

## Inductive proximity sensors

### IM 18

Sensing range 12/20 mm  
DC 3-wire, metal housing



Triplex series

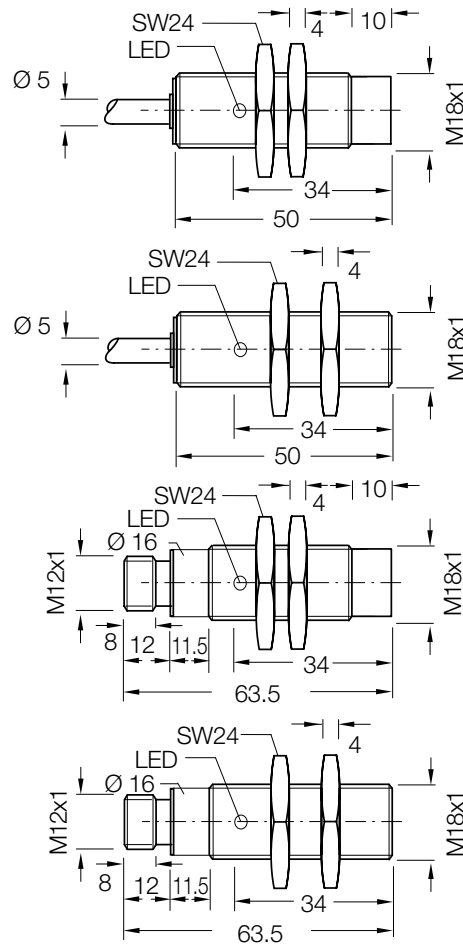
#### Features



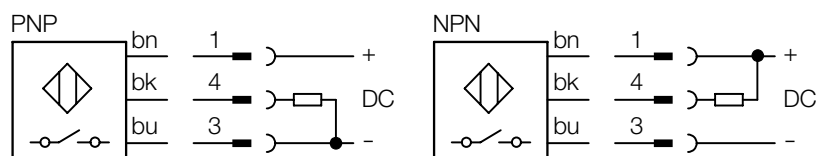
- Triple sensing range
- Installation quasi flush or non-flush in metal
- PNP or NPN output
- Normally open function
- High switching frequency
- Short-circuit protection (pulsed)
- Robust brass housing, chrome-plated with fine thread M18 x 1 mm
- Cable or connector
- Enclosure rating IP 67
- LED status indicator

#### Accessories

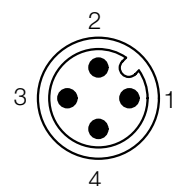
- Round connector
- Mounting bracket



#### Connection diagram













Wire colour	Wire colour	Contact	Assignment
bn	brown	1	+ V DC
bk	black	4	NO
bu	blue	3	- V DC



## Electrical and mechanical data

<b>Operating voltage</b> $U_b$	10 ... 30 V DC	<b>Short-circuit protection (pulsed)</b>	yes
<b>Ripple</b> $U_{ss}$	$\leq 20\%$ of $U_b$	<b>Reverse polarity protection</b>	yes
<b>Voltage drop</b> $U_d$ (at $I_a$ max)	$\leq 2$ V	<b>Power-up pulse suppression</b>	yes
<b>Power consumption</b> (without load)	$\leq 10$ mA	<b>Enclosure rating to EN 60529</b>	IP 67
<b>Continuous current</b> $I_a$	$\leq 200$ mA	<b>Shock and vibration stress</b>	30 g, 11 ms 10 ... 55 Hz, 1 mm
<b>Time delay before availability</b> $t_v$	$\leq 100$ ms	<b>Ambient temperature</b> $T_a$	- 25 ... + 70 °C
<b>Hysteresis</b> H	1 % ... 15 % of $s_r$ (5 % typ.)	<b>Housing material</b>	Brass, chrome-plated, plastic
<b>Repeatability</b> R ( $U_b$ and $T_a$ constant)	$\leq 5\%$ of $s_r$	<b>Tightening torque</b>	30 Nm
<b>Temperature drift</b>	$\pm 10\%$ of $s_r$	<b>Connection cable</b>	PVC, 3 x 0.34 mm <sup>2</sup>
<b>EMC</b>	to EN 60 947-5-2		

## Selection table

Sensing range $s_n$ mm	Installation in metal	Switching output	Output function	Switching frequency f in Hz	Connection	Type	Order Number
12	 *	PNP		500	Cable 2 m	IM18-12BPS-ZW1	6027515
12	 *	NPN		500	Cable 2 m	IM18-12BNS-ZW1	6027516
12	 *	PNP		500	Connector M12 x 1 mm	IM18-12BPS-ZC1	6027517
20		PNP		200	Cable 2 m	IM18-20NPS-ZW1	6027518
20		PNP		200	Connector M12 x 1 mm	IM18-20NPS-ZC1	6027519

\* Installation notes „quasi flush“

When mounting in conductible materials the sensors have to be installed with a distance A to the surface.

**A** Steel, metal = 4 mm / **A** Stainless steel = 1.5 mm

Other output functions available on request

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