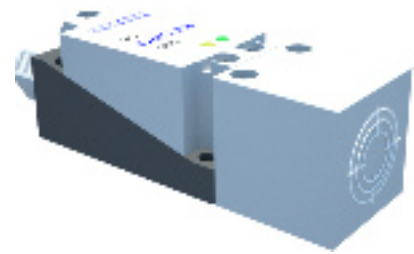
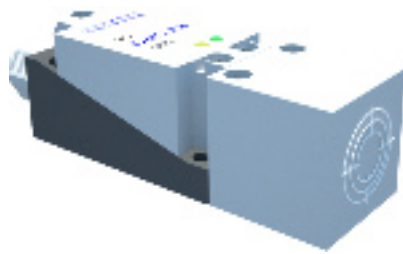
## Output Schematics

40x40

40x40



Not to be used for Safety Applications



## SPECIFICATIONS

Sensing Distance

40x40 mm  
15 mm - Shielded

40x40 mm  
15 mm - Shielded

40x40 mm  
20 mm - Semi

40x40 mm  
20 mm - Semi

Operating Voltage

10... 30 | 10... 55 VDC

20... 250 VAC

10... 30 | 10... 55 VDC

20... 250 VAC

Idle Current

< 11 mA

< 2 mA (Idle Current)

< 11 mA

< 2 mA (Idle Current)

Output Current

200 mA, self-resetting

400 mA

200 mA, self-resetting

400 mA

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)

{SPECS\_5\_9}

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

5 Directions

5 Directions

5 Directions

5 Directions

Housing Material

PBT

PBT

PBT

PBT

Connected

PG13.5, Terminal

PG13.5, Terminal

Operating-LED

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

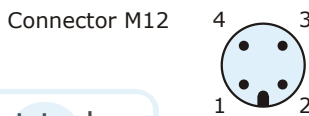
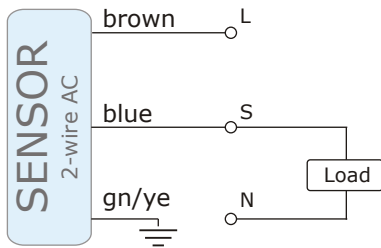
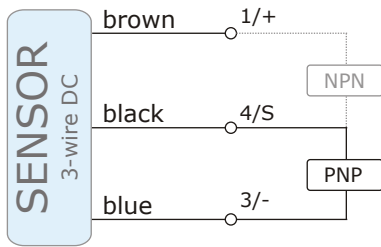
-

-

-

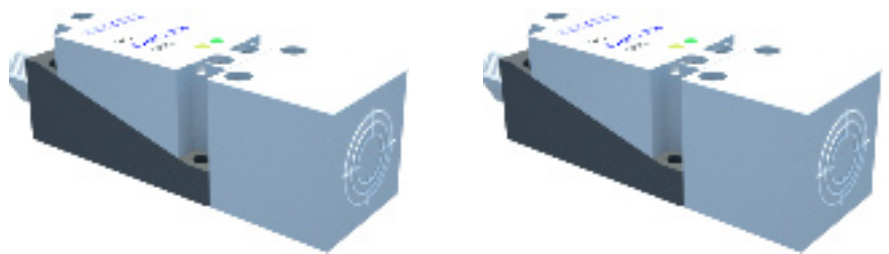
-

Output Schematics



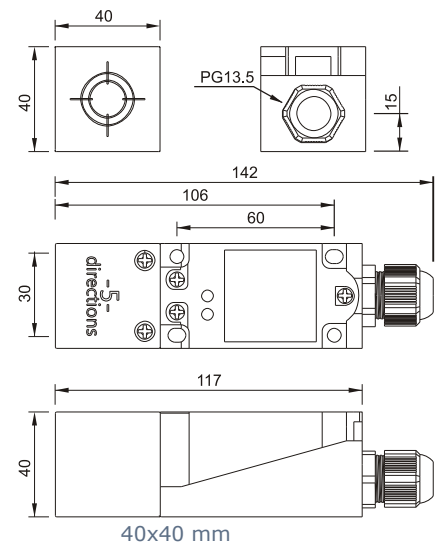
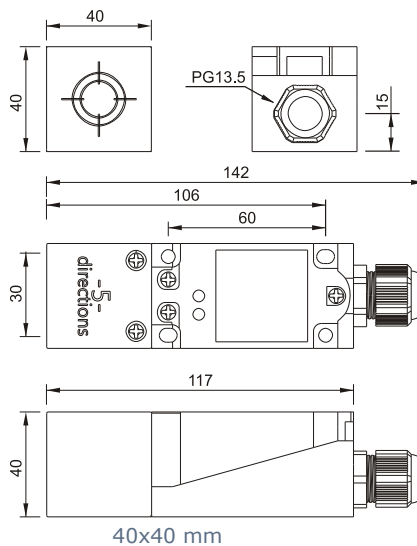
Not to be used for Safety Applications

40x40 40x40



25 mm

30 mm



SPECIFICATIONS

Sensing Distance  
 Operating Voltage  
 Idle Current

25 mm - Shielded  
 10... 30 | 10... 55 VDC  
 < 11 mA

30 mm - Semi  
 10... 30 | 10... 55 VDC  
 < 11 mA

Output Current

200 mA, self-resetting

200 mA, self-resetting

Voltage Drop  
 Switching Frequency  
 Repeatability  
 Hysteresis

< 2 V @ 200 mA  
 120 Hz  
 < 1 % (Sn)  
 3...15 %

< 2 V @ 200 mA  
 120 Hz  
 < 1 % (Sn)  
 3...15 %

Operating Temperature  
 Protection Class  
 Sensing Face Material  
 Housing Material  
 Connected  
 Operating-LED

-25...75 °C  
 IP67  
 5 Directions  
 PBT

-25...75 °C  
 IP67  
 5 Directions  
 PBT

Article Code

3-wire NO+NC, PNP  
 3-wire NO+NC, NPN  
 2-wire NO, 10... 55 VDC  
 2-wire NC, 10... 55 VDC  
 2-wire NO, 20... 250 VAC  
 2-wire NC, 20... 250 VAC  
 Recommended Connecting Cable

IPS40 S25PCOL/PG13  
 IPS40 S25NCOL/PG13

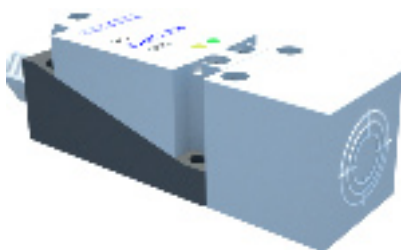
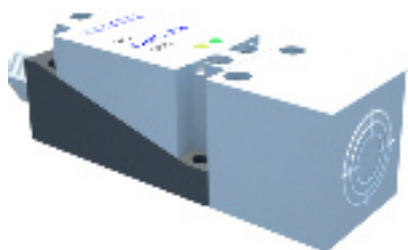
IPS40 S30PCOL/PG13  
 IPS40 S30NCOL/PG13

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

## INDUCTIVE

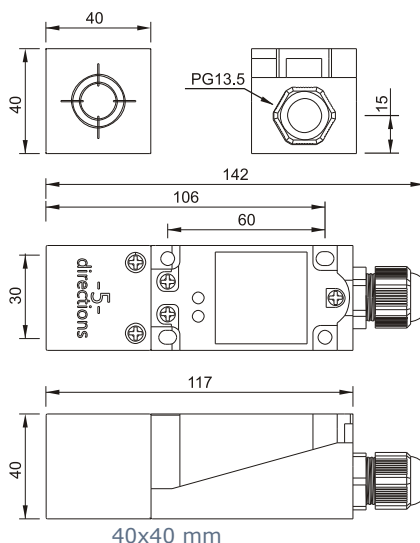
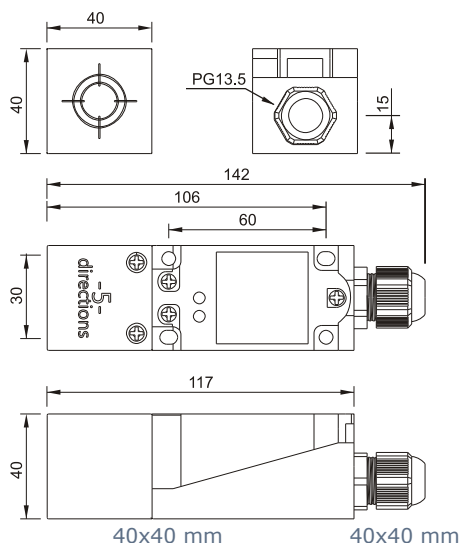
40x40

40x40



30 mm

40 mm



30 mm - Unshielded

10... 30 | 10... 55  
VDC  
< 11 mA

200 mA, self-  
resetting  
< 2 V @ 200 mA  
120 Hz  
< 1 % (Sn)  
3...15 %  
-25...75 °C  
IP67  
5 Directions  
PBT

IPS40 N30PCOL/PG13  
IPS40 N30NCOL/PG13  
IPS40 N30DOL/PG13  
IPS40 N30DCL/PG13

30 mm - Unshielded

20... 250 VAC  
< 2 mA (Idle  
Current)

400 mA  
< 8 V @ 400 mA  
25 Hz  
< 1 % (Sn)  
3...15 %  
-25...75 °C  
IP67  
5 Directions  
PBT  
PG13.5, Terminal

IPS40 N30AOL/PG13  
IPS40 N30ACL/PG13

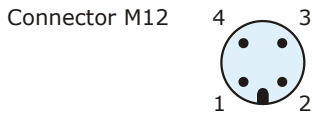
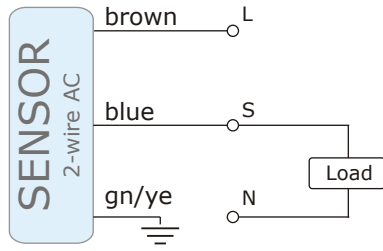
40 mm - Unshielded

10... 30 | 10... 55  
VDC  
< 11 mA

200 mA, self-  
resetting  
< 2 V @ 200 mA  
120 Hz  
< 1 % (Sn)  
3...15 %  
-25...75 °C  
IP67  
5 Directions  
PBT

IPS40 N40PCOL/PG13  
IPS40 N40NCOL/PG13

Output Schematics



Not to be used for Safety Applications

M12 M12 M12 M12

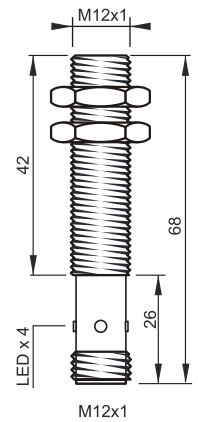
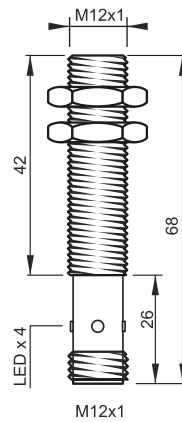
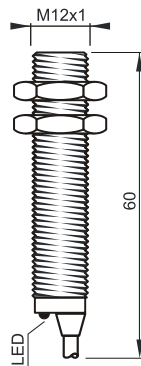


2 mm

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	20... 250 VAC	20... 250 VAC	20... 250 VAC
Current Consumption	< 2 mA	< 2 mA	< 2 mA	< 2 mA
Output Current	400 mA	400 mA	400 mA	400 mA
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	PBT	PBT	PBT	PBT
Connected	PVC, 3-pole, 2m	M12, 3-pole	PVC, 3-pole, 2m	M12, 3-pole
Operating-LED	Incorporated	Incorporated	Incorporated	Incorporated
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

M12	M12	M12	M12	M18	M18
-----	-----	-----	-----	-----	-----



4 mm

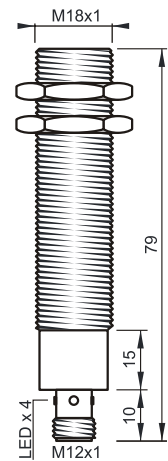
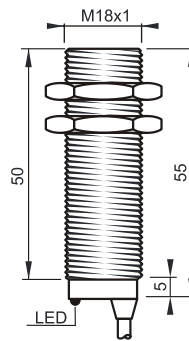
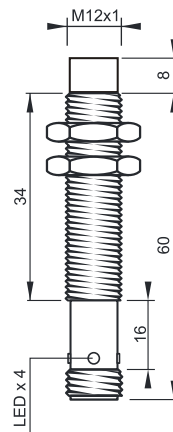
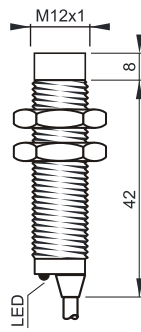
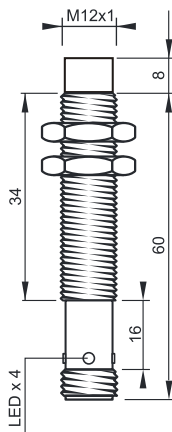
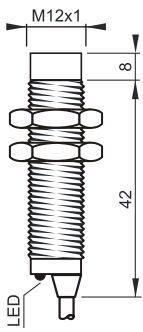
4 mm

8 mm

8 mm

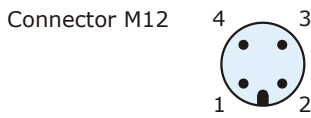
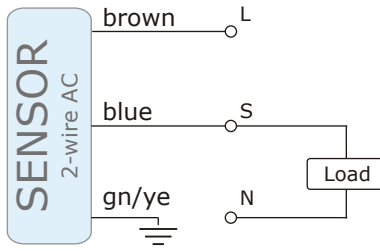
5 mm

5 mm



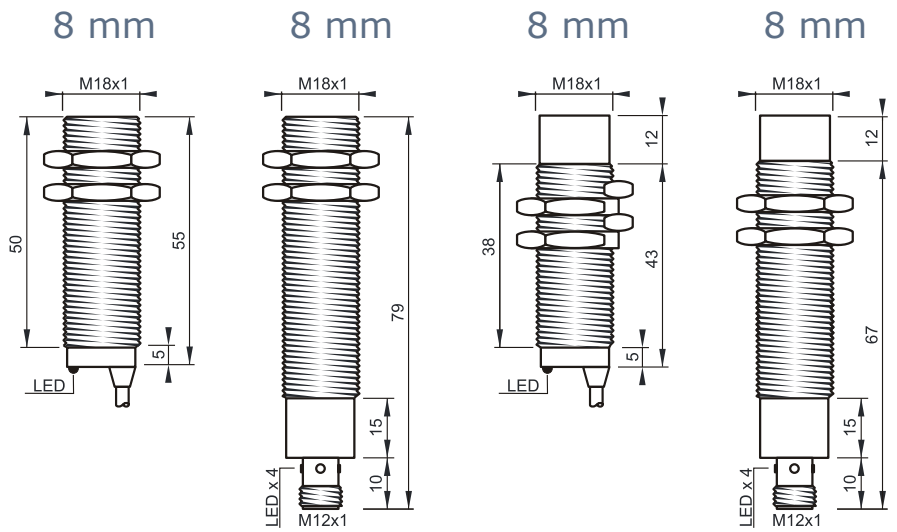
M12x1	M12x1	M12x1	M12x1	M18x1	M18x1
4 mm - Unshielded	4 mm - Unshielded	8 mm - Unshielded	8 mm - Unshielded	5 mm - Shielded	5 mm - Shielded
20... 250 VAC < 2 mA 400 mA < 8 V @ 400 mA 25 Hz < 1 % (Sn) 3...15 % -25...75 °C IP67 POM PBT PVC, 3-pole, 2m Incorporated	20... 250 VAC < 2 mA 400 mA < 8 V @ 400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

