

BALLUFF

Laser Diffuse Sensor BOS 26K

... with ultra-high accuracy





Laser diffuse sensor BOS 26K – with extremely high accuracy

A new problem solver has been added to our BOS 26K family of sensors. This laser version is designed for especially demanding applications.

Features

- Extremely high switching accuracy
- Extremely effective background suppression
- Extremely low hysteresis of < 50 µm
- Clearly visible light spot allows precise alignment of the sensor

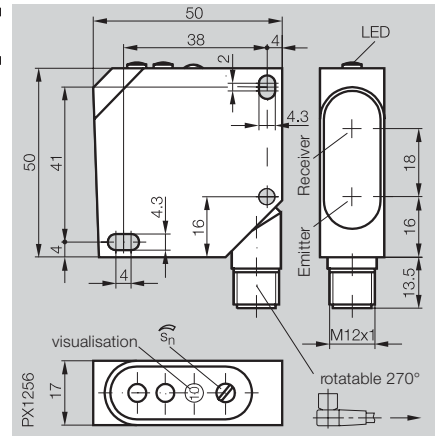
Applications

Thanks to their precise background suppression and extremely low hysteresis, these sensors are particularly suited for detecting objects directly against a background.

Diffuse with background suppression

Range

40...60 mm



Diffuse

PNP	40...60 mm	HGA
NPN	40...60 mm	HGA

Electrical data

Supply voltage U_B	10...30 V DC
Ripple	10 %
No-load supply current I_0 max.	≤ 50 mA
Switching output	PNP- or NPN-Transistor
Output current	200 mA
Switching type	light-/dark-on (push-pull)
Voltage drop U_d at I_0	≤ 2.4 V
Settings	2-turn potentiometer with indicators

Optical data

Emitter, light type	laser, red light
Wavelength	670 nm
Laser class	2
Light spot diameter	see table
Distance hysteresis (18 %/18 %)	< 50 µm
Gray value shift (90 %/18 %)	1 %

Indicators

Power-on indicator	LED green
Output function indicator	LED yellow
Stability indicator	LED red

Time data

Response time	0.2 ms
Frequency of operating cycles f	2.5 kHz

Mechanical data

Dimensions	50×50×17 mm
Connection	M12 connector, 4-pin
Housing material	impact-resistant ABS
Optical surface	PMMA
Weight	40 g

Ambient data

Degree of protection per IEC 60529	IP 67
Polarity reversal protected	yes
Short circuit protected	yes
Ambient temperature range T_a	-20...+45 °C
Ambient light rejection	EN 60947-5-2

Diffuse values referenced to Kodak gray card 90 % reflective.

Light spot diameter [mm]

Range	40	45	50	55	60
Light spot Ø	0,25	0,7	1,1	1,5	1,8



Connector orientation



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