

- Rectangular, height 40 mm
- Variable orientation of active face in 5 directions
- Sensor housing GD-ALSI 12
- Plastic, PA6-GF30
- Factor 1 for all metals
- Protection class IP68
- Resistant to magnetic fields
- Large coverage
- High switching frequency
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- M12 x 1 male connector

**Type code** BI20U-CA40-AP6X2-H1141/S1590W/BS2.1  
**Ident no.** 1627295

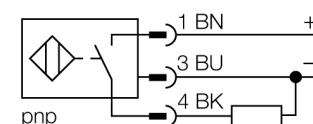
**Rated switching distance  $S_n$**  20 mm  
**Mounting conditions** flush  
**Assured switching distance**  $\leq (0,81 \times S_n)$  mm  
**Repeatability**  $\leq 2\%$  of full scale  
**Temperature drift**  $\leq \pm 10\%$   
**Hysteresis** 3...15 %  
**Ambient temperature** -30...+85 °C

**Operating voltage** 10... 30VDC  
**Residual ripple**  $\leq 10\%$   $U_{ss}$   
**DC rated operational current**  $\leq 200$  mA  
**No-load current  $I_0$**   $\leq 15$  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** 3-wire, NO contact, PNP  
**Protective insulation**   
**Switching frequency** 0.25 kHz

**Construction** rectangular, CA40  
**Dimensions** 48 x 40 x 40 mm  
 variable orientation of active face in 5 directions  
**Housing material** Metal, GD-ALSi 12  
**Connection** Flange connector, M12 x 1  
**Vibration resistance** 55 Hz (1 mm)  
**Shock resistance** 30 g (11 ms)  
**Protection class** IP68  
**MTTF** 874 years acc. to SN 29500 (Ed. 99) 40 °C

**Power-on indication** LED green  
**Switching state** LED yellow  
**Included in delivery** BS2.1-CK40

#### Wiring Diagram

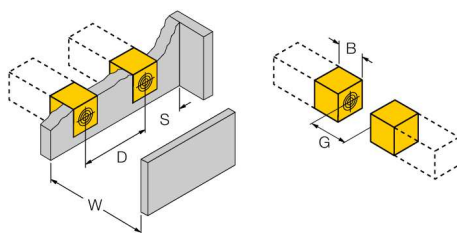


#### Functional principle

Inductive sensors detect metal objects contactless and wear-free. Due to the patented multi-coil system, *uprox®* sensors have distinct advantages over conventional sensors. They excel in largest switching distances, maximum flexibility and operational reliability as well as efficient standardization.

**Inductive sensor**  
**With WeldGuard™ coating**  
**BI20U-CA40-AP6X2-H1141/S1590W/BS2.1**

Distance D	2 x B
Distance W	3 x Sn
Distance S	1.5 x B
Distance G	6 x Sn
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Width of the active face B	40 mm



## Accessories

Type code	Ident no.	Description	
BSS-CP40	6901318	Mounting bracket for rectangular devices; material: Polypropylene	