

Diffuse-reflective sensors, range 40/65 cm, straight optics, M18 housing



- Combined surface and bore mounting
- 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
Right angle cable, 2 meter (option)
Connector, Torson (option)
- EMC tested according to IEC 801 and EN50081-1/EN 50082-2



Product designation 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)

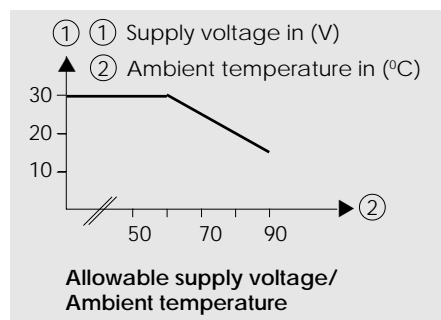
Weight

OMT 1NA 100 G3	OMT 1NA 400 G3	OMT 1PA 100 G3	OMT 1PA 400 G3	OMT 1NA 100 G4	OMT 1NA 400 G4	OMT 1PA 100 G4	OMT 1PA 400 G4
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							
40 cm (Kodak card white, 10 x 10 cm)				65 cm (Kodak card white, 10 x 10 cm)			
Infrared-LED, 880 nm, pulsed							
10...30 VDC							
+/- 10% of U_s							
< 15 mA							
200 mA							
< 1,6 V							
1000 Hz							
IP 67							
-20...+90 °C (☛ Tech. explanation)							
ca. 90 g	ca. 20 g	ca. 90 g	ca. 20 g	ca. 90 g	ca. 20 g	ca. 90 g	ca. 20 g

1) For product designation of sensors with options see designation code on page 47.

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

Technical explanation

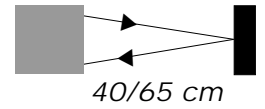


Allowable supply voltage as a function of ambient temperature

The specified operating temperature is only usable if the supply voltage is reduced at higher temperatures (☛ Diagram "Allowable supply voltage/Ambient temperature").