Output Schematics



Not to be used for Safety Applications

M18 M18 M18 M18



SPECIFICATIONS

	M18x1	M18x1	M18x1	M18x1
Sensing Distance	8 mm - Shielded	8 mm - Shielded	8 mm - Unshielded	8 mm - Unshielded
Operating Voltage	20... 250 VAC	20... 250 VAC	20... 250 VAC	20... 250 VAC
Current Consumption	< 2 mA	< 2 mA	< 2 mA	< 2 mA
Output Current	400 mA	400 mA	400 mA	400 mA
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	PBT	PBT	PBT	PBT
Connected	PVC, 3-pole, 2m	M12, 3-pole	PVC, 3-pole, 2m	M12, 3-pole
Operating-LED	Incorporated	Incorporated	Incorporated	Incorporated

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

M18 M18 M30 M30 M30 M30



16 mm

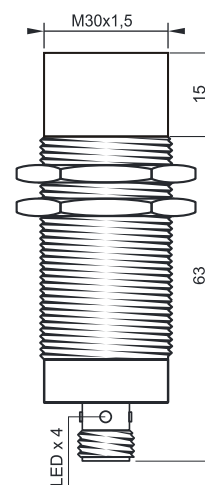
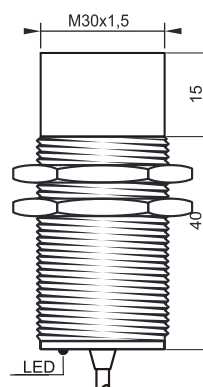
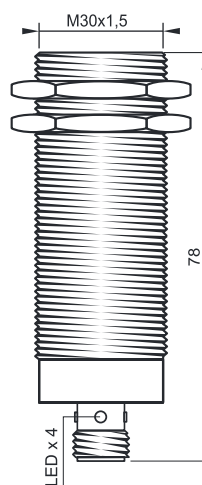
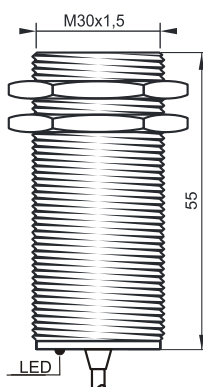
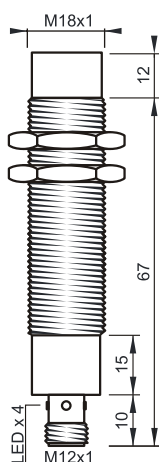
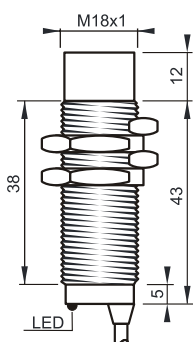
16 mm

10 mm

10 mm

15 mm

15 mm



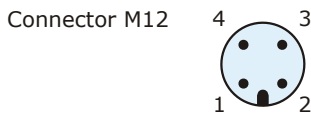
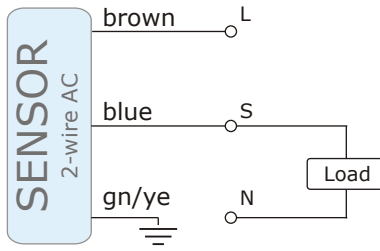
M18x1	M18x1	M30x1	M30x1	M30x1	M30x1
16 mm - Unshielded	16 mm - Unshielded	10 mm - Shielded	10 mm - Unshielded	15 mm - Shielded	15 mm - Unshielded

20... 250 VAC	20... 250 VAC	20... 250 VAC	20... 250 VAC	20... 250 VAC	20... 250 VAC
< 2 mA	< 2 mA	< 2 mA	< 2 mA	< 2 mA	< 2 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
PBT	PBT	PBT	PBT	PBT	PBT
PVC, 3-pole, 2m Incorporated	M12, 3-pole Incorporated	PVC, 3-pole, 2m Incorporated	M12, 3-pole Incorporated	PVC, 3-pole, 2m Incorporated	M12, 3-pole Incorporated

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

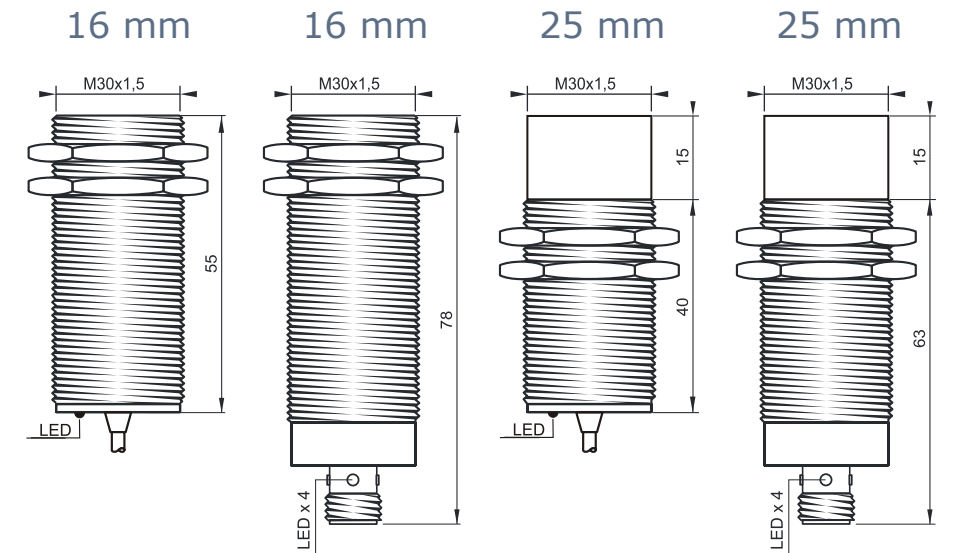
-	M12/3	-	M12/3	-	M12/3
---	-------	---	-------	---	-------

Output Schematics



Not to be used for Safety Applications

M30 M30 M30 M30



SPECIFICATIONS

	M30x1	M30x1	M30x1	M30x1
Sensing Distance	16 mm - Shielded	16 mm - Unshielded	25 mm - Shielded	25 mm - Unshielded
Operating Voltage	20... 250 VAC	20... 250 VAC	20... 250 VAC	20... 250 VAC
Current Consumption	< 2 mA	< 2 mA	< 2 mA	< 2 mA
Output Current	400 mA	400 mA	400 mA	400 mA
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	PBT	PBT	PBT	PBT
Connected	PVC, 3-pole, 2m	M12, 3-pole	PVC, 3-pole, 2m	M12, 3-pole
Operating-LED	Incorporated	Incorporated	Incorporated	Incorporated
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

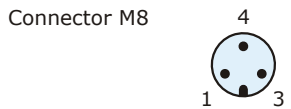
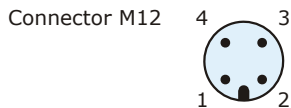
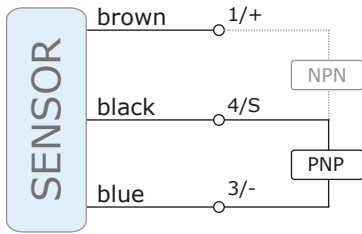
M12

M12

M18

M18

### Output Schematics



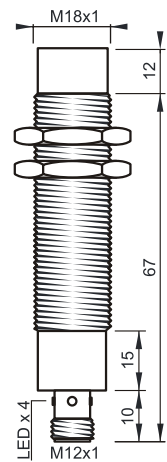
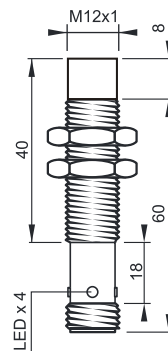
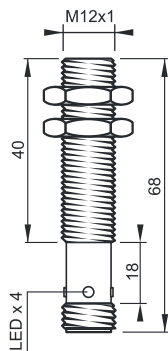
Not to be used for Safety Applications

2 mm

4 mm

5 mm

8 mm

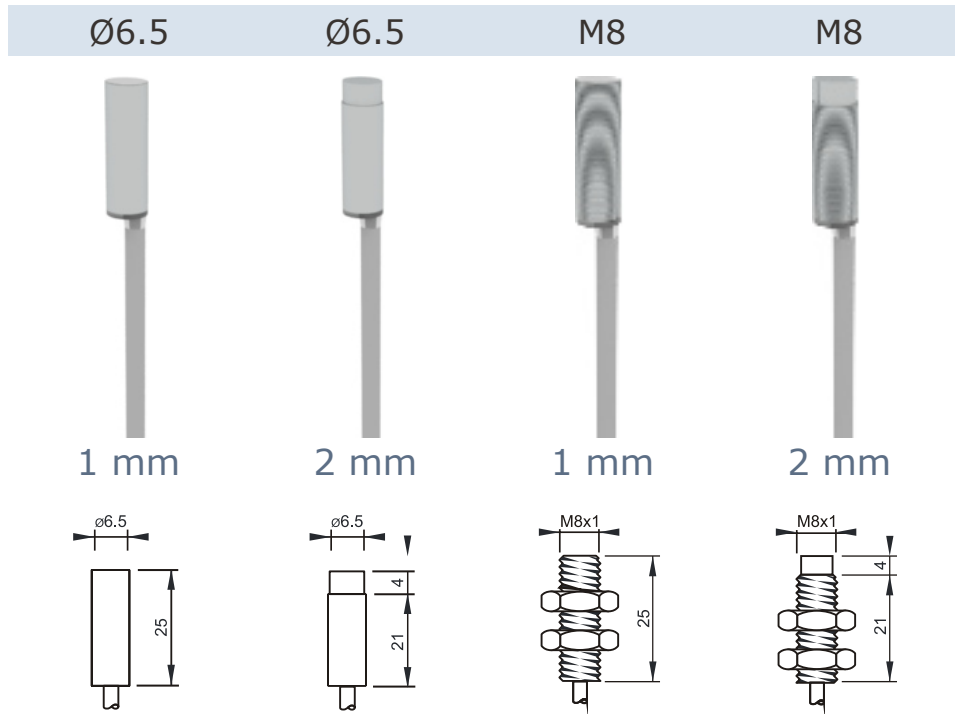
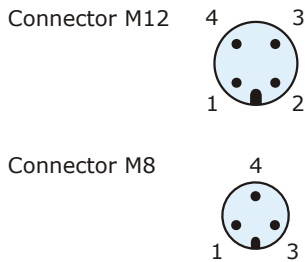
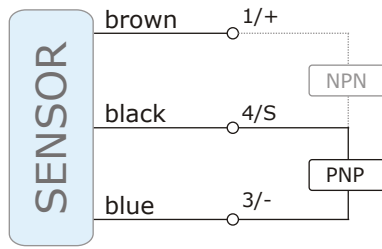


### SPECIFICATIONS

	M12x1 - Ferrous	M12x1 - Ferrous	M18x1 - Ferrous	M18x1 - Ferrous
Sensing Distance	2 mm - Shielded See Article Code	4 mm - Unshielded See Article Code	5 mm - Shielded See Article Code	8 mm - Unshielded See Article Code
Operating Voltage	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire
Current Consumption	< 8 mA	< 8 mA	< 8 mA	< 8 mA
Output Current	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, 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	500 Hz
Repeatability {SPECS_5_9}	< 1 % (Sn) 3...15 %	< 1 % (Sn) 3...15 %	< 1 % (Sn) 3...15 %	< 1 % (Sn) 3...15 %
Operating Temperature	-25...75 °C	-25...75 °C	-25...75 °C	-25...75 °C
Protection Class	IP68, Conn. IP67	IP68, Conn. IP67	IP68, Conn. IP67	IP68, Conn. IP67
Sensing Face Material	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
Housing Material	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
Connected	M12, 3-pole	M12, 3-pole	M12, 3-pole	M12, 3-pole
Operating-LED				
PNP,	IFE12 S2PO68/M12	IFE12 N4PO68/M12	IFE18 S5PO79/M12	IFE18 N8PO79/M12
PNP,	IFE12 S2PC68/M12	IFE12 N4PC68/M12	IFE18 S5PC79/M12	IFE18 N8PC79/M12
	IFE12 S2NO68/M12	IFE12 N4NO68/M12	IFE18 S5NO79/M12	IFE18 N8NO79/M12
	IFE12 S2NC68/M12	IFE12 N4NC68/M12	IFE18 S5NC79/M12	IFE18 N8NC79/M12
	INF12 S2PO68/M12	INF12 N4PO68/M12	INF18 S5PO79/M12	INF18 N8PO79/M12
	INF12 S2PC68/M12	INF12 N4PC68/M12	INF18 S5PC79/M12	INF18 N8PC79/M12
	INF12 S2NO68/M12	IFE12 NNFO68/M12	INF18 S5NO79/M12	IFE18 NNFO79/M12
	INF12 S2NC68/M12	INF12 N4NC68/M12	INF18 S5NC79/M12	INF18 N8NC79/M12

Recommended Connecting Cable

Output Schematics



Not to be used for Safety Applications

SPECIFICATIONS

	Ø6.5 mm - NAMUR	Ø6.5 mm - NAMUR	M8 - NAMUR	M8 - NAMUR
Sensing Distance	1 mm - Shielded	2 mm - Unshielded	1 mm - Shielded	2 mm - Unshielded
Amplified	External	External	External	External
Operating Voltage	6... 12 VDC	6... 12 VDC	6... 12 VDC	6... 12 VDC
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
Output-Function	by Amplifier	by Amplifier	by Amplifier	by Amplifier
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 Face Material	PBT	PBT	PBT	PBT
Housing Material	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
Connected	PVC, 3-pole, 2m	PVC, 3-pole, 2m	PVC, 3-pole, 2m	PVC, 3-pole, 2m
Operating-LED	by Amplifier	by Amplifier	by Amplifier	by Amplifier

