

Diffuse-reflective sensors, range 5/10 cm, with background suppression, M18 housing



- Background suppression with V-optics
- Enormous excess gain (light reserve)
- Enhanced black and white ratio
- Light reserve warning indicator
- Dual transistor outputs, NPN or PNP
- 1000 Hz switching frequency
- Short-circuit protection, reverse polarity protection, and power-up output suppression
- Connections: Straight cable, 2 meter Connector, M12
- EMC tested according to IEC 801 and EN50081-1/EN 50082-2



Product designation Plastic housing ¹⁾

Product designation Stainless steel ¹⁾

Output

Connection

Range adjustment

Optical data ²⁾

Max. range

Emitter

Electrical data ²⁾

Supply voltage U_s

Allowable ripple

Current consumption (without load)

Max. load current I_L

Residual voltage

Max. switching frequency

Environmental data

Sealing

Temperature T_A
(operating and storage)

Weight Plastic/Stainless steel

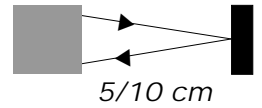
M1T 1NA 100 I5	M1T 1NA 400 I5	M1T 1PA 100 I5	M1T 1PA 400 I5	M1T 1NA 100 I6	M1T 1NA 400 I6	M1T 1PA 100 I6	M1T 1PA 400 I6
M1T 1NA 100 I5M	M1T 1NA 400 I5M	M1T 1PA 100 I5M	M1T 1PA 400 I5M	M1T 1NA 100 I6M	M1T 1NA 400 I6M	M1T 1PA 100 I6M	M1T 1PA 400 I6M
NPN (light-/dark-on)		PNP (light-/dark-on)		NPN (light-/dark-on)		PNP (light-/dark-on)	
Cable 2 m	Connector M12	Cable 2 m	Connector M12	Cable 2 m	Connector M12	Cable 2 m	Connector M12
Yes							
5 cm (Kodak card white, 10 x 10 cm)				10 cm (Kodak card white, 10 x 10 cm)			
Infrared-LED, 880 nm, pulsed							
10...30 VDC							
+/- 10% of U_{sp}							
< 15 mA							
100 mA							
< 1,6 V							
1000 Hz							
IP 67							
-25...+65 °C							
Connector M12: ca.15/25 g , Cable 2 m: ca. 100/110 g							

1) For product designation of sensors with options see designation code on page 23.

2) When not otherwise noted, all technical data at $T_A = 25\text{ °C}$ and $U_s = 24\text{ V}$.