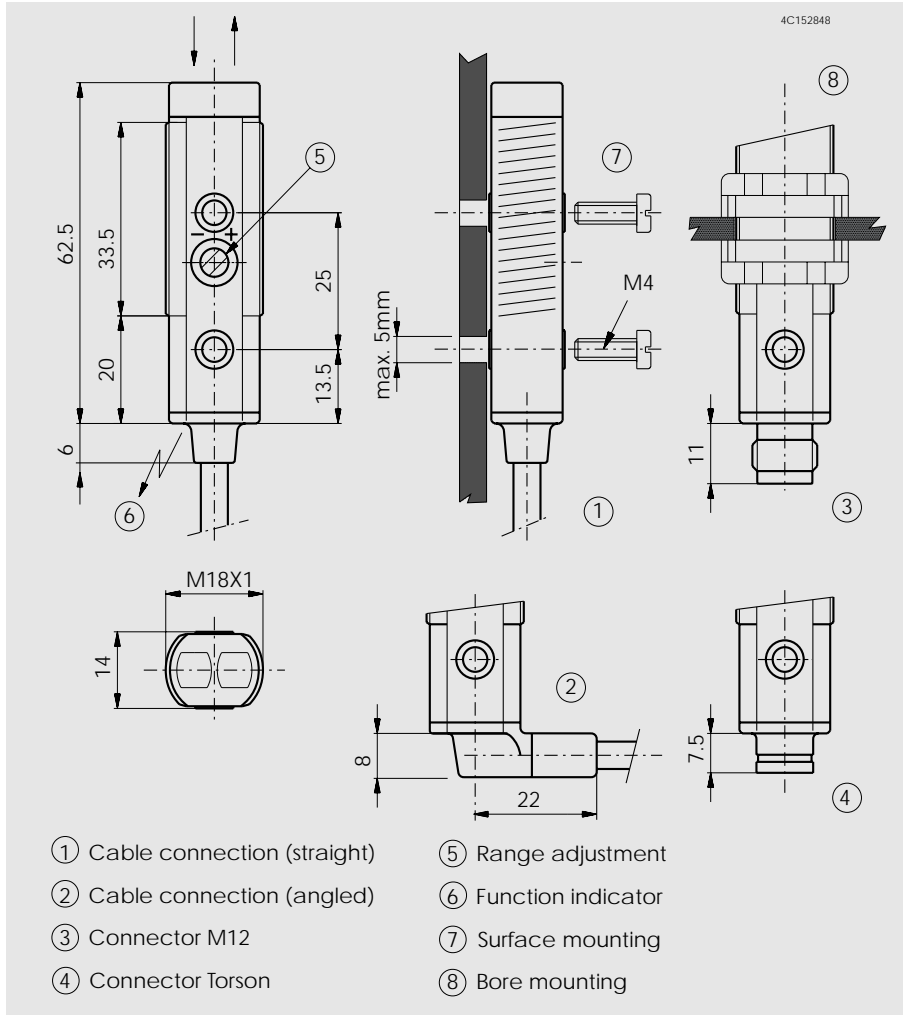
10...30 VDC

NPN / PNP
light-on and
dark-on output

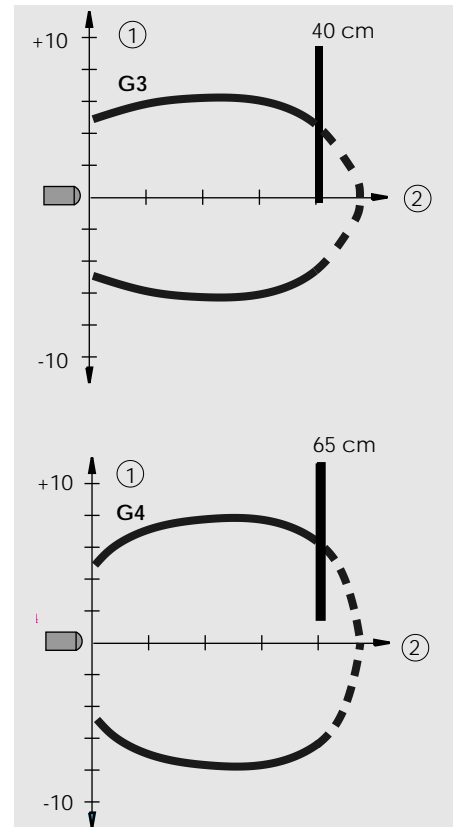


OMT straight optics

Dimensions (62,5 mm, M18 x 1)



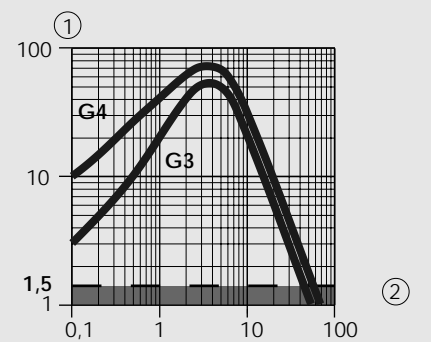
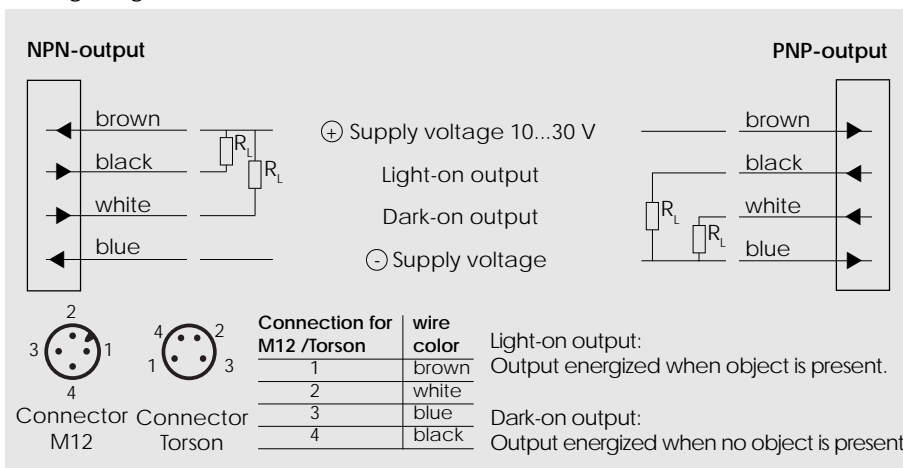
Optical diagrams



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)

Diffuse-reflective sensors, range 10/40 cm, right angle optics, M18 housing



- Combined surface and bore mounting
- 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
Right angle cable, 2 meter (option)
Connector, Torson (option)
- EMC tested according to IEC 801 and EN50081-1/EN 50082-2



Product designation 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)

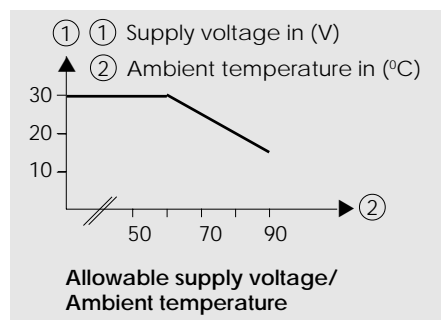
Weight

OMT 1NA 100 W1	OMT 1NA 400 W1	OMT 1PA 100 W1	OMT 1PA 400 W1	OMT 1NA 100 W3	OMT 1NA 400 W3	OMT 1PA 100 W3	OMT 1PA 400 W3
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							
10 cm (Kodak card white, 10 x 10 cm)				40 cm (Kodak card white, 10 x 10 cm)			
Infrared-LED, 880 nm, pulsed							
10...30 VDC							
+/- 10% of U_s							
< 15 mA							
200 mA							
< 1,6 V							
1000 Hz							
IP 67							
-20...+90 °C (☛ Tech. explanation)							
ca. 95 g	ca. 25 g	ca. 95 g	ca. 25 g	ca. 95 g	ca. 25 g	ca. 95 g	ca. 25 g

1) For product designation of sensors with options see designation code on page 47.