Article Code

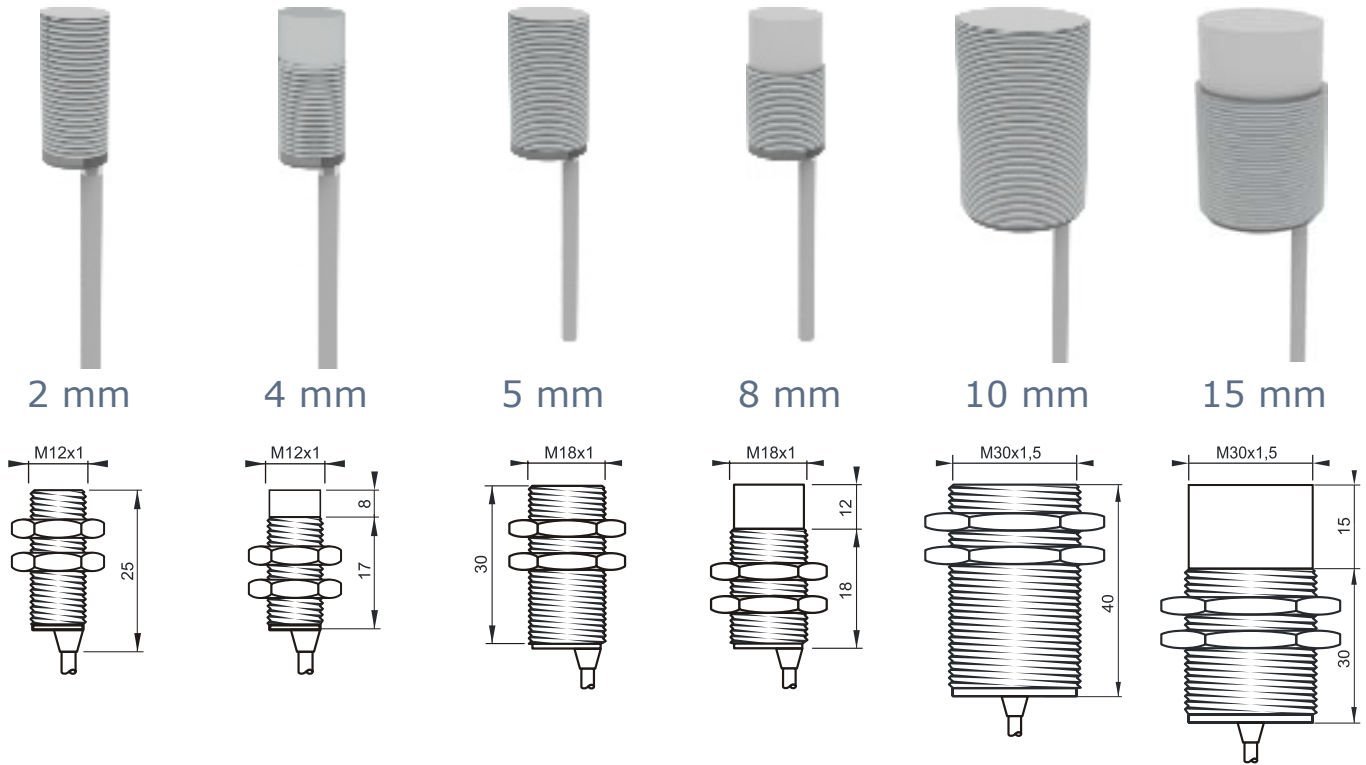
NAMUR	IPSD6 S1NA20/N2P	IPSD6 N2NA25/N2P	IPS8 S1NA25/N2P	IPS8 N2NA25/N2P
-------	------------------	------------------	-----------------	-----------------

Recommended Connecting Cable

- - - -

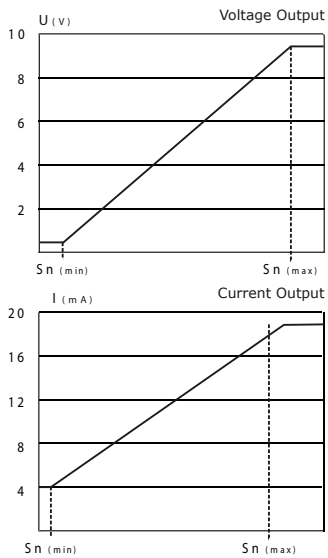
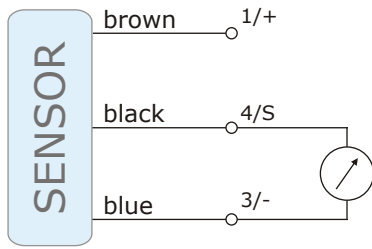
## INDUCTIVE

M12	M12	M18	M18	M30	M30
-----	-----	-----	-----	-----	-----



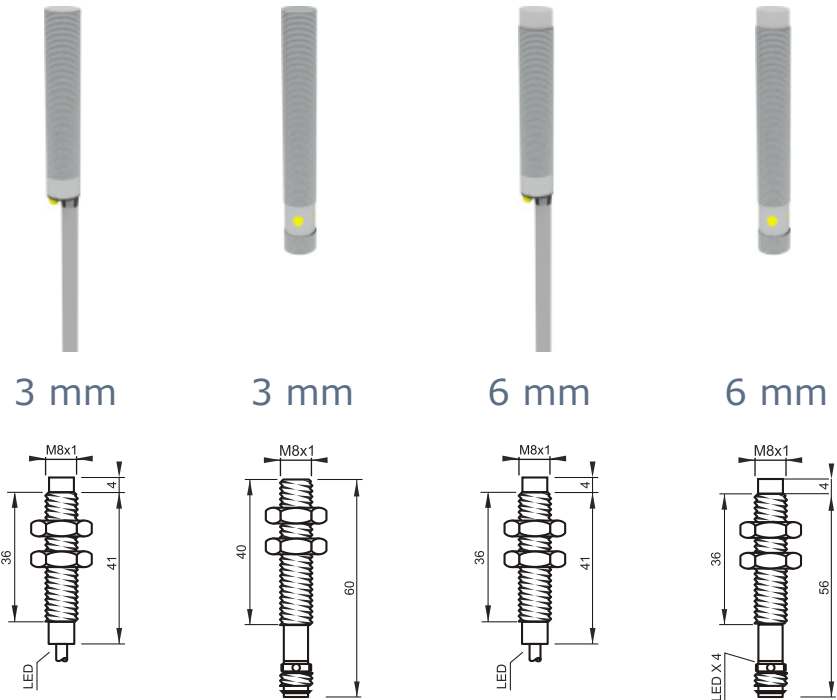
M12 - NAMUR	M12 - NAMUR	M18 - NAMUR	M18 - NAMUR	M30 - NAMUR	M30 - NAMUR
2 mm - Shielded	4 mm - Unshielded	5 mm - Shielded	8 mm - Unshielded	10 mm - Shielded	15 mm - Unshielded
External	External	External	External	External	External
6... 12 VDC	6... 12 VDC	6... 12 VDC	6... 12 VDC	6... 12 VDC	6... 12 VDC
> 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
1000 Hz	500 Hz	500 Hz	300 Hz	500 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
PBT	PBT	PBT	PBT	PBT	PBT
Nickel Plated Brass	Nickel Plated Brass	Nickel Plated Brass	Nickel Plated Brass	Nickel Plated Brass	Nickel Plated Brass
PVC, 3-pole, 2m	PVC, 3-pole, 2m	PVC, 3-pole, 2m	PVC, 3-pole, 2m	PVC, 3-pole, 2m	PVC, 3-pole, 2m
by Amplifier	by Amplifier	by Amplifier	by Amplifier	by Amplifier	by Amplifier
IPS12 S1NA25/N2P	IPS12 N2NA25/N2P	IPS18 S5NA30/N2P	IPS18 N8NA30/N2P	IPS30 S10NA40/N2P	IPS30 N15NA45/N2P

Output Schematics



Not to be used for Safety Applications

M8 M8 M8 M8



SPECIFICATIONS

	M8x1 Analog	M8x1 Analog	M8x1 Analog	M8x1 Analog
Measuring Distance	0...3 mm	0...3 mm	0...6 mm	0...6 mm
Einbauart	Shielded	Shielded	Unshielded	Unshielded
Operating Voltage	18...30 VDC	18...30 VDC	18...30 VDC	18...30 VDC
Current Consumption	< 35 mA	< 35 mA	< 35 mA	< 35 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
Temperature Drift	< 5 % (Sn)	< 5 % (Sn)	< 5 % (Sn)	< 5 % (Sn)
Output Following Frequency	100 Hz	100 Hz	100 Hz	100 Hz
Output Function	See Article Code	See Article Code	See Article Code	See Article Code
Operating Temperature	0...+70 °C	0...+70 °C	0...+70 °C	0...+70 °C
Protection Class	IP67	IP67	IP67	IP67
Housing Material	Chromed Brass	Chromed Brass	Chromed Brass	Chromed Brass
Connected	M8, 3-pole	M8, 3-pole	M8, 3-pole	M8, 3-pole
Operating-LED				

Article Code

PNP, Analog Voltage (0...10 VDC)	IA8 S3V010/N2P	IA8 S3V010/M8	IA8 N6V010/N2P	IA8 N6V010/M8
----------------------------------	----------------	---------------	----------------	---------------

M8/3...

M8/3...

M8/3...

M8/3...

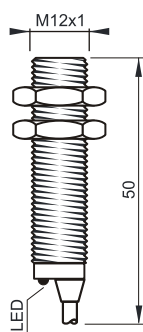
Recommended Connecting Cable

## INDUCTIVE

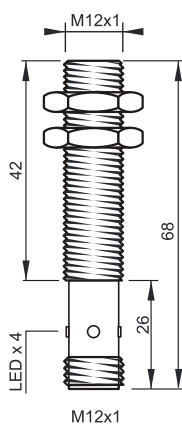
M12	M12	M12	M12	M18	M18
-----	-----	-----	-----	-----	-----



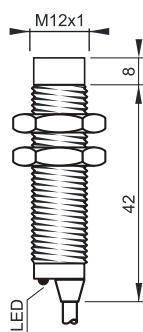
6 mm



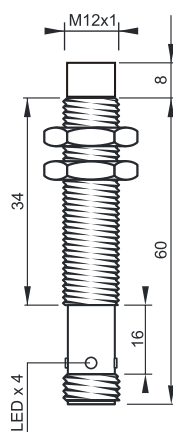
6 mm



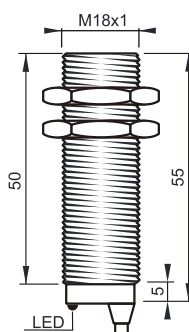
10 mm



10 mm



10 mm



10 mm



M12x1 Analog

0...6 mm  
Shielded  
18...30 VDC  
< 35 mA  
> 2 kOhm  
< 5 % (Sn)  
0.02 mm  
< 5 % (Sn)  
100 Hz  
See Article Code  
0...+70 °C  
IP67  
Chromed Brass  
M12, 3-pole

IA12 S6V010/N2P

M12/3...

M12x1 Analog

0...6 mm  
Shielded  
18...30 VDC  
< 35 mA  
> 2 kOhm  
< 5 % (Sn)  
0.02 mm  
< 5 % (Sn)  
100 Hz  
See Article Code  
0...+70 °C  
IP67  
Chromed Brass  
M12, 3-pole

IA12 S6V010/M12

M12/3...

M12x1 Analog

0...10 mm  
Unshielded  
18...30 VDC  
< 35 mA  
> 2 kOhm  
< 5 % (Sn)  
0.02 mm  
< 5 % (Sn)  
100 Hz  
See Article Code  
0...+70 °C  
IP67  
Chromed Brass  
M12, 3-pole

IA12 N10V010/N2P

M12/3...

M12x1 Analog

0...10 mm  
Unshielded  
18...30 VDC  
< 35 mA  
> 2 kOhm  
< 5 % (Sn)  
0.02 mm  
< 5 % (Sn)  
100 Hz  
See Article Code  
0...+70 °C  
IP67  
Chromed Brass  
M12, 3-pole

IA12 N10V010/M12

M12/3...

M18x1 Analog

0...10 mm  
Shielded  
18...30 VDC  
< 35 mA  
> 2 kOhm  
< 5 % (Sn)  
0.02 mm  
< 5 % (Sn)  
100 Hz  
See Article Code  
0...+70 °C  
IP67  
Chromed Brass  
M12, 3-pole

IA18 S10V010/N2P

M12/3...

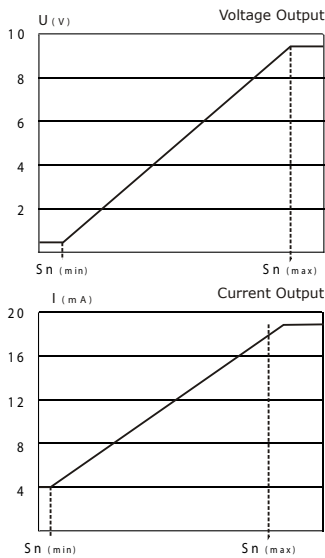
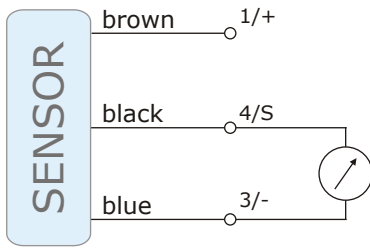
M18x1 Analog

0...10 mm  
Shielded  
18...30 VDC  
< 35 mA  
> 2 kOhm  
< 5 % (Sn)  
0.02 mm  
< 5 % (Sn)  
100 Hz  
See Article Code  
0...+70 °C  
IP67  
Chromed Brass  
M12, 3-pole

IA18 S10V010/M12

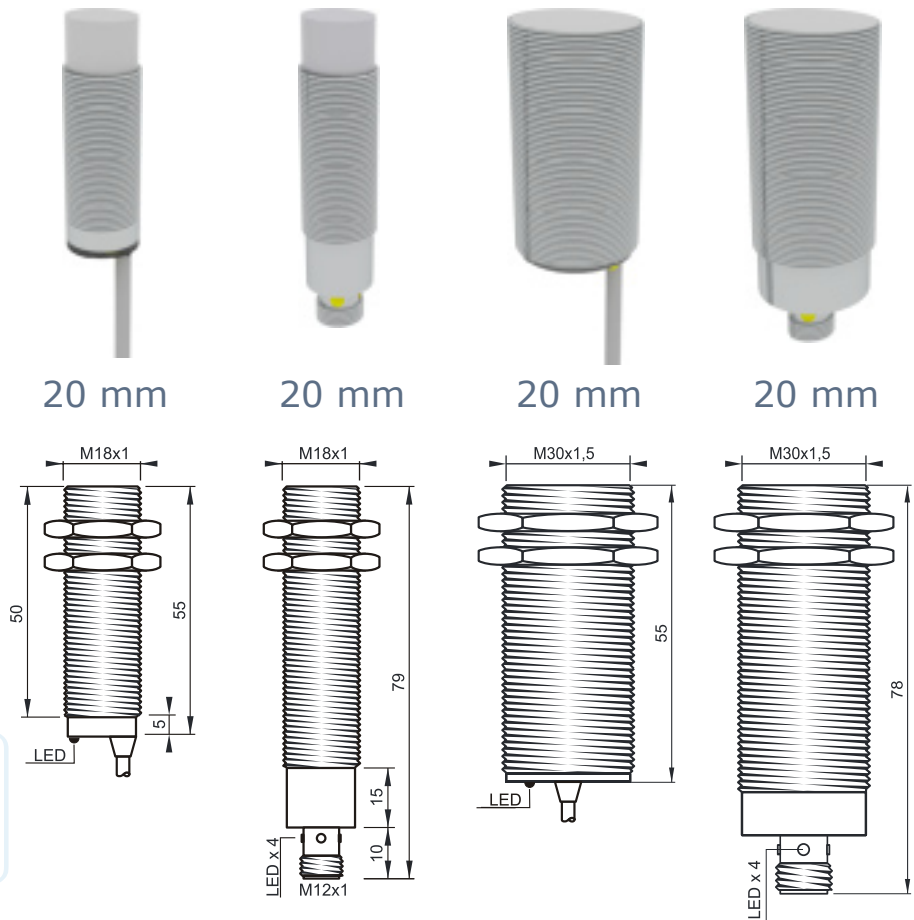
M12/3...

