



ENGLISH

Datasheet

RS PRO INDUCTIVE PROXIMITY SENSORS

Stock No: 2066144





Detailed technical data

Features

Housing	Cylindrical thread design
Housing	Standard
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	Cable, 3-wire, 2 m
Switching output	PNP
Output function	NO
Electrical wiring	DC 3-wire
Enclosure rating	IP68 ²⁾ IP69K ³⁾
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⁾ According to EN 60529.

³⁾ 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
Cable material	PUR
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	50 mm
Thread length	45 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

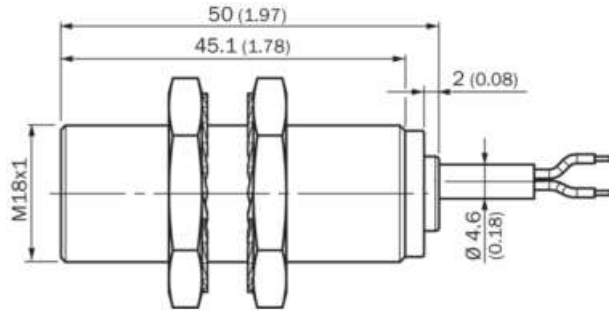
Note	The values are reference values which may vary
St37 steel (Fe)	1
Stainless steel (V2A, 304)	Approx. 0.55
Aluminum (Al)	Approx. 0.24
Copper (Cu)	Approx. 0.19
Brass (Br)	Approx. 0.24

Installation note

Remark	Associated graphic see "Installation"
A	9 mm
B	18 mm
C	18 mm
D	24 mm
E	2 mm
F	64 mm

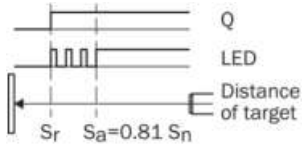
Dimensional drawing (Dimensions in mm (inch))

Standard, cable, flush



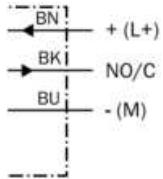
Adjustments

Installation aid



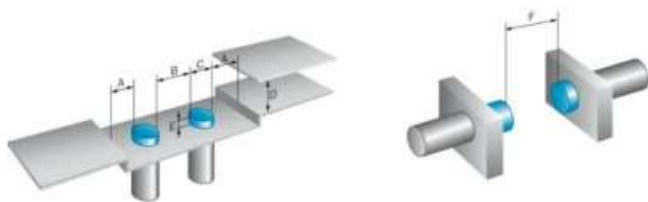
Connection diagram

Cd-452



Instruction for installation

Quasi-flush installation



Operating reserve

Response diagram

Distance in mm (inch)

