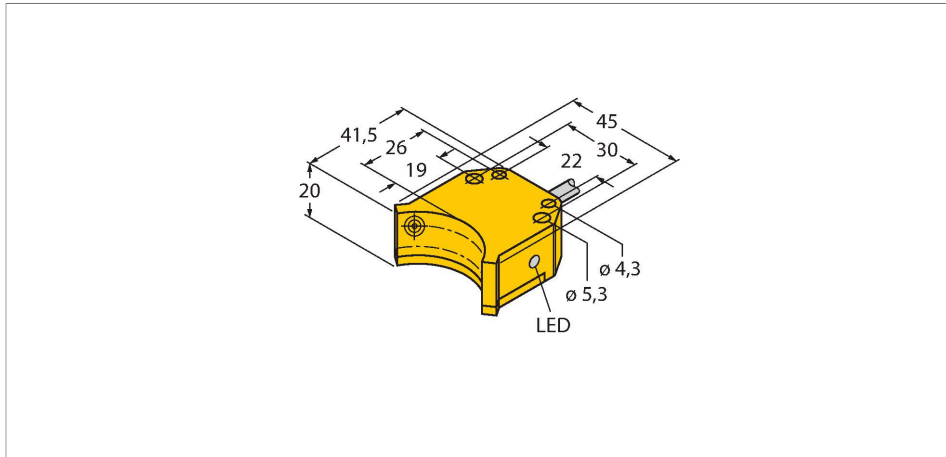


# NI4-DS20-2AP6X2

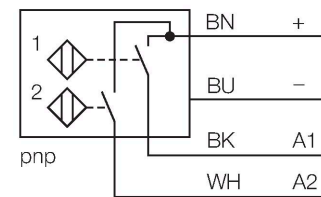
## Inductive Sensor – For Rotary Actuators



### Features

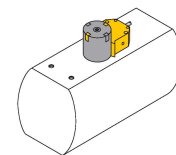
- Rectangular, housing DS20
- Plastic, PBT-GF30-VO
- Two switching outputs for monitoring the position of rotary actuators
- Mounting on all standard actuators
- 2 x NO contact, PNP output
- DC 4-wire, 10...30 VDC
- Cable connection

### Wiring diagram



### Functional principle

Inductive sensors detect metal objects contactless and wear-free. Dual sensors are especially designed for position detection in rotary actuators. They combine the reliability of non-contact inductive sensors with the flexibility of a modular housing system.



### Technical data

Type	NI4-DS20-2AP6X2
Ident. no.	1650022
Rated switching distance	4 mm
Mounting conditions	Non-flush
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeat accuracy	≤ 2 % of full scale
Temperature drift	≤ ± 10 %
Hysteresis	3...15 %
Ambient temperature	-25...+70 °C
Operating voltage	10...30 VDC
Residual ripple	≤ 10 % U <sub>ss</sub>
DC rated operational current	≤ 200 mA
No-load current	≤ 15 mA
Residual current	≤ 0.1 mA
Isolation test voltage	≤ 0.5 kV
Short-circuit protection	yes / Cyclic
Voltage drop at I <sub>e</sub>	≤ 1.8 V
Wire breakage/Reverse polarity protection	Complete
Output function	4-wire, NO contact, PNP
Switching frequency	0.05 kHz
<b>Design</b>	<b>Dual sensor for valve monitoring, DS20</b>
Dimensions	42 x 45 x 20 mm
Housing material	Plastic, PBT-GF30-VO
Active area material	Plastic, PBT-GF30-VO

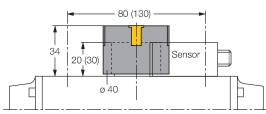
## Technical data

Max. tightening torque housing nut	3 Nm
Electrical connection	Cable
Cable quality	Ø 5.2 mm, Gray, LifYY, PVC, 2 m
Core cross-section	4 x 0.34 mm <sup>2</sup>
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
MTTF	2283 years acc. to SN 29500 (Ed. 99) 40 °C
Switching state	2 x LEDs, Yellow/Yellow

## Accessories

### BTS-DS20-TP1

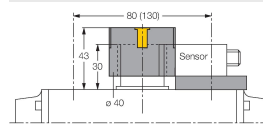
6900155



Actuation kit (puck) for dual sensors; end position damped; hole pattern on receptacle surface: 80 x 30 mm; connection shaft (shaft extension) height: 20 mm/Ø: max. 30 mm

### BTS-DS20-TK1

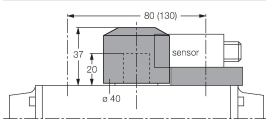
6900156



Actuation kit (puck) for dual sensors; end position damped; hole pattern on receptacle surface: 80 x 30 mm (130 x 30 mm); connection shaft (shaft extension) height: 30 mm/Ø: max. 30 mm

### BTS-DS20-KEY

6900136



Actuation kit (puck) for dual sensors; end position damped and switchpoint adjustable; hole pattern on receptacle surface: 80 x 30 mm (130 x 30 mm); connection shaft (shaft extension) height: 20 mm/Ø: max. 22 mm