



Retroreflective sensing sensor, $S_n=300\text{mm}$, 4L, 10-30VDC, NPN, PNP, M18, metal, line 2m

Part no. **LSO-R18S-S300-LD**
 Catalog No. **281991**
 Alternate Catalog No. **-**
 EL-Nummer (Norway) **4356225**

Delivery program

Basic function			Optical proximity switches
Part group reference			LSO
Product range			Reflected-light beam
Operating range	S_d	mm	300
Style		mm	M18 x 1
Housing			Metal
Terminal connection			2 m connection cable
Maximum load current	I_e	mA	150

Technical data

General

Standards			IEC/EN 60947-5-2
Ambient temperature			40 - +70
Degree of Protection			IP67

Characteristics

Range		mm	300
Rated operating voltage	U_e	V DC	10 - 30
Maximum load current	I_e	mA	< 150
Operating current in the switched state at 24 V DC	I_b	mA	25
Max. operating frequency (resistive load)	f	Hz	≤ 160
Overcurrent release		mA	220
Readiness delay	t_v	ms	100
Switching state display		LED	Yellow
Alarm display		LED	Yellow, flashing
Operating voltage display		LED	red
Fault display		LED	Green, flashing
Short-circuit and reverse polarity protection			●
Output function			Programmable
Style			
Threaded barrel		mm	M18 x 1
Connection options			
Cable, open			●
Connector M12, "A"-keyed			●
Enclosure material			
Plastic			PBT
Metal			Stainless steel 1.4301
Enclosure nut tightening torque			
Plastic		Nm	5
Metal		Nm	25

Notes

Switching range S_d [mm] with LSO

The switching range is defined conform to IEC/EN 60947-5-2. It relates to reflected-light beams on a white paper card with a 90 % degree of reflection and

- 100 mm edge length with $S_d < 400$ mm
- 200 mm edge length with $S_d \geq 400$ mm

Correction factor with LSO as an optical sensor:

Paper, matt white, 200 g/m² 1.0 x S_d

Metal, gloss 1.2...1.6 x S_d

Aluminium, black anodized 1.1...1.8 x S_d

Expanded polystyrene, white 1 x S_d

Cotton, white 0.6 x S_d

PVC, grey 0.5 x S_d

Wood, untreated 0.4 x S_d

Carton, black, gloss 0.3 x S_d

Carton, black, matt 0.1 x S_d

Short-circuit protection monitored

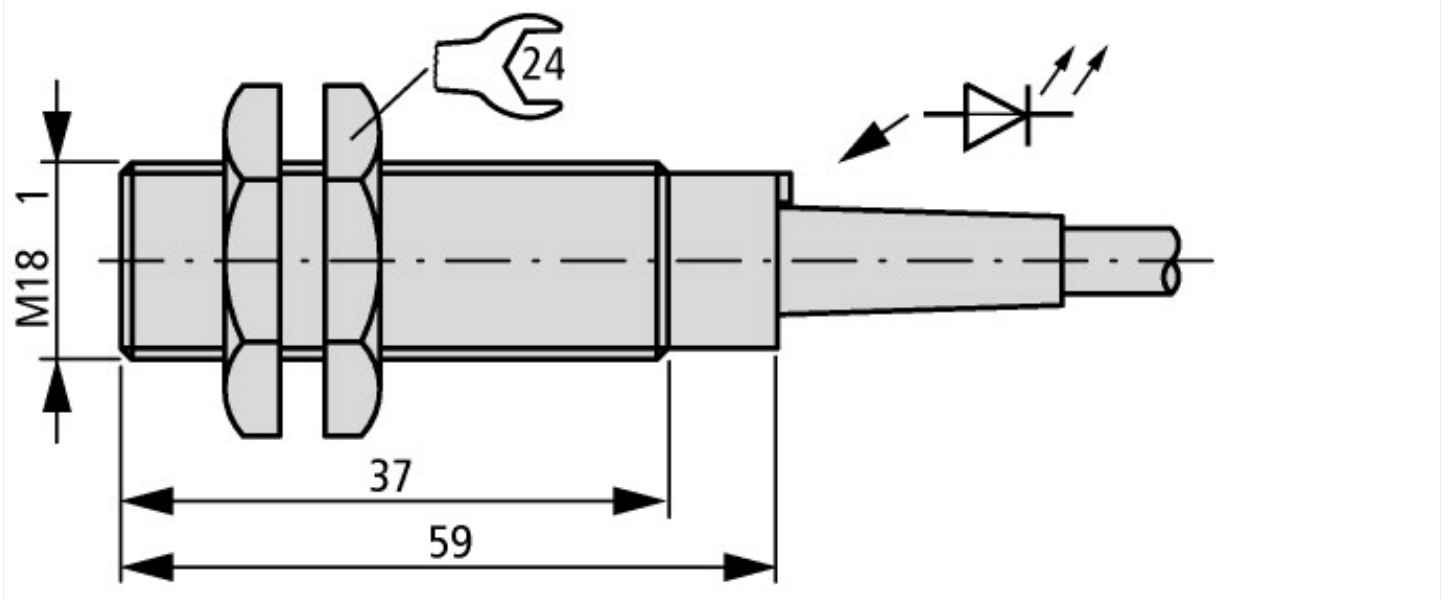
DC-operated proximity switches are proof against short-circuit. The device is not damaged by the effects of a short-circuit. No matter how long its duration. Once the fault has been cleared, the switch is immediately ready for operation again.

Design verification as per IEC/EN 61439

Technical data for design verification

Operating ambient temperature min.	°C	40
Operating ambient temperature max.	°C	70

Dimensions



Assets (links)

Instruction Leaflets

21580404

Additional product information (links)

AWA1360-2158 Optical Proximity Switches

AWA1360-2158 Optical Proximity Switches ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/21580404.pdf