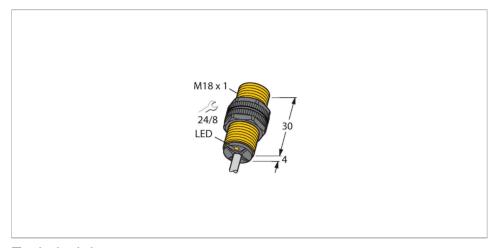


BI5-P18-Y0X Inductive Sensor



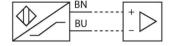
Technical data

ID 1005462 General data Rated switching distance 5 mm Mounting conditions Flush Secured operating distance ≤ (0.81 × Sn) mm Correction factors St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4 Repeat accuracy ≤ 2 % of full scale Hysteresis 110 % Electrical data Output function 2-wire, NAMUR Switching frequency 1 kHz Voltage Nom. 8.2 VDC Non-actuated current consumption ≥ 2.1 mA Actuated current consumption ≤ 1.2 mA Mechanical data Design Threaded barrel, M18 x 1 Dimensions 34 mm Housing material Plastic, PA12-GF30 End cap Plastic, EPTR Max. tightening torque of housing nut Electrical connection Cable	Туре	BI5-P18-Y0X
Rated switching distance5 mmMounting conditionsFlushSecured operating distance≤ (0.81 × Sn) mmCorrection factorsSt37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4Repeat accuracy≤ 2 % of full scaleHysteresis110 %Electrical dataOutput functionOutput function2-wire, NAMURSwitching frequency1 kHzVoltageNom. 8.2 VDCNon-actuated current consumption≥ 2.1 mAActuated current consumption≤ 1.2 mAMechanical dataDesignDimensions34 mmHousing materialPlastic, PA12-GF30Active area materialPlastic, PA12-GF30End capPlastic, EPTRMax. tightening torque of housing nut2 Nm	ID	1005462
Mounting conditionsFlushSecured operating distance≤ (0.81 × Sn) mmCorrection factorsSt37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4Repeat accuracy≤ 2 % of full scaleHysteresis110 %Electrical dataOutput functionOutput function2-wire, NAMURSwitching frequency1 kHzVoltageNom. 8.2 VDCNon-actuated current consumption≥ 2.1 mAActuated current consumption≤ 1.2 mAMechanical dataDesignThreaded barrel, M18 x 1Dimensions34 mmHousing materialPlastic, PA12-GF30Active area materialPlastic, PA12-GF30End capPlastic, EPTRMax. tightening torque of housing nut2 Nm	General data	
Secured operating distance ≤ (0.81 × Sn) mm Correction factors St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4 Repeat accuracy ≤ 2 % of full scale Hysteresis 110 % Electrical data Output function Output function 2-wire, NAMUR Switching frequency 1 kHz Voltage Nom. 8.2 VDC Non-actuated current consumption ≥ 2.1 mA Actuated current consumption ≤ 1.2 mA Mechanical data Design Threaded barrel, M18 x 1 Dimensions 34 mm Housing material Plastic, PA12-GF30 Active area material Plastic, PA12-GF30 End cap Plastic, EPTR Max. tightening torque of housing nut 2 Nm	Rated switching distance	5 mm
Correction factors $ \begin{array}{ll} St37 = 1; Al = 0.3; stainless steel = 0.7; Ms \\ = 0.4 \\ \hline \\ Repeat accuracy \\ \leq 2 \% of full scale \\ \hline \\ Hysteresis \\ \hline \\ 110 \% \\ \hline \\ Electrical data \\ \hline \\ Output function \\ \hline \\ Switching frequency \\ \hline \\ Voltage \\ \hline \\ Nom. 8.2 VDC \\ \hline \\ Non-actuated current consumption \\ \hline \\ Actuated current consumption \\ \hline \\ Actuated current consumption \\ \hline \\ \Delta tive area material \\ \hline \\ Housing material \\ \hline \\ End cap \\ \hline \\ Max. tightening torque of housing nut \\ \hline \end{array} $	Mounting conditions	Flush
Electrical data	Secured operating distance	≤ (0.81 × Sn) mm
Hysteresis 110 % Electrical data Output function 2-wire, NAMUR Switching frequency 1 kHz Voltage Nom. 8.2 VDC Non-actuated current consumption ≥ 2.1 mA Actuated current consumption ≤ 1.2 mA Mechanical data Design Threaded barrel, M18 x 1 Dimensions 34 mm Housing material Plastic, PA12-GF30 Active area material Plastic, PA12-GF30 End cap Plastic, EPTR Max. tightening torque of housing nut 2 Nm	Correction factors	
Electrical data Output function Switching frequency 1 kHz Voltage Nom. 8.2 VDC Non-actuated current consumption Actuated current consumption ≤ 1.2 mA Mechanical data Design Threaded barrel, M18 x 1 Dimensions 34 mm Housing material Plastic, PA12-GF30 Active area material Plastic, EPTR Max. tightening torque of housing nut 2-wire, NAMUR 2-wire, NAMUR 1 kHz Nom. 8.2 VDC Nom. 8.2 VDC	Repeat accuracy	≤ 2 % of full scale
Output function 2-wire, NAMUR Switching frequency 1 kHz Voltage Nom. 8.2 VDC Non-actuated current consumption ≥ 2.1 mA Actuated current consumption ≤ 1.2 mA Mechanical data	Hysteresis	110 %
Switching frequency1 kHzVoltageNom. 8.2 VDCNon-actuated current consumption≥ 2.1 mAActuated current consumption≤ 1.2 mAMechanical dataThreaded barrel, M18 x 1DesignThreaded barrel, M18 x 1Dimensions34 mmHousing materialPlastic, PA12-GF30Active area materialPlastic, PA12-GF30End capPlastic, EPTRMax. tightening torque of housing nut2 Nm	Electrical data	
Voltage Nom. 8.2 VDC Non-actuated current consumption ≥ 2.1 mA Actuated current consumption ≤ 1.2 mA Mechanical data Threaded barrel, M18 x 1 Design Threaded barrel, M18 x 1 Dimensions 34 mm Housing material Plastic, PA12-GF30 Active area material Plastic, PA12-GF30 End cap Plastic, EPTR Max. tightening torque of housing nut 2 Nm	Output function	2-wire, NAMUR
Non-actuated current consumption ≥ 2.1 mA Actuated current consumption ≤ 1.2 mA Mechanical data Threaded barrel, M18 x 1 Design Threaded barrel, M18 x 1 Dimensions 34 mm Housing material Plastic, PA12-GF30 Active area material Plastic, PA12-GF30 End cap Plastic, EPTR Max. tightening torque of housing nut 2 Nm	Switching frequency	1 kHz
Actuated current consumption ≤ 1.2 mA Mechanical data Image: Consumption of the property of th	Voltage	Nom. 8.2 VDC
Mechanical data Design Threaded barrel, M18 x 1 Dimensions 34 mm Housing material Plastic, PA12-GF30 Active area material Plastic, PA12-GF30 End cap Plastic, EPTR Max. tightening torque of housing nut 2 Nm	Non-actuated current consumption	≥ 2.1 mA
Design Threaded barrel, M18 x 1 Dimensions 34 mm Housing material Plastic, PA12-GF30 Active area material Plastic, PA12-GF30 End cap Plastic, EPTR Max. tightening torque of housing nut 2 Nm	Actuated current consumption	≤ 1.2 mA
Dimensions 34 mm Housing material Plastic, PA12-GF30 Active area material Plastic, PA12-GF30 End cap Plastic, EPTR Max. tightening torque of housing nut 2 Nm	Mechanical data	
Housing material Plastic, PA12-GF30 Active area material Plastic, PA12-GF30 End cap Plastic, EPTR Max. tightening torque of housing nut 2 Nm	Design	Threaded barrel, M18 x 1
Active area material Plastic, PA12-GF30 End cap Plastic, EPTR Max. tightening torque of housing nut 2 Nm	Dimensions	34 mm
End cap Plastic, EPTR Max. tightening torque of housing nut 2 Nm	Housing material	Plastic, PA12-GF30
Max. tightening torque of housing nut 2 Nm	Active area material	Plastic, PA12-GF30
	End cap	Plastic, EPTR
Electrical connection Cable	Max. tightening torque of housing nut	2 Nm
	Electrical connection	Cable

