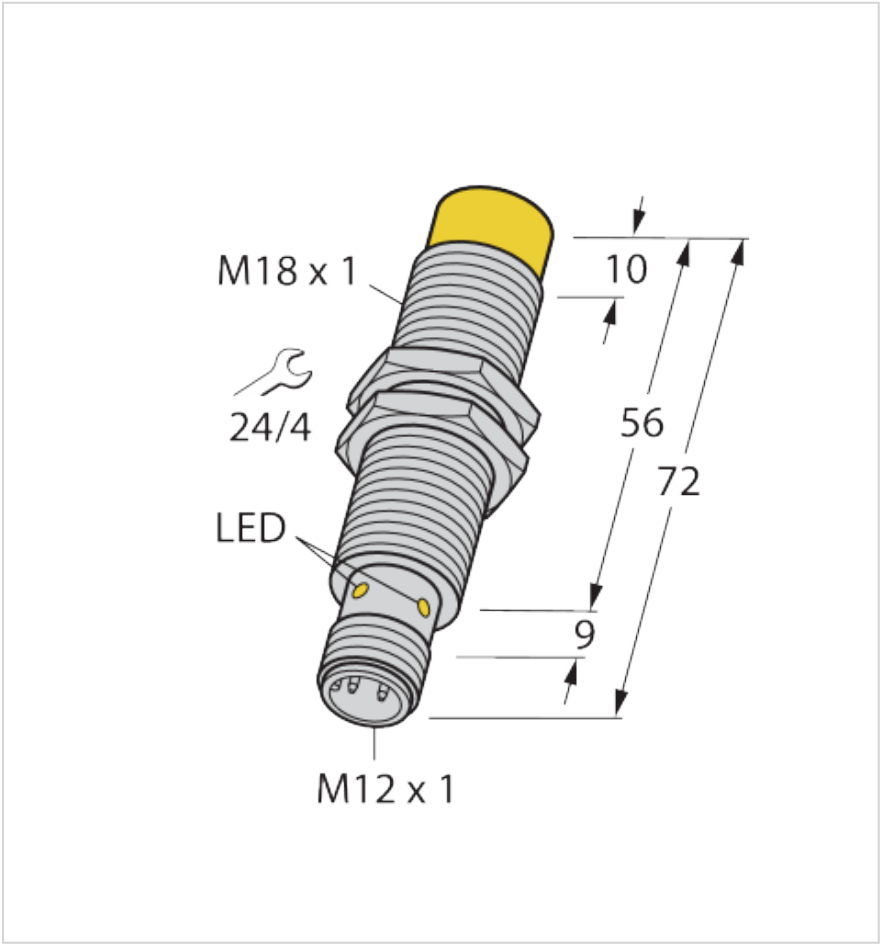
NI15U-EM18E-AP6X-H1141

Inductive Sensor
With Extended Switching Distance



Type designation	NI15U-EM18E-AP6X-H1141
Ident-No.	1635372

Technical data

Application area	
Magnetic field immune	Immune to magnetic AC and DC fields
Detection area/measuring range	
Rated switching distance	15 mm
Secured operating distance	≤ (0.81 × Sn) mm
Power supply	
Operating voltage U_B	10...30 VDC

Features

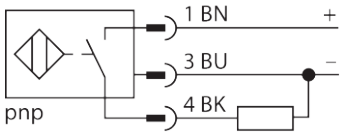
- Threaded barrel, M18 × 1
- Stainless steel, 1.4301
- Factor 1 for all metals
- Degree of protection IP68
- Resistant to magnetic fields
- Large switching distance
- Integrated protection against predamping
- Little metal-free spaces
- DC 3-wire, 10…30 VDC
- NO, PNP output
- Connector, M12 × 1

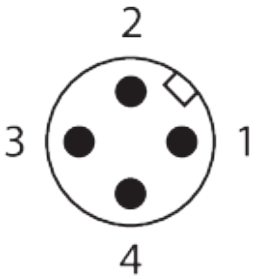
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Technical data

