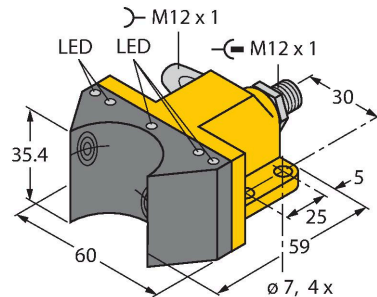


# NI4-DSU35-2DNETX5-H1150

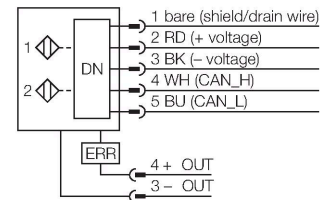
## Inductive Sensor – For Rotary Actuators



### 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
out	YE	on	output on
ERR	RD	on	output on/off wirebreak detected
status	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
General data	
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 %
Electrical data	
Operating voltage $U_B$	11...25 VDC
No-load current	≤ 60 mA
Isolation test voltage	0.5 kV
Communication protocol	DeviceNet
Output function	5-wire, 2 x NO 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	$U_B - 3$ V, PNP
Rotary actuators output current	≤ 80 mA, earthing not permitted
Short-circuit protection / output watchdog	yes / no

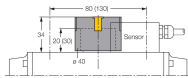
## Technical data

Wire breakage protection	≤ 0.1 mA
Switching frequency	0.05 kHz
<b>Mechanical data</b>	
Design	Dual sensor for valve monitoring, 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
<b>Environmental conditions</b>	
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

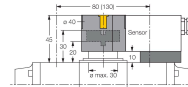
6900225



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

### BTS-DSU35-Z01

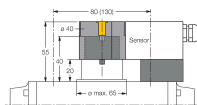
6900229



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

### BTS-DSU35-Z02

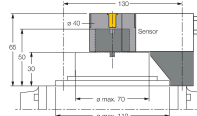
6900230



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

### BTS-DSU35-Z03

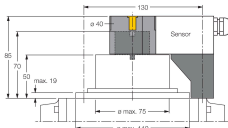
6900231



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

### BTS-DSU35-Z07

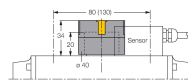
6900403



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

### BTS-DSU35-EBE3

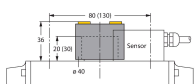
6901070



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

### BTS-DSU35-EU2

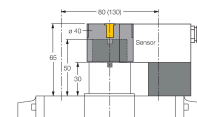
6900455



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

### BTS-DSU35-Z06

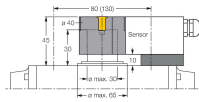
6900402



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: 30 mm/Ø: max. 40 mm

## BTS-DSU35-Z04

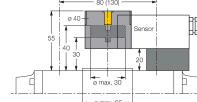
6900286



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: 30 mm/ Ø: max. 30 mm

## BTS-DSU35-Z05

6900287



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: 30 mm/ Ø: max. 30 mm