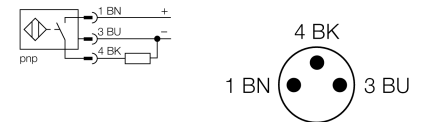


- Rectangular, height 12 mm
- Plastic, PBT-GF30-V0
- Magnetic field immune
- Factor 1 for all metals
- High sensitivity ensures detection of small parts
- Output pulse length min. 100 ms
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- M8 x 1 connector

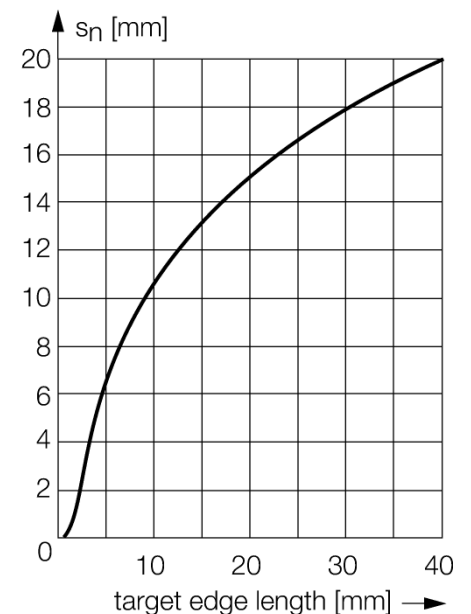
**Wiring diagram**



<b>Type code</b>	NI20U-TS12-AP6X2-V1131
<b>Ident no.</b>	1646640
<b>Rated operating distance Sn</b>	20 mm
<b>Fly-by speed</b>	0...20 m/s
<b>Mounting condition</b>	non-flush
<b>Assured sensing range</b>	≤ (0,81 x Sn) mm
<b>Repeatability</b>	≤ 2 % of full scale
<b>pulse stop</b>	≥ 5 ms
<b>Pulse duration at the output</b>	100 ms ± 20 %
<b>Temperaturdrift</b>	10 %
<b>Hysteresis</b>	3...15 %
<b>Ambient temperature</b>	-25...+70 °C
<b>Operating voltage</b>	10...30VDC
<b>Residual ripple</b>	≤ 10 % U <sub>s</sub>
<b>DC rated operational current</b>	≤ 200 mA
<b>No-load current I<sub>0</sub></b>	≤ 15 mA
<b>Residual current</b>	≤ 0.1 mA
<b>Rated insulation voltage</b>	≤ 0.5 kV
<b>Short-circuit protection</b>	yes/ cyclic
<b>Voltage drop at I<sub>0</sub></b>	≤ 1.8 V
<b>Wire breakage / Reverse polarity protection</b>	yes/ complete
<b>Output function</b>	3-wire, NO contact, PNP
<b>Switching frequency</b>	0.008 kHz
<b>Design</b>	rectangular, TS12
<b>Dimensions</b>	80x 17x 12 mm
<b>Housing material</b>	Plastic, PBT
<b>Connection</b>	male, M8 x 1
<b>Vibration resistance</b>	55 Hz (1 mm)
<b>Shock resistance</b>	30 g (11 ms)
<b>Protection class</b>	IP68
<b>MTTF</b>	874 years acc. to SN 29500 (Ed. 99) 40 °C
<b>Operating voltage</b>	LED green
<b>Switching state</b>	• yellow
<b>Included in scope of supply</b>	2 retaining straps

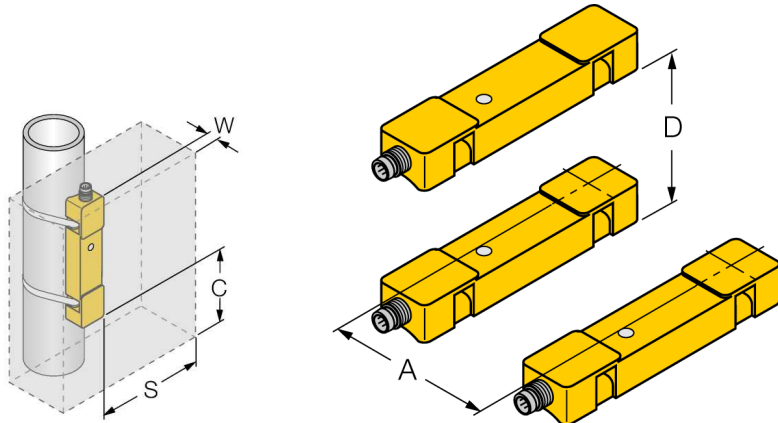
**Functional principle**

Due to its high sensitivity, the sensor detects even small and fast moving parts through tubes. Mounting is easily accomplished with retaining straps. The sensor can thus be repositioned or replaced during operation. This sensor is the better alternative to simple ring sensors.



**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
<hr/>	
Width of the active face 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.