



Inductive Sensors 3-Wire DC High Pressure Proof

Precise position sensing that operates under high pressure requires well-constructed sensors. XECRO fulfills these requirements with the wide range of High Pressure Series sensors produced with two specialized techniques. These techniques result in a permanent pressure-proof level of up to 1000 bar (14503 psi).

Sensors for pressures of up to 500 bar (7251 psi) contain a conventional ceramic sealing to separate both the ferrite coil combination and the processor electronics from the pressure-facing section of the housing. To achieve an outstanding pressure resistance, XECRO manufactures selected High Pressure Sensors with Metal-Face housings, which means that the housing consists of one continuous piece of stainless steel including the sensing face. This full-metal construction offers excellent peak-pressure immunity and endure even under the harshest environments.

Most sensors of the High Pressure Series from XECRO are available with a built-in LED switching indicator to simplify the mechanical set-up.

Die präzise Positionsbestimmung unter Hochdruck erfordert gut konstruierte Sensoren. XECRO erfüllt diese Anforderungen mit einer großen Auswahl an hochdruckfesten Sensoren, die auf zwei unterschiedlichen Techniken basieren. Diese Produktionsverfahren ergeben eine dauerhafte Druckfestigkeit bis zu 1000 bar (14503 psi).

Sensoren mit einer Druckfestigkeit bis zu 500 bar enthalten eine übliche Keramikdichtplatte, um die Ferritspulen-Kombination und die Auswerteelektronik von der Druckseite zu trennen. Um eine außergewöhnliche Widerstandsfähigkeit bei hohen Drücken zu erreichen, fertigt XECRO einige Sensoren mit Vollmetallgehäusen, so dass der Sensor aus einem durchgehenden Edelstahlgehäuse einschließlich der Sensorfläche besteht. Diese Konstruktion bietet ausgezeichnete Festigkeit gegen Druckspitzen und besteht auch unter den härtesten Bedingungen.

Zur Erleichterung der Montage sind nahezu alle druckfesten Sensoren von XECRO mit einer LED-Schaltanzeige erhältlich.

Inductive Proximity Switch 3-Wire DC High Pressure Proof

Induktive Näherungsschalter 3-Leiter DC Hochdruckfest

flush
bündig
M12x1 | 1.5 mm



500 bar · 7251 psi

flush
bündig
M12x1 | 1.5 mm

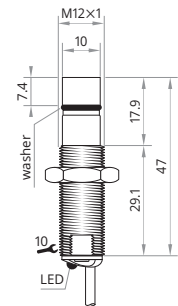
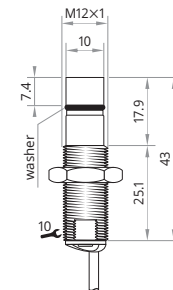
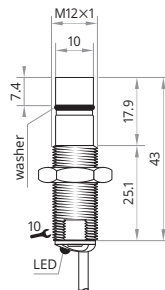


500 bar · 7251 psi

flush
bündig
M12x1 | 1.5 mm



500 bar · 7251 psi



Sensing distance S_n	Schaltabstand S_n	1.5 mm	1.5 mm	1.5 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	Kurzschlusschutz	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	1000 Hz	1000 Hz	1000 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	ceramic Keramik	ceramic Keramik	ceramic Keramik
Housing material	Gehäusewerkstoff	SS 1.4301 V2A	SS 1.4301 V2A	SS 1.4301 V2A
Switching indicator	Schaltanzeige	built-in integriert	none	built-in integriert
Connection	Anschluss	PVC, ultra-flex	PVC, ultra-flex	PVC, ultra-flex
Article code PNP, NO	↘	IHP12-S1.5PO43-A2P	IHP12-S1.5PO43-N2P	IHP12-S1.5PO47-A2P
Article code PNP, NC	↗	IHP12-S1.5PC43-A2P	IHP12-S1.5PC43-N2P	IHP12-S1.5PC47-A2P
Article code NPN, NO	↘	IHP12-S1.5NO43-A2P	IHP12-S1.5NO43-N2P	IHP12-S1.5NO47-A2P
Article code NPN, NC	↗	IHP12-S1.5NC43-A2P	IHP12-S1.5NC43-N2P	IHP12-S1.5NC47-A2P

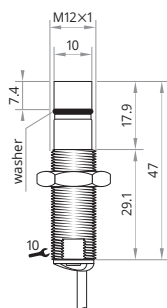
Mind O≠0, I≠I≠1, S≠5, B≠8.