Output Schematics



Not to be used for Safety Applications

M18 M18 M30 M30



Analog Output Inductive Proximity Switches

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
Einbauart	Unshielded	Unshielded	Shielded	Shielded
Operating Voltage	18...30 VDC	18...30 VDC	18...30 VDC	18...30 VDC
Current Consumption	< 35 mA	< 35 mA	< 35 mA	< 35 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
Temperature Drift	< 5 % (Sn)	< 5 % (Sn)	< 5 % (Sn)	< 5 % (Sn)
Output Following Frequency	100 Hz	100 Hz	100 Hz	100 Hz
Output Function	See Article Code	See Article Code	See Article Code	See Article Code
Operating Temperature	0...+70 °C	0...+70 °C	0...+70 °C	0...+70 °C
Protection Class	IP67	IP67	IP67	IP67
Housing Material	Chromed Brass	Chromed Brass	Chromed Brass	Chromed Brass
Connected	M12, 3-pole	M12, 3-pole	M12, 3-pole	M12, 3-pole
Operating-LED				

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...	M12/3...	M12/3...
------------------------------	----------	----------	----------	----------

INDUCTIVE

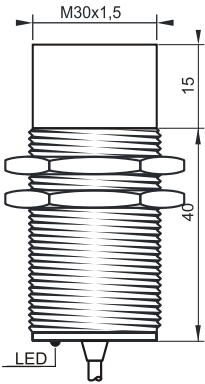
M30 M30



40 mm



40 mm

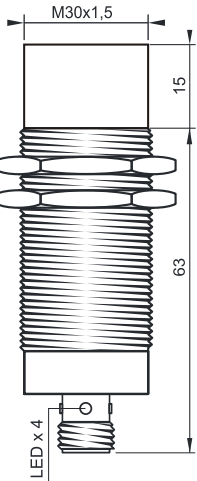


M30x1.5 Analog

- 0...40 mm
- Unshielded
- 18...30 VDC
- < 35 mA
- > 2 kOhm
- < 5 % (Sn)
- 0.02 mm
- < 5 % (Sn)
- 100 Hz
- See Article Code
- 0...+70 °C
- IP67
- Chromed Brass
- M12, 3-pole

IA30 N40V010/N2P

M12/3...



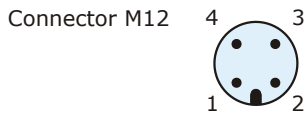
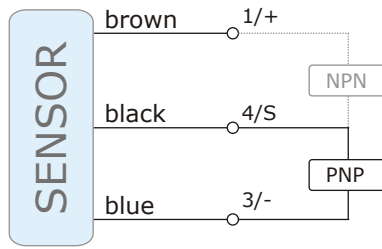
M30x1.5 Analog

- 0...40 mm
- Unshielded
- 18...30 VDC
- < 35 mA
- > 2 kOhm
- < 5 % (Sn)
- 0.02 mm
- < 5 % (Sn)
- 100 Hz
- See Article Code
- 0...+70 °C
- IP67
- Chromed Brass
- M12, 3-pole

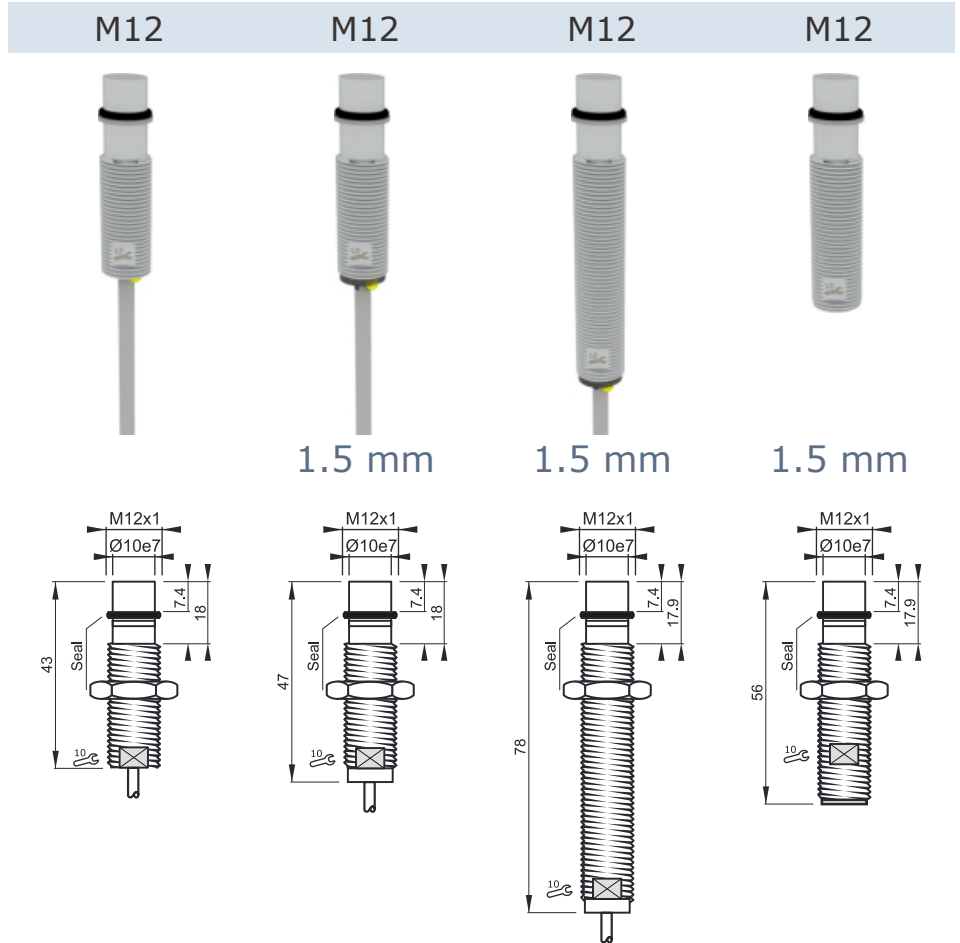
IA30 N40V010/M12

M12/3...

Output Schematics



Not to be used for Safety Applications



SPECIFICATIONS

Sensing Distance	1.5 mm - Shielded	1.5 mm - Shielded	1.5 mm - Shielded	1.5 mm - Shielded
Operating Voltage	10...35 VDC	10...35 VDC	10...35 VDC	10...35 VDC
Current Consumption	< 5 mA	< 5 mA	< 5 mA	< 5 mA
Pressure Tightness	500 bar / 7250 PSI	500 bar / 7250 PSI	500 bar / 7250 PSI	500 bar / 7250 PSI
Output Current	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting
Voltage Drop	2.5 V @ 150 mA	2.5 V @ 150 mA	2.5 V @ 150 mA	2.5 V @ 150 mA
Switching Frequency	50 Hz	50 Hz	50 Hz	50 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	IP69k, IP 67	IP69k, IP 67	IP69k, IP 67	IP69k, IP 67
Sensing Face Material	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
Housing Material	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
Connected	3x0.14, 2m	3x0.14, 2m	3x0.14, 2m	M12x1
Operating-LED				
Article Code				
PNP, NO	IHP12 S1.5PO43/N2P	IHP12 S1.5PO47/N2P	IHP12 S1.5PO78/N2P	IHP12 S1.5PO56/N12
PNP, NC	IHP12 S1.5PC43/N2P	IHP12 S1.5PC47/N2P	IHP12 S1.5PC78/N2P	IHP12 S1.5PC56/N12
NPN, NO	IHP12 S1.5NO43/N2P	IHP12 S1.5NO47/N2P	IHP12 S1.5NO78/N2P	IHP12 S1.5NO56/N12
NPN, NC	IHP12 S1.5NC43/N2P	IHP12 S1.5NC47/N2P	IHP12 S1.5NC78/N2P	IHP12 S1.5NC56/N12

Recommended Connecting Cable -

M12/3...

## INDUCTIVE

M12 M12 M12 M12 M12 M12



1.5 mm

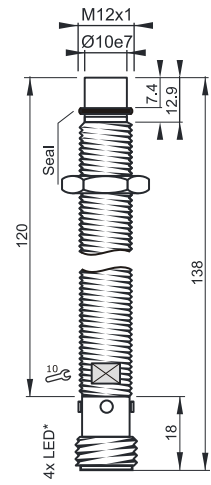
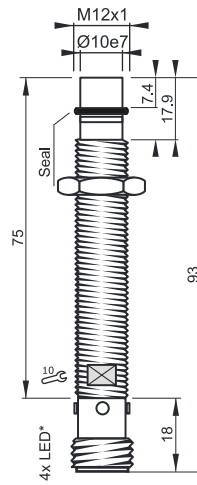
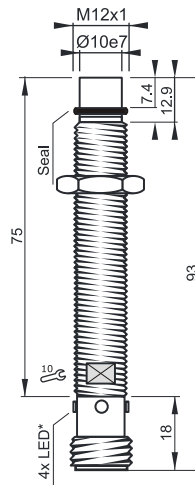
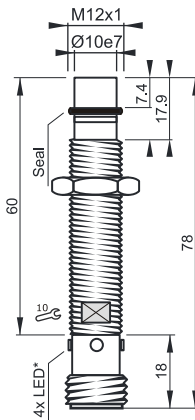
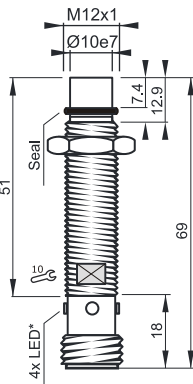
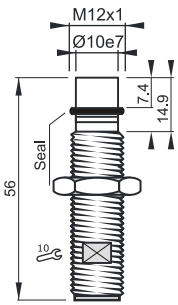
1.5 mm

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  
10...35 VDC

1.5 mm - Shielded  
10...35 VDC

1.5 mm - Shielded  
10...35 VDC

1.5 mm - Shielded  
10...35 VDC

1.5 mm - Shielded  
10...35 VDC

1.5 mm - Shielded  
10...35 VDC

< 5 mA  
500 bar / 7250 PSI  
200 mA, self-  
resetting

< 5 mA  
500 bar / 7250 PSI  
200 mA, self-  
resetting

< 5 mA  
500 bar / 7250 PSI  
200 mA, self-  
resetting

< 5 mA  
500 bar / 7250 PSI  
200 mA, self-  
resetting

< 5 mA  
500 bar / 7250 PSI  
200 mA, self-  
resetting

< 5 mA  
500 bar / 7250 PSI  
200 mA, self-  
resetting

2.5 V @ 150 mA  
50 Hz  
< 3 %  
< 20 %

2.5 V @ 150 mA  
50 Hz  
< 3 %  
< 20 %

2.5 V @ 150 mA  
50 Hz  
< 3 %  
< 20 %

2.5 V @ 150 mA  
50 Hz  
< 3 %  
< 20 %

2.5 V @ 150 mA  
50 Hz  
< 3 %  
< 20 %

2.5 V @ 150 mA  
50 Hz  
< 3 %  
< 20 %

-25...75 °C

-25...75 °C

-25...75 °C

-25...75 °C

-25...75 °C

-25...75 °C

IP69k, IP 67

IP69k, IP 67

IP69k, IP 67

IP69k, IP 67

IP69k, IP 67

IP69k, IP 67

Stainless Steel

Stainless Steel

Stainless Steel

Stainless Steel

Stainless Steel

Stainless Steel

Stainless Steel

Stainless Steel

Stainless Steel

Stainless Steel

Stainless Steel

Stainless Steel

M12x1

M12x1

M12x1

M12x1

M12x1

M12x1

IHP12 S1.5PO57/N12

IHP12 S1.5PO69/N12

IHP12 S1.5PO78/N12

IHP12 S1.5PO93/N12

IHP12 S1.5PO94/N12

IHP12 S1.5PO138/N12

IHP12 S1.5PC57/N12

IHP12 S1.5PC69/N12

IHP12 S1.5PC78/N12

IHP12 S1.5PC93/N12

IHP12 S1.5PC94/N12

IHP12 S1.5PC138/N12

IHP12 S1.5NO57/N12

IHP12 S1.5NO69/N12

IHP12 S1.5NO78/N12

IHP12 S1.5NO93/N12

IHP12 S1.5NO94/N12

IHP12 S1.5NO138/N12

IHP12 S1.5NC57/N12

IHP12 S1.5NC69/N12

IHP12 S1.5NC78/N12

IHP12 S1.5NC93/N12

IHP12 S1.5NC94/N12

IHP12 S1.5NC138/N12

M12/3...

M12/3...

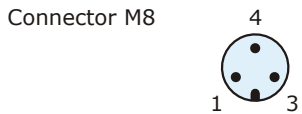
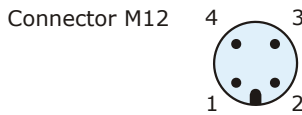
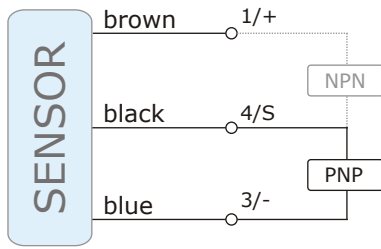
M12/3...

M12/3...

M12/3...

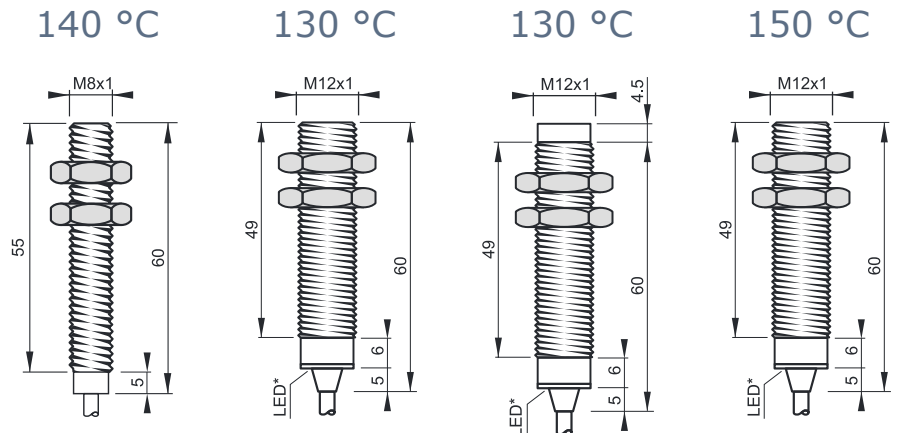
M12/3...

