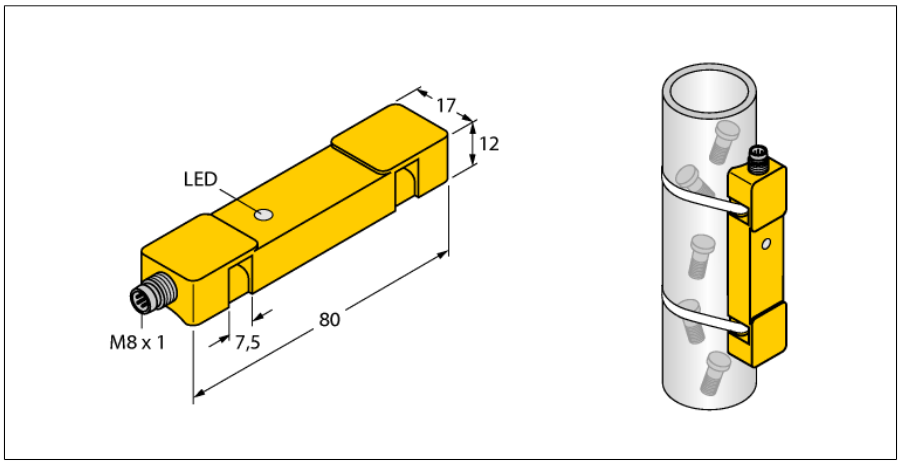
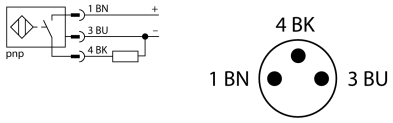
Inductive sensor
Detection of small and fast tube-guided parts
NI20U-TS12-AP6X2-V1131



- **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**
- **M8 x 1 male connector**

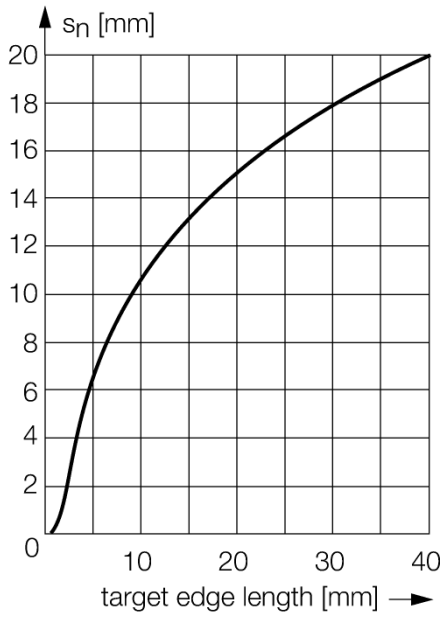
Wiring Diagram



Type designation	NI20U-TS12-AP6X2-V1131
Ident-No.	1646640
Rated switching distance Sn	20 mm
Fly-by speed	0…20 m/s
Mounting conditions	Non-flush
Secured operating distance	≤ (0,81 x Sn) mm
Repeat accuracy	≤ 2 % of full scale
pulse stop	≥ 5 ms
Pulse duration at the ouput	100 ms ± 20 %
Temperature drift	≤ ± 10 %
Hysteresis	3…15 %
Ambient temperature	-25…+70 °C
Operating voltage	10…30 VDC
Residual ripple	≤ 10 % U_{ss}
DC rated operational current	≤ 200 mA
No-load current I_0	≤ 15 mA
Residual current	≤ 0.1 mA
Isolation test voltage	≤ 0.5 kV
Short-circuit protection	yes/ Cyclic
Voltage drop at I_e	≤ 1.8 V
Wire breakage/Reverse polarity protection	yes/ Complete
Output function	3-wire, NO contact, PNP
Switching frequency	0.008 kHz
Design	Rectangular,TS12
Dimensions	80 x 17 x 12 mm
Housing material	Plastic, PBT-GF30-V0
Electrical connection	Connector, M8 × 1
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

Functional principle

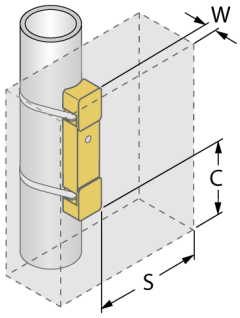
The highly sensitive sensor detects even small and fast tube-guided parts. Easily mounted with retaining straps. Can be repositioned or replaced during operation. High-quality alternative to simple ring sensors.

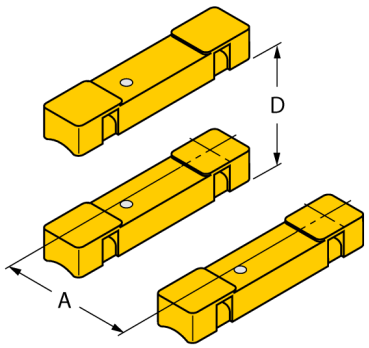


Edition • Rev. A • 2018-04-04T20:18:49+02:00

Inductive sensor
Detection of small and fast tube-guided parts
NI20U-TS12-AP6X2-V1131

Distance D	50 mm
Distance W	35 mm
Distance S	35 mm
Distance A	42 mm
Distance C	30 mm
Width active area B	17 mm





The TS12 has no tailback detection function.

To achieve optimal functionality, use only small targets with a max. length of 20 mm.

Edition • Rev. A • 2018-04-04T20:18:49+02:00