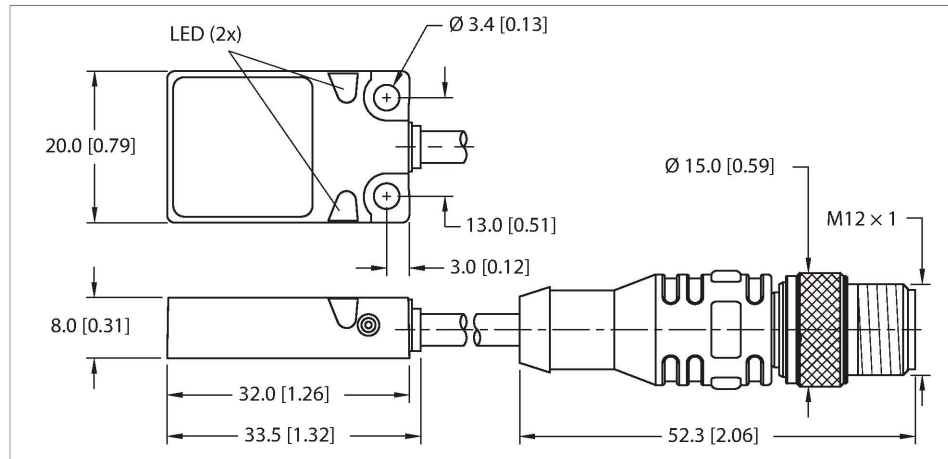


BI7-Q08-AP6X2-0.3-RSE4T-P7X2/S1589 Inductive Sensor – With Weldguard® coating



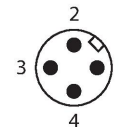
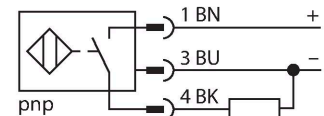
Technical data

Type	BI7-Q08-AP6X2-0.3-RSE4T-P7X2/S1589
ID	1601671
Special version	S1589 Corresponds to: With weldguard coating
General data	
Rated switching distance	7 mm
Mounting conditions	Flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeat accuracy	$\leq 2 \%$ of full scale
Hysteresis	3...15 %
Electrical data	
Operating voltage U_B	10...30 VDC
Ripple U_{rs}	$\leq 10 \%$ U_{Bmax}
DC rated operating current I_B	≤ 200 mA
No-load current	≤ 15 mA
Residual current	≤ 0.1 mA
Isolation test voltage	0.5 kV
Short-circuit protection	yes/Cyclic
Voltage drop at I_B	≤ 1.8 V
Wire break/reverse polarity protection	yes/Complete
Output function	3-wire, NO contact, PNP
Switching frequency	0.5 kHz

Features

- Rectangular, height 8 mm
- Active face on top
- Metal, Zamak, nickel-plated
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- Pigtail with male end M12 x 1

Wiring diagram



Functional principle

Inductive sensors detect metal objects contactless and wear-free. For this purpose they use a high-frequency electromagnetic AC field that interacts with the target. The sensors hosting a ferrite core coil generate the AC field through an LC resonant circuit.

Technical data

Mechanical data	
Design	Rectangular, Q08
Dimensions	32 x 20 x 8 mm
Housing material	Metal, Zamak, Nickel Plated
Active area material	Plastic, PP, yellow
Material coupling nut	metal, CuZn, nickel-plated
Electrical connection	Cable with connector, M12 × 1
Cable quality	Ø 3 mm, Gray, Lif9Y-11Y, PUR, 0.3 m
	Suited for E-ChainSystems® acc. to manufacturers declaration H1063M
Core cross-section	3 x 0.14 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	2283 years acc. to SN 29500 (Ed. 99) 40 °C
Power-on indication	LED, Green
Switching state	LED, Yellow

Mounting instructions

Mounting instructions/Description



The image contains two technical diagrams illustrating the mounting of the Q08 sensor. The primary diagram shows two yellow sensors mounted on a grey rail. Dimension lines indicate: 'B' for the width of the sensor, 'D' for the distance between the centers of two sensors, 'S' for the distance from the sensor face to the rail end, and 'W' for the total width of the rail section. A secondary diagram shows a single sensor with dimension 'G' indicating its height.

Distance D	40 mm
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Distance W	24 mm
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Distance S	1 × B
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Distance G	48 mm
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Width active area B	20 mm
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BI7-Q08-AP6X2-0.3-RSE4T-P7X2/S1589 02/21/2025 14-00 | technical changes reserved