Output Schematics



Not to be used for Safety Applications

M8 M12 M12 M12



SPECIFICATIONS

	M8x1 - 140 °C	M12x1 - 130 °C	M12x1 - 130 °C	M12x1 - 150 °C
Sensing Distance	2.0 mm	3.0 mm - Shielded	4.0 mm - Unshielded	3.0 mm - Shielded
Amplifier	Fully Embedded	Fully Embedded	Fully Embedded	Fully Embedded
Operating Voltage	10...35 VDC	10...35 VDC	10...35 VDC	10...35 VDC
Current Consumption	< 5 mA	< 5 mA	< 5 mA	< 5 mA
Output Current	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting
Voltage Drop	2 V @ 120 mA	2 V @ 120 mA	2 V @ 120 mA	2 V @ 120 mA
Switching Frequency	800 Hz	500 Hz	500 Hz	500 Hz
Repeatability	< 3 %	< 3 %	< 3 %	< 3 %
Hysteresis	3...15 %	3...15 %	3...15 %	3...15 %
Operating Temperature	-25...+140 °C	-25...+130 °C	-25...+130 °C	-25...+150 °C
Thermal Stress	permanent	permanent	permanent	permanent
Protection Class	IP 67	IP 67	IP 67	IP 67
Housing Material	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
Connected	2m, Silicone	2m, Silicone	2m, Silicone	2m, Silicone

Article Code

Teflon Cable - PNP, NO	IHT8 S2APO60/A2T	IHT12 S3APO60/A2T	IHT12 N4APO64/A2T	IHT12 S3BPO60/A2T
Teflon Cable - PNP, NC	IHT8 S2APC60/A2T	IHT12 S3APC60/A2T	IHT12 N4APC64/A2T	IHT12 S3BPC60/A2T
Teflon Cable - NPN, NO	IHT8 S2ANO60/A2T	IHT12 S3ANO60/A2T	IHT12 N4ANO64/A2T	IHT12 S3BNO60/A2T
Teflon Cable - NPN, NC	IHT8 S2ANC60/A2T	IHT12 S3ANC60/A2T	IHT12 N4ANC64/A2T	IHT12 S3BNC60/A2T
Silicone Cable - PNP, NO	IHT8 S2APO60/A2S	IHT12 S3APO60/A2S	IHT12 N4APO64/A2S	IHT12 S3BPO60/A2S
Silicone Cable - PNP, NC	IHT8 S2APC60/A2S	IHT12 S3APC60/A2S	IHT12 N4APC64/A2S	IHT12 S3BPC60/A2S
Silicone Cable - NPN, NO	IHT8 S2ANO60/A2S	IHT12 S3ANO60/A2S	IHT12 N4ANO64/A2S	IHT12 S3BNO60/A2S
Silicone Cable - NPN, NC	IHT8 S2ANC60/A2S	IHT12 S3ANC60/A2S	IHT12 N4ANC64/A2S	IHT12 S3BNC60/A2S

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

High Temperature Inductive Proximity Switches

## INDUCTIVE

M12      M18      M18      M18      M18      M30



150 °C

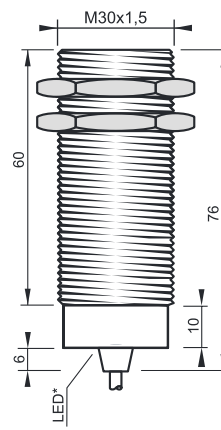
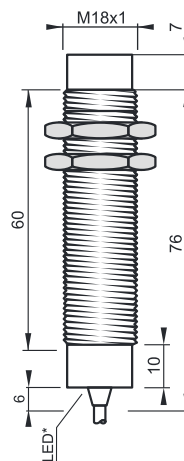
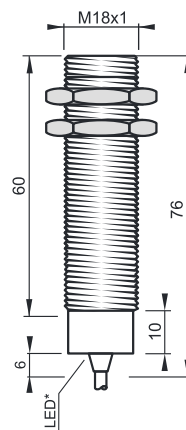
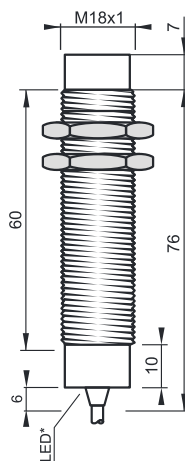
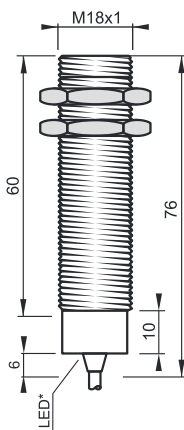
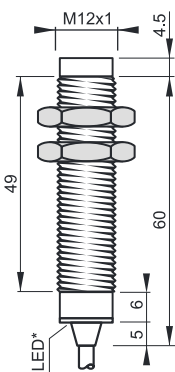
130 °C

130 °C

150 °C

150 °C

130 °C



M12x1 - 150 °C

M18x1 - 130 °C

M18x1 - 130 °C

M18x1 - 150 °C

M18x1 - 150 °C

M30x1.5 - 130 °C

4 mm - Unshielded  
Fully Embedded  
10...35 VDC  
< 5 mA  
200 mA, self-resetting  
2 V @ 120 mA  
500 Hz  
< 3 %  
3...15 %  
-25...+150 °C  
permanent  
IP 67  
Stainless Steel  
2m, Silicone

5 mm - Shielded  
Fully Embedded  
10...35 VDC  
< 5 mA  
200 mA, self-resetting  
2 V @ 150 mA  
500 Hz  
< 3 %  
3...15 %  
-25...+130 °C  
permanent  
IP 67  
Stainless Steel  
2m, Silicone

8 mm - Unshielded  
Fully Embedded  
10...35 VDC  
< 5 mA  
200 mA, self-resetting  
2 V @ 150 mA  
500 Hz  
< 3 %  
3...15 %  
-25...+130 °C  
permanent  
IP 67  
Stainless Steel  
2m, Silicone

5 mm - Shielded  
Fully Embedded  
10...35 VDC  
< 5 mA  
200 mA, self-resetting  
2 V @ 150 mA  
500 Hz  
< 3 %  
3...15 %  
-25...+150 °C  
permanent  
IP 67  
Stainless Steel  
2m, Silicone

8 mm - Unshielded  
Fully Embedded  
10...35 VDC  
< 5 mA  
200 mA, self-resetting  
2 V @ 150 mA  
500 Hz  
< 3 %  
3...15 %  
-25...+150 °C  
permanent  
IP 67  
Stainless Steel  
2m, Silicone

10 mm - Shielded  
Fully Embedded  
10...35 VDC  
< 5 mA  
200 mA, self-resetting  
2 V @ 150 mA  
200 Hz  
< 3 %  
3...15 %  
-25...+130 °C  
permanent  
IP 67  
Stainless Steel  
2m, Silicone

IHT12 N4BPO64/A2T  
IHT12 N4BPC64/A2T  
IHT12 N4BNO64/A2T  
IHT12 N4BNC64/A2T  
IHT12 N4BPO64/A2S  
IHT12 N4BPC64/A2S  
IHT12 N4BNO64/A2S  
IHT12 N4BNC64/A2S

IHT18 S5APO76/A2T  
IHT18 S5APC76/A2T  
IHT18 S5ANO76/A2T  
IHT18 S5ANC76/A2T  
IHT18 S5APO76/A2S  
IHT18 S5APC76/A2S  
IHT18 S5ANO76/A2S  
IHT18 S5ANC76/A2S

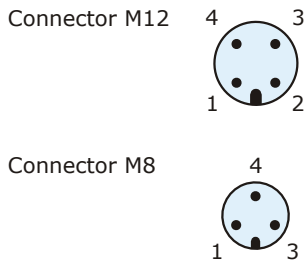
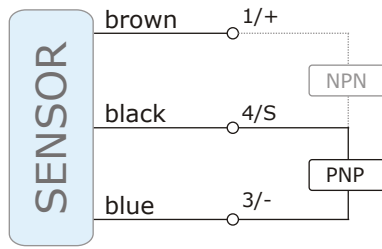
IHT18 N8APO83/A2T  
IHT18 N8APC83/A2T  
IHT18 N8ANO83/A2T  
IHT18 N8ANC83/A2T  
IHT18 N8APO83/A2S  
IHT18 N8APC83/A2S  
IHT18 N8ANO83/A2S  
IHT18 N8ANC83/A2S

IHT18 S5BPO76/A2T  
IHT18 S5BPC76/A2T  
IHT18 S5BNO76/A2T  
IHT18 S5BNC76/A2T  
IHT18 S5BPO76/A2S  
IHT18 S5BPC76/A2S  
IHT18 S5BNO76/A2S  
IHT18 S5BNC76/A2S

IHT18 N8BPO83/A2T  
IHT18 N8BPC83/A2T  
IHT18 N8BNO83/A2T  
IHT18 N8BNC83/A2T  
IHT18 N8BPO83/A2S  
IHT18 N8BPC83/A2S  
IHT18 N8BNO83/A2S  
IHT18 N8BNC83/A2S

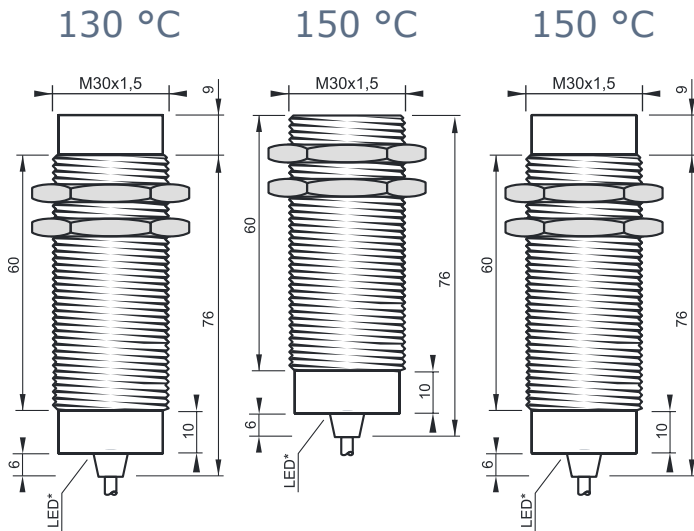
IHT30 S10APO76/A2T  
IHT30 S10APC76/A2T  
IHT30 S10ANO76/A2T  
IHT30 S10ANC76/A2T  
IHT30 S10APO76/A2S  
IHT30 S10APC76/A2S  
IHT30 S10ANO76/A2S  
IHT30 S10ANC76/A2S

Output Schematics



Not to be used for Safety Applications

M30 M30 M30



SPECIFICATIONS

Sensing Distance	M30x1.5 - 130 °C 15 mm - Unshielded	M30x1.5 - 150 °C 10 mm - Shielded	M30x1.5 - 150 °C 15 mm - Unshielded
Amplifier	Fully Embedded	Fully Embedded	Fully Embedded
Operating Voltage	10...35 VDC	10...35 VDC	10...35 VDC
Current Consumption	< 5 mA	< 5 mA	< 5 mA
Output Current	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting
Voltage Drop	2 V @ 150 mA	2 V @ 150 mA	2 V @ 150 mA
Switching Frequency	200 Hz	200 Hz	200 Hz
Repeatability	< 3%	< 3%	< 3%
Hysteresis	3...15 %	3...15 %	3...15 %
Operating Temperature	-25...+130 °C	-25...+150 °C	-25...+150 °C
Thermal Stress	permanent	permanent	permanent
Protection Class	IP 67	IP 67	IP 67
Housing Material	Stainless Steel	Stainless Steel	Stainless Steel
Connected	2m, Silicone	2m, Silicone	2m, Silicone

Article Code

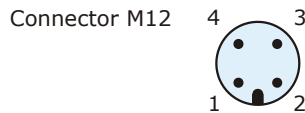
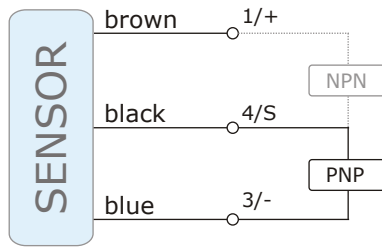
Teflon Cable - PNP, NO	IHT30 N15APO85/A2T	IHT30 S10BPO76/A2T	IHT30 N15BPO85/A2T
Teflon Cable - PNP, NC	IHT30 N15APC85/A2T	IHT30 S10BPC76/A2T	IHT30 N15BPC85/A2T
Teflon Cable - NPN, NO	IHT30 N15ANO85/A2T	IHT30 S10BNO76/A2T	IHT30 N15BNO85/A2T
Teflon Cable - NPN, NC	IHT30 N15ANC85/A2T	IHT30 S10BNC76/A2T	IHT30 N15BNC85/A2T
Silicone Cable - PNP, NO	IHT30 N15APO85/A2S	IHT30 S10BPO76/A2S	IHT30 N15BPO85/A2S
Silicone Cable - PNP, NC	IHT30 N15APC85/A2S	IHT30 S10BPC76/A2S	IHT30 N15BPC85/A2S
Silicone Cable - NPN, NO	IHT30 N15ANO85/A2S	IHT30 S10BNO76/A2S	IHT30 N15BNO85/A2S
Silicone Cable - NPN, NC	IHT30 N15ANC85/A2S	IHT30 S10BNC76/A2S	IHT30 N15BNC85/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

