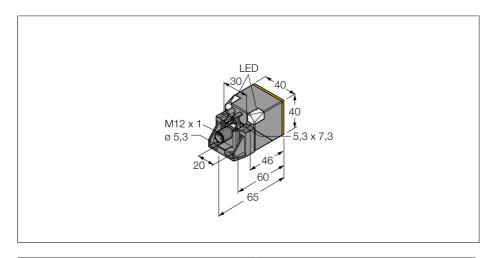


# Inductive sensor NI50U-QV40-AP6X2-H1141





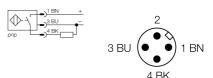
Type code Ident no.	NI50U-QV40-AP6X2-H1141 1625853	
Rated operating distance Sn	50 mm	
Mounting condition	non-flush, flush mountable	
Assured sensing range	≤ (0,81 x Sn) mm	
Repeatability	≤ 2 % of full scale	
Temperaturdrift	10 %	
	$\leq$ ± 20 %, $\leq$ -25 °C v $\geq$ +70 °C	
Hysteresis	315 %	

Ambient temperature	-30+85 °C	
Operating voltage	1030VDC	
Residual ripple	≤ 10 % U <sub>ss</sub>	
DC rated operational current	≤ 200 mA	
No-load current I₀	≤ 15 mA	
Residual current	≤ 0.1 mA	
Rated insulation voltage	≤ 0.5 kV	
Short-circuit protection	yes/ cyclic	
Voltage drop at I₅	≤ 1.8 V	
Wire breakage / Reverse polarity protection	yes/ complete	
Output function	3-wire, NO contact, PNP	
Protection class		
Switching frequency	0.25 kHz	

Do rated operational current	Sperational current \$200 mA	
No-load current I <sub>o</sub>	≤ 15 mA	
Residual current	al current ≤ 0.1 mA	
Rated insulation voltage	≤ 0.5 kV	
Short-circuit protection	yes/ cyclic	
Voltage drop at I <sub>e</sub>	≤ 1.8 V	
Wire breakage / Reverse polarity protection	yes/ complete	
Output function	3-wire, NO contact, PNP	
Protection class		
Switching frequency	0.25 kHz	
Design	rectangular, QV40	
Dimensions	65x 40x 40 mm	
	variable orientation of active face in 5 directions	
Housing material	Plastic, PBT, black	
Connection	male, M12 x 1	
Vibration resistance	tance 55 Hz (1 mm)	
Shock resistance	c resistance 30 g (11 ms)	
Protection class	IP68	
MTTF	874 years acc. to SN 29500 (Ed. 99) 40 °C	
Operating voltage	2 x LEDs green	
Switching state	• • yellow	
Included in scope of supply	fixing clamp for QV40	

- Rectangular, height 40 mm
- Variable orientation of active face in 5 directions without tools
- Plastic, PBT-GF30-V0
- **High luminance corner LEDs**
- Optimum view on supply voltage and switching state from any position
- Factor 1 for all metals
- Increased switching distance
- **Protection class IP68**
- Magnetic field immune
- Auto-compensation protects against pre-attenuation
- Partially embeddable
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- M12 x 1 connector

### Wiring diagram



### **Functional principle**

Inductive sensors detect metal objects contactless and wear-free. Due to the patented multicoil 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.

The active face can be aligned in 5 directions without tools. The sensor is thus installed comfortably, simply and quickly where necessary.



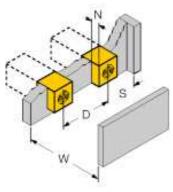
# Inductive sensor NI50U-QV40-AP6X2-H1141

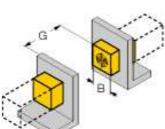


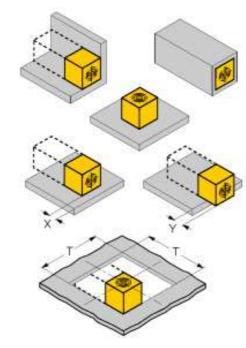
Distance D	240 mm
Distance W	105 mm
Distance S	60 mm
Distance G	300 mm
Distance N	30 mm

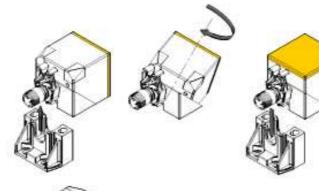
#### Width of the active face B

40 mm









### Flush mounting

1-side mounting: Sr = 35 mm; D = 240 mm 2-side mounting: Sr = 25 mm; D = 240 mm 3-side mounting: Sr = 20 mm; D = 80 mm 4-side mounting: Sr = 17 mm; D = 60 mm

Backside as well as recessed mounting with reduced switching distance

### Recessed mounting in metal:

x = 10 mm: Sr = 20 mm x = 20 mm: Sr = 20 mm x = 30 mm: Sr = 20 mm x = 40 mm: Sr = 20 mm

#### Protruded mounting:

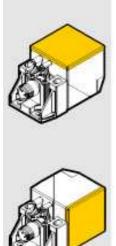
y = 10 mm: Sr = 40 mm y = 20 mm: Sr = 50 mm y = 30 mm: Sr = 50 mm y = 40 mm: Sr = 50 mm

Mounting in aperture plate: T = 150 mm: Sensor with twisted turning angle On metal Sr = 50 mm Metal-enclosed on one side Sr = 25 mm

Metal-enclosed on two sides Sr = 15 mm Metal-enclosed on three sides Sr = 12 mm

With a single action the active face can be positioned in 5 directions without tools.

A light squeeze of the bracket is enough to release the sensor from the fixing clamp. Afterwards, the active face can easily be twisted to change the position. Once the final position is attained, the sensor is simply inserted in the fixing clamp until the clamp snaps in. Safe and easy mounting is thus guaranteed.









## **Accessories**

Type code	Ident no.	Description	Dimension drawing
BSS-CP40	6901318	Mounting bracket for rectangular devices; material: Polypropylene	52

# Wiring accessories

Type code	Ident no.	Description	Dimension drawing
RKC4T-2/TEL	6625010	Connection cable, female M12, straight, 3-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com	
			M12x1
RKC4.4T-2/TEL	6625013	Connection cable, female M12, straight, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com	M12 x 1
			11,5