

Retro-reflective sensors, laser, with polarizing filters, M18 housing



- Large optical range, adjustable
- 5000 Hz switching frequency for fast and precise switching
- Fix laser beam geometry, convergent
- Laser class 1
- Dual transistor outputs
- Short-circuit protection, reverse polarity protection and power-up output suppression
- Connections: Cable, 2 meter
Connector, M12
- EMC tested according to EN 61000-6-1/2/3/4



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

Laser class

Temperature T_A
(operating and storage)

Weight Plastic/Stainless steel

M1LP 1NA 100 R1	M1LP 1NA 400 R1	M1LP 1PA 100 R1	M1LP 1PA 400 R1
M1LP 1NA 100 R1M	M1LP 1NA 400 R1M	M1LP 1PA 100 R1M	M1LP 1PA 400 R1M
NPN (light-/dark-on)		PNP (light-/dark-on)	
Cable 2 m	Connector M12	Cable 2 m	Connector M12
Ja			
0,12 ... 12 m (Reflector OZR 105)			
Laser, red, 650 nm, pulsed			
10...30 VDC			
+/- 10% von U_s			
< 20 mA			
100 mA			
< 1,6 V			
5000 Hz			
IP 67			
1 (IEC 825-1; EN 60825-1:2001)			
-25...+60 °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.

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

Remark:

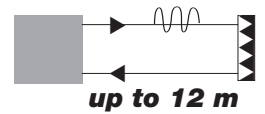
To achieve optimal results for the laser retro-reflective sensors M1LP retro-reflectors with fine structure (e.g. OZR 004, OZR 105) are recommended.

Retro-reflector ●	Range	Retro-reflector ■	Range	Retro-reflective tape	Range
OZR 001	0.15 – 6 m	OZR 101	0.15 – 8 m	OZR 201	0 m
OZR 002	0.15 – 8 m	OZR 102	0.15 – 3.5 m	OZR 202	0 m
OZR 003	0.15 – 4 m	OZR 103	0.12 – 12 m	OZR 203	0.15 – 1.3 m
OZR 004	0.15 – 6 m	OZR 104	0.12 – 12 m	OZR 204*	0.15 – 1.1 m
		OZR 105	0.12 – 12 m	OZR 205*	0.15 – 1.1 m

* 50 mm long

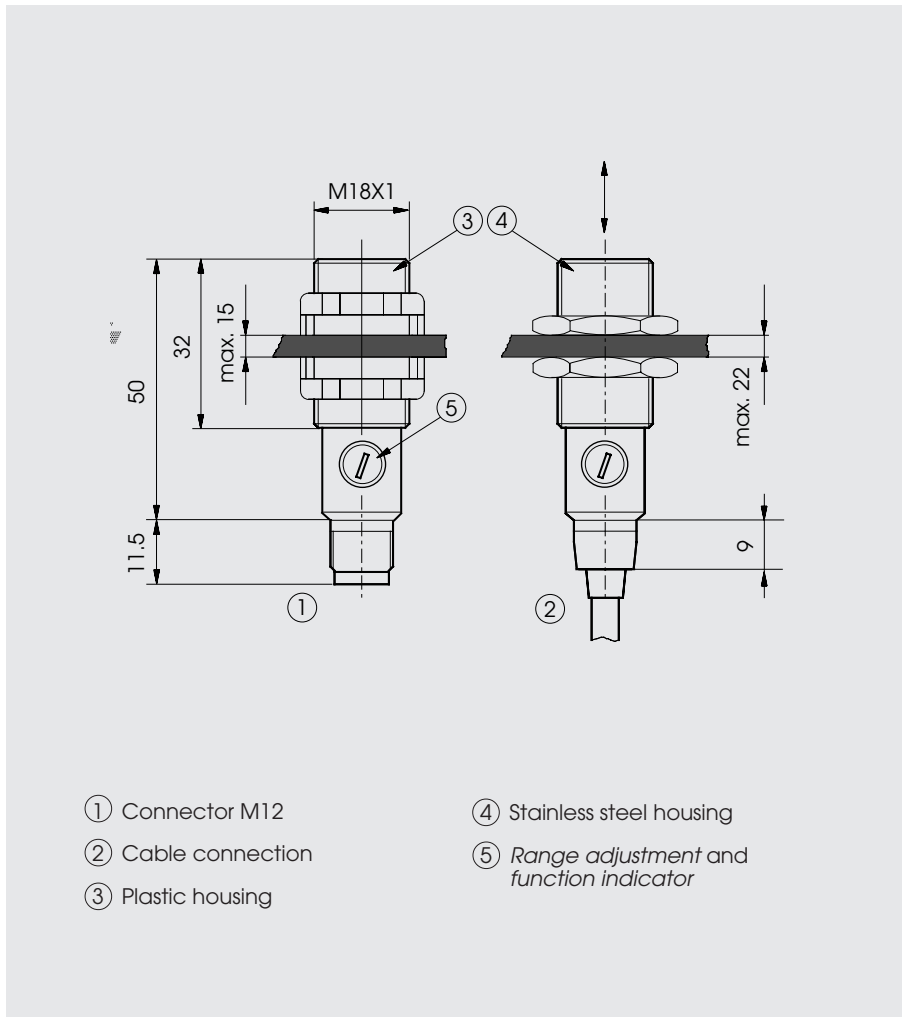
10...30 VDC

NPN / PNP
light-on and
dark-on output

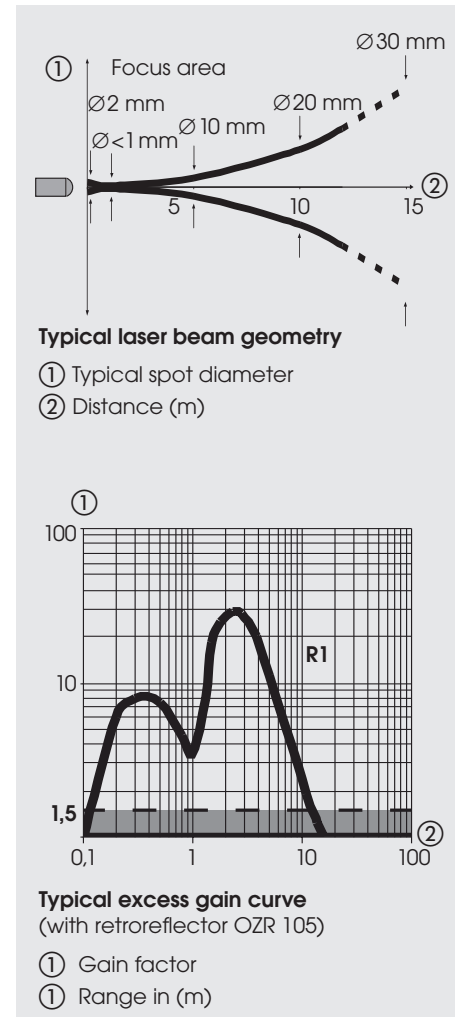


M1LP

Dimensions (50 mm, M18 x 1)



Optical diagrams



Wiring diagram

