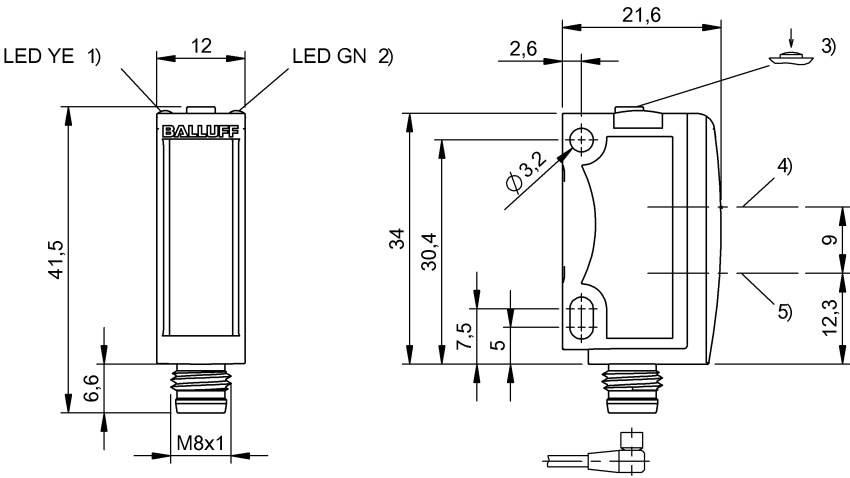




1) Output function, 2) Operating voltage, 3) Sn, light/dark, 4) Optical axis receiver, 5) Optical axis emitter



Basic features

Approval/Conformity	CE UKCA cULus WEEE
Basic standard	IEC 60947-5-2, IEC 60947-5-7
Principle of operation	Photoelectric distance sensor
Series	6K
Style	Square Connection 90°

Display/Operation

Adjuster	button
Display	LED green: Power LED yellow: Output active
Setting	Various setting options for service and process data via IO-Link Analog value output mode Meas.field limits Switching output Q

Electrical connection

Connection	Connector, M8x1-Male, 4-pin
Polarity reversal protected	yes
Short-circuit protection	yes

Electrical data

Input function	Key disable on/off Same function as button
No-load current I_o max. at U_e	30 mA
Operating voltage U_b	13...30 VDC
Protection class	II
Rated operating current I_e	100 mA
Rated operating voltage U_e DC	24 V
Ripple max. (% of U_e)	10 %
Switching frequency	1000 Hz
Turn-off delay t_{off} max.	0.5 ms
Turn-on delay t_{on} max.	0.5 ms
Voltage drop U_d max. at I_e	2.4 V

Environmental conditions

Ambient temperature	-20...60 °C
EN 60068-2-27, Shock	Half-sinus, 30 g_n , 11 ms, 3x6
EN 60068-2-6, Vibration	10...55 Hz, amplitude 0.5 mm, 3x30 min
IP rating	IP67, IP69
Storage temperature	-20...80 °C

Functional safety

MTTF (40 °C)	339 a
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Interface

Analog output	Analog, voltage 1...10 V/3 mA
Interface	IO-Link
Switching output	PNP/NPN/Auto-Detect normally open/normally closed (NO/NC)

Material

Housing material	ABS
Material sensing surface	PMMA

Mechanical data

Dimension	12 x 34 x 21.6 mm
Mounting part	Screw M3

Optical features

Ambient light max.	5000 Lux
Beam characteristic	Focused
Laser class per IEC 60825-1	1
Light spot size	1.5 x 1.5 mm at 80 mm
Light type	Laser red light
Principle of optical operation	Triangulation
Pulse duration t max.	3.75 µs
Pulse frequency	4.5 kHz
Pulse power Pp max.	2.5 mW
Switching function, optical	Light/dark switching
Wave length	632 nm

Range/Distance

Distance deviation 18 % max. (% of Sr)	4 %
Hysteresis H max. (% of Sr)	4 %
Non-linearity max.	±250 µm
Range	20...100 mm
Rated operating distance Sn	100 mm, Adjustable
Repeat accuracy	0.25 mm
Resolution	≤ 0.12 mm

Remarks

The sensor is functional again after the overload has been eliminated.
Reference object (target): gray card, 100 x 100, 90 % remission, axial approach.
Only for applications per NFPA 79 (machines with a supply voltage of maximum 600 V). Use an R/C (CYJV2) cable with suitable properties for attaching the device.
For additional information, refer to user's guide.
Order accessories separately.
Do not press key using a pointed tool.
When using as a UL product the ambient temperature Ta max. must not exceed 50°C.
Technical data are valid after warmup time> 10 minutes
For more information about 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 Drawings



Wiring Diagrams (Schematic)



Opto Symbols

