Inductive Sensors 3-Wire DC Metal-Face

Inductive Metal-Face sensors from XECRO are constructed with housings made of one continuous piece of SS 1.4301 stainless steel which also includes the sensing face. This extra portion of sturdyness creates an ideal sensor for working in environments where even long sensing ranges cannot prevent mechanical damage of the sensor.

The highly optimized electronics enable XECRO the ability to manufacture these robust and reliable sensors using very short housings, which allow for mounting in tighter spacings. The benefits of this innovative Metal-Face technique can also be found in the High Pressure Series.

Induktive Sensoren mit Vollmetallgehäusen von XECRO verwenden ein durchgehendes V2A-Edelstahlgehäuse einschließlich der Sensorfläche. Dieses Extra an Robustheit prädestiniert sie für Umgebungen, in denen auch hohe Schaltabstände eine mechanische Beschädigung des Sensors nicht verbeugen können.

Auf Grund hochoptimierter Schaltungen kann XECRO diese robusten und verlässlichen Sensoren in sehr kurzen Gehäusen fertigen, welche die Verwendung unter engen Einbaubedingungen erlauben. Die Vorteile dieser innovativen Vollmetallgehäuse-Bauweise finden sich ebenfalls in der druckfesten Baureihe.

Inductive Proximity Switch
3-Wire DC Metal Face

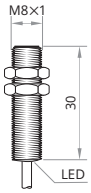
Induktive Näherungsschalter
3-Leiter DC Vollmetallgehäuse

flush
bündig
M8×1 | 2 mm

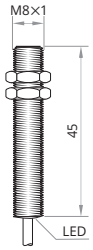
flush
bündig
M8×1 | 2 mm

flush
bündig
M8×1 | 2 mm

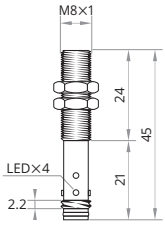
increased
erhöht



increased
erhöht



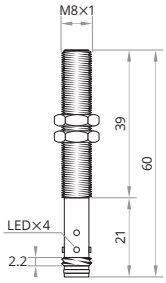
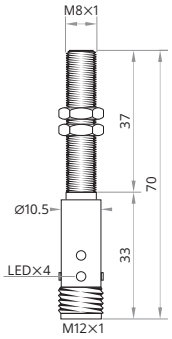
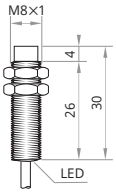
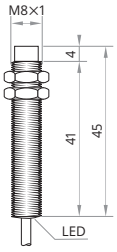
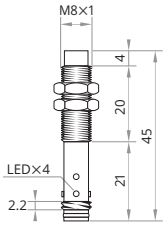
increased
erhöht



Sensing distance S_n	**Schaltabstand S_n**	**2 mm**	**2 mm**	**2 mm**
Operating voltage	Betriebsspannung	10...30 V_{DC}	10...30 V_{DC}	10...30 V_{DC}
Reverse polarity protection	Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current consumption	Stromverbrauch	<8 mA	<8 mA	<8 mA
Current load capability	Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short circuit protection	Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage drop	Spannungsabfall	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Switching frequency	Schaltfrequenz	400 Hz	400 Hz	400 Hz
Reduction factors	Reduktionsfaktoren	Alu 0.45 · Brs 0.50 · SS 0.85	Alu 0.45 · Brs 0.50 · SS 0.85	Alu 0.45 · Brs 0.50 · SS 0.85
Operating temperature	Betriebstemperatur	−20...+70 °C	−20...+70 °C	−20...+70 °C
Protection class	Schutzklasse	IP69k, IP67 connector	IP69k, IP67 connector	IP69k, IP67 connector
Sensing face material	Sensorflächenwerkstoff	SS 1.4301 V2A	SS 1.4301 V2A	SS 1.4301 V2A
Housing material	Gehäusewerkstoff	SS 1.4301 V2A	SS 1.4301 V2A	SS 1.4301 V2A
Switching indicator	Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Connection	Anschluss	PVC, ultra-flex	PVC, ultra-flex	conn. M8 Stecker M8
Article code PNP, NO	⎍⎽	IMF8-S2PO30-A2P	IMF8-S2PO45-A2P	IMF8-S2PO45-A8
Article code PNP, NC	⎍⎾	IMF8-S2PC30-A2P	IMF8-S2PC45-A2P	IMF8-S2PC45-A8
Article code NPN, NO	⎍⎽	IMF8-S2NO30-A2P	IMF8-S2NO45-A2P	IMF8-S2NO45-A8
Article code NPN, NC	⎍⎾	IMF8-S2NC30-A2P	IMF8-S2NC45-A2P	IMF8-S2NC45-A8

Mind O≠0, I≠l≠1, S≠5, B≠8.

