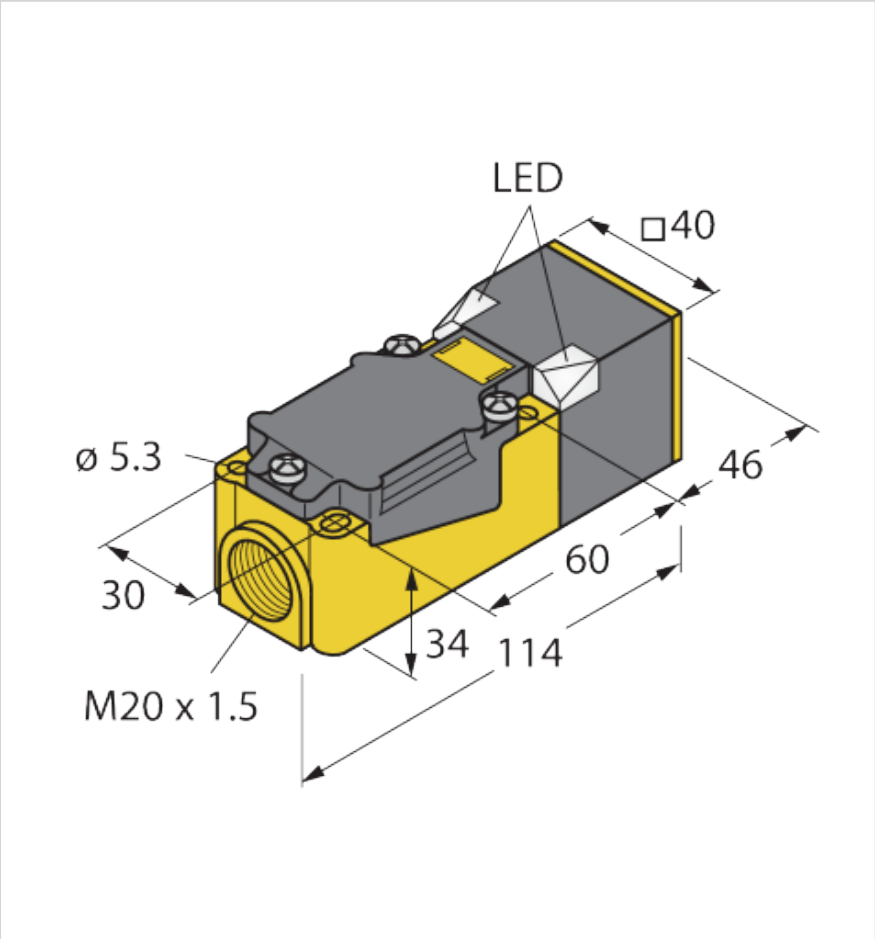
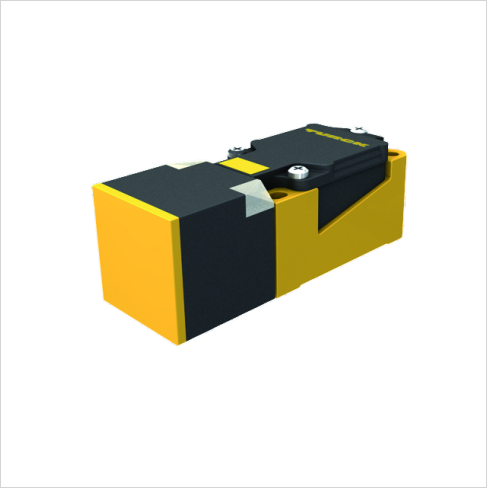
BI20U-CP40-VP4X2

Inductive Sensor
With Extended Switching Distance





Type designation	BI20U-CP40-VP4X2
Ident-No.	1627240

Technical data

Application area	
Magnetic field immune	Immune to magnetic AC and DC fields
Detection area/measuring range	
Rated switching distance	20 mm
Secured operating distance	≤ (0.81 × Sn) mm
Power supply	
Operating voltage U_B	10...65 VDC