O≠0, I≠I≠1, S≠5, B≠8 beachten.

flush
bündig
M12x1 | 1.5 mm



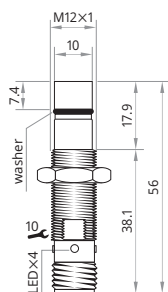
500 bar · 7251 psi



flush
bündig
M12x1 | 1.5 mm



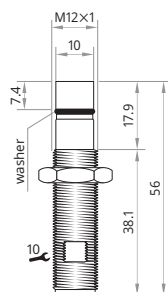
500 bar · 7251 psi



flush
bündig
M12x1 | 1.5 mm



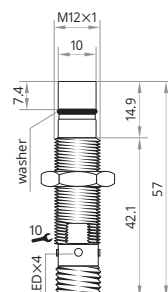
500 bar · 7251 psi



flush
bündig
M12x1 | 1.5 mm



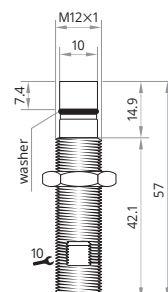
500 bar · 7251 psi



flush
bündig
M12x1 | 1.5 mm



500 bar · 7251 psi



1.5 mm	1.5 mm	1.5 mm	1.5 mm	1.5 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
1000 Hz	1000 Hz	1000 Hz	1000 Hz	1000 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
ceramic Keramik	ceramic Keramik	ceramic Keramik	ceramic Keramik	ceramic Keramik
SS 1.4301 V2A	SS 1.4301 V2A	SS 1.4301 V2A	SS 1.4301 V2A	SS 1.4301 V2A
none	built-in integriert	none	built-in integriert	none
PVC, ultra-flex	conn. M12 Stecker M12	conn. M12 Stecker M12	conn. M12 Stecker M12	conn. M12 Stecker M12
IHP12-S1.5PO47-N2P	IHP12-S1.5PO56-A12	IHP12-S1.5PO56-N12	IHP12-S1.5PO57-A12	IHP12-S1.5PO57-N12
IHP12-S1.5PC47-N2P	IHP12-S1.5PC56-A12	IHP12-S1.5PC56-N12	IHP12-S1.5PC57-A12	IHP12-S1.5PC57-N12
IHP12-S1.5NO47-N2P	IHP12-S1.5NO56-A12	IHP12-S1.5NO56-N12	IHP12-S1.5NO57-A12	IHP12-S1.5NO57-N12
IHP12-S1.5NC47-N2P	IHP12-S1.5NC56-A12	IHP12-S1.5NC56-N12	IHP12-S1.5NC57-A12	IHP12-S1.5NC57-N12

Inductive Proximity Switch 3-Wire DC High Pressure Proof

Induktive Näherungsschalter 3-Leiter DC Hochdruckfest

flush
bündig
M12x1 | 1.5 mm



500 bar · 7251 psi

flush
bündig
M12x1 | 1.5 mm

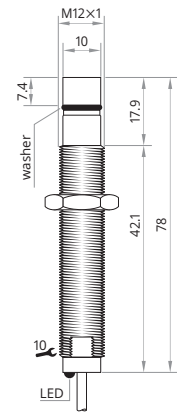
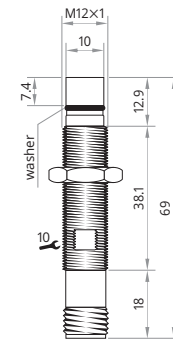
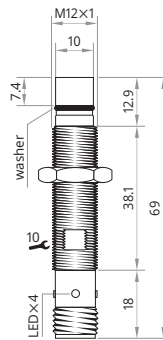