O≠0, I≠l≠1, S≠5, B≠8 beachten.

flush bündig **M8×1 | 2 mm**	flush bündig **M8×1 | 2 mm**	non-flush nicht bündig **M8×1 | 3.5 mm**	non-flush nicht bündig **M8×1 | 3.5 mm**	non-flush nicht bündig **M8×1 | 3.5 mm**
				
increased erhöht	increased erhöht	increased erhöht	increased erhöht	increased erhöht
				

2 mm	**2 mm**	**3.5 mm**	**3.5 mm**	**3.5 mm**
10...30 V_{DC}	10...30 V_{DC}	10...30 V_{DC}	10...30 V_{DC}	10...30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
400 Hz	400 Hz	400 Hz	400 Hz	400 Hz
Alu 0.45 · Brs 0.50 · SS 0.85	Alu 0.45 · Brs 0.50 · SS 0.85	Alu 0.45 · Brs 0.50 · SS 0.85	Alu 0.45 · Brs 0.50 · SS 0.85	Alu 0.45 · Brs 0.50 · SS 0.85
−20...+70 °C	−20...+70 °C	−20...+70 °C	−20...+70 °C	−20...+70 °C
IP69k, IP67 connector	IP69k, IP67 connector	IP69k, IP67 connector	IP69k, IP67 connector	IP69k, IP67 connector
SS 1.4301 V2A	SS 1.4301 V2A	SS 1.4301 V2A	SS 1.4301 V2A	SS 1.4301 V2A
SS 1.4301 V2A	SS 1.4301 V2A	SS 1.4301 V2A	SS 1.4301 V2A	SS 1.4301 V2A
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
conn. M8 Stecker M8	conn. M12 Stecker M12	PVC, ultra-flex	PVC, ultra-flex	conn. M8 Stecker M8
IMF8-S2PO60-A8	IMF8-S2PO70-A12	IMF8-N4PO30-A2P	IMF8-N4PO45-A2P	IMF8-N4PO45-A8
IMF8-S2PC60-A8	IMF8-S2PC70-A12	IMF8-N4PC30-A2P	IMF8-N4PC45-A2P	IMF8-N4PC45-A8
IMF8-S2NO60-A8	IMF8-S2NO70-A12	IMF8-N4NO30-A2P	IMF8-N4NO45-A2P	IMF8-N4NO45-A8
IMF8-S2NC60-A8	IMF8-S2NC70-A12	IMF8-N4NC30-A2P	IMF8-N4NC45-A2P	IMF8-N4NC45-A8

Inductive Proximity Switch
3-Wire DC Metal Face

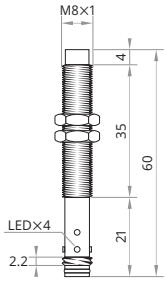
Induktive Näherungsschalter
3-Leiter DC Vollmetallgehäuse

non-flush
nicht bündig
M8×1 | 3.5 mm

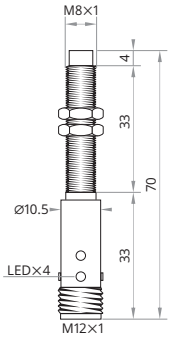
non-flush
nicht bündig
M8×1 | 3.5 mm

flush
bündig
M12×1 | 4 mm

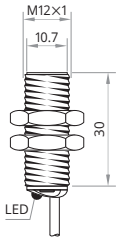
increased
erhöht



increased
erhöht



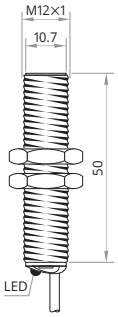
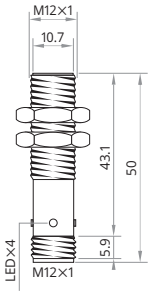
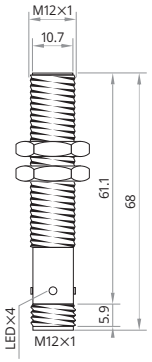
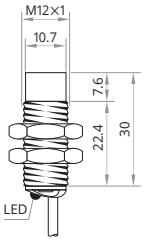
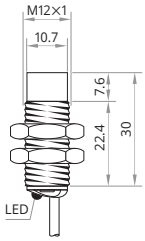
increased
erhöht



