

# Opto-electronic sensors SOOE

FESTO

Compact and  
flexible



 IO-Link

## All in one!

### Highlights

- Simple operation
- Quick commissioning
- Reliable and stable detection
- IO-Link®
- Low complexity, PNP and NPN in one device
- Attractive price/performance ratio

**With the SOOE you get all optical functions for object detection in an identical sensor housing. From through-beam to distance measuring, you benefit from the most innovative technologies and at the same time reduce device variety thanks to universal assembly.**

#### Parameterisation made easy

The operating and display concept is standardised for all SOOE sensors, with a pushbutton, a potentiometer and clearly visible LEDs. They can also be conveniently parameterised using IO-Link®.

#### Communication right down to sensor level

IO-Link® makes SOOE suitable for Industry 4.0, e.g. measuring function reserve, signal quality or operating hours. Throughput and quality are improved thanks to maintenance orders being initiated in good time, simplified troubleshooting and reduced downtimes.

#### The world's smallest distance sensors

The highly compact measurement core makes it possible for the first time to integrate precise distance measurement into extremely small sensors using Multi-Pixel Technology (MPT). LEDs or laser LEDs detect interrupted light paths and changes in light intensity on the sensor array and calculate exact distances using software algorithms, independently of colour and with minimal black/white difference.

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## Close to zero-error production

Sensors SOOE combine the strengths of LED and laser technology in one innovative product. Not only can they be used at temperatures from -40 °C to +60 °C, but they also have an extremely long service life. Thanks to the extremely precise light spot, even the smallest objects or features, e.g. notches or minimum height differences for marking the correct position,

can be detected quickly and reliably. This promotes the smooth running of automated processes, especially in systems where space is limited. It also helps ensure that only correctly positioned parts are transported onwards, while all others are separated out and reordered.

## Key benefits at a glance

### Interference immunity

- Precise object detection at a distance of 1 mm to 20 m
- Intelligent analysis of the distance information
- High insensitivity towards external light
- No mutual interference
- Reliable suppression of objects in the background
- Detection nearly independent of the target colour

### Reliability

- Functional even under changing conditions
- Good resistance to environmental influences
- Not influenced by reflective object surfaces

### Flexibility

- Optimum adaptation to applications with IO-Link® interface
- Wide range of operating modes in one sensor

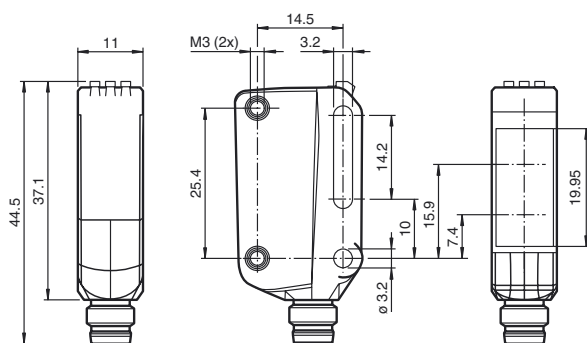
## Technical data

	SOOE
Setting options	IO-Link V 1.1, potentiometer, teach-in
Switching output	PNP/NPN (push-pull)
Operating voltage range [VDC]	10 ... 30
Laser protection class	Laser class 1
Electrical connection	M8x1, 3-pin
Degree of protection	IP65, IP67, IP69K
Certification certificate	c UL us Listed (OL)

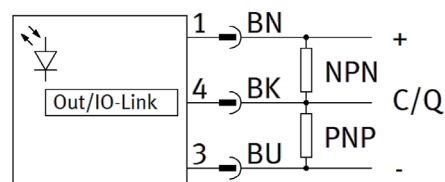
## Variants

Function	SOOE LED	SOOE laser
Diffuse sensor	•	
Diffuse sensor with background suppression	•	•
Through-beam sensor	•	•
Retro-reflective sensor	•	•
Retro-reflective sensor for transparent objects	•	
Distance sensor	•	•
Laser contrast sensor		•

## Dimensions



## Electrical connection



Wire colours to EN 60947-5-2