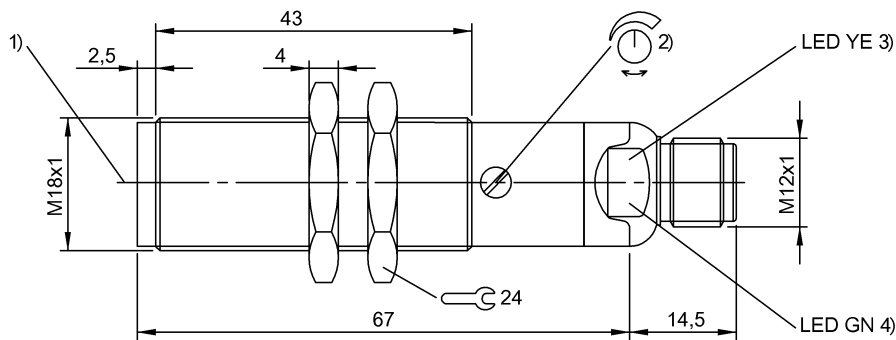




1) Optical axis, 2) Sn, 3) Output function, 4) stability



Basic features

Approval/Conformity	CE cULus EAC WEEE
Basic standard	IEC 60947-5-2
Principle of operation	Photoelectric sensor
Series	18M
Style	Cylinder Straight optics

Display/Operation

Adjuster	Potentiometer 270°
Display	Output function- LED yellow LED green: Power
Setting	Sensitivity (Sn)

Electrical connection

Connection	Connector, M12x1-Male, 4-pin
Polarity reversal protected	yes
Short-circuit protection	yes

Electrical data

No-load current I_0 max. at U_e	35 mA
Operating voltage U_b	10...30 VDC
Protection class	II
Rated insulation voltage U_i	75 V DC
Rated operating current I_e	100 mA
Rated operating voltage U_e DC	24 V
Ripple max. (% of U_e)	8 %
Switching frequency	1500 Hz
Turn-off delay t_{off} max.	0.33 ms
Turn-on delay t_{on} max.	0.33 ms
Voltage drop U_d max. at I_e	2 V

Environmental conditions

Ambient temperature	-10...50 °C
EN 60068-2-27, Shock	Half-sinus, 50 gn, 500 ms, 3x3
EN 60068-2-6, Vibration	10...55 Hz, amplitude 0.5 mm, 3x30 min
IP rating	IP67

Interface

Switching output	PNP normally closed (NC) PNP normally open (NO) Pins 4-2
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Material

Housing material	Brass, nickel-plated
Material sensing surface	PMMA
Surface protection	nickel-plated

Mechanical data

Dimension	Ø 18 x 81.5 mm
Mounting part	Nut M18x1
Tightening torque max.	22 Nm

Optical features

Ambient light max.	3000 Lux
Average power Po max.	390 µW
Blind zone	100 mm
Laser class per IEC 60825-1	1
Light type	Laser red light
Polarizing filter	yes
Principle of optical operation	Retroreflective sensor
Pulse duration t max.	6.0 µs
Pulse frequency	25 kHz
Switching function, optical	Light-on dark-on
Wave length	650 nm

Range/Distance

Range	0...16 m
Rated operating distance Sn	16 m, Adjustable

Remarks

For additional information, refer to user's guide.

Polarizing filters prevent spurious switching due to reflecting and shiny parts.

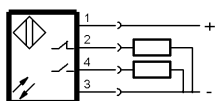
Order accessories separately.

Actuation object (target): gray card, 200 x 200, 90 % remission, lateral approach, approach direction vertical to lens axis plane.

Connector Drawings



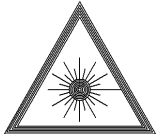
Wiring Diagrams (Schematic)



Opto Symbols



Warning Symbols



LASER CLASS 1 per IEC 60825-1