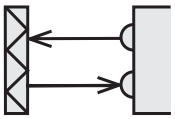
Retro-Reflective Photoelectric Sensor

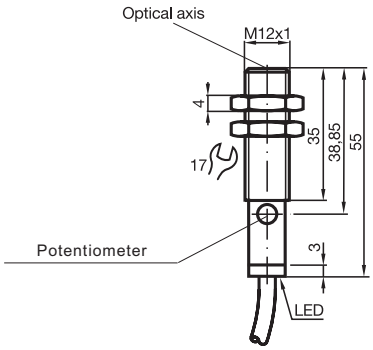
OBS1000-12GM55- □ *1- □ *2



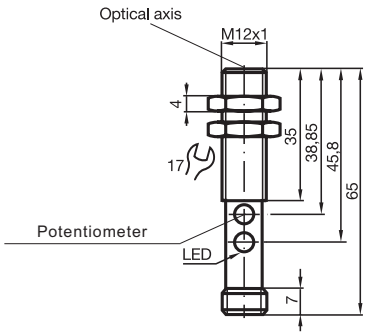
1 m

Features

- 1000 mm adjustable sensing range
- Light/dark ON wiring dependent
- Visible red light
- Polarising filter
- Protection class IP 67
- Reflector supplied



Cable design



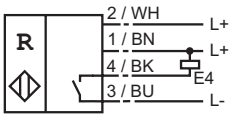
Plug design M12 x 1 (-V1)

Reflectors, cable sockets, mounting aids etc. see "Accessories" section

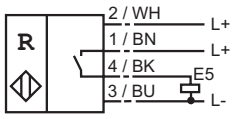
e. g. cable sockets: V1-G-2M-PUR (straight)
V1-W-2M-PUR (angled)

Electrical connection

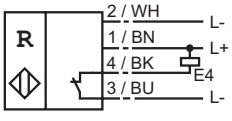
E4, N.O. (Dark ON):



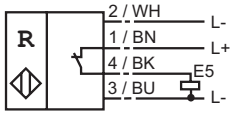
E5, N.O. (Dark ON):



E4, N.C. (Light ON):



E5, N.C. (Light ON):



*1 - electrical connection
*2 - mechanical connection

Date of issue 13.01.1998

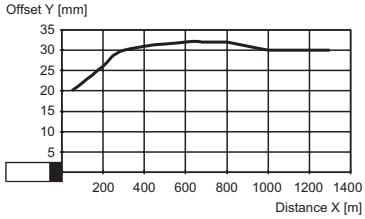
Subject to reasonable modifications due to technical advances. Copyright Pepperl+Fuchs, Printed in Germany
Pepperl+Fuchs Group · Tel.: Germany (6 21) 7 76-11 11 · USA (3 30) 4 25 35 55 · Singapore 7 79 90 91 · Internet http://www.pepperl-fuchs.com

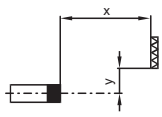
Technical data

Model number	**OBS1000-12GM55-E4** **OBS1000-12GM55-E4-V1** **OBS1000-12GM55-E5** **OBS1000-12GM55-E5-V1**
Sensing range	1000 mm
Reference card size	Retro-reflector 50 mm x 50 mm
Adjustment of the sensing range	with potentiometer
Detectable target	Opaque and mirror objects
Switch frequency	700 Hz
ON delay	0.7 ms
Readiness delay	25 ms
Distance hysteresis	≤ 10 %
Operating mode	Light/dark ON wiring dependent (WH)
Indicator LED yellow	Switch status
Light source	Red light 660 nm
Ambient light limit	Sunlight ≤ 20 000 Lux Halogen light ≤ 5 000 Lux
Operating temperature	248 Kelvin ... 328 Kelvin (-25 °C ... +55 °C)
Storage temperature	233 Kelvin ... 343 Kelvin (-40 °C... +70 °C)
Electrical data	
Rated operational voltage	10 V DC ... 30 V DC, ripple 10 $\%_{SS}$
Current consumption	≤ 20 mA
Switch output	E4: npn, N.O./N.C. E5: pnp, N.O./N.C.
Rated operational current	300 mA, circuit/overload proof
Voltage drop	≤ 3 V
Mechanical data	
Protection class to IEN 60 529	IP 67
Optical system material	2 lens system polycarbonate, Polarising filter
Allowable shock- and	b ≤ 30 g , T ≤ 1 ms
Vibration resistance	f ≤ 55 Hz , a ≤ 1 mm
Connection type	2 m, PVC - cable, 4 x 0.14 mm^2 / V1 plug connector
Housing	Nickel plated brass
Material front lens	PMMA
Weight	15 g
Conforms to	EN 60 947-5-2

Characteristic response curve

Permissible distance (offset) between optical axis and retro-reflector.





Date of issue 13.01.1998

Copyright Pepperl+Fuchs, Printed in Germany