Sensing distance S_n	**Schaltabstand S_n**	**3.5 mm**		**3.5 mm**		**4 mm**	
Operating voltage	Betriebsspannung	10...30 V_{DC}		10...30 V_{DC}		10...30 V_{DC}	
Reverse polarity protection	Verpolungsschutz	built-in	integriert	built-in	integriert	built-in	integriert
Current consumption	Stromverbrauch	<8 mA		<8 mA		<8 mA	
Current load capability	Ausgangsbelastbarkeit	200 mA		200 mA		200 mA	
Short circuit protection	Kurzschlussschutz	built-in	integriert	built-in	integriert	built-in	integriert
Voltage drop	Spannungsabfall	<1.5 V @ 200 mA		<1.5 V @ 200 mA		<1.5 V @ 200 mA	
Switching frequency	Schaltfrequenz	400 Hz		400 Hz		500 Hz	
Reduction factors	Reduktionsfaktoren	Alu 0.45 · Brs 0.50 · SS 0.85		Alu 0.45 · Brs 0.50 · SS 0.85		Alu 0.45 · Brs 0.50 · SS 0.85	
Operating temperature	Betriebstemperatur	−20...+70 °C		−20...+70 °C		−20...+70 °C	
Protection class	Schutzklasse	IP69k, IP67 connector		IP69k, IP67 connector		IP69k, IP67 connector	
Sensing face material	Sensorflächenwerkstoff	SS 1.4301	V2A	SS 1.4301	V2A	SS 1.4301	V2A
Housing material	Gehäusewerkstoff	SS 1.4301	V2A	SS 1.4301	V2A	SS 1.4301	V2A
Switching indicator	Schaltanzeige	built-in	integriert	built-in	integriert	built-in	integriert
Connection	Anschluss	conn. M8	Stecker M8	conn. M12	Stecker M12	PVC, ultra-flex	
Article code PNP, NO	⎍⎽	IMF8-N4PO60-A8		IMF8-N4PO70-A12		IMF12-S4PO30-A2P	
Article code PNP, NC	⎍⌐	IMF8-N4PC60-A8		IMF8-N4PC70-A12		IMF12-S4PC30-A2P	
Article code NPN, NO	⎍⎽	IMF8-N4NO60-A8		IMF8-N4NO70-A12		IMF12-S4NO30-A2P	
Article code NPN, NC	⎍⌐	IMF8-N4NC60-A8		IMF8-N4NC70-A12		IMF12-S4NC30-A2P	

Mind O≠0, I≠l≠1, S≠5, B≠8.

O≠0, I≠l≠1, S≠5, B≠8 beachten.

flush bündig **M12×1 | 4 mm**	flush bündig **M12×1 | 4 mm**	flush bündig **M12×1 | 4 mm**	non-flush nicht bündig **M12×1 | 6 mm**	non-flush nicht bündig **M12×1 | 6 mm**
				
increased erhöht	increased erhöht	increased erhöht	increased erhöht	increased erhöht
				

4 mm	**4 mm**	**4 mm**	**6 mm**	**6 mm**
10...30 V_{DC}	10...30 V_{DC}	10...30 V_{DC}	10...30 V_{DC}	10...30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<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	500 Hz
Alu 0.45 · Brs 0.50 · SS 0.85	Alu 0.45 · Brs 0.50 · SS 0.85	Alu 0.45 · Brs 0.50 · SS 0.85	Alu 0.45 · Brs 0.50 · SS 0.85	Alu 0.45 · Brs 0.50 · SS 0.85
−20...+70 °C	−20...+70 °C	−20...+70 °C	−20...+70 °C	−20...+70 °C
IP69k, IP67 connector	IP69k, IP67 connector	IP69k, IP67 connector	IP69k, IP67 connector	IP69k, IP67 connector
SS 1.4301 V2A	SS 1.4301 V2A	SS 1.4301 V2A	SS 1.4301 V2A	SS 1.4301 V2A
SS 1.4301 V2A	SS 1.4301 V2A	SS 1.4301 V2A	SS 1.4301 V2A	SS 1.4301 V2A
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
PVC, ultra-flex	conn. M12 Stecker M12	conn. M12 Stecker M12	PVC, ultra-flex	PVC, ultra-flex
IMF12-S4PO50-A2P	IMF12-S4PO50-A12	IMF12-S4PO68-A12	IMF12-N6PO30-A2P	IMF12-N6PO50-A2P
IMF12-S4PC50-A2P	IMF12-S4PC50-A12	IMF12-S4PC68-A12	IMF12-N6PC30-A2P	IMF12-N6PC50-A2P
IMF12-S4NO50-A2P	IMF12-S4NO50-A12	IMF12-S4NO68-A12	IMF12-N6NO30-A2P	IMF12-N6NO50-A2P
IMF12-S4NC50-A2P	IMF12-S4NC50-A12	IMF12-S4NC68-A12	IMF12-N6NC30-A2P	IMF12-N6NC50-A2P

