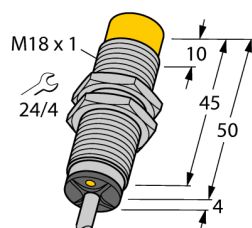
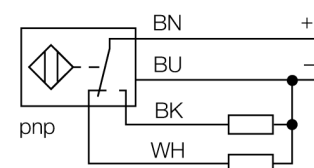


Inductive sensor with extended switching distance NI14-M18-VP6X 7M



- Threaded barrel, M18 x 1
- Chrome-plated brass
- Large detection range
- 4-wire DC, 10...30 VDC
- Changeover contact, PNP output
- Cable connection

Wiring diagram



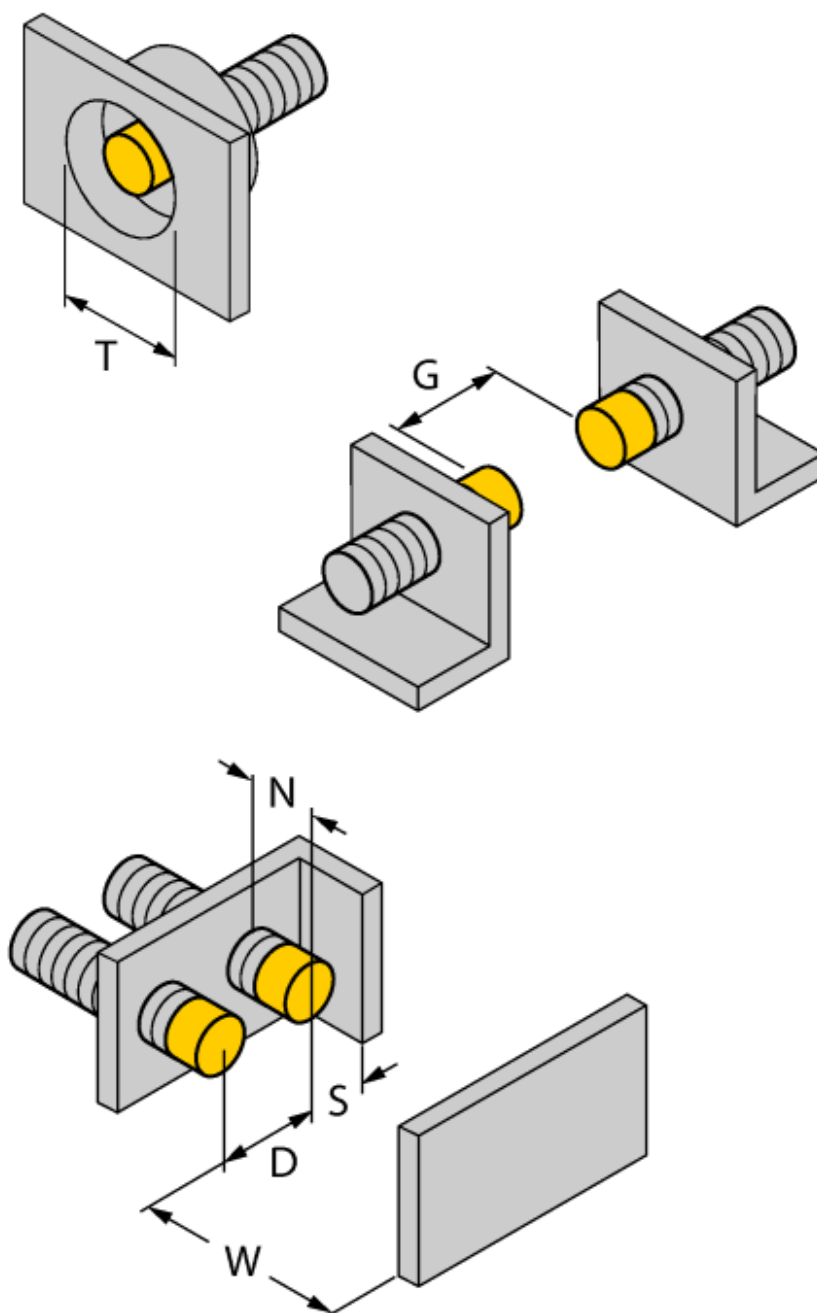
Functional principle

Inductive sensors detect metal objects contactless and wear-free. For this, they use a high-frequency electromagnetic AC field that interacts with the target. Inductive sensors generate this field via an RLC circuit with a ferrite coil.

Type code	NI14-M18-VP6X 7M
Ident no.	4590610
Rated operating distance Sn	14 mm
Mounting condition	non-flush
Assured sensing range	$\leq (0,81 \times S_n)$ mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeatability	≤ 2 % of full scale
Temperature drift	10 %
Hysteresis	3...15 %
Ambient temperature	-25...+70 °C
Operating voltage	10...30VDC
Residual ripple	≤ 10 % U_{ss}
DC rated operational current	≤ 200 mA
No-load current I_0	≤ 15 mA
Residual current	≤ 0.1 mA
Rated insulation voltage	≤ 0.5 kV
Short-circuit protection	yes/ cyclic
Voltage drop at I_0	≤ 1.8 V
Wire breakage / Reverse polarity protection	yes/ complete
Output function	4-wire, changover contact, PNP
Switching frequency	0.5 kHz
Design	threaded barrel, M18 x 1
Dimensions	54 mm
Housing material	metal, CuZn, chrome-plated
Material active area	Plastic, PA
End cap	Plastic, EPTR
Max. tightening torque housing nut	25 Nm
Connection	cable
Cable quality	5.2 mm, LifYY, PVC, 7 m
Cable cross section	4 x 0.34 mm ²
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
MTTF	2283 years acc. to SN 29500 (Ed. 99) 40 °C
Switching state	LED yellow

Inductive sensor with extended switching distance NI14-M18-VP6X 7M

Distance D	$3 \times B$
Distance W	$3 \times S_n$
Distance T	$3 \times B$
Distance S	$1.5 \times B$
Distance G	$6 \times S_n$
Distance N	$2 \times S_n$
Diameter of the active area B	$\varnothing 18 \text{ mm}$

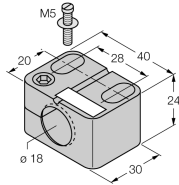
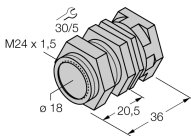
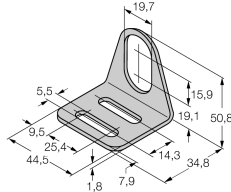


**Inductive sensor
with extended switching distance
NI14-M18-VP6X 7M**

TURCK

Industrial
Automation

Accessories

Type code	Ident no.	Description	Dimension drawing
BST-18B	6947214	Fixing clamp for threaded barrel devices, with dead-stop; material: PA6	
QM-18	6945102	Quick-mount bracket with dead-stop; material: Chrome-plated brass Male thread M24 x 1.5. Note: The switching distance of proximity switches can be reduced by the use of quick-mount brackets.	
MW-18	6945004	Mounting bracket for threaded barrel devices; material: Stainless steel A2 1.4301 (AISI 304)	
BSS-18	6901320	Mounting bracket for smooth and threaded barrel devices; material: Polypropylene	