Features

- ■Threaded barrel, M18 x 1
- Plastic, PA12-GF30-V0
- ■DC 2-wire, nom. 8.2 VDC
- ■Output acc. to EN 60947-5-6 (NAMUR)
- 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.

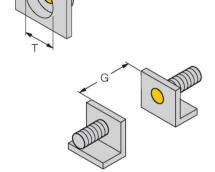


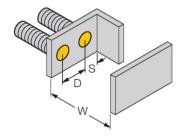
Technical data

Cable quality	Ø 5.2 mm, Blue, LiYY, PVC, 2 m
Core cross-section	2 x 0.5 mm ²
Environmental conditions	
Ambient temperature	-25+70 °C
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
MTTF	6198 years acc. to SN 29500 (Ed. 99) 40 °C
Switching state	LED, Yellow

Mounting instructions

Mounting instructions/Description



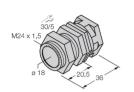


Distance D	2 x B
Distance W	3 x Sn
Distance T	3 x B
Distance S	1.5 x B
Distance G	6 x Sn
Diameter active area B	Ø 18 mm



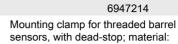
Accessories

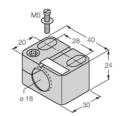
QM-18 6945102



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.

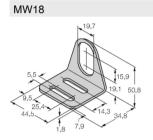
BST-18B





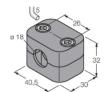
BSS-18 6901320

PA6



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

6945004



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