



ENGLISH

**Datasheet**

# RS PRO INDUCTIVE PROXIMITY SENSORS

Stock No: 2066148





## Detailed technical data

### Features

Housing	Cylindrical thread design
Housing	Short-body
Thread size	M30 x 1.5
Diameter	Ø 30 mm
Sensing range $S_n$	15 mm
Safe sensing range $S_a$	12.15 mm
Installation type	Flush
Switching frequency	500 Hz
Connection type	Cable, 3-wire, 2 m
Switching output	PNP
Output function	NO
Electrical wiring	DC 3-wire
Enclosure rating	IP68 <sup>1)</sup> IP69K <sup>2)</sup>
Special features	Resistant against coolant lubricants, Visual adjustment indicator
Special applications	Zones with coolants and lubricants, Mobile machines, Difficult application conditions

<sup>1)</sup> According to EN 60529.

<sup>2)</sup> According to ISO 20653:2013-03.

### Mechanics/electronics

Supply voltage	10 V DC ... 30 V DC
Ripple	≤ 10 %
Voltage drop	≤ 2 V <sup>1)</sup>
Current consumption	10 mA <sup>2)</sup>
Hysteresis	3 % ... 20 %
Reproducibility	≤ 2 % <sup>3) 4)</sup>
Temperature drift (of $S_r$ )	± 10 %

EMC	According to EN 60947-5-2
Continuous current I <sub>a</sub>	≤ 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	40 mm
Thread length	35 mm
Tightening torque, max.	Typ. 100 Nm <sup>5)</sup>
Items supplied	Mounting nut, V2A stainless steel, with locking teeth (2x)
Protection class	II <sup>6)</sup>
UL File No.	E181493

1) At I<sub>max</sub>.

2) Without load.

3) U<sub>b</sub> and T<sub>a</sub> constant.

4) Of S<sub>r</sub>.

5) Valid if toothed side of nut is used.

6) Reference voltage DC 50 V.

### Safety-related parameters

MTTF <sub>D</sub>	1,971 years
DC <sub>avg</sub>	0%


### Reduction factors

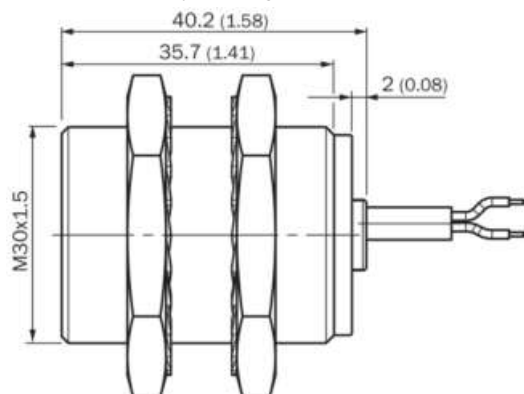
Note	The values are reference values which may vary
St37 steel (Fe)	1
Stainless steel (V2A, 304)	Approx. 0.62
Aluminum (Al)	Approx. 0.26
Copper (Cu)	Approx. 0.17
Brass (Br)	Approx. 0.27

### Installation note

Remark	Associated graphic see "Installation"
B	40 mm
C	30 mm
D	45 mm
F	120 mm

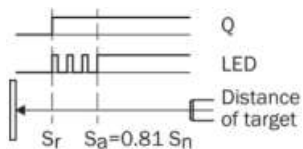
## Dimensional drawing (Dimensions in mm (inch))

IMB30 Short-body housing, cable, flush



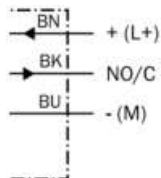
## Adjustments

Installation aid



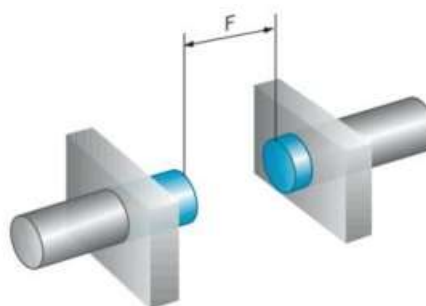
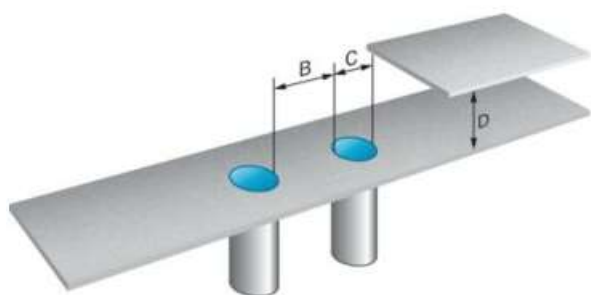
## Connection diagram

Cd-452



## Instruction for installation

Flush installation



# Operating reserve

## Response diagram

Distance in mm (inch)

