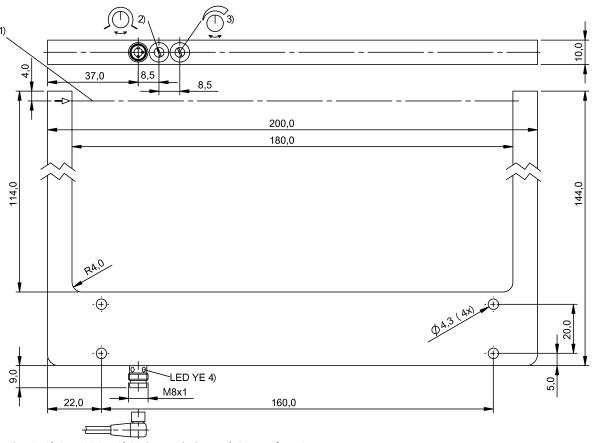
BALLUFF



1) Optical axis, 2) Sensitivity, 3) Light-on/dark-on, 4) Output function









Basic features

Approval/Conformity CE UKCA cULus WEEE IEC 60947-5-2 Basic standard Principle of operation Fork sensor Series Α Fork Style Straight connection Trademark Global

Display/Operation

Adjuster Potentiometer 270° (2x) Display Output function- LED yellow Setting Sensitivity Light-on/dark-on

Electrical connection

Connection Connector, M8x1-Male, 3-pin Contact, surface protection Gold plated Polarity reversal protected yes Protection against device mix-ups yes Short-circuit protection yes

Photoelectric Sensors

BGL 180A-001-S49 Order Code: BGL000J

BVLLUFF

Painted

Electrical data

Load capacitance max. at Ue 1μF No-load current lo max. at Ue 35 mA 10...30 VDC Operating voltage Ub Rated insulation voltage Ui 75 V DC Rated operating current le 200 mA 24 V Rated operating voltage Ue DC 200 ms Ready delay tv max. Residual current Ir max. 50 µA Ripple max. (% of Ue) 10 % Switching frequency 1500 Hz Turn-off delay toff max. 0.333 ms Turn-on delay ton max. 0.333 ms Utilization category DC -13 Voltage drop Ud max. at le 3 V

Interface

Switching output PNP normally open/normally closed (NO/NC)

Material

 Housing material
 Zinc, Die casting, Painted

 Material sensing surface
 Glass

Mechanical data

Surface protection

 Dimension
 10 x 200 x 153 mm

 Fork opening
 180 mm

 Mounting part
 Screw M4

Optical features

Ambient light max. 5000 Lux Beam characteristic Divergent Ø 2.5 mm Light exit Light spot size Light type LED, red light Principle of optical operation Through-beam sensor Smallest part typ. 0.60 mm Switching function, optical dark-on/light-on Wave length 636 nm

Range/Distance

 $\label{eq:hysteresis H max.} \text{ 0.2 mm}$ $\text{Repeat accuracy lateral max.} \text{ 80 } \mu\text{m}$

Environmental conditions

Ambient temperature -10...60 °C
EN 60068-2-27, Shock Half-sinus, 30 g_n, 11 ms, 3x6
EN 60068-2-6, Vibration 55 Hz, amplitude 1 mm, 3x30 min
IP rating IP67

Functional safety

MTTF (40 °C) 300 a

Remarks

Order accessories separately.

For additional information, refer to user's guide.

Factory default setting for switching output: Normally open.

Reference object (target): Steel plate, 50 x 50, thickness 0.5 mm, lateral approach.

The sensor is functional again after the overload has been eliminated.

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 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



Photoelectric Sensors
BGL 180A-001-S49
Order Code: BGL000J

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Wiring Diagrams (Schematic)

Opto Symbols		
→		

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