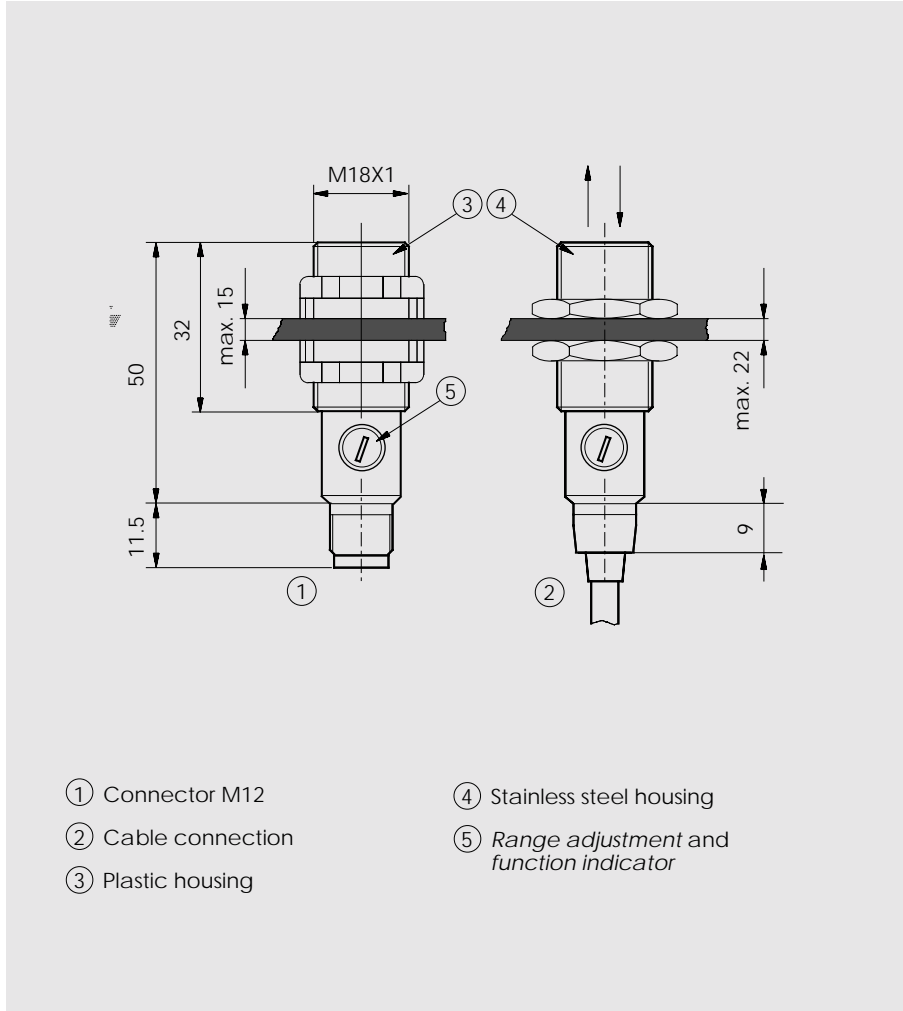
10...30 VDC

NPN / PNP
light-on and
dark-on output



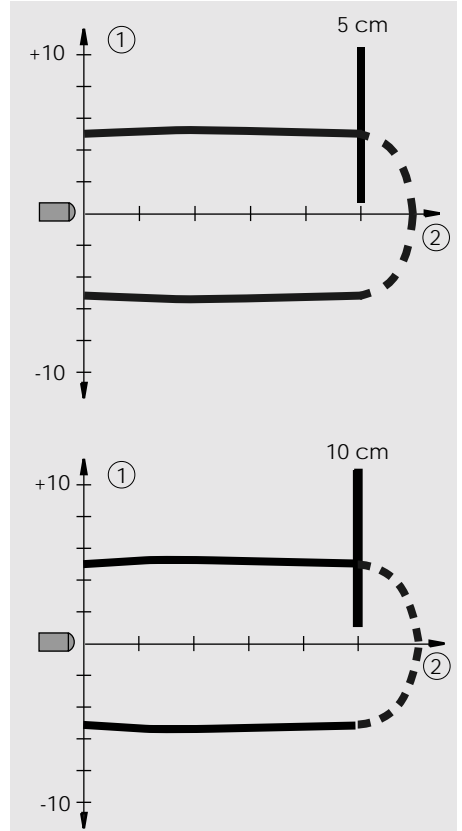
M1T

Dimensions (50 mm, M18 x 1)



- ① Connector M12
- ② Cable connection
- ③ Plastic housing
- ④ Stainless steel housing
- ⑤ Range adjustment and function indicator

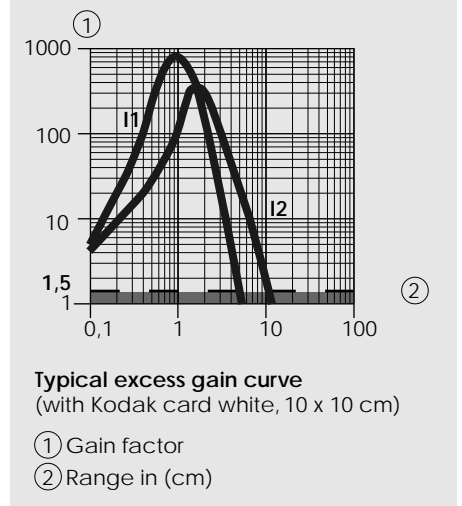
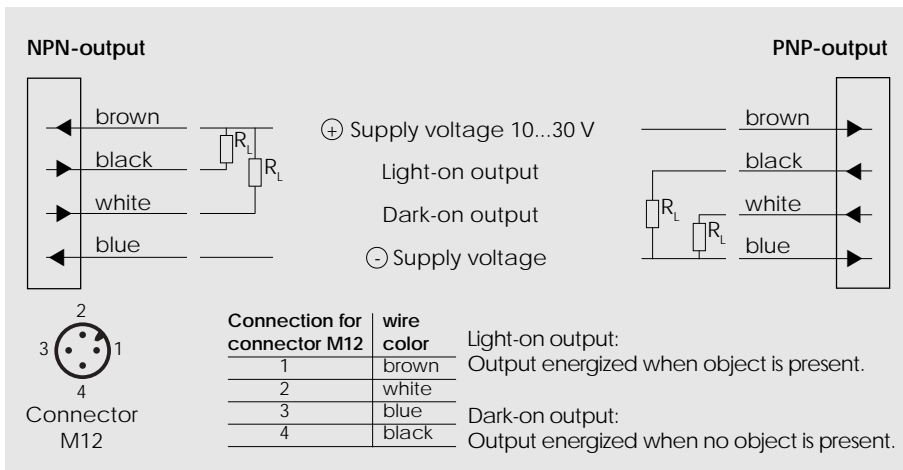
Optical diagrams



Typical beam diameter
(with Kodak card white, 10 x 10 cm)

- ① Diameter in (cm)
- ② Range in (cm)

Wiring diagram



Typical excess gain curve
(with Kodak card white, 10 x 10 cm)

- ① Gain factor
- ② Range in (cm)