



ENGLISH

Datasheet

RS PRO INDUCTIVE PROXIMITY SENSORS

Stock No: 2066141





Detailed technical data

Features

Housing	Cylindrical thread design
Housing	Short-body
Thread size	M18 x 1
Diameter	Ø 18 mm
Sensing range S_n	8 mm
Safe sensing range S_a	6.48 mm
Installation type	Quasi-flush 1)
Switching frequency	1,000 Hz
Connection type	Male connector M12, 4-pin 2)
Switching output	PNP
Output function	NO
Electrical wiring	DC 3-wire
Enclosure rating	IP68 3) IP69K 4)
Special features	Resistant against coolant lubricants, Visual adjustment indicator
Special applications	Zones with coolants and lubricants, Mobile machines, Difficult application conditions

1) When installed in conductive materials, the sensors must protrude by distance E (E = 2 mm).

2) With gold plated contact pins.

3) According to EN 60529.

4) According to ISO 20653:2013-03.

Mechanics/electronics

Supply voltage	10 V DC ... 30 V DC
Ripple	≤ 10 %
Voltage drop	≤ 2 V 1)
Current consumption	10 mA 2)
Hysteresis	3 % ... 20 %

Reproducibility	≤ 2 % ^{3) 4)}
Temperature drift (of S _r)	± 10 %
EMC	According to EN 60947-5-2
Continuous current I _a	≤ 200 mA
Short-circuit protection	✓
Reverse polarity protection	✓
Power-up pulse protection	✓
Shock and vibration resistance	100 g / 2 ms / 500 cycles; 150 g / 1 Mio cycles; 10 Hz ... 55 Hz / 1 mm; 55 Hz ... 500 Hz / 60 g
Ambient operating temperature	-40 °C ... +100 °C
Housing material	Stainless steel V2A, DIN 1.4305 / AISI 303
Sensing face material	Plastic, LCP
Housing length	45 mm
Thread length	27 mm
Tightening torque, max.	Typ. 90 Nm ⁵⁾
Items supplied	Mounting nut, V2A stainless steel, with locking teeth (2x)
Protection class	II ⁶⁾
UL File No.	E181493

1) At I_{max}.

2) Without load.

3) U_b and T_a constant.

4) Of S_r.

5) Valid if toothed side of nut is used.

6) Reference voltage DC 50 V.

Safety-related parameters

MTTF _D	1,971 years
DC _{avg}	0%

Reduction factors

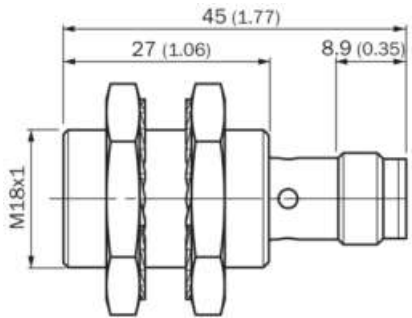
Note	The values are reference values which may vary
St37 steel (Fe)	1
Stainless steel (V2A, 304)	Approx. 0.55
Aluminum (Al)	Approx. 0.24
Copper (Cu)	Approx. 0.19
Brass (Br)	Approx. 0.24

Installation note

Remark	Associated graphic see "Installation"
A	9 mm
B	18 mm
C	18 mm
D	24 mm
E	2 mm

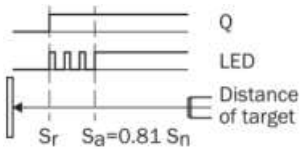
Dimensional drawing (Dimensions in mm (inch))

Short-body housing, connector M12, flush



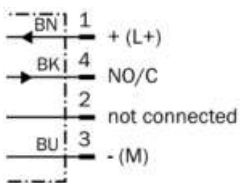
Adjustments

Installation aid



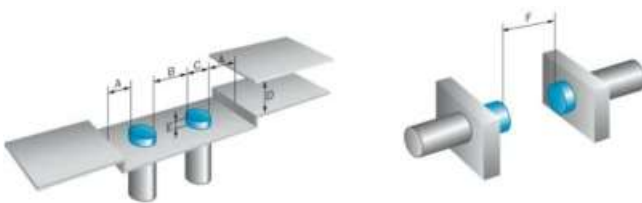
Connection diagram

Cd-456



Instruction for installation

Quasi-flush installation



Operating reserve

Response diagram

Distance in mm (inch)

