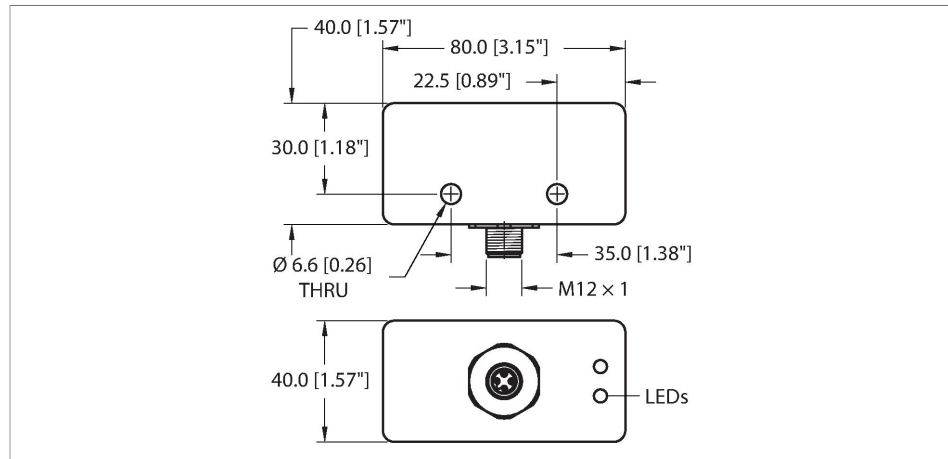


BI20-CA4080-VP4X2-H1141/S1009

Inductive Sensor



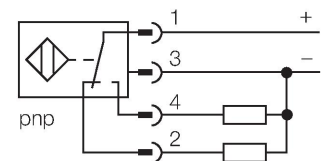
Technical data

Type	BI20-CA4080-VP4X2-H1141/S1009
ID	1625590
Special version	S1009 Corresponds to:250 ms Internal off delay
General data	
Rated switching distance	20 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	≤ 2 % of full scale
Hysteresis	3...15 %
Electrical data	
Operating voltage U_b	10...65 VDC
Ripple U_{rs}	≤ 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	4-wire, Complementary contact, PNP
Insulation class	□
Switching frequency	0.1 kHz

Features

- Rectangular, height 40 mm
- Sensor housing GD-ALSI 12
- Plastic, Duroplast
- DC 4-wire, 10...65 VDC
- Changeover contact, PNP output
- M12 x 1 male connector

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

Mechanical data	
Design	Rectangular, CA4080
Dimensions	80 x 40 x 40 mm
Housing material	Metal, GD-AISI 12
Active area material	Duroplast
Electrical connection	Connector, M12 × 1
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

Distance D	3 x B
Distance W	3 x Sn
Distance S	1.5 x B
Distance G	6 x Sn
Width active area B	80 mm

BI20-CA4080-VP4X2-H1141/S1009 02/21/2025 14-06 | technical changes reserved