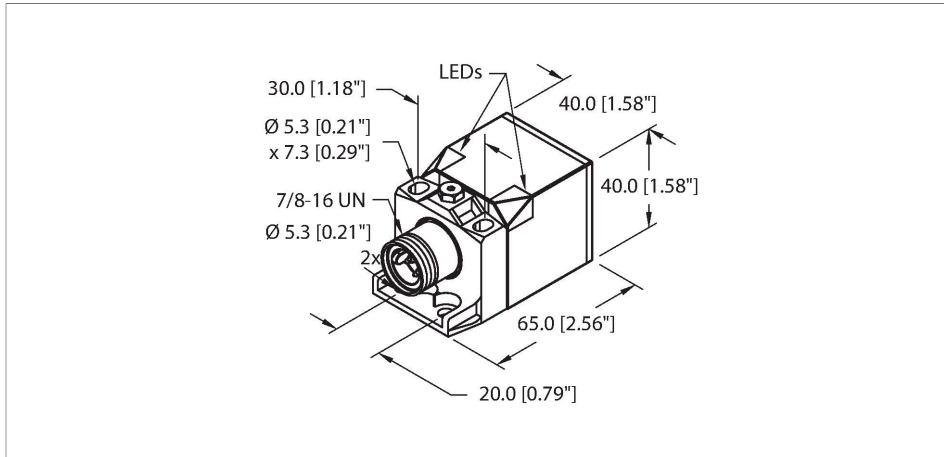


# NI25U-CK40-AP6X2-B1141 W/BS2.1

## Inductive sensor



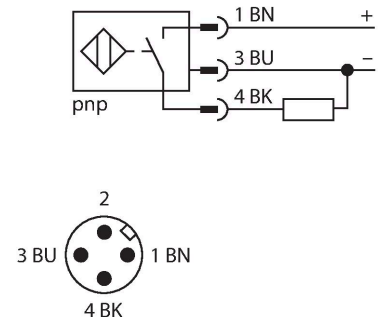
### Features

- Rectangular, height 40 mm
- Variable orientation of active face in 5 directions
- Plastic, PBT-GF30-V0
- Factor 1 for all metals
- Protection class IP68
- Resistant to magnetic fields
- Extended temperature range
- High switching frequency
- Auto-compensation protects against pre-attenuation
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- 7/8" male connector

### Technical data

|   |  |
|---|--|
| <b>Type</b>                               | NI25U-CK40-AP6X2-B1141 W/BS2.1   |
| Ident. no.                                | 1625792  |
| Rated switching distance                  | 25 mm  |
| Mounting conditions                       | Non-flush, partially embeddable  |
| Secured operating distance                | $\leq (0,81 \times S_n)$ mm  |
| Repeat accuracy                           | $\leq 2\%$ of full scale   |
| Temperature drift                         | $\leq \pm 10\%$<br>$\leq \pm 20\%$ , $\leq -25^\circ\text{C}$ v $\geq +70^\circ\text{C}$ |
| Hysteresis                                | 3...15 %   |
| Ambient temperature                       | -30...+85 °C   |
| Operating voltage                         | 10...30 VDC  |
| Residual ripple                           | $\leq 10\% U_{ss}$   |
| DC rated operational current              | $\leq 200$ mA  |
| No-load current                           | $\leq 15$ mA   |
| Residual current                          | $\leq 0.1$ mA  |
| Isolation test voltage                    | $\leq 0.5$ kV  |
| Short-circuit protection                  | yes / Cyclic   |
| Voltage drop at                           | $\leq 1.8$ V   |
| Wire breakage/Reverse polarity protection | yes / Complete   |
| Output function                           | 3-wire, NO contact, PNP  |
| Insulation class                          | □  |
| Switching frequency                       | 0.25 kHz   |
| <b>Design</b>                             | Rectangular,CK40   |
| Dimensions                                | 65 x 40 x 40 mm  |

### Wiring diagram



### Functional principle

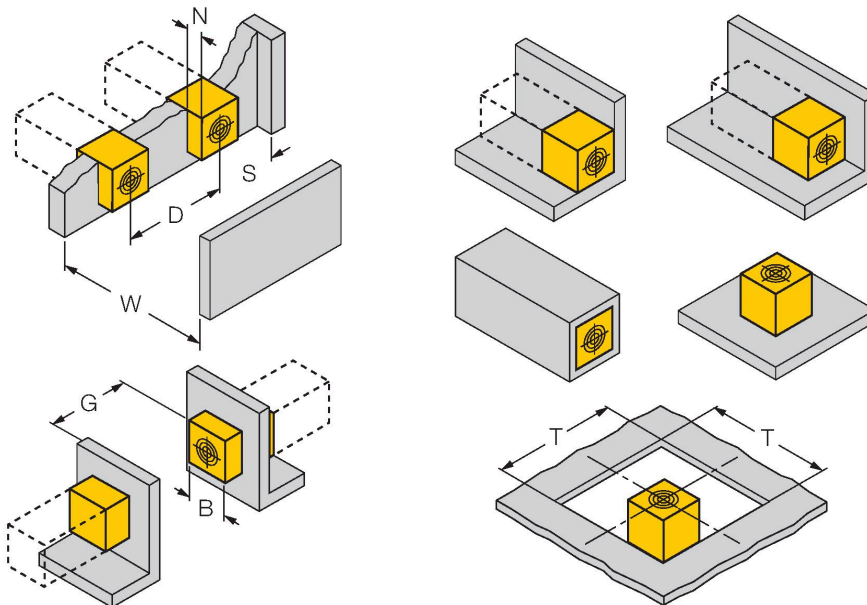
Inductive sensors detect metal objects contactless and wear-free. *uprox*® Factor 1 sensors have significant advantages due to their patented ferrite-coreless multicoil system. They detect all metals at the same large switching distance and are resistant to magnetic fields.

## Technical data

|                            |   |
|----------------------------|---|
|                            | variable orientation of active face in 5 directions |
| Housing material           | Plastic, PBT-GF20-V0, Black                         |
| Active area material       | Plastic, PA12-GF30, yellow                          |
| Electrical connection      | Connector, 7/8"                                     |
| 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           |
| <b>Power-on indication</b> | 2 × LEDs, Green                                     |
| Switching state            | 2 × LEDs, Yellow                                    |
| Included in delivery       | BS2.1-CK40  |

## Mounting instructions

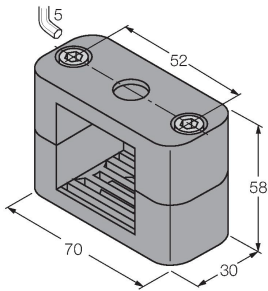
### Mounting instructions/Description



|                     |         |
|---------------------|---------|
| Distance D          | 3 x B   |
| Distance W          | 3 x Sn  |
| Distance T          | 100 mm  |
| Distance S          | 1.5 x B |
| Distance G          | 6 x Sn  |
| Distance N          | 30 mm   |
| Width active area B | 40 mm   |

up to 4-side flush mounting possible  
 1-side flush mounting:  $S_r = 22$  mm  
 2-side flush mounting:  $S_r = 20$  mm  
 3-side flush mounting:  $S_r = 17$  mm  
 4-side flush mounting:  $S_r = 13$  mm  
 back-mounting without reduction of the switching distance  
 recessed mounting with switching distance reduction possible

## Accessories

**BSS-CP40****6901318**

Mounting clamp for rectangular housings 40 x 40 mm; material: Polypropylene