

Diffuse sensor/ fibre-optic unit

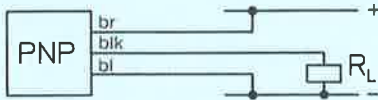
with integral transmitter and receiver,
built-in protective circuit (short circuit
proof) and LED

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



Accessories:

Adapter Type SOE-LA-M18

Polymer optic cable

Type SOE-LK-RT-1000-4

SOE-LK-RTS-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 SIE-WD-TR

Operational status display

Adjustable stop Type SJA-...

Stop sleeve Type SJAH-...

see sheet 2.385

with cable



with plug



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 (S_n) is reduced by taking a correction factor into account.

Colour identification

br (1) = brown

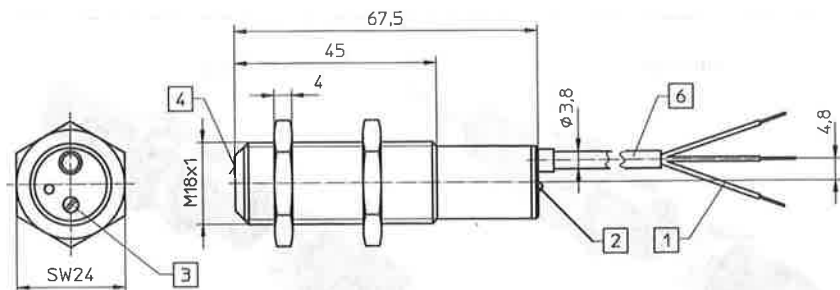
blk (4) = black

bl (3) = blue

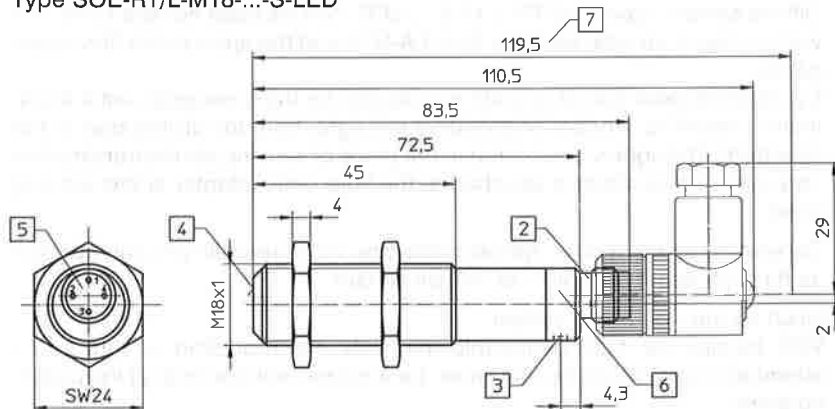


Order code	PNP output	31 341 SOE-RT/L-M18-PS-K-LED	31 343 SOE-RT/L-M18-PS-S-LED
	NPN output	31 342 SOE-RT/L-M18-NS-K-LED	31 344 SOE-RT/L-M18-NS-S-LED
Part No./Type	Adapter	31 732 SOE-LA-M18	
Medium		Electric current	
Design		Opto-electronic proximity sensor	
Mounting		Flush mounting, M18 x 1 thread	
Connection		3-wire cable, 2.5 m long	Plug connection for angle socket
Switching voltage		10 to 30 V DC	
Residual ripple		max. $\pm 10\%$	
Switching current		max. 200 mA	
Switching capacity		max. 6 W	
Switching frequency		max. 250 Hz	
Response time		min. 1.5 ms optical influence	
Drop-off time		min. 2.5 ms optical influence	
Nominal switching gap (S_n)		see sheet 2.379	
Switching loop		see sheet 2.379	
Switching hysteresis		see sheet 2.379	
Reproducible switching accuracy		see sheet 2.379	
Degree of protection to DIN 40050		IP 65	
Temperature range		0 to +60 °C	
Materials		Housing: brass nickel plated; Lens: acrylic glass	
Weight		0.162 kg	0.082 kg

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

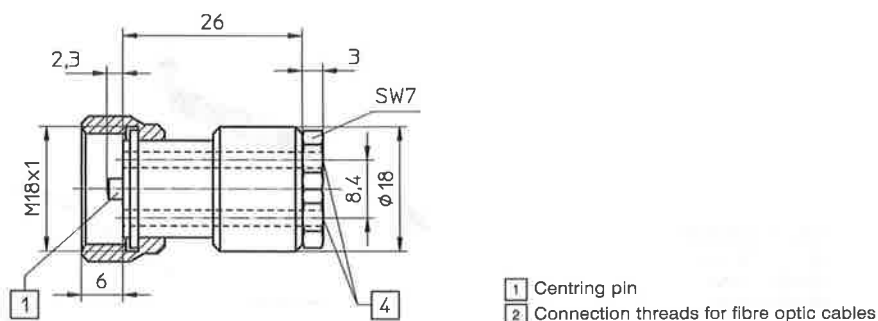


Type SOE-RT/L-M18-...-S-LED



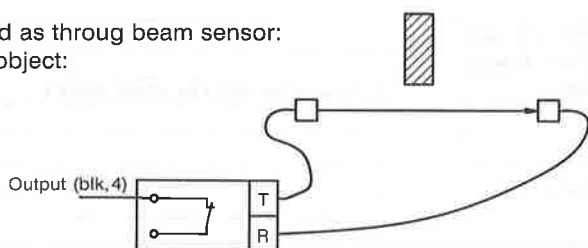
- 1 3-wire cable, 2.5 m long ($3 \times 0.25 \text{ mm}^2$)
- 2 Light emitting diode, yellow
- 3 Potentiometer
- 4 Datum face for nominal switching gap (S_n)
- 5 Suitable for angle socket, type SIE-WD-TR with identical terminal layout
- 6 Colour identification
PNP = grey;
NPN = black
- 7 Fitting space for angle socket

Adapter Type SOE-LA-M18

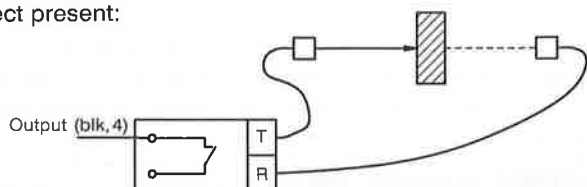


Circuit diagram Change-over switch function with PS and NS version

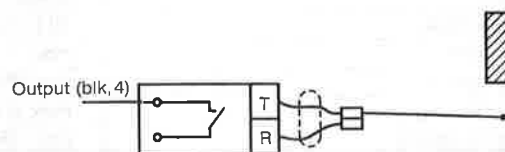
Used as through beam sensor:
No object:



Object present:



Used as diffuse sensor:
No object:



Object present:

