

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



IND. CONT. EQ.
 81U2
 Class 2 Type 1

Display/Operation

Adjuster	Potentiometer 270°
Display	LED green: Power LED yellow: Light received
Setting	Rated switching distance (Sn)

Electrical connection

Connection	Connector, M12x1 connector, 4-pin
Contact, surface protection	Gold plated
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

Electrical data

Load capacitance max. at Ue	0.2 µF
Operating voltage Ub	10...30 VDC
Protection class	II
Rated insulation voltage Ui	75 V DC
Rated operating current Ie	100 mA
Rated operating voltage Ue DC	24 V
Residual current Ir max.	30 µA
Ripple max. (% of Ue)	15 %
Switching frequency	800 Hz
Turn-off delay toff max.	0.63 ms
Turn-on delay ton max.	0.63 ms
Utilization category	DC -13
Voltage drop Ud max. at Ie	2.5 V

Environmental conditions

Ambient temperature	-5...55 °C
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Contamination scale	3
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
Protection degree	IP67

Functional safety

MTTF (40 °C)	1208 a
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General data

Approval/Conformity	CE cULus WEEE
Basic standard	IEC 60947-5-2
Principle of operation	Photoelectric sensor
Series	18MR
Style	Cylinder Optics 90°

Material

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

Mechanical data

Dimension	Ø 18 x 92 mm
Mounting	Nut M18x1
Tightening torque max.	15 Nm

Optical data

Ambient light max.	10000 Lux
Beam characteristic	Divergent
Light type	LED, red light
Principle of optical operation	Through-beam sensor (receiver)
Switching function, optical	Light/dark switching
Wave length	645 nm

Range/Distance

Range	0...20 m
Rated operating distance Sn	20 m

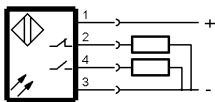
For further information about the MTTF and B10d see MTTF / B10d certificate

Indication of the MTTF- / B10d value does not represent a binding composition and/or life expectancy assurance; these are simply experiential values with no warranty implications. These declared values also do not extend the expiration period for defect claims or affect it in any way.

Connector view



Wiring Diagram



Symbols for Optoelectronic Sensors