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

Technical explanation

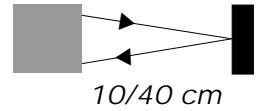


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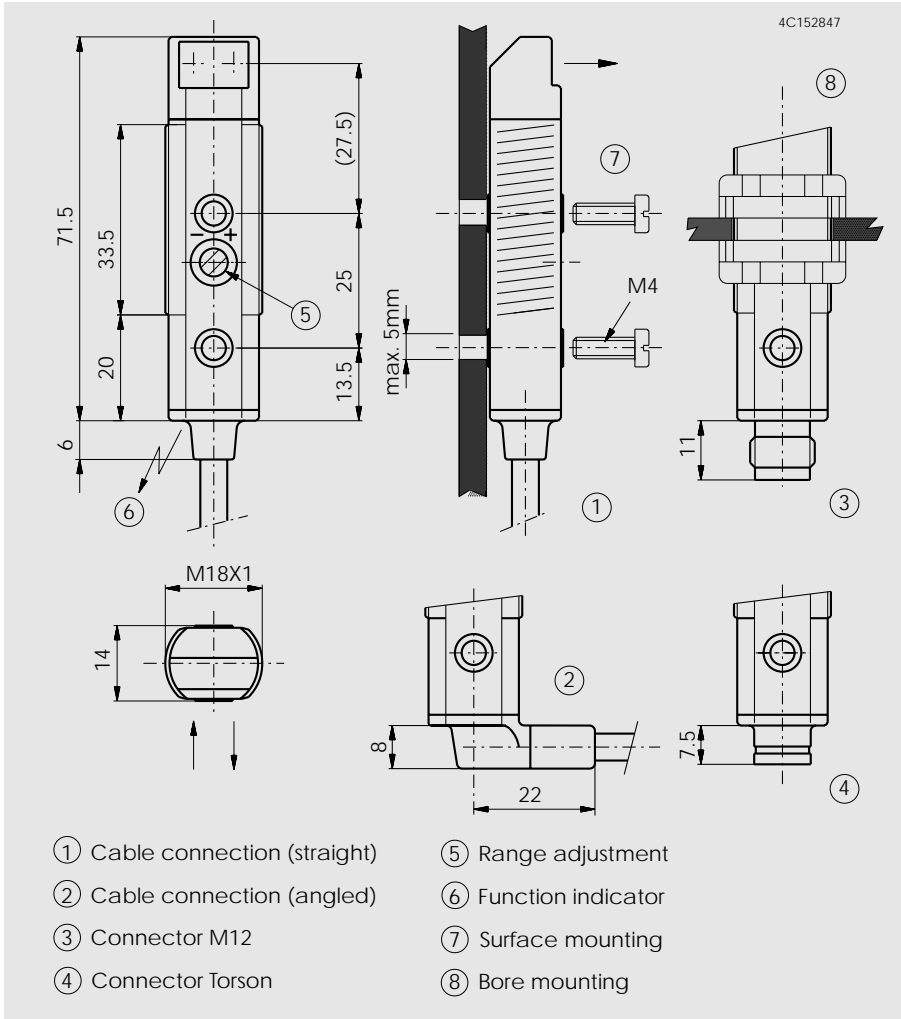
10...30 VDC

NPN / PNP
light-on and
dark-on output

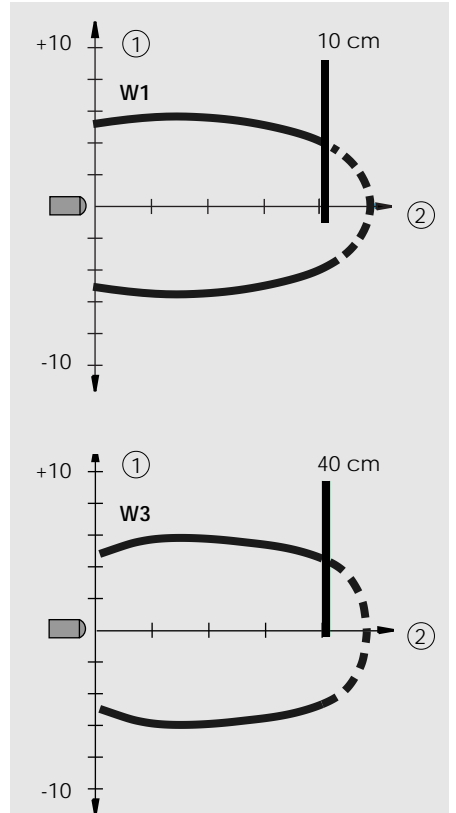


OMT right angle optics

Dimensions (71,5 mm, M18 x 1)



Optical diagrams



Typical beam diameter

(with Kodak card white, 10 x 10 cm)

- ① Diameter in (cm)
② Range in (cm)

Wiring diagram

