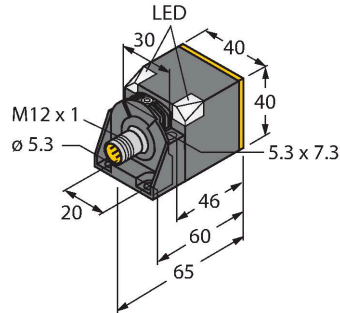


# NI35U-CK40-AD4X-H1144 Inductive Sensor

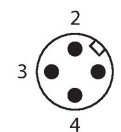
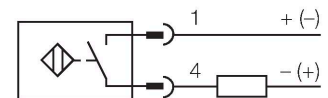


## Technical data

Type	NI35U-CK40-AD4X-H1144
ID	4280232
General data	
Rated switching distance	35 mm
Mounting conditions	Non-flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Repeat accuracy	$\leq 2 \%$ of full scale
Temperature drift	$\leq \pm 10 \%$
	$\leq \pm 15 \%, \leq -25 \text{ }^{\circ}\text{C} \vee \geq +70 \text{ }^{\circ}\text{C}$
Hysteresis	3...20 %
Electrical data	
Operating voltage $U_B$	10...65 VDC
Ripple $U_{ss}$	$\leq 10 \%$ $U_{Bmax}$
DC rated operating current $I_o$	$\leq 100 \text{ mA}$
Residual current	$\leq 0.8 \text{ mA}$
Isolation test voltage	0.5 kV
Short-circuit protection	yes/Cyclic
Voltage drop at $I_o$	$\leq 5 \text{ V}$
Wire break/reverse polarity protection	Complete
Output function	2-wire, NO contact, 2-wire
DC field stability	300 mT
AC field stability	300 mT <sub>SS</sub>
Smallest operating current	$\geq 3 \text{ mA}$
Switching frequency	0.01 kHz

## Features

- Rectangular, height 40 mm
- Variable orientation of active face in 5 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
- Resistant to magnetic fields
- DC 2-wire, 10...65 VDC
- NO contact
- M12 x 1 male connector



## 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

## Technical data

distances, maximum flexibility and operational reliability as well as efficient standardization.

Mechanical data	
Design	Rectangular, CK40
Dimensions	65 x 40 x 40 mm
	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, M12 × 1
Environmental conditions	
Ambient temperature	-25...+70 °C
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
MTTF	874 years acc. to SN 29500 (Ed. 99) 40 °C
Switching state	2 × LEDs, Yellow
Included in delivery	Mounting bracket BS4-CK40

## Mounting instructions

Mounting instructions/Description

The image contains two technical diagrams illustrating sensor mounting. The top diagram is a side view showing two yellow sensor units mounted on a grey plate. Dimension lines indicate: 'D' as the distance between the centers of the two sensors, 'W' as the total width of the mounting plate, 'S' as the distance from the sensor face to the back of the plate, and 'N' as the distance from the sensor face to the front edge of the plate. The bottom diagram is a top view showing a single yellow sensor unit mounted on a grey plate. Dimension lines indicate: 'G' as the distance from the sensor face to the side edge of the plate, and 'B' as the width of the sensor's active area.

Distance D	$3 \times B$
Distance W	$3 \times S_n$
Distance S	$1.5 \times B$
Distance G	$6 \times S_n$
Distance N	$1 \times B$
Width active area B	40 mm

Flush-mounted installation on up to 4 sides  
1-side flush-mounted:  $S_r = 28 \text{ mm}$   
2-side flush-mounted:  $S_r = 24 \text{ mm}$   
3-side flush-mounted:  $S_r = 19 \text{ mm}$   
4-side flush-mounted:  $S_r = 12 \text{ mm}$

Rear-side mounting with full switching distance possible.

Recessed installation with reduced switching distance possible.

The values stated relate to a 1-mm-thick steel plate.

## Accessories

BSS-CP40

6901318

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