500 bar · 7251 psi

flush
bündig
M12x1 | 1.5 mm



500 bar · 7251 psi



Sensing distance S_n	Schaltabstand S_n	1.5 mm	1.5 mm	1.5 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	Kurzschlusschutz	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	1000 Hz	1000 Hz	1000 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	ceramic Keramik	ceramic Keramik	ceramic Keramik
Housing material	Gehäusewerkstoff	SS 1.4301 V2A	SS 1.4301 V2A	SS 1.4301 V2A
Switching indicator	Schaltanzeige	built-in integriert	none	built-in integriert
Connection	Anschluss	conn. M12 Stecker M12	conn. M12 Stecker M12	PVC, ultra-flex
Article code PNP, NO	↘	IHP12-S1.5PO69-A12	IHP12-S1.5PO69-N12	IHP12-S1.5PO78-A2P
Article code PNP, NC	↗	IHP12-S1.5PC69-A12	IHP12-S1.5PC69-N12	IHP12-S1.5PC78-A2P
Article code NPN, NO	↘	IHP12-S1.5NO69-A12	IHP12-S1.5NO69-N12	IHP12-S1.5NO78-A2P
Article code NPN, NC	↗	IHP12-S1.5NC69-A12	IHP12-S1.5NC69-N12	IHP12-S1.5NC78-A2P

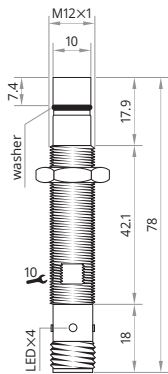
Mind O≠0, I≠I≠1, S≠5, B≠8.

O≠0, I≠I≠1, S≠5, B≠8 beachten.