Voltage drop at I_e	≤ 1,8 V
Electrical data	
AC field stability	300 mT_{SS}
No-load current	25 mA
Output function	3-wire, NO contact, PNP
Short-circuit protection	yes/Cyclic
Wire break/reverse polarity protection	yes/Complete
DC field stability	300 mT
DC rated operational current	≤ 200 mA
Insulation class	II
Isolation test voltage	≤ 0,5 kV
Residual current	≤ 0,1 mA
Residual ripple	≤ 10 % U_{ss}
Switching frequency	1 kHz
Accuracy/deviation	
Hysteresis	3 % v. E...15 % v. E.
Temperature drift	10 %
Repeat accuracy	≤ 2 % v. E.
	≤ ± 15 %, ≤ -25 °C v ≥ +70 °C
Mechanical data	
Design	Threaded barrel, M18 x 1
Construction type designation	EM18E
	⌀ 18 mm
Housing material	Stainless steel, 1.4301 (AISI 304)
Active area material	Plastic, LCP
Max. tightening torque of housing nut	25 Nm
Electrical connection	Connector, M12 x 1
Number of pins	4
Pressure resistant	no
Thread length	46 mm
Thread size	M18 × 1
Mounting conditions	Non-flush
Ambient conditions	
Ambient temperature	-30...+85 °C
Pollution degree	3
Shock resistance	30 g (11 ms)
Vibration resistance	55 Hz (1 mm)

Wiring Diagram





Functional principle

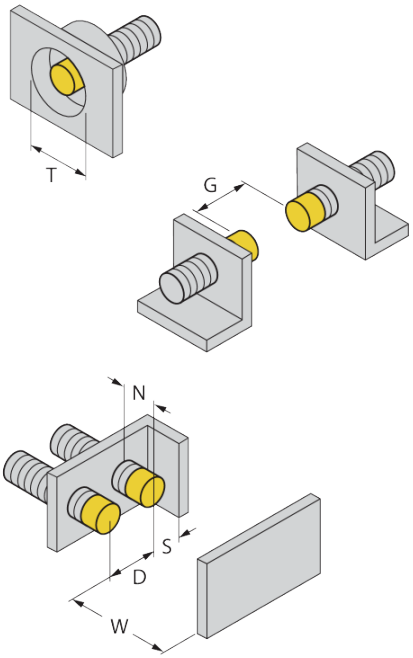
Inductive sensors are designed for wear-free and contactless detection of metal objects. uprox+ sensors have significant advantages due to their patented multi-coil system. They excel thanks to their optimum switching distances, maximum flexibility and operational reliability as well as efficient standardization.

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Technical data

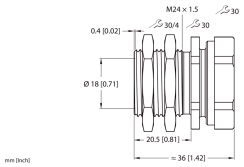
Protection class	IP68
Tests/approvals	
MTTF	874 Years acc. to SN 29500 (Ed. 99) 40 °C
Displays/controls	
Switching state	LED, Yellow
Other properties	
RoHs compatibility	yes

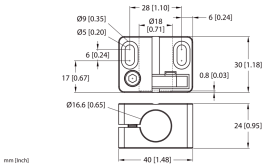
Assembly instructions



Distance D: 72 mm
Distance W: 3 x Sn
Distance T: 3 x B
Distance S: 1.5 x B
Distance G: 6 x Sn
Distance N: 2 x Sn
Diameter active area B: 18 mm
Installation information:
All non-flush mountable uprox®+ threaded barrel sensors can be screwed to the upper edge of the barrel. In this mounting position, the sensor operates safely with a 20 % reduced switching distance.
When installed in an aperture plate, a distance of X = 70 mm must be observed.

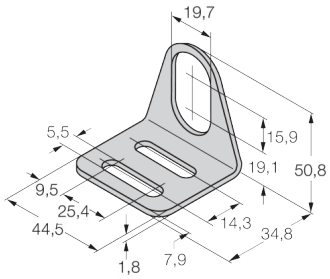
Mounting accessories

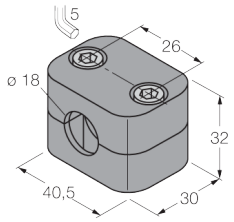
QM-18	6945102
	Quick-mount bracket with dead-stop; material: chrome-plated brass. Male thread M24 × 1.5. Note: The switching distance of the proximity switches may change when using quick-mount brackets.

BST-18B	6947214
	Mounting bracket for threaded barrel sensors, with dead-stop; material: PA6

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Mounting accessories

MW18	6945004
	Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)

BSS-18	6901320
	Mounting bracket for smooth and threaded barrel sensors; material: Polypropylene

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