

Technical Description

The SDS-10 series of photoelectric sensors incorporate the latest background suppression technology. They were developed specifically for industrial applications requiring precise range detection. The SDS-10 series can reliably detect any target regardless of color and background influences.

The SDS-10 series has modulated visible light emission with a small spot diameter that allows easy alignment even when detecting small objects.

The SDS-10 series is supplied with 10 to 30 Vdc, 200 mA PNP output and is available in normally open

and normally closed simultaneously. All sensors in this series are also short circuit protected. There is a sensitivity adjustment on all models to ensure simple setup. A yellow LED indicates the logic output state.

Two models are offered to guarantee maximum flexibility of the SDS-10 series:

- straight optic model
- 90° optic model.

Connection can be made through a 3m cable or M12 connector.

The SDS-10 photoelectric sensor series is contained in an 18mm cylindrical metal housing with an IP67 protection class rating.

Features

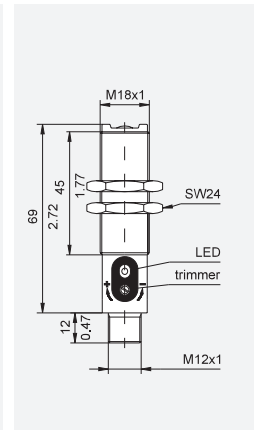
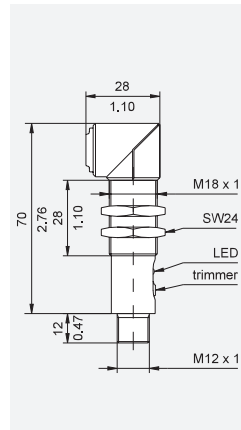
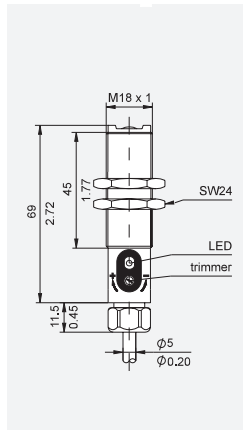
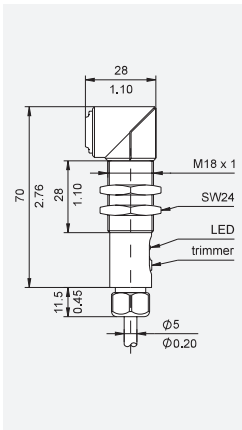
- Precision adjustable background suppression from 40 to 120 mm
- 10-30 Vdc Power Supply
- Red visible light emission
- Max. switching frequency 600Hz
- Straight or 90° optics
- Complementary switching output
- M12 connector or cable connection
- Metal housing - IP67

Applications

- Small object detection
- Level control
- Fast object detection
- Automatic machinery
- Automotive industry

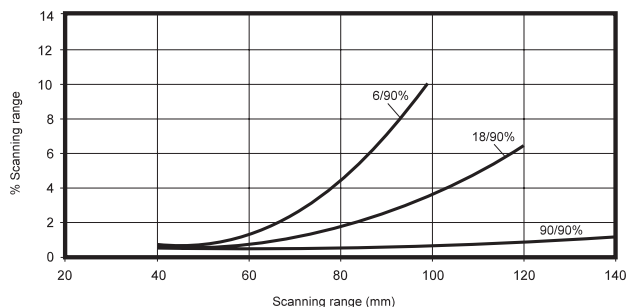


Housing size	90° with 2m cable	Straight with 2m cable	90° with m12 connector	Straight w/ M12 connector
Function	Background suppression	Background suppression	Background suppression	Background suppression
Operating distance	40 to 120mm	40 to 120mm	40 to 120mm	40 to 120mm



Ordering Code	BOS-SDS10-5-M12-35	BOS-SDS10-5-M12-30	BOS-SDS10-5-M12-37	BOS-SDS10-5-M12-32
Power supply	10 to 30 Vdc			
Ripple	3 Vpp			
Indicators	Yellow LED output state			
Output	Complementary PNP			
Load current	200 mA			
Response time	1 ms			
Saturation voltage	2.4 V			
Consumption	30 mA			
Ambient light rejection	3000 lux max. incandescent lamp 10,000 lux max. sun light			
Detection distance	Adjustable from 40 to 120 mm (18% gray Kodak paper)			
Spot dimensions (at 100 mm)	10 mm (diameter)			
Emission	Visible Red LED 660nm			
Operating frequency	600 Hz			
Housing material	Nickel plated brass			
Protection class	IP67			
Operating temperature	-20 to 60°C (-4 to 140°F)			
Storage temperature	-20 to 80°C (-4 to 176°F)			
Weight	100 g (3.53 oz)			
Connections	2 m cable; (4X 22AWG)		BKS-S19/BKS-S20	

Sensing Diagram



Connections