flush
bündig
M12x1 | 1.5 mm



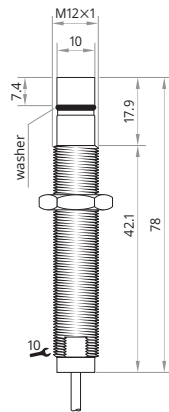
500 bar · 7251 psi



flush
bündig
M12x1 | 1.5 mm



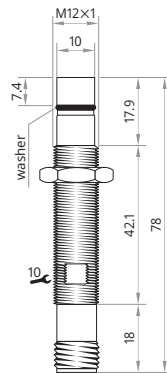
500 bar · 7251 psi



flush
bündig
M12x1 | 1.5 mm



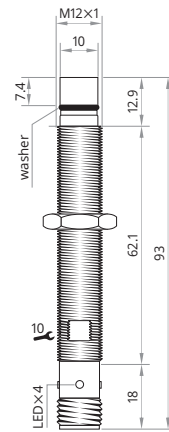
500 bar · 7251 psi



flush
bündig
M12x1 | 1.5 mm



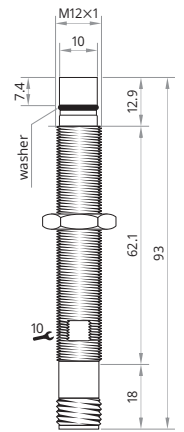
500 bar · 7251 psi



flush
bündig
M12x1 | 1.5 mm



500 bar · 7251 psi



1.5 mm		1.5 mm		1.5 mm		1.5 mm		1.5 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	
1000 Hz		1000 Hz		1000 Hz		1000 Hz		1000 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	
ceramic	Keramik	ceramic	Keramik	ceramic	Keramik	ceramic	Keramik	ceramic	Keramik
SS 1.4301	V2A	SS 1.4301	V2A	SS 1.4301	V2A	SS 1.4301	V2A	SS 1.4301	V2A
built-in	integriert	none		none		built-in	integriert	none	
conn. M12	Stecker M12	PVC, ultra-flex		conn. M12	Stecker M12	conn. M12	Stecker M12	conn. M12	Stecker M12
IHP12-S1.5PO78-A12		IHP12-S1.5PO78-N2P		IHP12-S1.5PO78-N12		IHP12-S1.5PO93-A12		IHP12-S1.5PO93-N12	
IHP12-S1.5PC78-A12		IHP12-S1.5PC78-N2P		IHP12-S1.5PC78-N12		IHP12-S1.5PC93-A12		IHP12-S1.5PC93-N12	
IHP12-S1.5NO78-A12		IHP12-S1.5NO78-N2P		IHP12-S1.5NO78-N12		IHP12-S1.5NO93-A12		IHP12-S1.5NO93-N12	
IHP12-S1.5NC78-A12		IHP12-S1.5NC78-N2P		IHP12-S1.5NC78-N12		IHP12-S1.5NC93-A12		IHP12-S1.5NC93-N12	

Inductive Proximity Switch 3-Wire DC High Pressure Proof

Induktive Näherungsschalter 3-Leiter DC Hochdruckfest

flush
bündig
M12x1 | 1.5 mm



500 bar · 7251 psi

flush
bündig
M12x1 | 1.5 mm

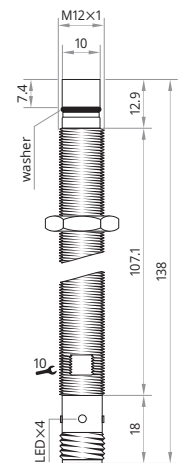
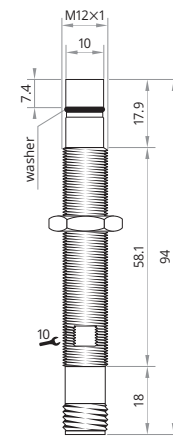
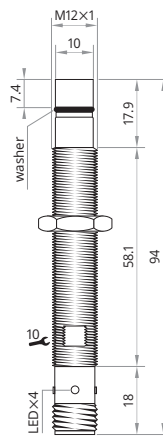


500 bar · 7251 psi

flush
bündig
M12x1 | 1.5 mm



500 bar · 7251 psi



Sensing distance S_n	Schaltabstand S_n	1.5 mm	1.5 mm	1.5 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	Kurzschlusschutz	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	1000 Hz	1000 Hz	1000 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	ceramic Keramik	ceramic Keramik	ceramic Keramik
Housing material	Gehäusewerkstoff	SS 1.4301 V2A	SS 1.4301 V2A	SS 1.4301 V2A
Switching indicator	Schaltanzeige	built-in integriert	none	built-in integriert
Connection	Anschluss	conn. M12 Stecker M12	conn. M12 Stecker M12	conn. M12 Stecker M12
Article code PNP, NO	↘	IHP12-S1.5PO94-A12	IHP12-S1.5PO94-N12	IHP12-S1.5PO138-A12
Article code PNP, NC	↗	IHP12-S1.5PC94-A12	IHP12-S1.5PC94-N12	IHP12-S1.5PC138-A12
Article code NPN, NO	↘	IHP12-S1.5NO94-A12	IHP12-S1.5NO94-N12	IHP12-S1.5NO138-A12
Article code NPN, NC	↗	IHP12-S1.5NC94-A12	IHP12-S1.5NC94-N12	IHP12-S1.5NC138-A12

Mind O=0, I≠I≠1, S=5, B≠8.

