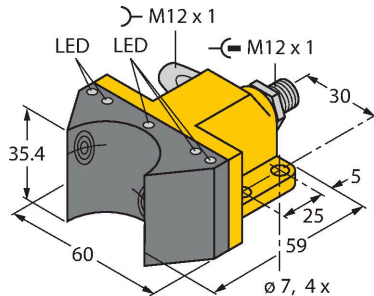


# NI4-DSU35-2DNETX5-H1150

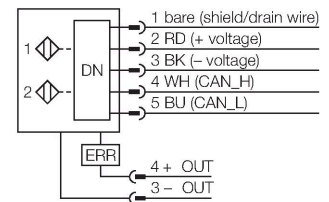
## Inductive Sensor – For Rotary Actuators



### Features

- Rectangular, housing DSU35
- Plastic, PP-GF30-VO
- Two outputs for monitoring the position of rotary actuators
- Direct connection to DeviceNet™ networks
- Valves can be connected
- DC 5-wire, 11...25 VDC
- M12 x 1 male connector

### Wiring diagram



### Functional principle

Inductive sensors detect metal objects contactless and wear-free. For this, they use a high-frequency electromagnetic AC field that interacts with the target. Inductive sensors generate this field via an RLC circuit with a ferrite coil.

LED	Colour	State	Status
S01	YE	on	target detected
S02	YE	on	target detected
out	YE	off	output off
	YE	on	output on
ERR status	RD	on	output on/off: wirebreak detected
	RD/GN	off	sensor not powered
		GN on steady	sensor active and allocated by a master
		GN flashing	sensor active but not allocated by a master
		RD flashing	recoverable fault (open output, invalid input state, low bus voltage, I/O timeout)
		RD on steady	major fault (duplicate address, baud rate, bus off comm.)
		GN+RD on	autobaud detect
		GN+RD flashing	power-up test

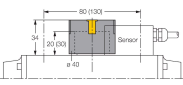
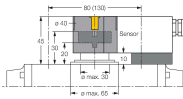
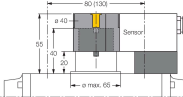
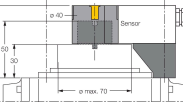
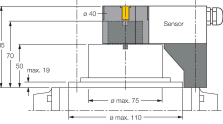
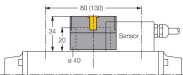
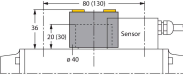
### Technical data

Type	NI4-DSU35-2DNETX5-H1150
ID	1569908
<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	3...15 %
<b>Electrical data</b>	
Operating voltage	11...25 VDC
No-load current	60 mA
Isolation test voltage	≤ 0.5 kV
Communication protocol	DeviceNet
Output function	5-wire, 2 normally open contact
Address (MacID)	0 - 63, via EDS file
Baud rate	via EDS file
DeviceNet input data	Bit 0 S01 input / Bit 1 S02 input / Bit 2 output error / Bit 7 input error
	Bit 3 - Bit 6, not used
DeviceNet output data	Bit 0 valve output
	Bit 1 - Bit 7, not used
Output voltage	U <sub>B</sub> - 3 V, PNP
Rotary actuators output current	≤ 80 mA, earthing not permitted
Short-circuit protection / output watchdog	yes / no
Wire breakage protection	≤ 0.1 mA
Switching frequency	0.05 kHz

## Technical data

Mechanical data	
Design	Dual sensor for rotary actuators, DSU35
Dimensions	59 x 60 x 35.4 mm
Housing material	Plastic, PP-GF30, Yellow
Active area material	Plastic, PP-GF30, black
Max. tightening torque of housing nut	3 Nm
Electrical connection	Connector, M12 x 1
Valve connection	Connector, M12 x 1
Environmental conditions	
Ambient temperature	-25...+70 °C
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
Switching state	2 x LEDs, Yellow/Yellow

## Accessories

BTS-DSU35-EB1	6900225	 <p>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: 20 mm (30 mm)/Ø: max. 30 mm</p>	BTS-DSU35-Z01	6900229	 <p>Mounting kit for dual sensors for larger rotary actuators; Ø spacer plate and snap ring: max. 65 mm; hole pattern on receptacle surface: 30 x 80 mm (30 x 130 mm); connection shaft (shaft extension) height: 20 mm/Ø: max. 30 mm</p>
BTS-DSU35-Z02	6900230	 <p>Mounting kit for dual sensors for larger rotary actuators; Ø spacer plate and snap ring: max. 65 mm; hole pattern on receptacle surface: 30 x 80 mm (30 x 130 mm); connection shaft (shaft extension) height: 20 mm (30 mm)/Ø: max. 40 mm</p>	BTS-DSU35-Z03	6900231	 <p>Mounting kit for dual sensors for larger rotary actuators; Ø spacer plate and snap ring: max. 110 mm; hole pattern on receptacle surface: 30 x 130 mm; connection shaft (shaft extension) height: 30 mm/Ø: max. 70 mm</p>
BTS-DSU35-Z07	6900403	 <p>Mounting kit for dual sensors for larger rotary actuators; Ø spacer plate and snap ring: max. 110 mm; hole pattern on receptacle surface: 30 x 130 mm; connection shaft (shaft extension) height: 50 mm/Ø: max. 75 mm</p>	BTS-DSU35-EBE3	6901070	 <p>Actuation kit (puck) for dual sensors; end position damped; "open" and "closed" switchpoint adjustable; hole pattern on receptacle surface: 80 x 30 mm and 130 x 30 mm; connection shaft (shaft extension) height: 20 mm/Ø: max. 30 mm</p>
BTS-DSU35-EU2	6900455	 <p>Actuation kit (puck) for dual sensors; end position undamped for clockwise and counter-clockwise drives; hole pattern on flange surface 80 x 30 mm and 130 x 30 mm; connection shaft (shaft stud) height 20 (30) mm / Ø max. 30 mm</p>			