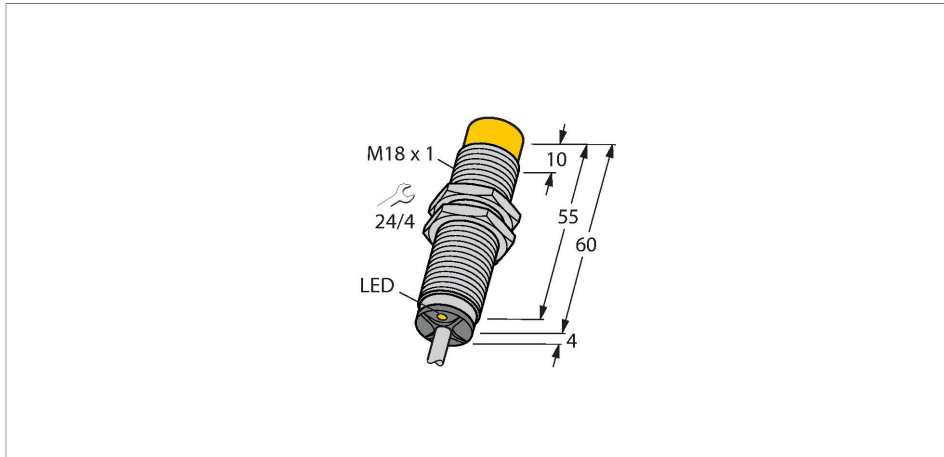


# NI15U-M18M-VP6X

## Inductive Sensor – With Extended Switching Distance



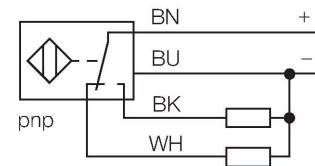
### Features

- Threaded barrel, M18 x 1
- Chrome-plated brass
- Factor 1 for all metals
- Protection class IP68
- Resistant to magnetic fields
- Large switching distance
- Integrated protection against predamping
- Little metal-free spaces
- DC 4-wire, 10...30 VDC
- Changeover contact, PNP output
- Cable connection

### Technical data

Type	NI15U-M18M-VP6X
ID	100000628
<b>General data</b>	
Rated switching distance	15 mm
Mounting conditions	Non-flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Repeat accuracy	$\leq 2 \%$ of full scale
Temperature drift	$\leq \pm 10 \%$
	$\leq \pm 15 \%$ , $\leq -25 \text{ }^\circ\text{C}$ v $\geq +70 \text{ }^\circ\text{C}$
Hysteresis	3...15 %
<b>Electrical data</b>	
Operating voltage $U_B$	10...30 VDC
Ripple $U_{ss}$	$\leq 10 \%$ $U_{Bmax}$
DC rated operating current $I_e$	$\leq 200$ mA
No-load current	$\leq 15$ mA
Residual current	$\leq 0.1$ mA
Isolation test voltage	0.5 kV
Short-circuit protection	yes/Cyclic
Voltage drop at $I_e$	$\leq 1.8$ V
Wire break/reverse polarity protection	yes/Complete
Output function	4-wire, Complementary contact, PNP
DC field stability	300 mT
AC field stability	300 mT <sub>ss</sub>
Switching frequency	1 kHz

### 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.

## Technical data

Mechanical data	
Design	Threaded barrel, M18 x 1
Dimensions	64 mm
Housing material	Metal, CuZn, Chrome-plated
Active area material	Plastic, LCP
End cap	Plastic, EPTR
Max. tightening torque of housing nut	25 Nm
Electrical connection	Cable
Cable quality	Ø 5.2 mm, Gray, LifYY, PVC, 2 m
Core cross-section	4 x 0.34 mm <sup>2</sup>
Environmental conditions	
Ambient temperature	-30...+85 °C
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP68
MTTF	874 years acc. to SN 29500 (Ed. 99) 40 °C
Switching state	LED, Yellow

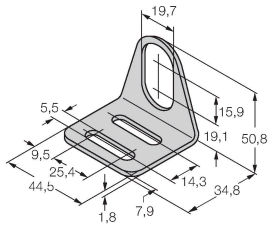
## Mounting instructions

Mounting instructions/Description															
	<table border="1"> <tbody> <tr> <td>Distance D</td> <td>3 x B</td> </tr> <tr> <td>Distance W</td> <td>3 x Sn</td> </tr> <tr> <td>Distance T</td> <td>3 x B</td> </tr> <tr> <td>Distance S</td> <td>1.5 x B</td> </tr> <tr> <td>Distance G</td> <td>6 x Sn</td> </tr> <tr> <td>Distance N</td> <td>2 x Sn</td> </tr> <tr> <td>Diameter active area B</td> <td>Ø 18 mm</td> </tr> </tbody> </table>	Distance D	3 x B	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	Ø 18 mm
	Distance D	3 x B													
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	Ø 18 mm														
<p>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.</p> <p>When installed in an aperture plate, a distance of X = 70 mm must be observed.</p>															

## Accessories

MW18

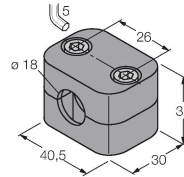
6945004



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

BSS-18

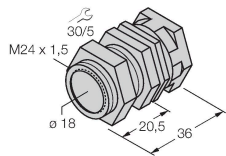
6901320



Mounting clamp for smooth and threaded barrel sensors; material: Polypropylene

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.