O=0, I≠I≠1, S=5, B≠8 beachten.

flush
bündig
M12x1 | 1.5 mm



500 bar · 7251 psi

flush
bündig
M12x1 | 2 mm



500 bar · 7251 psi

flush
bündig
M12x1 | 2 mm



500 bar · 7251 psi

flush
bündig
M12x1 | 2 mm

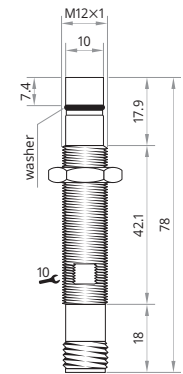
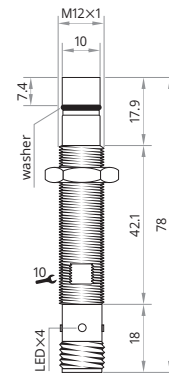
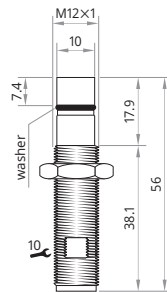
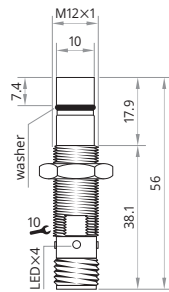
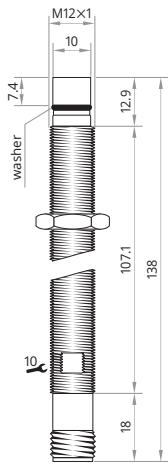


500 bar · 7251 psi

flush
bündig
M12x1 | 2 mm



500 bar · 7251 psi



1.5 mm		2 mm		2 mm		2 mm		2 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	
1000 Hz		1000 Hz		1000 Hz		1000 Hz		1000 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	
ceramic	Keramik	ceramic	Keramik	ceramic	Keramik	ceramic	Keramik	ceramic	Keramik
SS 1.4301	V2A	SS 1.4301	V2A	SS 1.4301	V2A	SS 1.4301	V2A	SS 1.4301	V2A
none		built-in	integriert	none		built-in	integriert	none	
conn. M12	Stecker M12	conn. M12	Stecker M12	conn. M12	Stecker M12	conn. M12	Stecker M12	conn. M12	Stecker M12
IHP12-S1.5PO138-N12		IHP12-S2PO56-A12		IHP12-S2PO56-N12		IHP12-S2PO78-A12		IHP12-S2PO78-N12	
IHP12-S1.5PC138-N12		IHP12-S2PC56-A12		IHP12-S2PC56-N12		IHP12-S2PC78-A12		IHP12-S2PC78-N12	
IHP12-S1.5NO138-N12		IHP12-S2NO56-A12		IHP12-S2NO56-N12		IHP12-S2NO78-A12		IHP12-S2NO78-N12	
IHP12-S1.5NC138-N12		IHP12-S2NC56-A12		IHP12-S2NC56-N12		IHP12-S2NC78-A12		IHP12-S2NC78-N12	

Inductive Proximity Switch 3-Wire DC High Pressure Proof

Induktive Näherungsschalter 3-Leiter DC Hochdruckfest

flush
bündig
M14x1 | 3 mm



500 bar · 7251 psi

flush
bündig
M14x1 | 3 mm

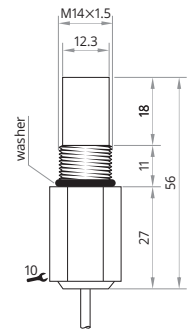
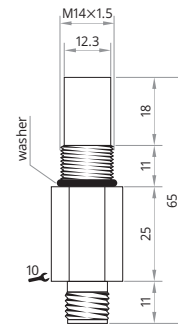
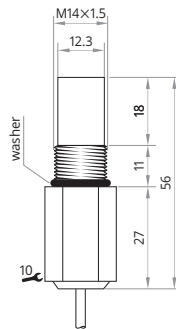


