

The **BOS 26K** series with its 50 × 50 × 17 mm rectangular housings represents the logical development of an already successful design: a uniform housing for all sensor types used. This makes the BOS 26K series compatible with series BOS 25K and complements it with new kinds of sensors with special specifications and features:

- Laser sensors
- New, high-performance red light and infrared sensors
- Additional optical and mechanical functions

Features

Features common to all sensors in the BOS 26K series include:

- Rotatable M12 connector
- Precise setting mechanism with two revolutions (720°)
- Clear character display for sensitivity setting
- Switching state and contamination display visible any direction
- Optimal design to resist contamination of the optics
- Complementary PNP or NPN output
- Approvals



Applications

The BOS 26K series is ideally suited wherever greater demands are made in terms of precision, handling, high sensing distance or range, as well as small-parts detection.

- Precise small part detection
- Positioning tasks
- Detail checking
- Conveyor inspection (HGA)
- Conveyor technology
- Automation
- Handling equipment, robotics
- Machine building
- Specialty machines



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Red light- and infrared light sensors

BOS 26K...-1HC diffuse sensor with background suppression. Sensing distance 30...300 mm. Main advantages include the visible red light spot and the extended sensing range with the finest optical specifications.

The **BOS 26K...-1IE** offers extended sensing range from 150...600 mm. Uses IR light.

Retroreflective with autocollimation **BOS 26K...-1QE**. Uses a single-eye optical design, i. e., emitter and receiver beam coincide geometrically. Range is 5.5 m. The thru-beam works with polarized red light and offers increased precision, range and switching frequency compared with traditional systems.



Series	
Diffuse	sensing range
Retroreflective	sensing range

Diffuse			
	PNP O/●	30...300 mm	HGA, red light
	NPN O/●	30...300 mm	HGA, red light
	PNP O/●	150...600 mm	HGA, infrared light
	NPN O/●	150...600 mm	HGA, infrared light
Retroreflective			
	PNP O/●	0...5.5 m	red light, polariz. filter, autocollimation
	NPN O/●	0...5.5 m	red light, polariz. filter, autocollimation

Supply voltage U_B
Voltage drop U_d at I_e
Rated isolation voltage U_i
Rated operational current I_e
No-load supply current I_0 max.
Protected against polarity reversal
Short circuit protected
Permissible capacitance
On/off delay (Standard)
Frequency of operating cycles f (Standard)
Utilization category
Output
Output function
Permissible ambient light
Sensitivity/range adjustment
Function indicator (receiver sees light)
Status/contamination indication
Ambient temperature range T_a
Degree of protection per IEC 60529
Insulation class
Housing material
Material of sensing face
Connection

Recommended connector
Weight
Emitter type
Light spot diameter
Hysteresis (18 %/18 %)
Gray value shift (90 %/18 %)
O/● = Light-on/dark-on

Diffuse values referenced to Kodak gray card with 90 % reflection. Retroreflective values referenced to R1 reflector.

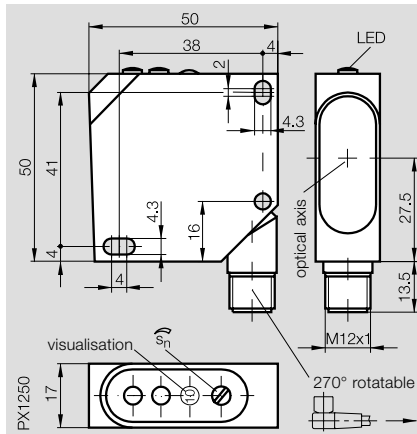
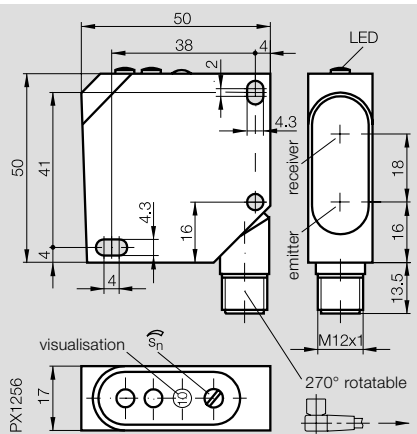
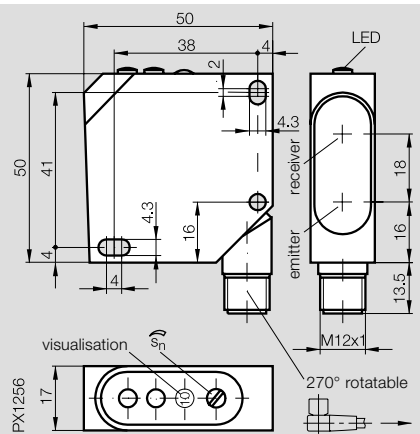
For characteristics and accessories see page 2.1.56.



BOS 26K
30...300 mm

BOS 26K
150...600 mm

BOS 26K
0...5.5 m



BOS 26K-PA-1HC-S 4-C
BOS 26K-NA-1HC-S 4-C

BOS 26K-PA-1IE-S 4-C
BOS 26K-NA-1IE-S 4-C

BOS 26K-PA-1QE-S 4-C
BOS 26K-NA-1QE-S 4-C

10...30 V DC
≤ 2.4 V
250 V AC
200 mA
≤ 35 mA

10...30 V DC
≤ 2.4 V
250 V AC
200 mA
≤ 70 mA

10...30 V DC
≤ 2.4 V
250 V AC
200 mA
≤ 30 mA

yes

yes

yes

yes

yes

yes

0.33 µF

0.33 µF

0.33 µF

0.5 ms

0.625 ms

0.5 ms

1000 Hz

800 Hz

1000 Hz

DC 13

DC 13

DC 13

PNP/NPN

PNP/NPN

PNP/NPN

O/●

O/●

O/●

5000 lux

5000 lux

5000 lux

2-turn spindle drive with display

2-turn spindle drive with display

2-turn potentiometer with display

LED yellow

LED yellow

LED yellow

LED green/red

LED green/red

LED green/red

-20...+60 °C

-20...+60 °C

-20...+60 °C

IP 67

IP 67

IP 67

ABS impact resistant

ABS impact resistant

ABS impact resistant

PMMA

PMMA

PMMA

connector

connector

connector

BKS-B 19/BKS-B 20

BKS-B 19/BKS-B 20

BKS-B 19/BKS-B 20

40 g

40 g

40 g

red 660 nm

infrared 880 nm

red 660 nm

8 × 8 mm at $s_n = 200$ mm

20 × 20 mm at $s_n = 400$ mm

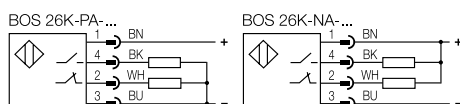
≤ 5 %

≤ 5 %

≤ 8 %

≤ 12 %

Wiring diagrams



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