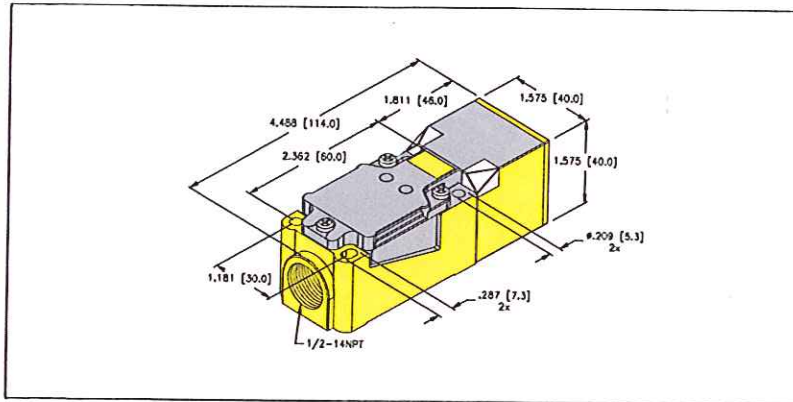


**Inductive sensor
with extended switching distance
BI20-CP40-VP4X2**

TURCK

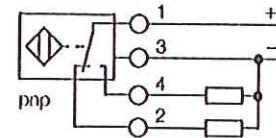
Industrial
Automation



- Cuboid-shaped, height 40 mm
- Variable orientation of active face in 9 directions
- Plastic, PBT-GF30-V0
- High luminance corner LEDs
- Optimum view on display from any position, indicating the operating voltage and the switching state.
- large detection range
- 4-wire DC, 10...65 VDC
- change-over, pnp output
- Terminal chamber

Type	BI20-CP40-VP4X2
	M1501200
Rated operating distance S_n	20 mm
Mounting condition	flush
Assured sensing range	$\leq (0,81 \times S_n)$ mm
Correction factors	$St37 = 1, V2A \sim 0,7, Ms \sim 0,4, Al \sim 0,3$
Repeatability	$\leq 2\%$
Temperature drift	$\leq \pm 10\%$
Hysteresis	3... 15 %
Ambient temperature	-25...+ 70 °C
Operating voltage	10... 65 VDC
Residual ripple	$\leq 10\% U_{ss}$
DC rated operational current	≤ 200 mA
No-load current I_0	≤ 15 mA
Residual current	$\leq 0,1$ mA
Rated insulation voltage	$\leq 0,5$ kV
Short-circuit protection	yes / cyclic
Voltage drop at I_0	$\leq 1,8$ V
Wire breakage / Reverse polarity protection	yes / complete
Output function	4-wire, Two-way contact, PNP
Switching frequency	$\leq 0,1$ kHz
Housing	rectangular, CP40
Dimensions	114 x 40 x 40 mm variable orientation of active face in 9 directions
Housing material	Plastic, PBT-GF30-V0, black
Material active face	Plastic, PBT-GF30-V0, yellow
Electrical connection	Terminal chamber
Clamping ability	$\leq 2,5$ mm ²
Vibration resistance	55 Hz (1 mm)
Shock resistance	30g (11 ms)
Protection class	IP67
Operating voltage	2 x LEDs green
Switching state	2 x LEDs yellow

Wiring diagram

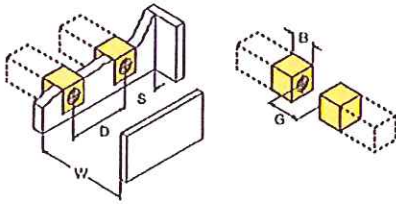


Functional principle

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.

**Inductive sensor
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Mounting Instructions	minimum distances
Distance D	$2 \times B$
Distance W	$3 \times S_n$
Distance S	$1 \times B$
Distance G	$6 \times S_n$
Width of the active face B	40 mm



**Inductive sensor
with extended switching distance
BI20-CP40-VP4X2**



Accessories

Type code	Ident.-No.	Short text	Dimension drawing
STRM M20X1,5 SCHWARZ	6965902	Cable glands M20 x 1.5	
JUSTIERSCHIENE JS 025/037	69429	Mounting rail; material: VA 1.4301	
BSS-CP40	6901318	Fixing clamp; material: Polypropylene	