Inductive Proximity Switch
3-Wire DC Metal Face

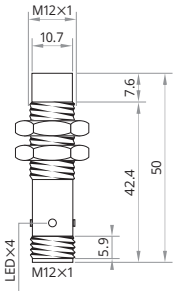
Induktive Näherungsschalter
3-Leiter DC Vollmetallgehäuse

non-flush
nicht bündig
M12×1 | 6 mm

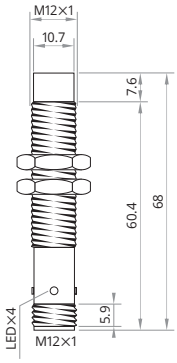
non-flush
nicht bündig
M12×1 | 6 mm

flush
bündig
M18×1 | 8 mm

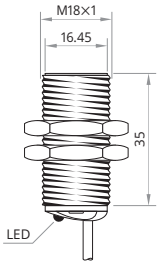
increased
erhöht



increased
erhöht



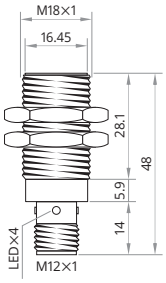
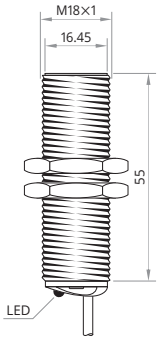
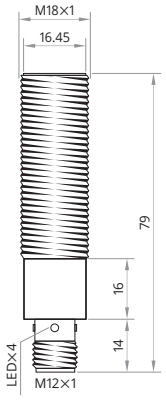
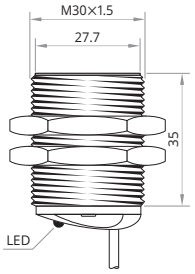
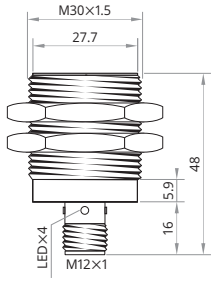
increased
erhöht



Sensing distance S_n	**Schaltabstand S_n**	**6 mm**	**6 mm**	**8 mm**
Operating voltage	Betriebsspannung	10...30 V_{DC}	10...30 V_{DC}	10...30 V_{DC}
Reverse polarity protection	Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current consumption	Stromverbrauch	<8 mA	<8 mA	<8 mA
Current load capability	Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short circuit protection	Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage drop	Spannungsabfall	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Switching frequency	Schaltfrequenz	500 Hz	500 Hz	400 Hz
Reduction factors	Reduktionsfaktoren	Alu 0.45 · Brs 0.50 · SS 0.85	Alu 0.45 · Brs 0.50 · SS 0.85	Alu 0.45 · Brs 0.50 · SS 0.85
Operating temperature	Betriebstemperatur	−20...+70 °C	−20...+70 °C	−20...+70 °C
Protection class	Schutzklasse	IP69k, IP67 connector	IP69k, IP67 connector	IP69k, IP67 connector
Sensing face material	Sensorflächenwerkstoff	SS 1.4301 V2A	SS 1.4301 V2A	SS 1.4301 V2A
Housing material	Gehäusewerkstoff	SS 1.4301 V2A	SS 1.4301 V2A	SS 1.4301 V2A
Switching indicator	Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Connection	Anschluss	conn. M12 Stecker M12	conn. M12 Stecker M12	PVC, ultra-flex
Article code PNP, NO	⎍⎽	IMF12-N6PO50-A12	IMF12-N6PO68-A12	IMF18-S8PO35-A2P
Article code PNP, NC	⎍⎿	IMF12-N6PC50-A12	IMF12-N6PC68-A12	IMF18-S8PC35-A2P
Article code NPN, NO	⎍⎽	IMF12-N6NO50-A12	IMF12-N6NO68-A12	IMF18-S8NO35-A2P
Article code NPN, NC	⎍⎿	IMF12-N6NC50-A12	IMF12-N6NC68-A12	IMF18-S8NC35-A2P

Mind O≠0, I≠l≠1, S≠5, B≠8.