500 bar · 7251 psi

flush
bündig
M14x1 | 3 mm



1000 bar · 14503 psi



Sensing distance S_n	Schaltabstand S_n	3 mm	3 mm	3 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
Current consumption	Stromverbrauch	<8 mA	<8 mA	<8 mA
Current load capability	Ausgangsbelastbarkeit	200 mA	200 mA	200 mA
Short circuit protection	Kurzschlusschutz	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	1000 Hz	1000 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	ceramic Keramik	ceramic Keramik	SS 1.4301 V2A
Housing material	Gehäusewerkstoff	SS 1.4301 V2A	SS 1.4301 V2A	SS 1.4301 V2A
Switching indicator	Schaltanzeige	none	none	none
Connection	Anschluss	PVC, ultra-flex	conn. M12 Stecker M12	PVC, ultra-flex
Article code PNP, NO	└┘	IHP14-S3PO56-N2P	IHP14-S3PO65-N12	IHP14-S3PO56S-N2P
Article code PNP, NC	└┘	IHP14-S3PC56-N2P	IHP14-S3PC65-N12	IHP14-S3PC56S-N2P
Article code NPN, NO	└┘	IHP14-S3NO56-N2P	IHP14-S3NO65-N12	IHP14-S3NO56S-N2P
Article code NPN, NC	└┘	IHP14-S3NC56-N2P	IHP14-S3NC65-N12	IHP14-S3NC56S-N2P

flush
bündig
M14×1 | 3 mm



1000 bar · 14503 psi

flush
bündig
M18×1 | 3 mm



1000 bar · 14503 psi

flush
bündig
M18×1 | 3 mm



1000 bar · 14503 psi

flush
bündig
M18×1 | 3 mm

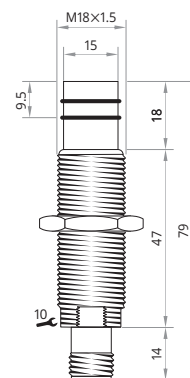
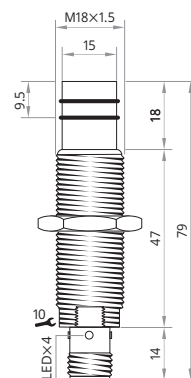
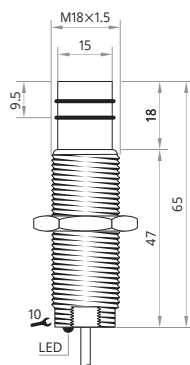
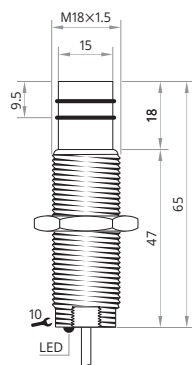
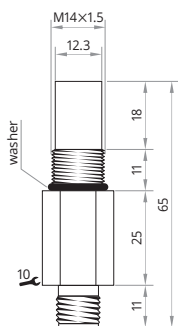


1000 bar · 14503 psi

flush
bündig
M18×1 | 3 mm



1000 bar · 14503 psi



3 mm		3 mm		3 mm		3 mm		3 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		1000 Hz		1000 Hz		1000 Hz		1000 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	ceramic	Keramik	ceramic	Keramik	ceramic	Keramik	ceramic	Keramik
SS 1.4301	V2A	SS 1.4301	V2A	SS 1.4301	V2A	SS 1.4301	V2A	SS 1.4301	V2A
none		built-in	integriert	none		built-in	integriert	none	
conn. M12	Stecker M12	PVC, ultra-flex		PVC, ultra-flex		conn. M12	Stecker M12	conn. M12	Stecker M12
IHP14-S3PO65S-N12		IHP18-S3PO65S-A2P		IHP18-S3PO65S-N2P		IHP18-S3PO79S-A12		IHP18-S3PO79S-N12	
IHP14-S3PC65S-N12		IHP18-S3PC65S-A2P		IHP18-S3PC65S-N2P		IHP18-S3PC79S-A12		IHP18-S3PC79S-N12	
IHP14-S3NO65S-N12		IHP18-S3NO65S-A2P		IHP18-S3NO65S-N2P		IHP18-S3NO79S-A12		IHP18-S3NO79S-N12	
IHP14-S3NC65S-N12		IHP18-S3NC65S-A2P		IHP18-S3NC65S-N2P		IHP18-S3NC79S-A12		IHP18-S3NC79S-N12	