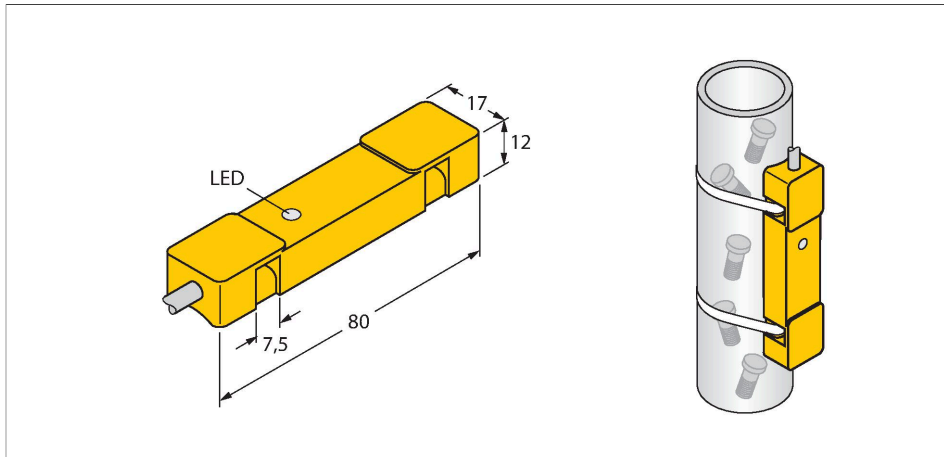


# NI20U-TS12-AP6X2

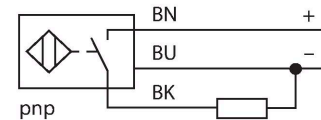
## Inductive Sensor – Detection of Small and Fast Tube-guided Parts



### Features

- Rectangular, height 12 mm
- Plastic, PBT-GF30-V0
- Resistant to magnetic fields
- Factor 1 for all metals
- High sensitivity for detection of small parts
- Output pulse length min. 100 ms
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- Cable connection

### Wiring diagram

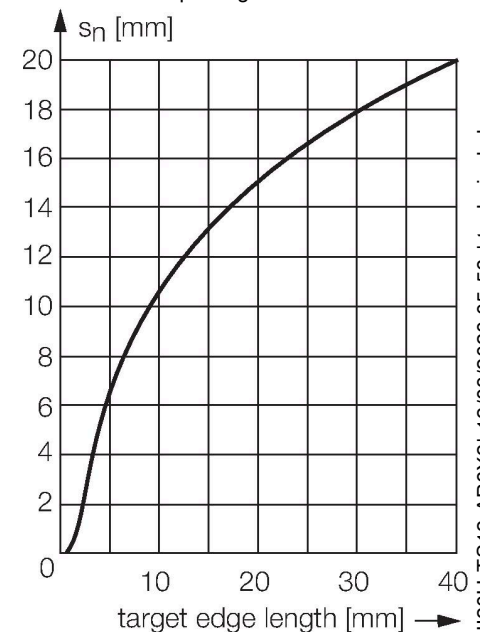


### Technical data

Type	NI20U-TS12-AP6X2
Ident. no.	1646647
Remark to product	Dimension drawing follows
Rated switching distance	20 mm
Fly-by speed	0...20 m/s
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Repeat accuracy	$\leq 2\%$ of full scale
pulse stop	$\geq 5$ ms
Pulse duration at the output	$\geq 100$ ms $\pm 20\%$
Temperature drift	$\leq \pm 10\%$
Hysteresis	3...15 %
Ambient temperature	-25...+70 °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 $I_o$	$\leq 1.8$ V
Wire breakage/Reverse polarity protection	yes / Complete
Output function	3-wire, NO contact, PNP
Switching frequency	0.008 kHz

### Functional principle

The highly sensitive sensor detects even small and fast tube-guided parts. Easily mounted with retaining straps. Can be repositioned or replaced during operation. High-quality alternative to simple ring sensors.



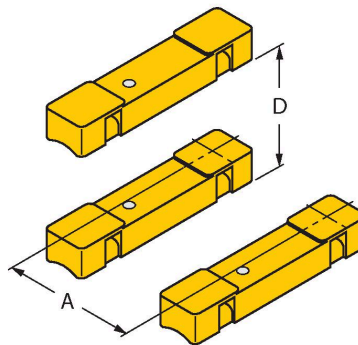
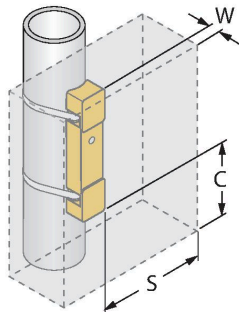
NI20U-TS12-AP6X2 | 12/03/2020 05-56 | technical changes reserved

## Technical data

Design	Rectangular, TS12
Dimensions	80 x 17 x 12 mm
Housing material	Plastic, PBT-GF30-V0
Electrical connection	Cable
Cable quality	Ø 4 mm, LifY-11Y, PUR, 2 m
Core cross-section	3 x 0.25 mm <sup>2</sup>
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	2 retaining straps

## Mounting instructions

### Mounting instructions/Description



Distance D	50 mm
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Distance W	35 mm
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Distance S	35 mm
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Distance A	42 mm
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Distance C	30 mm
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Width active area B	17 mm
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The TS12 has no tailback detection function.  
To achieve optimal functionality, use only small targets with a max. length of 20 mm.