O≠0, I≠l≠1, S≠5, B≠8 beachten.

flush bündig **M18×1 | 8 mm**	flush bündig **M18×1 | 8 mm**	flush bündig **M18×1 | 8 mm**	flush bündig **M30×1.5 | 10 mm**	flush bündig **M30×1.5 | 10 mm**
				
increased erhöht	increased erhöht	increased erhöht	increased erhöht	increased erhöht
				

8 mm	**8 mm**	**8 mm**	**10 mm**	**10 mm**
10...30 V_{DC}	10...30 V_{DC}	10...30 V_{DC}	10...30 V_{DC}	10...30 V_{DC}
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
400 Hz	400 Hz	400 Hz	200 Hz	200 Hz
Alu 0.45 · Brs 0.50 · SS 0.85	Alu 0.45 · Brs 0.50 · SS 0.85	Alu 0.45 · Brs 0.50 · SS 0.85	Alu 0.45 · Brs 0.50 · SS 0.85	Alu 0.45 · Brs 0.50 · SS 0.85
−20...+70 °C	−20...+70 °C	−20...+70 °C	−20...+70 °C	−20...+70 °C
IP69k, IP67 connector	IP69k, IP67 connector	IP69k, IP67 connector	IP69k, IP67 connector	IP69k, IP67 connector
SS 1.4301 V2A	SS 1.4301 V2A	SS 1.4301 V2A	SS 1.4301 V2A	SS 1.4301 V2A
SS 1.4301 V2A	SS 1.4301 V2A	SS 1.4301 V2A	SS 1.4301 V2A	SS 1.4301 V2A
built-in integriert	built-in integriert	built-in integriert	built-in integriert	built-in integriert
conn. M12 Stecker M12	PVC, ultra-flex	conn. M12 Stecker M12	PVC, ultra-flex	conn. M12 Stecker M12
IMF18-S8PO48-A12	IMF18-S8PO55-A2P	IMF18-S8PO79-A12	IMF30-S10PO35-A2P	IMF30-S10PO48-A12
IMF18-S8PC48-A12	IMF18-S8PC55-A2P	IMF18-S8PC79-A12	IMF30-S10PC35-A2P	IMF30-S10PC48-A12
IMF18-S8NO48-A12	IMF18-S8NO55-A2P	IMF18-S8NO79-A12	IMF30-S10NO35-A2P	IMF30-S10NO48-A12
IMF18-S8NC48-A12	IMF18-S8NC55-A2P	IMF18-S8NC79-A12	IMF30-S10NC35-A2P	IMF30-S10NC48-A12

Inductive Proximity Switch
3-Wire DC Metal Face

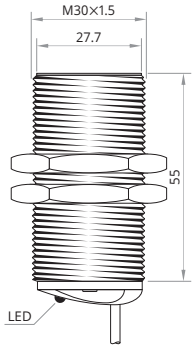
Induktive Näherungsschalter
3-Leiter DC Vollmetallgehäuse