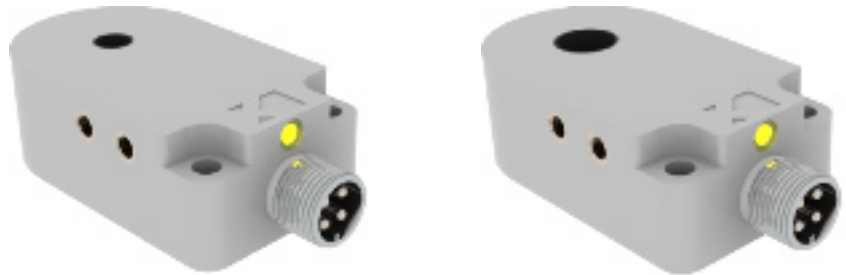
---

Output Schematics



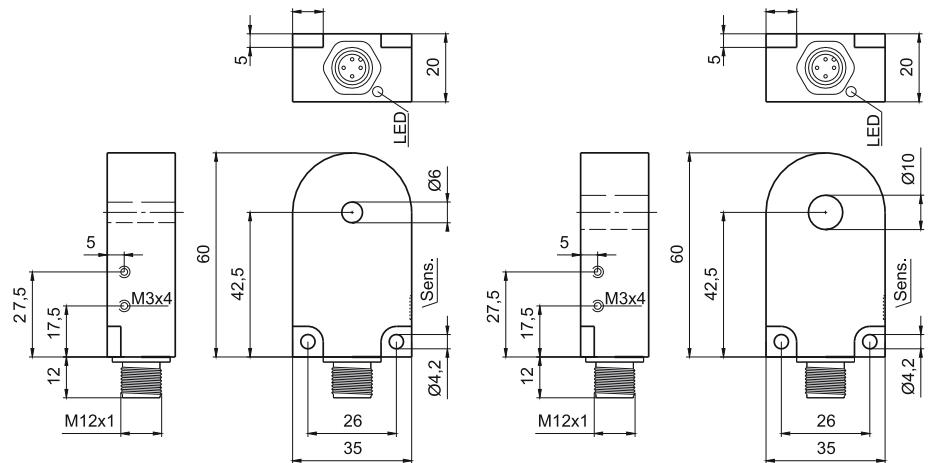
Not to be used for Safety Applications

Ø 6 mm                      Ø 10 mm



Ø 1.0 mm

Ø 1.5 mm



SPECIFICATIONS

	Ø 6 mm	Ø 10 mm
Ring Diameter	Ø 6 mm	Ø 10 mm
Resolution, adjustable	> Ø1 mm	> Ø1.5 mm
Operating Voltage	10... 30VDC	10... 30VDC
Current Consumption	< 10 mA	< 10 mA
Output Current	200 mA	200 mA
Voltage Drop	< 1.5 V @ 200 mA	< 1.5 V @ 200 mA
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
Pulse Stretching	100 ms	100 ms
Operating Temperature	-25... +70°C	-25... +70°C
Isolation Voltage		
Protection Class	IP67	IP67
Housing / Ring Material	PBT	PBT
Mounting Distance to Metal	> 5 mm	> 5 mm

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 NO100/M12

## INDUCTIVE

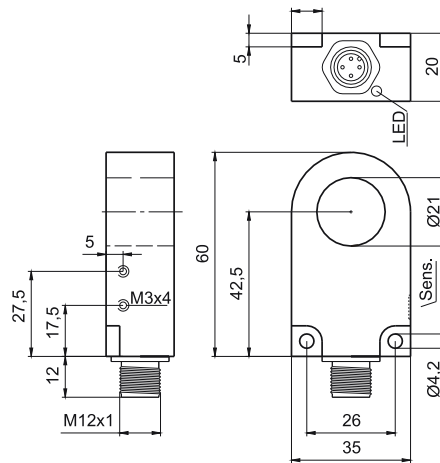
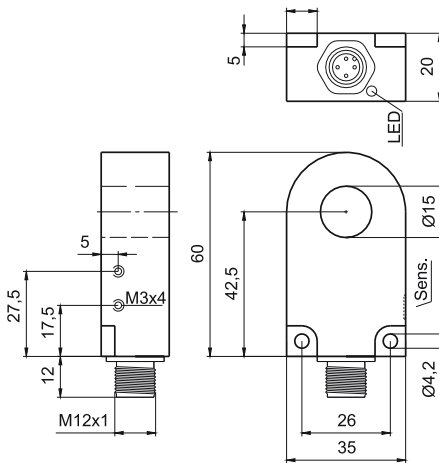
Ø 15 mm

Ø 21 mm



Ø 2.0 mm

Ø 2.8 mm



Ø 15 mm

- > Ø2.0 mm
- 10... 30VDC
- < 10 mA
- 200 mA
- < 1.5 V @ 200 mA
- | 40 mS (131 ft/s)
- 0.5 / 100 ms
- 100 ms
- 25... +70°C

IP67  
PBT  
> 5 mm

IR15S PO100/M12  
IR15S PC100/M12  
IR15S NO100/M12  
IR15S NC100/M12

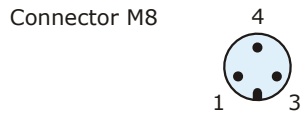
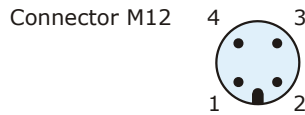
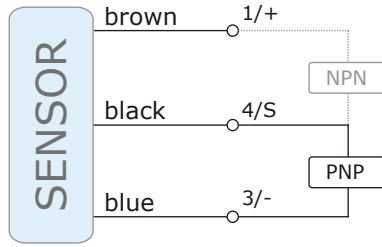
Ø 21 mm

- > Ø2.8 mm
- 10... 30VDC
- < 10 mA
- 200 mA
- < 1.5 V @ 200 mA
- | 35 mS (115 ft/s)
- 0.5 / 100 ms
- 100 ms
- 25... +70°C

IP67  
PBT  
> 5 mm

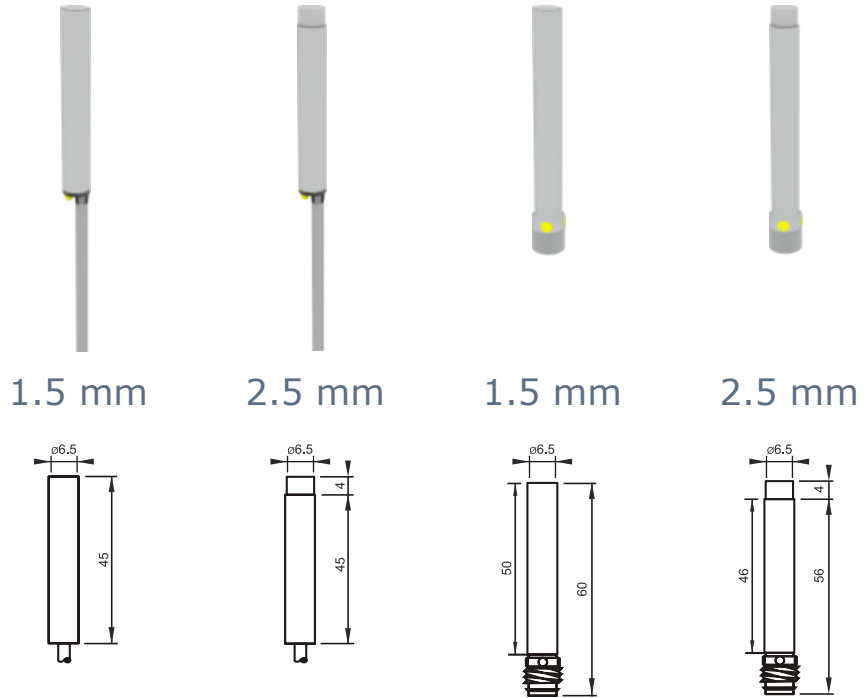
IR21S PO100/M12  
IR21S PC100/M12  
IR21S NO100/M12  
IR21S NC100/M12

Output Schematics



Not to be used for Safety Applications

Ø6.5                      Ø6.5                      Ø6.5                      Ø6.5



**SPECIFICATIONS**

	Ø 6.5	Ø 6.5	Ø 6.5	Ø 6.5
Sensing Distance (Sn)	1.5 mm - shielded	2.5 mm - unshielded	1.5 mm - shielded	2.5 mm - unshielded
Operating Voltage	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire
Current Consumption	< 9 mA	< 9 mA	< 9 mA	< 9 mA
Output Current	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting
Voltage Drop	2 V @ 200 mA	2 V @ 200 mA	2 V @ 200 mA	2 V @ 200 mA
Adjustment	-	-	-	-
Switching Frequency	100 Hz(DC), 25 (AC)	100 Hz(DC), 25 (AC)	100 Hz(DC), 25 (AC)	100 Hz(DC), 25 (AC)
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	Messing, vernickelt	Messing, vernickelt	Messing, vernickelt	Messing, vernickelt
Connected	2m, PVC	2m, PVC	Connector M8	Connector M8
Operating-LED				
Article Code				
PNP, NO	CSD6 S1.5PO45/A2P	CSD6 N2.5PO45/A2P	CSD6 S1.5PO60/M8	CSD6 N2.5PO60/M8
PNP, NC	CSD6 S1.5PC45/A2P	CSD6 N2.5PC45/A2P	CSD6 S1.5PC60/M8	CSD6 N2.5PC60/M8
NPN, NO	CSD6 S1.5NO45/A2P	CSD6 N2.5NO45/A2P	CSD6 S1.5NO60/M8	CSD6 N2.5NO60/M8
NPN, NC	CSD6 S1.5NC45/A2P	CSD6 N2.5NC45/A2P	CSD6 S1.5NC60/M8	CSD6 N2.5NC60/M8
2-wire+Ground NO, 20...250 VAC	-	-	-	-
2-wire NC, 20...250 VAC	-	-	-	-
Recommended Connecting Cable	-	-	M8/3...	M8/3...

Capacitive Proximity Switches

## CAPACITIVE

Ø6.5	Ø6.5	M8	M8	M8	M8
------	------	----	----	----	----



1.5 mm

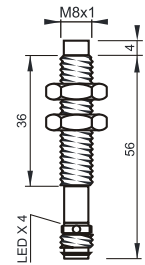
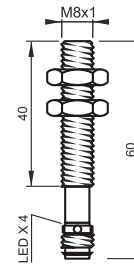
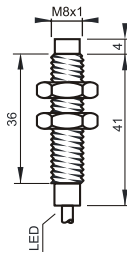
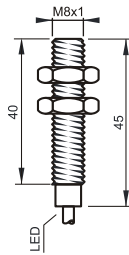
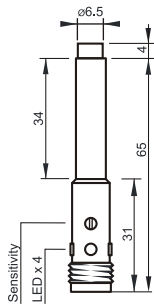
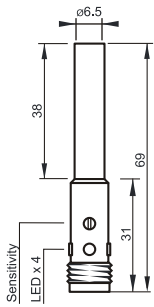
2.5 mm

1.5 mm

2.5 mm

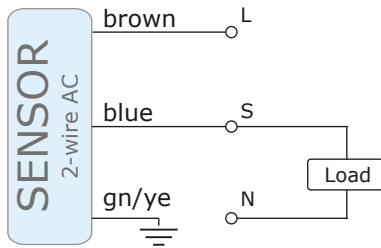
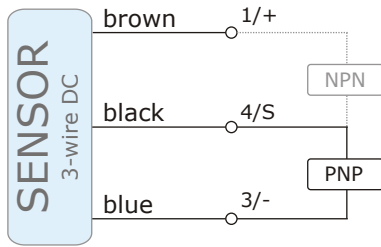
1.5 mm

2.5 mm

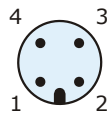


Ø 6.5	Ø 6.5	M8x1	M8x1	M8x1	M8x1
1.5 mm - shielded	2.5 mm - unshielded	1.5 mm - shielded	2.5 mm - unshielded	1.5 mm - shielded	2.5 mm - unshielded
10...30 VDC, 3-wire < 9 mA	10...30 VDC, 3-wire < 9 mA	10...30 VDC, 3-wire < 9 mA	10...30 VDC, 3-wire < 9 mA	10...30 VDC, 3-wire < 9 mA	10...30 VDC, 3-wire < 9 mA
200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting
2 V @ 200 mA	2 V @ 200 mA	2 V @ 200 mA	2 V @ 200 mA	2 V @ 200 mA	2 V @ 200 mA
Multi-Turn-Pot.	Multi-Turn-Pot.	-	-	-	-
100 Hz(DC), 25 (AC)	100 Hz(DC), 25 (AC)	100 Hz(DC), 25 (AC)	100 Hz(DC), 25 (AC)	100 Hz(DC), 25 (AC)	100 Hz(DC), 25 (AC)
< 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
Messing, vernickelt	Messing, vernickelt	Messing, vernickelt	Messing, vernickelt	Messing, vernickelt	Messing, vernickelt
Connector M12	Connector M12	2m, PVC	2m, PVC	Connector M8	Connector M8
CSD6 S1.5PO69/M12	CSD6 N2.5PO69/M12	CS8 S1.5PO45/A2P	CS8 N2.5PO45/A2P	CS8 S1.5PO60/M8	CS8 N2.5PO60/M8
CSD6 S1.5PC69/M12	CSD6 N2.5PC69/M12	CS8 S1.5PC45/A2P	CS8 N2.5PC45/A2P	CS8 S1.5PC60/M8	CS8 N2.5PC60/M8
CSD6 S1.5NO69/M12	CSD6 N2.5NO69/M12	CS8 S1.5NO45/A2P	CS8 N2.5NO45/A2P	CS8 S1.5NO60/M8	CS8 N2.5NO60/M8
CSD6 S1.5NC69/M12	CSD6 N2.5NC69/M12	CS8 S1.5NC45/A2P	CS8 N2.5NC45/A2P	CS8 S1.5NC60/M8	CS8 N2.5NC60/M8
-	-	-	-	-	-
-	-	-	-	-	-
M12/3...	M12/3...	-	-	M8/3...	M8/3...

## Output Schematics



Connector M12



Not to be used for Safety Applications

M8	M8	M12	M12
----	----	-----	-----

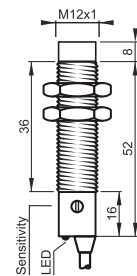
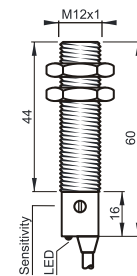
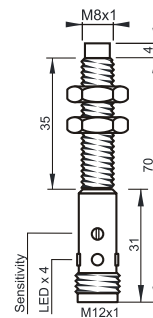
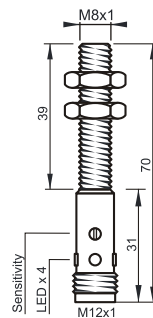


1.5 mm

2.5 mm

4 mm

8 mm



## SPECIFICATIONS

	M8x1	M8x1	M12x1	M12x1
Sensing Distance (Sn)	1.5 mm - shielded	2.5 mm - unshielded	4.0 mm - shielded	8.0 mm - unshielded
Operating Voltage	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire	10...30 VDC, 3-wire
Current Consumption	< 9 mA	< 9 mA	< 9 mA	< 9 mA
Output Current	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting
Voltage Drop	2 V @ 200 mA	2 V @ 200 mA	2 V @ 200 mA	2 V @ 200 mA
Adjustment	Multi-Turn-Pot.	Multi-Turn-Pot.	Multi-Turn-Pot.	Multi-Turn-Pot.
Switching Frequency	100 Hz(DC), 25 (AC)	100 Hz(DC), 25 (AC)	100 Hz(DC), 25 (AC)	100 Hz(DC), 25 (AC)
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	Messing, vernickelt	Messing, vernickelt	Messing, vernickelt	Messing, vernickelt
Connected	Connector M12	Connector M12	2m, PVC	2m, PVC
Operating-LED				
Article Code				
PNP, NO	CS8 S1.5PO69/M12	CS8 N2.5PO69/M12	CS12 S4PO60/A2P	CS12 N8PO60/A2P
PNP, NC	CS8 S1.5PC69/M12	CS8 N2.5PC69/M12	CS12 S4PC60/A2P	CS12 N8PC60/A2P
NPN, NO	CS8 S1.5NO69/M12	CS8 N2.5NO69/M12	CS12 S4NO60/A2P	CS12 N8NO60/A2P
NPN, NC	CS8 S1.5NC69/M12	CS8 N2.5NC69/M12	CS12 S4NC60/A2P	CS12 N8NC60/A2P
2-wire+Ground NO, 20...250 VAC	-	-	-	-
2-wire NC, 20...250 VAC	-	-	-	-
Recommended Connecting Cable	M12/3...	M12/3...	-	-