Features

- Rectangular, height 40 mm
- Variable orientation of active face in 9 directions
- Plastic, PBT-GF30-V0
- High luminance corner LEDs
- Optimum view on supply voltage and switching state from any position
- Factor 1 for all metals
- Protection class IP68
- Resistant to magnetic fields
- Large detection range
- High switching frequency
- DC 4-wire, 10…65 VDC

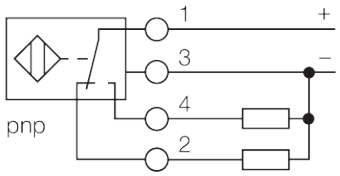
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Technical data

Voltage drop at I_e	≤ 1,8 V
Electrical data	
AC field stability	300 mT_{SS}
No-load current	15 mA
Output function	4-wire, Complementary contact, PNP
Short-circuit protection	yes/Cyclic
Wire break/reverse polarity protection	yes/Complete
DC field stability	300 mT
DC rated operational current	≤ 200 mA
Insulation class	II
Isolation test voltage	≤ 0,5 kV
Residual current	≤ 0,1 mA
Residual ripple	≤ 10 % U_{ss}
Switching frequency	0,25 kHz
Accuracy/deviation	
Hysteresis	3 % v. E...15 % v. E.
Temperature drift	10 %
Repeat accuracy	≤ 2 % v. E.
Mechanical data	
Design	Rectangular, CP40
Construction type designation	CP40
Dimensions	114 mm x 40 mm x 40 mm
Housing material	Plastic, PBT-GF30-V0, Black
Active area material	Plastic, PA6-GF30-X, yellow
Electrical connection	Terminal chamber
Clamping ability	≤ 2,5 mm²
Pressure resistant	no
Mounting conditions	Flush
Ambient conditions	
Ambient temperature	-30...+85 °C
Pollution degree	3
Shock resistance	30 g (11 ms)
Vibration resistance	55 Hz (1 mm)
Protection class	IP68
Tests/approvals	
MTTF	874 Years acc. to SN 29500 (Ed. 99) 40 °C

- Complementary contact, PNP output
- Terminal chamber

Wiring Diagram



Functional principle

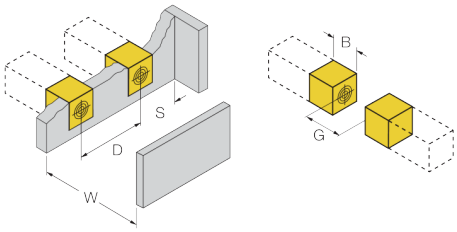
Inductive sensors are designed for wear-free and contactless detection of metal objects. uprox+ sensors have significant advantages due to their patented multi-coil system. They excel thanks to their optimum switching distances, maximum flexibility and operational reliability as well as efficient standardization.

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Technical data

Displays/controls	
Power-on indication	2 × LEDs, Green
Switching state	2 × LEDs, Yellow

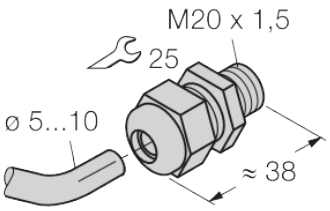
Assembly instructions



Distance D: 80 mm
Distance W: 60 mm
Distance S: 40 mm
Distance G: 120 mm
Width active area B: 40 mm

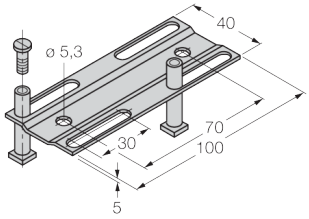
Mounting accessories

STRM M20X1.5 SCHWARZ	6965902



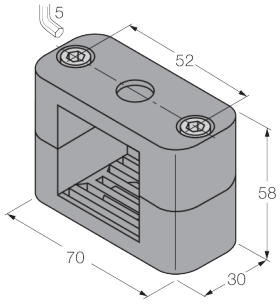
Cable gland M20 x 1.5, operating temperature range: -40 to +100 °C.

JS025/037	69429



Adjusting bar for rectangular housings CK/CP40; material: VA 1.4301

BSS-CP40	6901318



Mounting bracket for rectangular housings 40 x 40 mm; material: Polypropylene; ambient temperature -30°C ... +90 C°

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