Sensors
Opto-electronic proximity sensors, M 18 x 1

Diffuse sensor/ fibre-optic unit
with integral transmitter and receiver, built-in protective circuit (short circuit proof) and LED
with integral cable:
Type SOE-RT/L-M18-PS-K-LED
with plug for angle socket:
Type SOE-RT/L-M18-PS-S-LED

with cable:
Type SOE-RT/L-M18-NS-K-LED
with plug for angle socket:
Type SOE-RT/L-M18-NS-S-LED

PNP

with cable:
Type SOE-RT/L-M18-NS-K-LED
with plug for angle socket:
Type SOE-RT/L-M18-NS-S-LED

NPN

Accessories:
Adapter Type SOE-LA-M18
Polymer optic cable
Type SOE-LK-RT-1000-4
SOE-LK-RT/2-2000-M5
SOE-LK-SE-1000-2
Glass fibre optic cable
Type SOE-LG-RT-500-M5
SOE-LG-SE-500-M5
Optic cables see sheet 2.319
Angle socket Type SEI-WD-TR
Operational status display
Adjustable stop Type SJA-...
Stop sleeve Type SJAH-...
see sheet 2.385

Diffuse sensor, type SOE-RT/L-M18-...-LED, can be used as fibre-optic unit with the aid of an adapter, type SOE-LA-M18 and the appropriate fibre-optic cable.
Contactless detection of objects is achieved by the fibre-optic unit's transmitter projecting a beam of pulsating red light, from the visible part of the spectrum. The light is conducted to the place of sensing via the transmitting fibre-optic cable which is attached to the fibre optic adapter at the sensing head.
Depending on the type of optical conductor, the fibre-optic unit can be used as through beam sensor or as diffuse sensor.

Used as through beam sensor:
With translucent, light permeable materials, the reduction in light beam attenuation can, within certain limits, be adjusted with the help of the potentiometer.

Used as diffuse sensor:
Depending on the reflectivity of the surface, the nominal switching gap (Sn) is reduced by taking a correction factor into account.

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Colour Identification:
br (1) = brown
blk (4) = black
bl (3) = blue

Order code | PNP output                     | NPN output                     | Part No./Type                | Medium          | Design                             | Mounting                   | Connection                  | Switching voltage | Residual ripple | Switching current | Switching capacity | Switching frequency | Response time | Droop-off time | Nominal switching gap (Sn) | Switching loop | Switching hysteresis | Reproducible switching accuracy | Degree of protection to DIN 40050 | Temperature range | Materials                      | Weight |
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<tbody>
<tr>
<td>31 341</td>
<td>SOE-RT/L-M18-PS-K-LED</td>
<td>31 342</td>
<td>31 732 SOE-LA-M18</td>
<td>Electric current</td>
<td>Opto-electronic proximity sensor</td>
<td>Flush mounting, M18 x 1 thread</td>
<td>3-wire cable, 2.5 m long</td>
<td>10 to 30 V DC</td>
<td>max. ± 10%</td>
<td>max. 200 mA</td>
<td>max. 6 W</td>
<td>max. 250 Hz</td>
<td>min. 1.5 ms optical influence</td>
<td>min. 2.5 ms optical influence</td>
<td>see sheet 2.379</td>
<td>see sheet 2.379</td>
<td>see sheet 2.379</td>
<td>IP 65</td>
<td>0 to +60 °C</td>
<td>Housing: brass nickel plated; Lens: acrylic glass</td>
<td>0.162 kg</td>
<td>0.082 kg</td>
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Type SOE-RT/L-M18-...K-LED

Type SOE-RT/L-M18-...S-LED

Adapter
Type SOE-LA-M18

Circuit diagram
Change-over switch function with PS and NS version

Used as through beam sensor:
No object:

Object present:

Used as diffuse sensor:
No object:

Object present:

Subject to change