## CAPACITIVE

M12	M12	M18	M18	M18	M18
-----	-----	-----	-----	-----	-----



4 mm

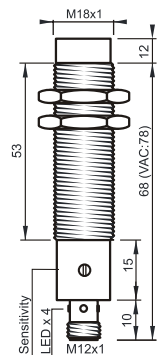
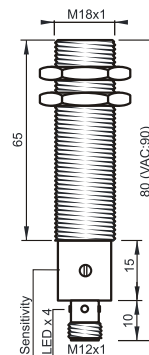
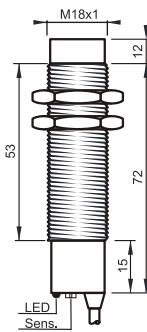
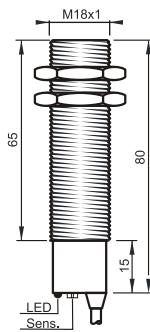
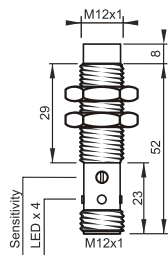
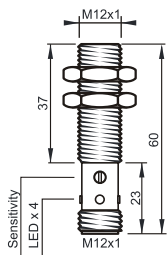
8 mm

8 mm

15 mm

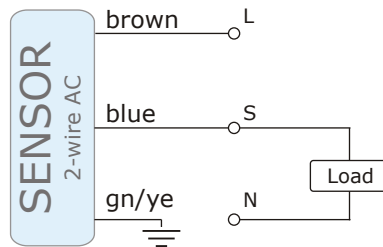
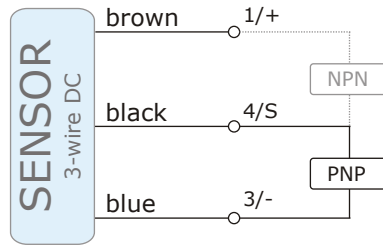
8 mm

15 mm

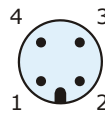


M12x1	M12x1	M18x1	M18x1	M18x1	M18x1
4.0 mm - shielded	8.0 mm - unshielded	8.0 mm - shielded	15.0 mm - unshielded	8.0 mm - shielded	15.0 mm - unshielded
10...30 VDC, 3-wire < 9 mA	10...30 VDC, 3-wire < 9 mA	10...30 VDC, 3-wire < 9 mA	10...30 VDC, 3-wire < 9 mA	10...30 VDC, 3-wire < 9 mA	10...30 VDC, 3-wire < 9 mA
200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting	200 mA, self-resetting
2 V @ 200 mA	2 V @ 200 mA	2 V @ 200 mA	2 V @ 200 mA	2 V @ 200 mA	2 V @ 200 mA
Multi-Turn-Pot.	Multi-Turn-Pot.	Multi-Turn-Pot.	Multi-Turn-Pot.	Multi-Turn-Pot.	Multi-Turn-Pot.
100 Hz(DC), 25 (AC) < 4 %	100 Hz(DC), 25 (AC) < 4 %	100 Hz(DC), 25 (AC) < 4 %	100 Hz(DC), 25 (AC) < 4 %	100 Hz(DC), 25 (AC) < 4 %	100 Hz(DC), 25 (AC) < 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
Messing, vernickelt	Messing, vernickelt	Messing, vernickelt	Messing, vernickelt	Messing, vernickelt	Messing, vernickelt
Connector M12	Connector M12	2m, PVC	Connector M12	Connector M12	Connector M12
CS12 S4PO60/M12	CS12 N8PO60/M12	CS18 S8PO80/A2P	CS18 N15PO80/A2P	CS18 S8PO80/M12	CS18 N15PO80/M12
CS12 S4PC60/M12	CS12 N8PC60/M12	CS18 S8PC80/A2P	CS18 N15PC80/A2P	CS18 S8PO80/M12	CS18 N15PO80/M12
CS12 S4NO60/M12	CS12 N8NO60/M12	CS18 S8NO80/A2P	CS18 N15NO80/A2P	CS18 S8NO80/M12	CS18 N15NO80/M12
CS12 S4NC60/M12	CS12 N8NC60/M12	CS18 S8NC80/A2P	CS18 N15NC80/A2P	CS18 S8NC80/M12	CS18 N15NC80/M12
-	-	CS18 S8AO80/A2P	CS18 N15AO80/A2P	-	-
-	-	CS18 S8AC80/A2P	CS18 N15AC80/A2P	-	-
M12/3...	M12/3...	-	-	M12/3...	M12/3...

Output Schematics



Connector M12



Not to be used for Safety Applications

M30 M30 M30 M30

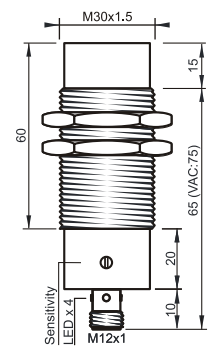
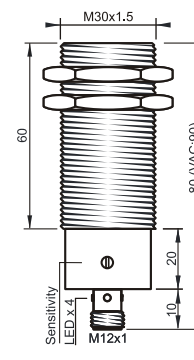
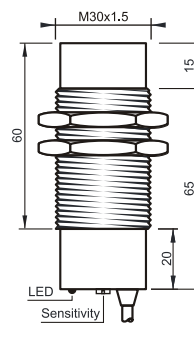
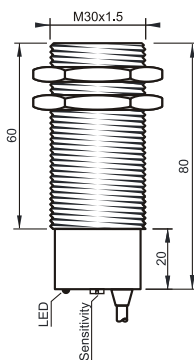


20 mm

30 mm

20 mm

30 mm



**SPECIFICATIONS**

Sensing Distance (Sn)

Operating Voltage

Current Consumption

Output Current

Voltage Drop

Adjustment

Switching Frequency

Repeatability

Hysteresis

Operating Temperature

Temperature Drift

Protection Class

Housing Material

Connected

Operating-LED

Article Code

PNP, NO

PNP, NC

NPN, NO

NPN, NC

2-wire+Ground NO, 20...250 VAC

2-wire+Ground NC, 20...250 VAC

Recommended Connecting Cable

M30x1.5  
20.0 mm - shielded

10...30 VDC, 3-wire  
< 9 mA

200 mA, self-resetting

2 V @ 200 mA

Multi-Turn-Pot.

100 Hz(DC), 25 (AC)

< 4 %

3...15 %

-25...+70 °C

< 10 % (Sn)

IP 67

Messing, vernickelt

2m, PVC

CS30 S20PO80/A2P

CS30 S20PC80/A2P

CS30 S20NO80/A2P

CS30 S20NC80/A2P

CS30 S20AO80/A2P

CS30 S20AC80/A2P

-

M30x1.5

30.0 mm - unshielded

10...30 VDC, 3-wire  
< 9 mA

200 mA, self-resetting

2 V @ 200 mA

Multi-Turn-Pot.

100 Hz(DC), 25 (AC)

< 4 %

3...15 %

-25...+70 °C

< 10 % (Sn)

IP 67

Messing, vernickelt

CS30 N30PO80/A2P

CS30 N30PC80/A2P

CS30 N30NO80/A2P

CS30 N30NC80/A2P

CS30 N30AO80/A2P

CS30 N30AC80/A2P

-

M30x1.5

20.0 mm - shielded

10...30 VDC, 3-wire  
< 9 mA

200 mA, self-resetting

2 V @ 200 mA

Multi-Turn-Pot.

100 Hz(DC), 25 (AC)

< 4 %

3...15 %

-25...+70 °C

< 10 % (Sn)

IP 67

Messing, vernickelt

Connector M12

CS30 S20PO80/M12

CS30 S20PC80/M12

CS30 S20NO80/M12

CS30 S20NC80/M12

-

-

M12/3...

M30x1.5

30.0 mm - unshielded

10...30 VDC, 3-wire  
< 9 mA

200 mA, self-resetting

2 V @ 200 mA

Multi-Turn-Pot.

100 Hz(DC), 25 (AC)

< 4 %

3...15 %

-25...+70 °C

< 10 % (Sn)

IP 67

Messing, vernickelt

CS30 N30PO80/M12

CS30 N30PC80/M12

CS30 N30NO80/M12

CS30 N30NC80/M12

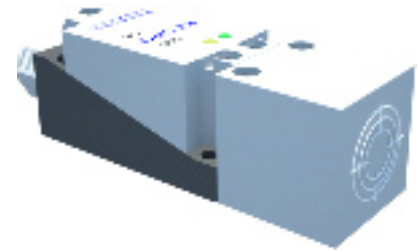
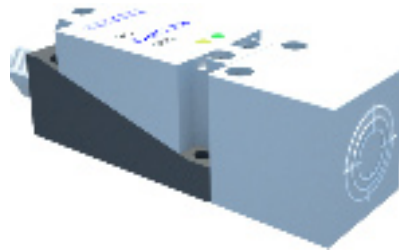
-

-

M12/3...

## CAPACITIVE

30x50	30x50	40x40	40x40
-------	-------	-------	-------

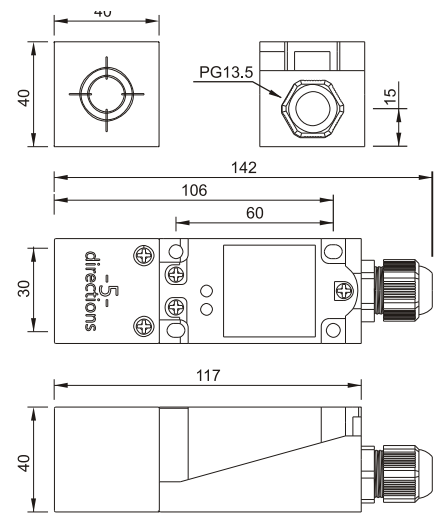
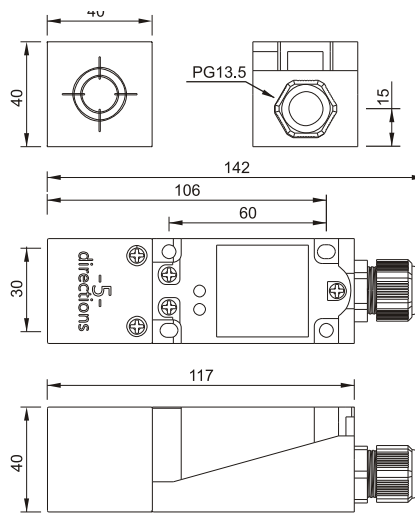
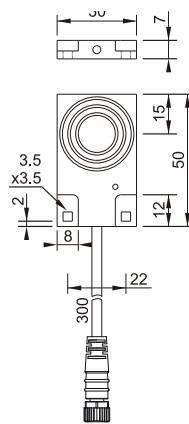
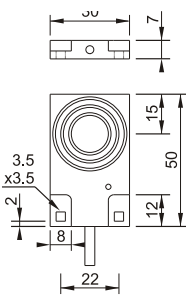


