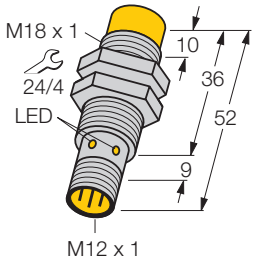
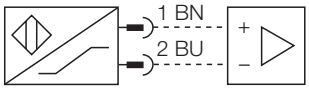
Inductive sensor
Ni10-M18-Y1X-H1141

Industrial Automation



- **ATEX category II 2 G, Ex Zone 1**
- **SIL2 according to IEC 61508**
- **Threaded barrel, M18 x 1**
- **Chrome-plated brass**
- **2-wire DC, nom. 8.2 VDC**
- **output according to DIN EN 60947-5-6 (NAMUR)**
- **connector M12 x 1**

Wiring diagram



Type	Ni10-M18-Y1X-H1141
Ident-No.	40153
Rated operating distance Sn	10 mm
Mounting condition	non-flush
Assured sensing range	≤ (0,81 x Sn) mm
Correction factors	St37 = 1, V2A ~ 0.7, Ms ~ 0.4, Al ~ 0.3
Temperature drift	≤ ± 10 %
Hysteresis	1… 10 %
Repeatability	≤ 2 %
Ambient temperature	-25…+ 70 °C
Output function	2-wire, NAMUR
Switching frequency	≤ 0.5 kHz
Voltage	Nom. 8.2 VDC
Non-actuated current consumption	≥ 2.1 mA
Actuated current consumption	≤ 1.2 mA
Approval acc. to	KEMA 02 ATEX 1090X
Internal inductance (L_i) / capacitance (C_i)	150 nF / 150 µH
Device designation	⟨Ex⟩ II 2 G EEx ia IIC T6 (max. U_i = 20 V, I_i = 20 mA, P_i = 200 mW)
Housing	threaded barrel, M18 x 1
Dimensions	52 x 18 mm
Housing material	metal, CuZn, chrome-plated
Material active face	plastic, PBT
Tightening torque of housing nut	25 Nm
Connection	connectors, M12 x 1
Vibration resistance	55 Hz (1 mm)
Shock resistance	30g (11 ms)
Degree of protection	IP67
Display switch state	LED yellow

Functional principle

Inductive sensors are designed for wear-free and non-contact detection of metal objects. For this purpose they use a high-frequency electro-magnetic AC field that interacts with the target. Conserning inductive sensors, this field is generated by an LC resonant circuit with a ferrite core coil.

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