

# Diffuse-reflective sensors with background rejection, M18 housing



- Range electronically adjustable between 5 and 10 cm
- Dual transistor outputs, 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 <sup>1)</sup>

Product designation Stainless steel <sup>1)</sup>

Output

Connection

Range adjustment

Optical data <sup>2)</sup>

range

Typical grey/white difference  
(grey: 18%/white: 90%)

Emitter

Electrical data <sup>2)</sup>

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

M1H 1PA 100 I1	M1H 1PA 400 I1
M1H 1PA 100 I1M	M1H 1PA 400 I1M
PNP (light- and dark-on)	
Cable 2 m	Connector M12
Ja	
5...10 cm (Kodak card white, 10 x 10 cm)	
at 10 cm range: ca. 2 cm at 5 cm range: ca. 0,2 cm	
Infrared-LED, 950 nm, pulsed	
10...30 VDC	
+/- 10% of $U_{sp}$	
< 35 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	

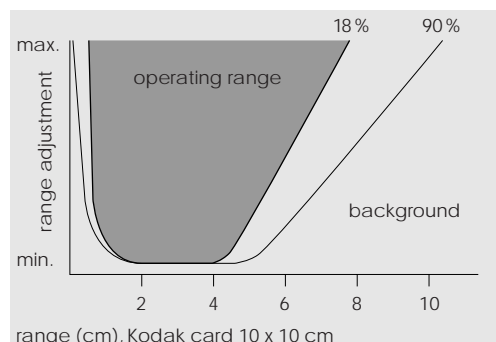
1) For product designation of sensors with options see designation code on page 23.

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

## Technical explanation

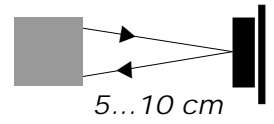
The 18%-line shows the switching-on distance for a gray object.

The 90%-line shows the switching-off distance for a white object.



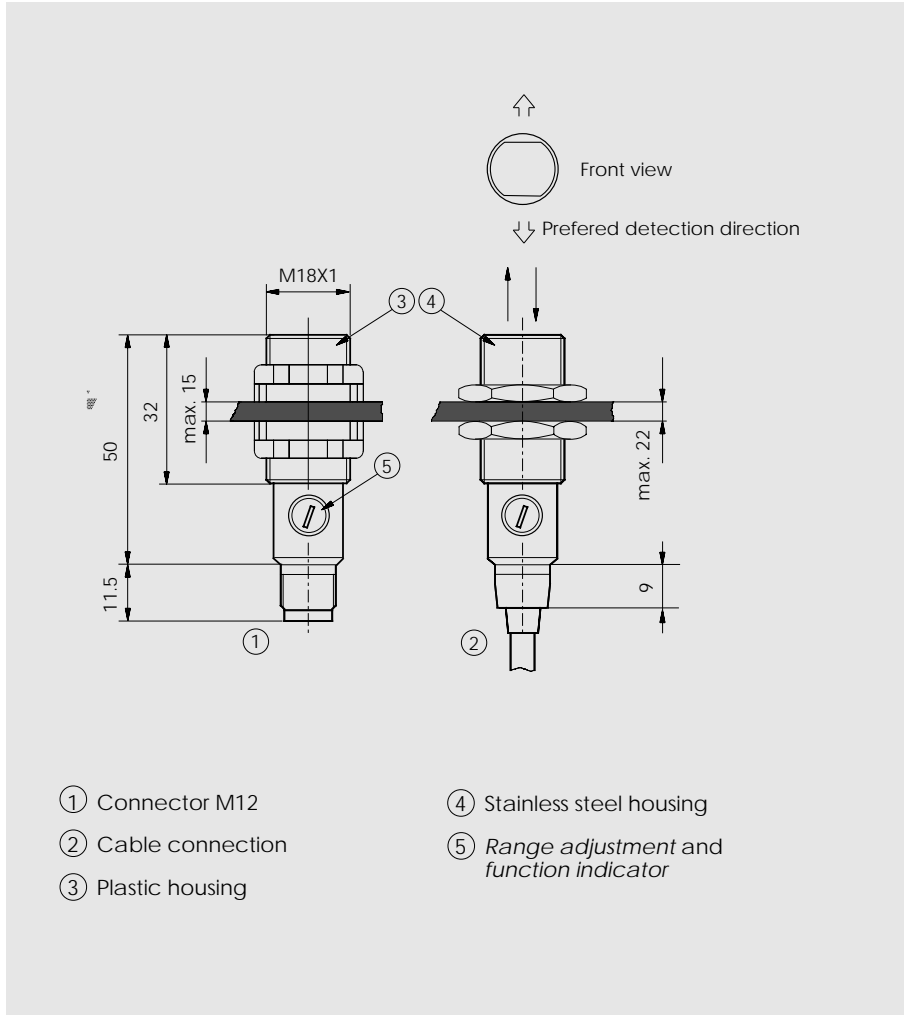
10...30 VDC

PNP  
light-on and  
dark-on output

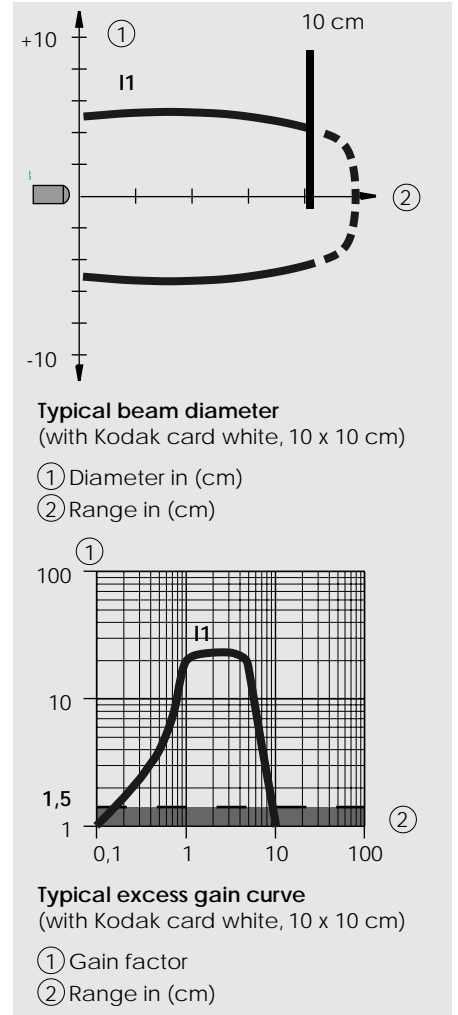


M1H

Dimensions (50 mm, M18 x 1)



Optical diagrams



Wiring diagram