6 mm

6 mm

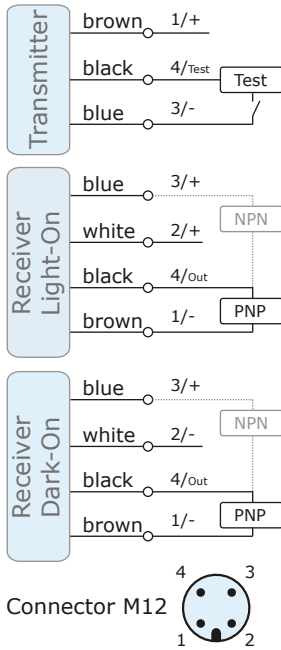
20 mm

30 mm

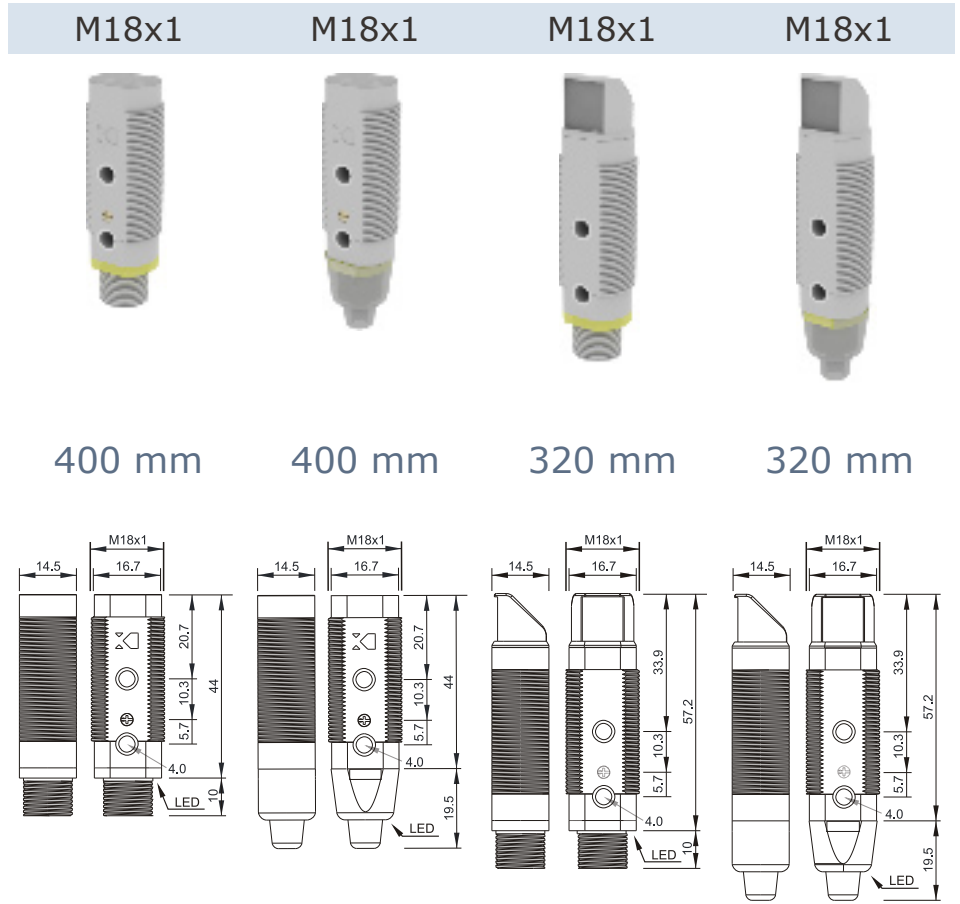


30x50 6 mm - shielded	30x50 6 mm - shielded	40x40 mm 20 mm - Shielded	40x40 mm 20 mm - Shielded	40x40 mm 30 mm - Unshielded	40x40 mm 30 mm - Unshielded
10...30 VDC, 3-wire < 9 mA 200 mA, self-resetting 2 V @ 200 mA Multi-Turn-Pot. 100 Hz(DC) < 4 % 3...15 % -25...+70 °C < 10 % (Sn) IP 67 PBT 2m, PVC	10...30 VDC, 3-wire < 9 mA 200 mA, self-resetting 2 V @ 200 mA Multi-Turn-Pot. 100 Hz(DC) < 4 % 3...15 % -25...+70 °C < 10 % (Sn) IP 67 PBT M8, 3-pole, 300 mm	10... 30 < 10 mA 200 mA, self-resetting < 2 V @ 200 mA Multi-Turn-Pot. 100 Hz < 5 % 3...15 % -25...75 °C < 10 % (Sn) IP 67 PBT PG13.5, Terminal	20... 250 VAC < 2 mA (Idle Current) 400 mA < 8 V @ 400 mA Multi-Turn-Pot. 25 Hz < 5 % 3...15 % -25...75 °C < 10 % (Sn) IP 67 PBT PG13.5, Terminal	10... 30 < 10 mA 200 mA, self-resetting < 2 V @ 200 mA Multi-Turn-Pot. 100 Hz < 5 % 3...15 % -25...75 °C < 10 % (Sn) IP 67 PBT PG13.5, Terminal	20... 250 VAC < 2 mA (Idle Current) 400 mA < 8 V @ 400 mA Multi-Turn-Pot. 25 Hz < 5 % 3...15 % -25...75 °C < 10 % (Sn) IP 67 PBT PG13.5, Terminal
CS3050 S6P07/A2P CS3050 S6PC7/A2P CS3050 S6N07/A2P CS3050 S6NC7/A2P - - -	CS3050 S6P07/3P8 CS3050 S6PC7/3P8 CS3050 S6N07/3P8 CS3050 S6NC7/3P8 - - M8/3...	CS40 S20POL/PG13 CS40 S20PCL/PG13 CS40 S20NOL/PG13 CS40 S20NCL/PG13 - -	CS40 S20AOL/PG13 CS40 S20ACL/PG13 - -	CS40 N30POL/PG13 CS40 N30PCL/PG13 CS40 N30NOL/PG13 CS40 N30NCL/PG13 - -	CS40 N30AOL/PG13 CS40 N30ACL/PG13 - -

Output Schematics



Not to be used for Safety Applications



**SPECIFICATIONS**

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	10... 30 VDC	10... 30 VDC	10... 30 VDC
Current Consumption	< 30 mA	< 30 mA	< 30 mA	< 30 mA
Output Current	100 mA, self-resetting	100 mA, self-resetting	100 mA, self-resetting	100 mA, 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
Connected	M12, 4-pole	2m, PVC	M12, 4-pole	2m, PVC

**Article Code**

4-wire, PNP, NO + NC	OD18FA D04PSB/M12	OD18FA D04PSB/A2P	OD18FR D03PSB/M12	OD18FR D03PSB/A2P
4-wire, NPN, NO + NC	OD18FA D04NSB/M12	OD18FA D04NSB/A2P	OD18FR D03NSB/M12	OD18FR D03NSB/A2P

Transmitter

Mouting Bracket

on request	on request	on request	on request
------------	------------	------------	------------

Recommended Connecting Cable

M12/4...	-	M12/4...	-
----------	---	----------	---

## OPTICAL

M18x1 M18x1 M18x1 M18x1 M18x1 M18x1



2000 mm

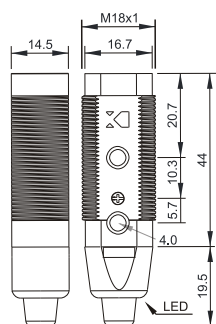
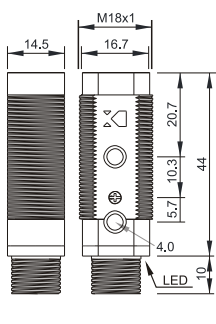
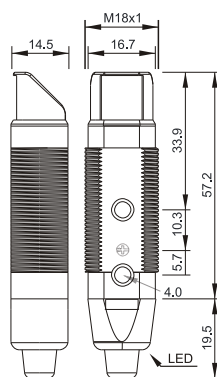
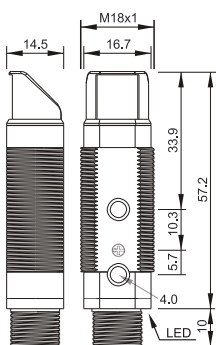
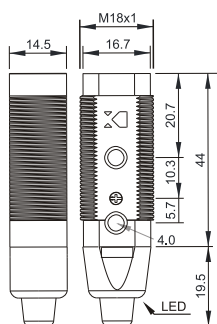
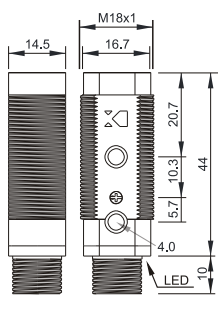
2000 mm

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

10... 30 VDC

10... 30 VDC

10... 30 VDC

10... 30 VDC

10... 30 VDC

< 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

< 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

M12, 4-pole

2m, PVC

M12, 4-pole

2m, PVC

M12, 4-pole

2m, PVC

OD18FA N2PSB/M12  
OD18FA P20NSB/M12

OD18FA N2PSB/A2P  
OD18FA P20NSB/A2P

OD18FR N016PSB/M12  
OD18FR P2NSB/M12

OD18FR N016PSB/A2P  
OD18FR P2NSB/A2P

OD18FA P014PSB/M12  
OD18FA P20NSB/M12

OD18FA P014PSB/A2P  
OD18FA P20NSB/A2P

on request  
M12/4...

on request  
-

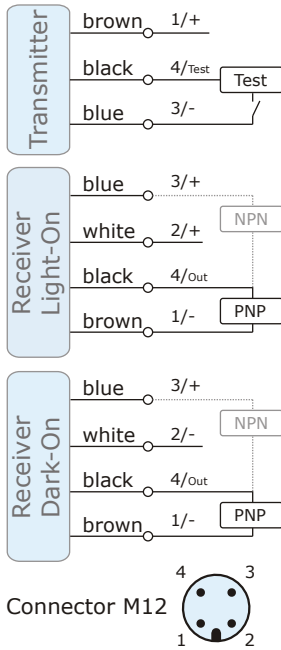
on request  
M12/4...

on request  
-

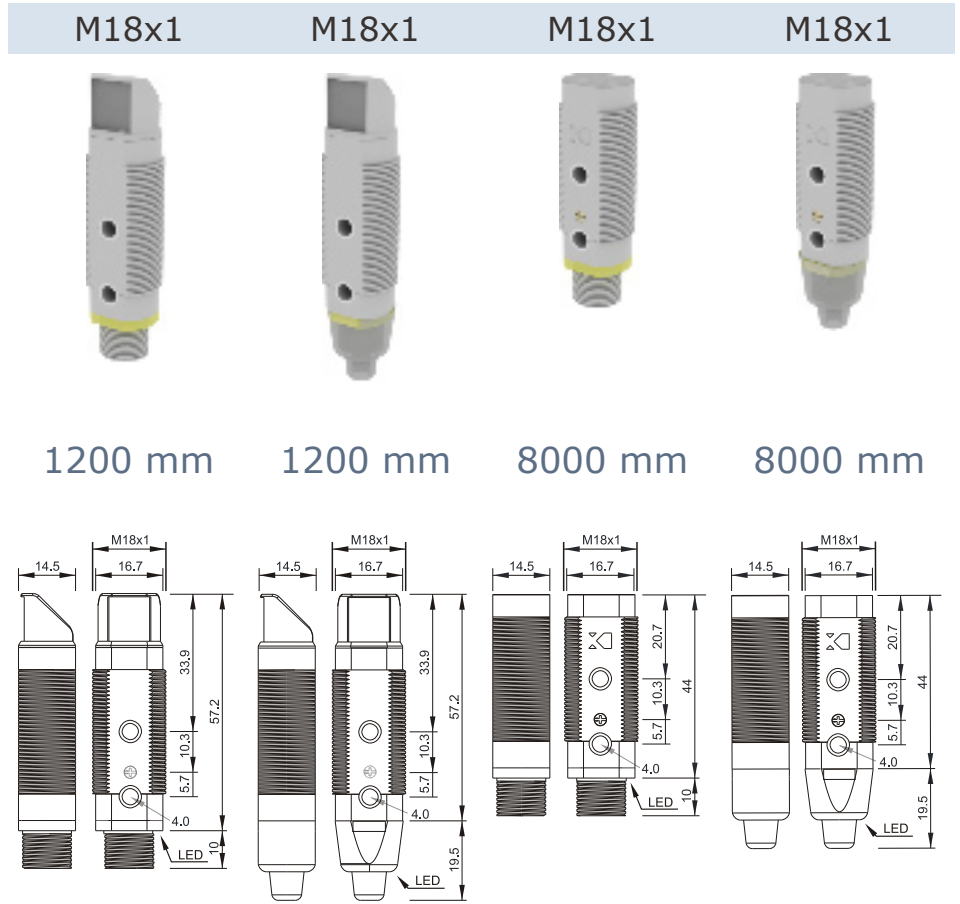
on request  
M12/4...

on request  
-

Output Schematics



Not to be used for Safety Applications



**SPECIFICATIONS**

Operating Distance	0... 1200 mm	0... 1200 mm	0... 8000 mm	0... 8000 mm
Output Function	NO   NC	NO   NC	NO   NC	NO   NC
Operating Voltage	10... 30 VDC	10... 30 VDC	10... 30 VDC	10... 30 VDC
Current Consumption	< 30 mA	< 30 mA	< 30 mA	< 30 mA
Output Current	100 mA, self-resetting	100 mA, self-resetting	100 mA, self-resetting	100 mA, 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
Connected	M12, 4-pole	2m, PVC	M12, 4-pole	2m, PVC
Operating-LED				

**Article Code**

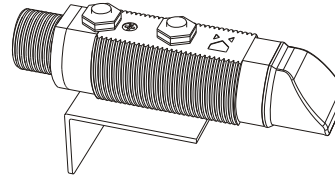
PNP, NO + NC	OD18FR P012PSB/M12	OD18FR P012PSB/A2P	OD18FA R8PSB/M12	OD18FA R8PSB/A2P
NPN, NO + NC	OD18FR P2NSB/M12	OD18FR P2NSB/A2P	OD18FA R8NSB/M12	OD18FA R8NSB/A2P
Transmitter			OD18FA T8DB/M12	OD18FA T8DB/A2P

Mouting Bracket	on request	on request	on request	on request
Recommended Connecting Cable	M12/4...	-	M12/4...	-

M18x1

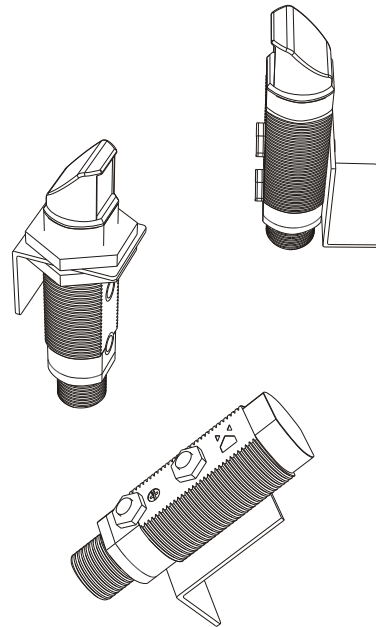
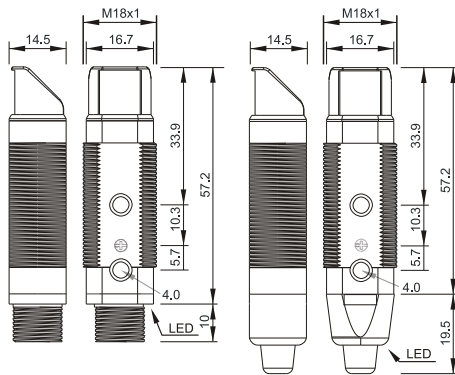
M18x1

Flexible Mountings



5500 mm

5500 mm



Through Beam

Through Beam

0... 5500 mm

0... 5500 mm

NO | NC

NO | NC

10... 30 VDC

10... 30 VDC

< 30 mA

< 30 mA

100 mA, self-resetting

100 mA, 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

M12, 4-pole

2m, PVC

OD18FR R055PSB/M12

OD18FR R055PSB/A2P

OD18FR R055NSB/M12

OD18FR R055NSB/A2P

OD18FR T055DB/M12

OD18FR T055DB/A2P

on request

on request

M12/4...

-

# SENSEABLE™ Cabling

TR Electronic is your source for cables, accessories, and hardware for any sensor.

Build your cable part number:

		M				
	M8 3 wire	83				
	M8 4 wire	84				
	M12 3 wire	123				
	M12 4 wire	124				
	M12 5 wire	125				
	Female	F				
	Male	M				
	Female - straight	A				
	Radial - 90 degree	R				
Options	LED Output	Y				
	No LED	N				
Cable Length	2 Meter	2				
	5 Meter	5				
	10 Meter	10				

**Example:**

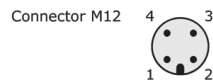
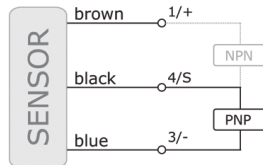
**M83FAN5 = 5 Meter Cable, M8 with 3 Poles/Pins, Female, Axial Connection, with NO LED**

For cable quotes and datasheets, email us at [customercare@trelectronic.com](mailto:customercare@trelectronic.com)  
 Custom lengths and configurations are available on request.

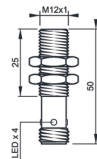
# SENSEABLE™

## Value Prox

### Output Schematics



M12



**\$15  
each**

### SPECIFICATIONS:

Sensing Distance	4mm - Shielded
Operating Voltage	10...30 VDC, 3-wire
Current Consumption	<8 mA
Output Current	200 mA
Voltage Drop	< 1.5 V @ 200 mA
Switching Frequency	1000 Hz NPN / 500 Hz PNP
Repeatability	< 1 % (Sn)
Hysteresis	3...15%
Opening Temperature	-25...75 °C
Protection Class	IP67
Sensing Face Material	POM
Housing Material	Nickel Plated Brass
Connected	M12, 3-pole
Operating-LED	Incorporated

### Article Code:

3-wire NO, PNP	IPS12 S4PO50 / M12
3-wire NO, NPN	IPS12 S4NO50 / M12

Pricing and availability subject to change  
Minimum order quantities may apply

[www.trelectronic.com](http://www.trelectronic.com) [customercare@trelectronic.com](mailto:customercare@trelectronic.com)

 **TR ELECTRONIC**  
... *Passionate* about Sensors.

 TOLL FREE: 800.709.3300

 TOLL FREE: 800.265.9483

**SENSEABLE™** about the environment 