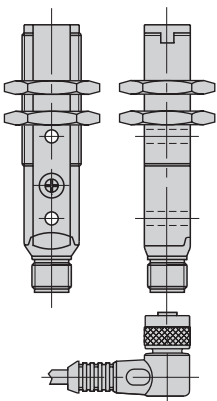


The **BOS 18KF** fiber optic base unit represents a further addition to the Balluff standard series. Ease of operation and installation make this sensor a highlight, with the practical feature of DIN rail mounting.

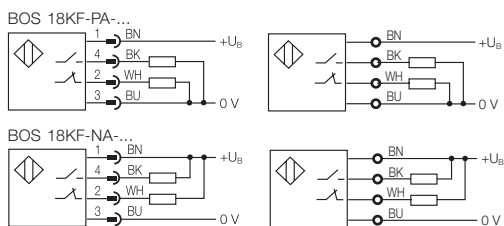
Features

- Sensitivity setting with a 270° potentiometer
- Cover nut for fiber optic cable adapting

Connector orientation



Wiring diagrams



Recommended accessories

please order separately



Mounting clamp
BOS 18,0-KB-1

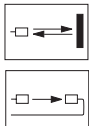
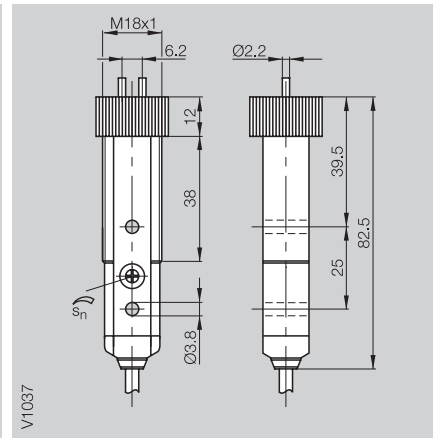
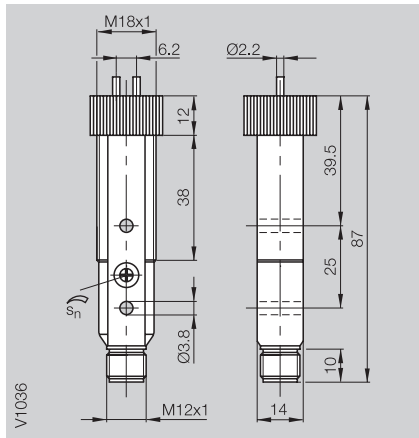


Mounting bracket
BES 18-HW-1



Connector
BKS-_ 19/BKS-_ 20

Series	BOS 18KF	BOS 18KF
Plastic fiber optic base unit	for plastic fiber optics with outside diameter 2.2 mm	for plastic fiber optics with outside diameter 2.2 mm
Sensing distance/range	depends on fiber optics	depends on fiber optics



Base unit

PNP	BOS 18KF-PA-1FR-S4-C	BOS 18KF-PA-1FR-C-02
NPN	BOS 18KF-NA-1FR-S4-C	BOS 18KF-NA-1FR-C-02
Electrical data		
Supply voltage U_B	10...30 V DC	10...30 V DC
Ripple	≤ 2 V	≤ 2 V
No-load supply current I_0 max.	≤ 35 mA	≤ 35 mA
Switching output	PNP- or NPN-Transistor	PNP- or NPN-Transistor
Switching type	Light- and dark-on	Light- and dark-on
Output current	100 mA	100 mA
Voltage drop U_d at I_0	≤ 2 V	≤ 2 V
Settings	Potentiometer 270°	Potentiometer 270°
Optical data		
Emitter, light type	LED, red light	LED, red light
Wavelength	660 nm	660 nm
Light spot diameter	depends on range/sensing distance	depends on range/sensing distance
Time data		
Response time	0.5 ms	0.5 ms
Switching frequency f	1 kHz	1 kHz
Indicators		
Output function indicator	LED yellow	LED yellow
Stability indicator	LED green	LED green
Mechanical data		
Connection	M12 connector, 4-pin	2 m cable, PVC
No. of wires \times cross-section		4 \times 0.14 mm ²
Housing material	PBT	PBT
Lens material	depends on fiber optic cable	depends on fiber optic cable
Weight	25 g	75 g
Ambient data		
Degree of protection per IEC 60529	IP 67	IP 67
Polarity reversal protected	yes	yes
Short circuit protected	yes	yes
Ambient light rejection	EN 60947-5-2	EN 60947-5-2
Ambient temperature range T_a	-25...+55 °C	-25...+55 °C

2.2

2.3

Photoelectric sensors accessories page 2.3.2 ...

5

Connectors ... page 5.2 ...

There are basically two types of fiber optics: diffuse or through-beam. The diffuse models have an integrated emitter and receiver at the cable end. The through-beams use two separate cables.

It's easy to see why fiber optics are so commonly used: The variety of end configurations, with straight or angled light exit, flexible optical head or coaxial fibers, the various fiber diameters and the ability to trim them to the desired length.

Another plus

For the ultimate in flexibility, fiber optics for user assembly are also available: any desired combinations are possible with the trim-to-length duplex cable and various end fittings.

Applications

- Small parts detection
- For tight mounting spaces
- Checking small parts features
- Counting (e.g. counting drops)
- Precise parts positioning
- Handling and assembly
- Robotics