flush
bündig
M30×1.5 | 10 mm

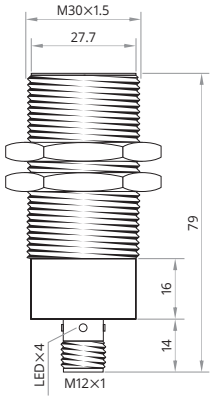
flush
bündig
M30×1.5 | 10 mm

non-flush
nicht bündig
M30×1.5 | 15 mm

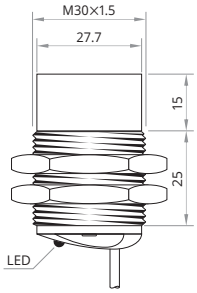
increased
erhöht



increased
erhöht



increased
erhöht



Sensing distance S_n	**Schaltabstand S_n**	**10 mm**	**10 mm**	**15 mm**
Operating voltage	Betriebsspannung	10...30 V_{DC}	10...30 V_{DC}	10...30 V_{DC}
Reverse polarity protection	Verpolungsschutz	built-in integriert	built-in integriert	built-in integriert
Current consumption	Stromverbrauch	<8 mA	<8 mA	<8 mA
Current load capability	Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short circuit protection	Kurzschlussschutz	built-in integriert	built-in integriert	built-in integriert
Voltage drop	Spannungsabfall	<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
Switching frequency	Schaltfrequenz	200 Hz	200 Hz	100 Hz
Reduction factors	Reduktionsfaktoren	Alu 0.45 · Brs 0.50 · SS 0.85	Alu 0.45 · Brs 0.50 · SS 0.85	Alu 0.45 · Brs 0.50 · SS 0.85
Operating temperature	Betriebstemperatur	−20...+70 °C	−20...+70 °C	−20...+70 °C
Protection class	Schutzklasse	IP69k, IP67 connector	IP69k, IP67 connector	IP69k, IP67 connector
Sensing face material	Sensorflächenwerkstoff	SS 1.4301 V2A	SS 1.4301 V2A	SS 1.4301 V2A
Housing material	Gehäusewerkstoff	SS 1.4301 V2A	SS 1.4301 V2A	SS 1.4301 V2A
Switching indicator	Schaltanzeige	built-in integriert	built-in integriert	built-in integriert
Connection	Anschluss	PVC, ultra-flex	conn. M12 Stecker M12	PVC, ultra-flex
Article code PNP, NO	⎍⎽	IMF30-S10PO55-A2P	IMF30-S10PO79-A12	IMF30-N15PO40-A2P
Article code PNP, NC	⎍⏂	IMF30-S10PC55-A2P	IMF30-S10PC79-A12	IMF30-N15PC40-A2P
Article code NPN, NO	⎍⎽	IMF30-S10NO55-A2P	IMF30-S10NO79-A12	IMF30-N15NO40-A2P
Article code NPN, NC	⎍⏂	IMF30-S10NC55-A2P	IMF30-S10NC79-A12	IMF30-N15NC40-A2P

Mind O≠0, I≠l≠1, S≠5, B≠8.

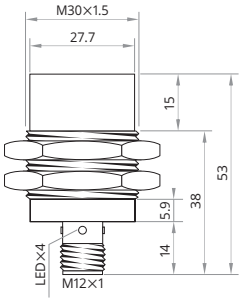
O≠0, I≠l≠1, S≠5, B≠8 beachten.

non-flush
nicht bündig
M30×1.5 | 15 mm

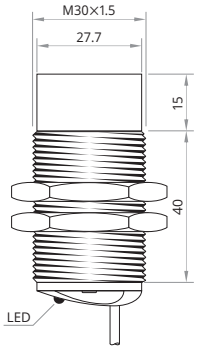
non-flush
nicht bündig
M30×1.5 | 15 mm

non-flush
nicht bündig
M30×1.5 | 15 mm

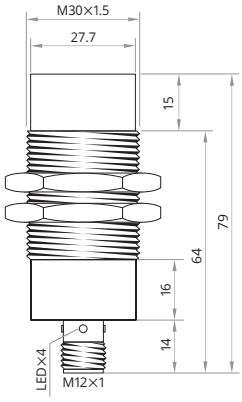
increased
erhöht



increased
erhöht



increased
erhöht



15 mm	**15 mm**	**15 mm**
10...30 V_{DC}	10...30 V_{DC}	10...30 V_{DC}
built-in integriert	built-in integriert	built-in integriert
<8 mA	<8 mA	<8 mA
200 mA	200 mA	200 mA
built-in integriert	built-in integriert	built-in integriert
<1.5 V @ 200 mA	<1.5 V @ 200 mA	<1.5 V @ 200 mA
100 Hz	100 Hz	100 Hz
Alu 0.45 · Brs 0.50 · SS 0.85	Alu 0.45 · Brs 0.50 · SS 0.85	Alu 0.45 · Brs 0.50 · SS 0.85
−20...+70 °C	−20...+70 °C	−20...+70 °C
IP69k, IP67 connector	IP69k, IP67 connector	IP69k, IP67 connector
SS 1.4301 V2A	SS 1.4301 V2A	SS 1.4301 V2A
SS 1.4301 V2A	SS 1.4301 V2A	SS 1.4301 V2A
built-in integriert	built-in integriert	built-in integriert
conn. M12 Stecker M12	PVC, ultra-flex	conn. M12 Stecker M12
IMF30-N15PO53-A12	IMF30-N15PO55-A2P	IMF30-N15PO79-A12
IMF30-N15PC53-A12	IMF30-N15PC55-A2P	IMF30-N15PC79-A12
IMF30-N15NO53-A12	IMF30-N15NO55-A2P	IMF30-N15NO79-A12
IMF30-N15NC53-A12	IMF30-N15NC55-A2P	IMF30-N15NC79-A12