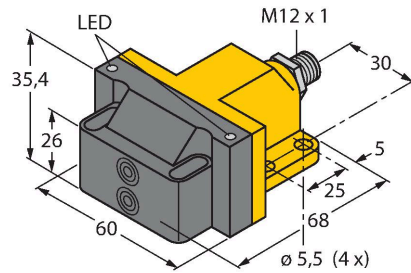


# NI4-DSU26-2Y1X2-H1140

## Inductive Sensor – For Rotary Actuators



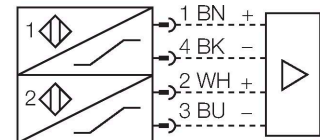
### Features

- Rectangular, housing DSU26
- Plastic, PP-GF30-VO
- Two outputs for monitoring the position of rotary actuators
- Mounting on all standard actuators
- DC 2-wire, nom. 8.2 VDC
- 2 × outputs acc. to EN 60947-5-6 (NAMUR)
- M12 × 1 connector
- ATEX category II 2 G, Ex Zone 1
- ATEX category II 1 D, Ex Zone 20
- SIL 2 (Low Demand Mode) acc. to IEC 61508, PL c acc. to ISO 13849-1 at HFT0
- SIL 3 (All Demand Mode) acc. to IEC 61508, PL e acc. to ISO 13849-1 with redundant configuration HFT1

### Technical data

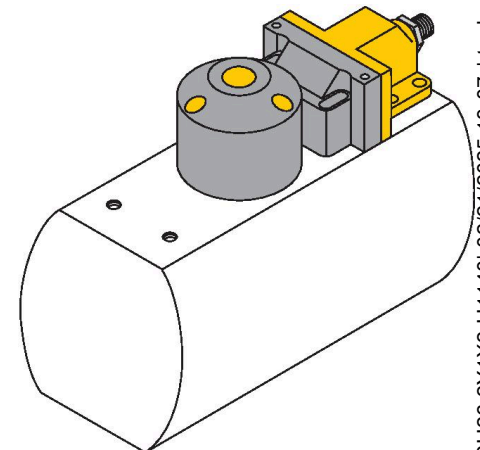
Type	NI4-DSU26-2Y1X2-H1140
ID	1051007
<b>General data</b>	
Rated switching distance	4 mm
Mounting conditions	Non-flush
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeat accuracy	≤ 2 % of full scale
Temperature drift	≤ ±10 %
Hysteresis	1...10 %
<b>Electrical data</b>	
Output function	4-wire, NAMUR
Switching frequency	0.05 kHz
Voltage	Nom. 8.2 VDC
Non-actuated current consumption	≥ 2.1 mA
Actuated current consumption	≤ 1.2 mA
Approval acc. to	KEMA 02 ATEX 1090X
Internal capacitance (C)/inductance (L)	150 nF/150 µH
Device marking	EX II 2 G Ex ia IIC T6 Gb/II 1 D Ex ia IIIC T135 °C Da
	(max. U <sub>i</sub> = 20 V, I <sub>i</sub> = 60 mA, P <sub>i</sub> = 200 mW)
Warning	Avoid static charging
<b>Mechanical data</b>	
Design	Dual sensor for valve monitoring, DSU26
Dimensions	68 x 60 x 35.4 mm

### 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.



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## Technical data

Housing material	Plastic, PP-GF30, Yellow
Active area material	Plastic, PP-GF30, black
Electrical connection	Connector, M12 × 1
Environmental conditions	
Ambient temperature	-25...+70 °C
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
MTTF	6198 years acc. to SN 29500 (Ed. 99) 40 °C
Switching state	2 × LEDs, Yellow/red

## Accessories

IMC-DI-22EX-PNO/24VDC
7560003

2-channel isolating switching amplifier with M12x1 males, for peripheral use, IP67, zones 2/22, input circuits II(1) Ex ia, PNP transistor output NO

BTS-DSC26-EB2
6900223

Actuation kit (puck) for dual sensors; end position damped; hole pattern on receptacle surface: 80 x 30 mm and 130 x 30 mm; connection shaft (shaft extension) height: 30 mm/Ø: max. 50 mm

BTS-DSC26-EB3
6900224

Actuation kit (puck) for dual sensors; end position damped; hole pattern on receptacle surface: 30 x 130 mm; connection shaft (shaft extension) height: 30 mm/Ø: max. 85 mm


BTS-DSC26-EB20
100002102

Actuator (puck) for dual sensors; end position damped; hole pattern on flange: 80 x 30 mm and 130 x 30 mm; connection shaft (shaft extension) height: 30 mm/Ø: max. 35 mm; available as an option: Spacer BTS-DSC26-UR10 for 20-mm-high connection shafts (shaft extension)

BTS-DSC26-UR10
100002103

Spacer for dual sensor actuation kit BTS-DSC26-EB20

Wiring accessories

Dimension drawing	Type	ID	
	RKC4.441T-2/TEB	6628444	Connection cable, M12 female connector, straight, 4-pin, cable length: 2 m, jacket material: PVC, blue; cULus approval

## Instructions for use

### Intended use

This device fulfills Directive 2014/34/EC and is suited for use in areas exposed to explosion hazards according to EN 60079-0:2018 and EN 60079-11:2012. Further it is suited for use in safety-related systems, including SIL2 as per IEC 61508. In order to ensure correct operation to the intended purpose it is required to observe the national regulations and directives.

### For use in explosion hazardous areas conform to classification

II 2 G and II 1 D (Group II, Category 2 G, electrical equipment for gaseous atmospheres and category 1 D, electrical equipment for dust atmospheres).

### Marking (see device or technical data sheet)

Ⓔ II 2 G and Ex ia IIC T6 Gb and Ⓔ II 1 D Ex ia IIIC T135 °C Da acc. to EN 60079-0, -11

### Local admissible ambient temperature

-25...+70 °C

### Installation/Commissioning

These devices may only be installed, connected and operated by trained and qualified staff. Qualified staff must have knowledge of protection classes, directives and regulations concerning electrical equipment designed for use in explosion hazardous areas. Please verify that the classification and the marking on the device comply with the actual application conditions.

This device is only suited for connection to approved Exi circuits according to EN 60079-0 and EN 60079-11. Please observe the maximum admissible electrical values. After connection to other circuits the sensor may no longer be used in Exi installations. When interconnected to (associated) electrical equipment, it is required to perform the "Proof of intrinsic safety" (EN 60079-14). Attention! When used in safety systems, all content of the security manual must be observed.

### Installation and mounting instructions

Avoid static charging of cables and plastic devices. Please only clean the device with a damp cloth. Do not install the device in a dust flow and avoid build-up of dust deposits on the device. If the devices and the cable could be subject to mechanical damage, they must be protected accordingly. They must also be shielded against strong electro-magnetic fields. The pin configuration and the electrical specifications can be taken from the device marking or the technical data sheet. In order to avoid contamination of the device, please remove possible blanking plugs of the cable glands or connectors only shortly before inserting the cable or opening the cable socket.

### Special conditions for safe operation

avoid static charging

### Service/Maintenance

Repairs are not possible. The approval expires if the device is repaired or modified by a person other than the manufacturer. The most important data from the approval are listed.