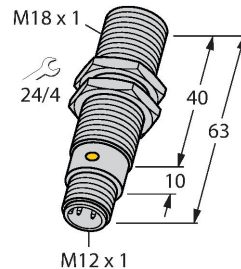


BI5U-M18-ASIX-H1140/S331

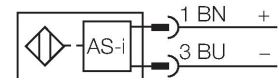
Inductive Sensor



Features

- Threaded barrel, M18 x 1
- Chrome-plated brass
- Highly interference immune
- EMC acc. to EN 60947-5-2 Annex ZA
- Factor 1 for all metals
- Resistant to magnetic fields, for DC and AC fields
- Extended temperature range
- AS-Interface, 18...33 VDC
- M12 x 1 male connector

Wiring diagram



Technical data

Type	BI5U-M18-ASIX-H1140/S331
ID	1901017
Remark to product	data output assignment: D0 = switching output, D1=0, D2=0, D3=1
Special version	S331 Corresponds to:Reduced switching frequency, increased interference immunity
General data	
Rated switching distance	5 mm
Mounting conditions	Flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Repeat accuracy	$\leq 2 \%$ of full scale
Temperature drift	$\leq \pm 10 \%$
	$\leq \pm 15 \%, \leq -25 \text{ }^{\circ}\text{C} \vee \geq +70 \text{ }^{\circ}\text{C}$
Hysteresis	3...15 %
Electrical data	
Operating voltage U_B	18...33 VDC
No-load current	≤ 30 mA
Isolation test voltage	0.5 kV
Communication protocol	AS-Interface
Output function	2-wire
I/O configuration (HEX) / ID code (HEX)	1 / 1
I/O matrix input	0 = switching signal
	1 - 3 = not used
I/O matrix output	0 - 3 = not used
DC field stability	300 mT

Functional principle

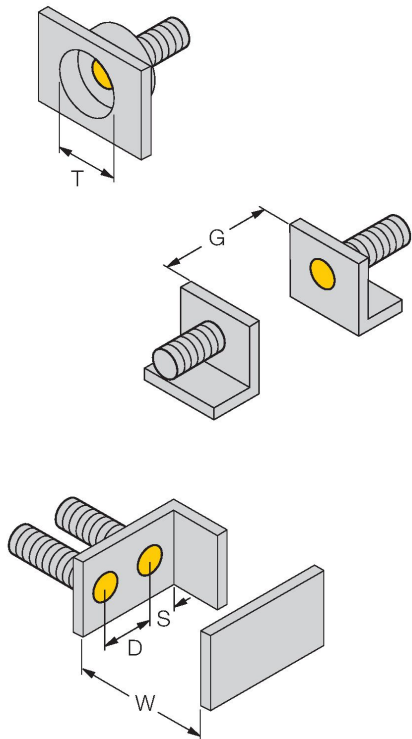
Inductive sensors detect metal objects contactless and wear-free. Due to the 3-coil system without ferrite core, uprox®+ factor 1 sensors have significant advantages. They detect all metals at the same switching distance, are magnetic field immune and feature large switching distances.

Technical data

AC field stability	300 mT _{ss}
Insulation class	□
Switching frequency	0.2 kHz
Mechanical data	
Design	Threaded barrel, M18 x 1
Dimensions	63 mm
Housing material	Metal, CuZn, Chrome-plated
Active area material	Plastic, PBT
Max. tightening torque of housing nut	25 Nm
Electrical connection	Connector, M12 × 1
Environmental conditions	
Ambient temperature	-30...+85 °C
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
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

BI5U-M18-ASIX-H1140/S331 | 02/21/2025 14-30 | technical changes reserved

Accessories

BST-18B

6947214

Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6



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.



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

