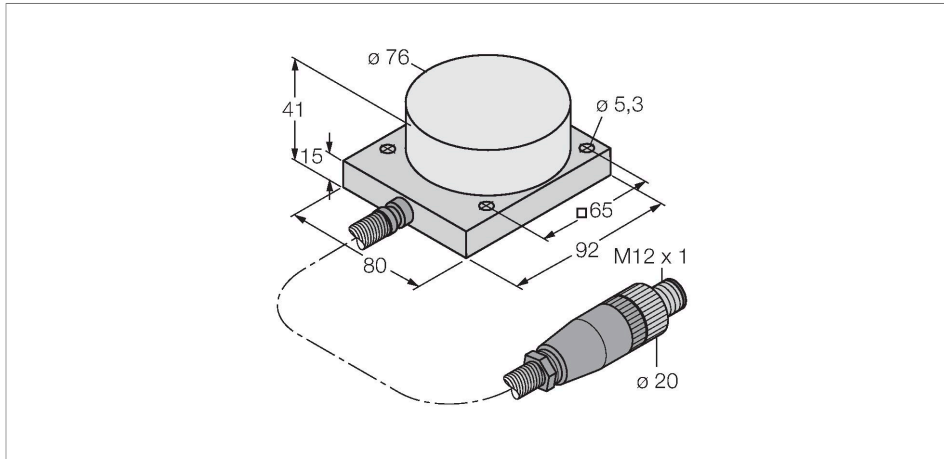


# NI40-CQ80/S1102 5M

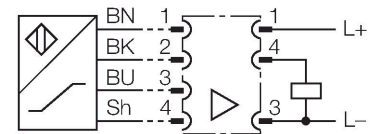
## Inductive Sensor – With Increased Temperature Range



### Features

- Rectangular, height 41 mm
- Sensor housing, Aluminium
- Plastic, PEEK
- Aluminium cable sheath
- For temperatures up to +250 °C
- Functions only with signal processor EM30-AP6X2-H1141/S1102
- Switchpoint adjusted at the processing unit
- 3-wire connection to the processor

### Wiring diagram



### Technical data

Type	NI40-CQ80/S1102 5M
ID no.	1602404
Special version	S1102 corresponds to: Ambient temperature up to 250 °C
Rated switching distance	40 mm
Mounting conditions	Non-flush, partially embeddable
Secured operating distance	≤ (0.81 × S <sub>n</sub> ) mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeat accuracy	≤ 2 % of full scale
Hysteresis	3...15 %
Ambient temperature	0...+250 °C
Output function	NO contact, PNP
Design	Rectangular, CQ80
Dimensions	92 x 80 x 41 mm
Housing material	Plastic, AL
Active area material	PEEK
Electrical connection	Connector, M12 × 1
	Connector for max. temperature -20...+70°C
Cable quality	Ø 3.7 mm, PTFE, FEP, 5 m
	Al cable sheath, Ø 8 mm
Core cross-section	3 x 0.34 mm <sup>2</sup>
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)

### Functional principle

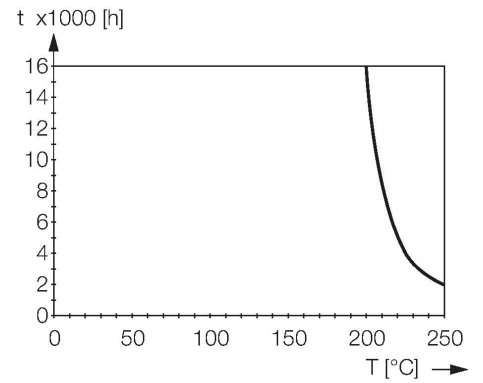
The sensors must be operated with an EM30-AP6X2-H1141/S1102 signal processor. The switching distance is set using a potentiometer (continuous) on the signal processor. This is located under a cover screw next to the LED. Where possible, the switching distance must be set at operating temperature. When setting the switching distance at room temperature, the temperature sensitivity of the sensor system must be taken into account.

Setting:

1. Place the target (steel, min. 1 mm thick, square, edge length min. 3x rated switching distance) at a safe switching distance in front of the sensor
2. Turn the potentiometer counterclockwise until the LED lights up green
3. Turn the potentiometer clockwise until the LED lights up yellow
4. Perform functional checks in the operating state

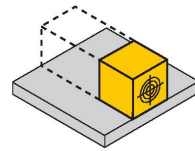
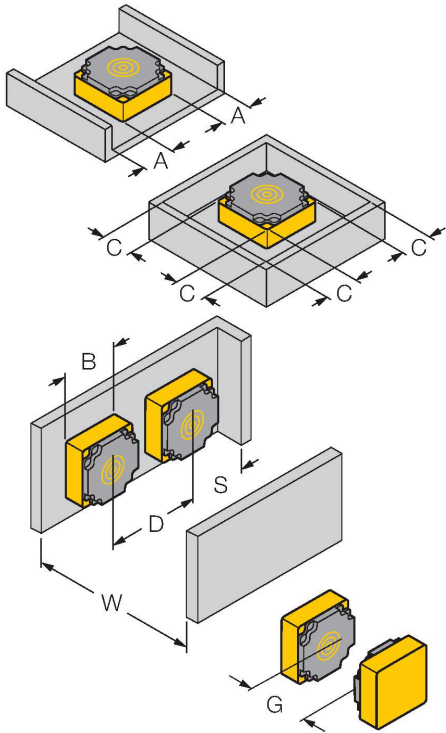
## Technical data

Protection class	IP60
MTTF	1190 years acc. to SN 29500 (Ed. 99) 40 °C



## Mounting instructions

### Mounting instructions/Description



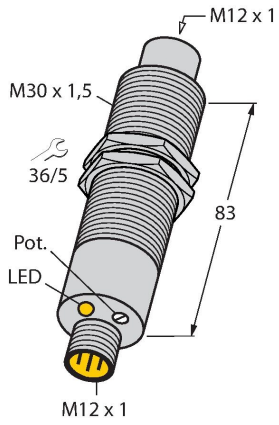
Distance D	3 x B
Distance W	3 x Sn
Distance S	1.5 x B
Distance G	6 x Sn
Distance A	1 x Sn
Distance C	2 x Sn
Width active area B	76 mm

1-side mounting on metal without modification of the switching distance

Accessories

EM30-AP6X2-H1141/S1102

1602411



Signal processor for 250 °C sensor;  
 housing material: Stainless steel  
 1.4571; protection type: IP67; function  
 display: LED/yellow; power ON  
 indication: LED/green; ambient  
 temperature: -25 °C...+70 °C