



ENGLISH

Datasheet

RS PRO M18 x 1 Inductive Sensor - Barrel

Stock No: 701-8235



rspro.com



Detailed technical data

Features

Housing	Cylindrical thread design
Housing	Standard
Thread size	M18 x 1
Diameter	Ø 18 mm
Sensing range S_n	5 mm
Safe sensing range S_a	4.05 mm
Installation type	Flush
Switching frequency	1,000 Hz
Connection type	Male connector M12, 4-pin
Switching output	NPN
Output function	NO
Electrical wiring	DC 3-wire
Enclosure rating	IP67 ¹⁾

¹⁾ According to EN 60529.

Mechanics/electronics

Supply voltage	10 V DC ... 30 V DC
Ripple	≤ 10 %
Voltage drop	≤ 2 V ¹⁾
Current consumption	10 mA ²⁾
Time delay before availability	≤ 100 ms

¹⁾ At I_a max.

²⁾ Without load.

³⁾ U_b and T_a constant.

⁴⁾ Of S_r.

Hysteresis	5 % ... 15 %
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	30 g, 11 ms/10 Hz ... 55 Hz, 1 mm
Ambient operating temperature	-25 °C ... +75 °C
Housing material	Brass, nickel-plated
Sensing face material	Plastic, PA 66
Housing length	69 mm
Thread length	52 mm
Tightening torque, max.	≤ 40 Nm
Items supplied	Mounting nut, brass, nickel-plated (2x)
UL File No.	NRKH.E181493

1) At I_a max.

2) Without load.

3) U_b and T_a constant.

4) Of S_r.

Safety-related parameters

MTTF_D	1,735 years
DC_{avg}	0%

Reduction factors

Note	The values are reference values which may vary
St37 steel (Fe)	1
Stainless steel (V2A, 304)	Approx. 0.8
Aluminum (Al)	Approx. 0.45
Copper (Cu)	Approx. 0.4
Brass (Br)	Approx. 0.4

Installation note

Remark	Associated graphic see "Installation"
B	18 mm
C	18 mm
D	15 mm
F	40 mm

Classifications

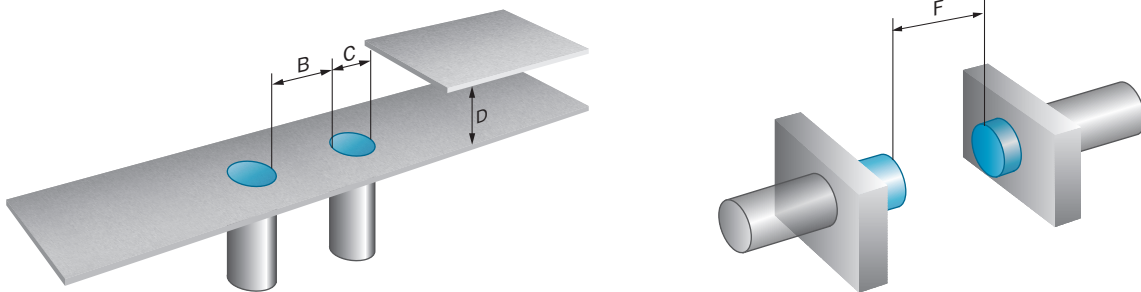
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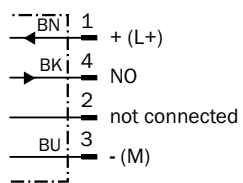
Installation note

Flush installation



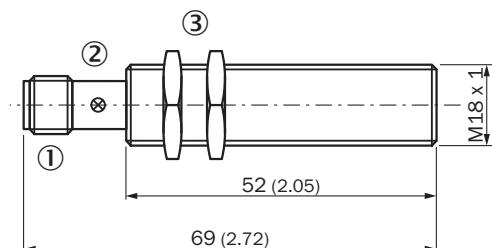
Connection diagram

Cd-007



Dimensional drawing (Dimensions in mm (inch))



IME18 Standard, connector, flush




- ① Connection
- ② LED indicator
- ③ Fastening nuts (2x); width across 24, metal

Brief description



Mounting brackets and plates



	Mounting plate for M18 sensors, steel, zinc coated, without mounting hardware
	Mounting bracket for M18 sensors, steel, zinc coated, without mounting hardware

Terminal and alignment brackets

	Clamping block for round sensors M18, without fixed stop, plastic (PA12), glass-fiber reinforced, mounting hardware included
	Clamping block for round sensors M18, with fixed stop, plastic (PA12), glass-fiber reinforced, mounting hardware included

Plug connectors and cables

	Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 2 m
	Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m
	Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 10 m
	Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 2 m
	Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m
	Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 10 m

	Brief description
	Head A: female connector, M12, 4-pin, straight Head B: - Cable: unshielded
	Head A: female connector, M12, 4-pin, angled Head B: - Cable: unshielded