

1) Output function/Error, 2) Output mode, recvr., L/D, 3) Error, 4) Output curve rising/falling, 5) Pneumatics connection PK-3



Basic features

Additional features	Contamination compensation to up to 10% loss in intensity.
Approval/Conformity	CE UKCA WEEE
Basic standard	IEC 60947-5-2
Principle of operation	Fork sensor
Series	C
Style	Fork Straight connection

Display/Operation

Adjuster	Key (2x)
Display	Output function- LED yellow Error - 2 x LED yellow, flashing
Setting	Switching/error output Output curve rising/falling Sensitivity Light-on/dark-on

Electrical connection

Connection	Connector, M12x1-Male, 4-pin
Polarity reversal protected	yes
Short-circuit protection	yes

Electrical data

Load capacitance max. at Ue	2.2 µF
Load resistance RL min. (Analog V)	2 kOhm
No-load current Io max. at Ue	30 mA
Operating voltage Ub	18...30 VDC
Rated operating current Ie	100 mA
Rated operating voltage Ue DC	24 V
Ready delay tv max.	100 ms
Ripple max. (% of Ue)	10 %
Switching frequency	500 Hz
Turn-off delay toff max.	1 ms
Turn-on delay ton max.	1 ms
Utilization category	DC -13
Voltage drop Ud max. at Ie	1 V

Environmental conditions

Ambient temperature	-5...55 °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	IP65

Interface

Analog output	Analog, voltage 0...10 V
Supplementary output	Error output PNP
Switch function, supplementary output	NO/NC
Switching output	PNP normally open/normally closed (NO/NC)

Material

Housing material	Aluminium, Anodized
Material sensing surface	PMMA
Surface protection	Anodized

Mechanical data

Dimension	18 x 100 x 93.5 mm
Fork opening	50 mm
Mounting part	Screw M5

Optical features

Ambient light max.	5000 Lux
Beam characteristic	Divergent
LED group per IEC 62471	Exempt Group
Light beams, number	10
Light spot size	3 x 28 mm Light exit
Light type	LED, red light
Principle of optical operation	Through-beam sensor
Special optical feature	Light array
Switching function, optical	dark-on/light-on
Wave length	633 nm

Range/Distance

Active length AL 1	28 mm
Hysteresis H max.	0.4 mm
Repeat accuracy lateral max.	150 µm
Resolution	≤ 0.08 mm

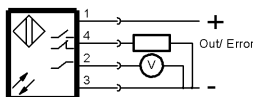
Remarks

For additional information, refer to user's guide.
 Order accessories separately.
 Do not press key using a pointed tool.
 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.

Connector Drawings



Wiring Diagrams (Schematic)



Photoelectric Sensors
BGL 50C-005-S4
Order Code: BGL003C

BALLUFF

Opto Symbols

