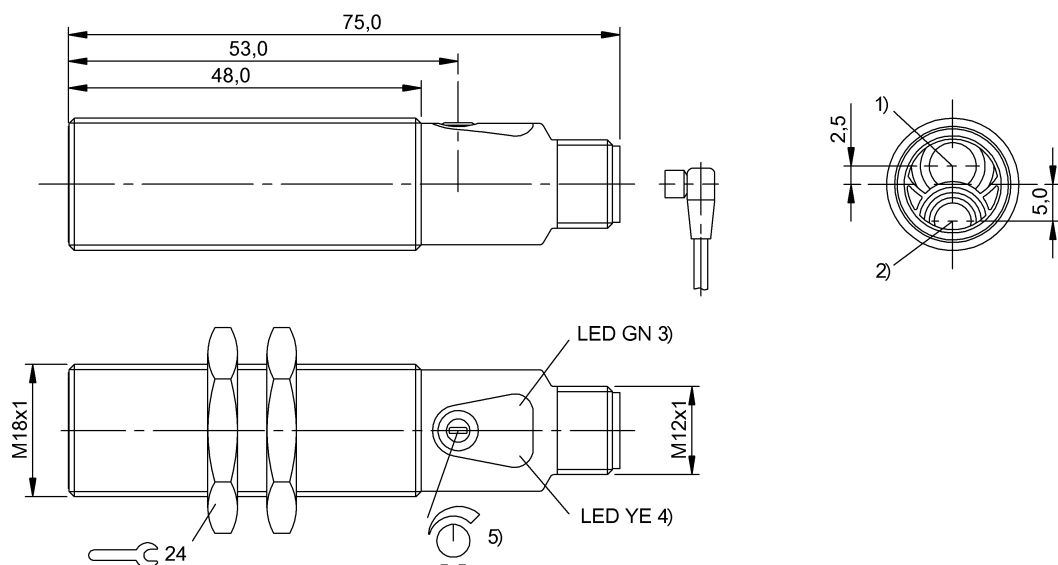




1) Optical axis receiver 2) Optical axis emitter 3) Operating voltage 4) Light reception/limit area 5) Sn



Display/Operation

Adjuster	Potentiometer 270°
Setting	Rated switching distance (Sn)

Electrical connection

Connection	Connector, M12x1-Male, 4-pole
Contact, surface protection	Gold plated
Protection against device mix-ups	yes
Short-circuit protection	yes

Electrical data

Contamination scale	3
Load capacitance max. at Ue	0.1 µF
No-load current I ₀ max. at Ue	30 mA
Operating voltage U _b	10...30 VDC
Polarity reversal protected	yes
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
Ready delay t _v max.	20 ms
Residual current I _r max.	30 µA
Residual ripple max. (% of U _e)	15 %
Switching frequency	800 Hz
Turn-off delay t _{off} max.	1.25 ms
Turn-on delay t _{on} max.	1.25 ms
Utilization category	DC-13
Voltage drop U _d max. at I _e	2.5 V

Environmental conditions

Ambient temperature	-5...55 °C
EN 60068-2-27, Shock	Half-sinus, 30 gn, 11 ms, 3x6
EN 60068-2-6, Vibration	10...55 Hz, amplitude 1 mm, 3x30 min
IP rating	IP67

Functional safety

MTTF (40 °C)	82 a
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General data

Approval/Conformity	cULus CE
Basic standard	IEC 60947-5-2
Principle of operation	Photoelectric Sensor
Scope of delivery	2x nut M18x1 User manual
Series	18M
Style	Cylinder Straight optics

Material

Housing material	Brass
Housing material, surface protection	nickel plated
Material sensing surface	Glass, AR coated
Surface protection	nickel plated

Mechanical data

Dimension	Ø 18 x 75 mm
Fastening detail	Nut M18x1

Tightening torque max. 15 Nm
30 Nm

Optical data

Ambient light max. 5000 Lux
Beam characteristic Divergent
LED group per IEC 62471 Exempt Group
Light type LED Infrared
Principle of optical operation Diffuse sensor, energetic
Switching function optical Dark-on
Light-on
Wave length 850 nm

Output/Interface

Switching output NPN Normally closed (NC)
NPN Normally open (NO) (Pins 4-2)

Range/Distance

Hysteresis H max. (% of Sr) 10.0 %
Range 1...800 mm
Rated operating distance Sn 800 mm, Adjustable
Temperature drift max. (% of Sr) 10 %

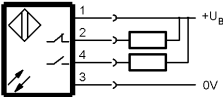
Remarks

Order accessories separately.
For additional information, refer to users guide.
Reference object (target): gray card, 200 x 200, 90 % remission, axial approach.
The sensor is functional again after the overload has been eliminated.
For further information on MTTF/B10d, please refer to the MTTF / B10d Certificate.
Specification of the MTTF value and the B10d value do not represent any binding quality and/or life expectancy guarantees.

Connector view



Wiring Diagram



Symbols for Optoelectronic Sensors

