

1) Output function, 2) Operating voltage, 3) Optical axis



Basic features

Approval/Conformity	CE UKCA cULus WEEE
Basic standard	IEC 60947-5-2
Principle of operation	Angle sensor
Series	A
Style	Angle Connection 45°

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

Display/Operation

Display	Output function- LED yellow LED green: Power
----------------	---

Photoelectric Sensors
BWL 4241A-001-S49
Order Code: BWL001K



Electrical data

Load capacitance max. at Ue	0.5 µF
No-load current I _o max. at Ue	35 mA
Operating voltage U _b	10...30 VDC
Output resistance R _a	33.0 kOhm
Rated insulation voltage U _i	75 V DC
Rated operating current I _e	200 mA
Rated operating voltage U _e DC	24 V
Ready delay t _v max.	100 ms
Residual current I _r max.	50 µA
Ripple max. (% of U _e)	15 %
Switching frequency	1000 Hz
Turn-off delay t _{off} max.	0.5 ms
Turn-on delay t _{on} max.	0.5 ms
Utilization category	DC -13
Voltage drop U _d max. at I _e	2.5 V

Environmental conditions

Ambient temperature	-10...60 °C
Contamination scale	3
EN 60068-2-27, Shock	Half-sinus, 100 g _n , 2 ms, 3x8000 Half-sinus, 30 g _n , 11 ms, 3x6
EN 60068-2-6, Vibration	10...2000 Hz, amplitude 1 mm, 30 g _n , 3x5 h
IP rating	IP67

Remarks

The sensor is functional again after the overload has been eliminated.
 For additional information, refer to user's guide.
 Order accessories separately.
 Reference object (target): Steel plate, 50 x 50, thickness 0.5 mm, lateral approach.

Interface

Switching output	PNP normally open (NO)
------------------	------------------------

Material

Housing material	1.4408 stainless steel, Powder coated
Material sensing surface	PMMA
Surface protection	Powder coated

Mechanical data

Dimension	10 x 66 x 110 mm
Mounting part	Screw M6

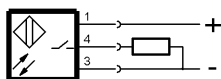
Optical features

Ambient light max.	5000 Lux
Beam characteristic	Divergent
Light spot size	Ø 3.0 mm Light exit
Light type	Infrared
Principle of optical operation	Through-beam sensor
Switching function, optical	dark-on
Wave length	880 nm

Connector Drawings



Wiring Diagrams



Photoelectric Sensors
BWL 4241A-001-S49
Order Code: BWL001K

BALLUFF

Opto Symbols

