

## ROTATION SPEED TRANSMITTER

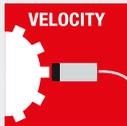
# TR-NC/8V



The TR-NC/8V transmitter measures the rotation speed of a shaft and it is able to interface directly in 2 wires technique (current loop  $4 \div 20$  mA) to an acquisition system (PLC or DCS).

The measuring chain is composed by a proximity sensor, an extension cable and a transmitter. It is supplied complete with:

- No. 4 contacts: two for the 24 Vdc connection of the power supply and two for the check of the voltage gap for the probe positioning
- BNC socket for the connection to a portable analyser
- Coaxial connector for the sensor connection



### TECHNICAL CHARACTERISTICS

Composition	<ul style="list-style-type: none"> <li>■ ST-NC/8 sensor</li> <li>■ Extension cable</li> <li>■ TR-NC/8 transmitter</li> </ul>
Power supply	<ul style="list-style-type: none"> <li>■ 24 Vdc (<math>18 \div 32</math> Vdc) current loop <math>4 \div 20</math> mA (2 wires)</li> <li>■ Maximum load see figure 1</li> </ul>
External connection	<ul style="list-style-type: none"> <li>■ Bipolar shielded cable to the terminals POWER +/-</li> </ul>
Environmental field	<ul style="list-style-type: none"> <li>■ Sensor: <math>-55^{\circ}\text{C}</math> to <math>180^{\circ}\text{C}</math> (ATEX: <math>-55^{\circ}\text{C}</math> to <math>175^{\circ}\text{C}</math>)</li> <li>■ Extension cable: <math>-55^{\circ}\text{C}</math> to <math>180^{\circ}\text{C}</math> (ATEX: <math>-55^{\circ}\text{C}</math> to <math>175^{\circ}\text{C}</math>)</li> <li>■ Transmitter: <math>-40^{\circ}\text{C}</math> to <math>80^{\circ}\text{C}</math> (ATEX: <math>-20^{\circ}\text{C}</math> to <math>70^{\circ}\text{C}</math>)</li> </ul>
Measurement type	<ul style="list-style-type: none"> <li>■ Rotation speed</li> </ul>
Dynamic field	<ul style="list-style-type: none"> <li>■ <math>100 \div 10000</math> RPM</li> </ul>
Linearity	<ul style="list-style-type: none"> <li>■ <math>\pm 2\%</math> in the whole measuring field and within the limits of the indicated operating temperatures</li> </ul>
Insulation	<ul style="list-style-type: none"> <li>■ <math>\geq 10^8 \Omega</math> between signal and container</li> </ul>
Possible arrangements to the order	<ul style="list-style-type: none"> <li>■ Cable length</li> <li>■ Measuring range</li> <li>■ Type of certification</li> <li>■ Number of teeth of the polar wheel</li> </ul>

# TR-NC/8V TRANSMITTER

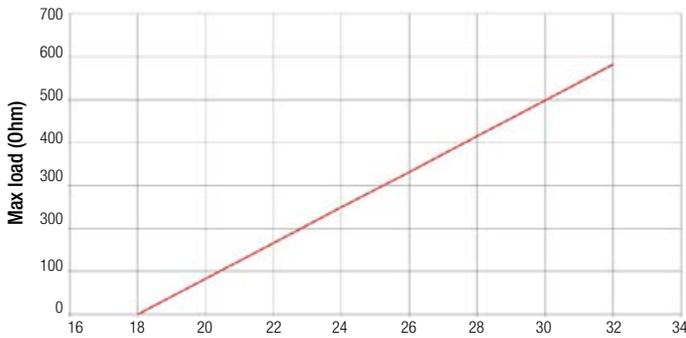
The transmitter is also available as ATEX certified for classified area application

 II 1G Ex ia IIC T6,T5 Ga (ATEX)  
Ex ia IIC T6,T5 Ga (IECEX)



Power supply:	24Vdc
Dynamic field:	100 ÷ 10000 RPM
Environmental field:	-20°C ÷ +70°C
DIN Rail:	Yes

Maximum load on current loop



## CONVERTER

TR-NC/8 /  /  /  /  /

### A: MEASUREMENT TYPE

V rotation speed

### B: CABLE TOTAL LENGHT

1 5 m  
2 7 m  
3 9 m  
S special

### C: MEASURING RANGE

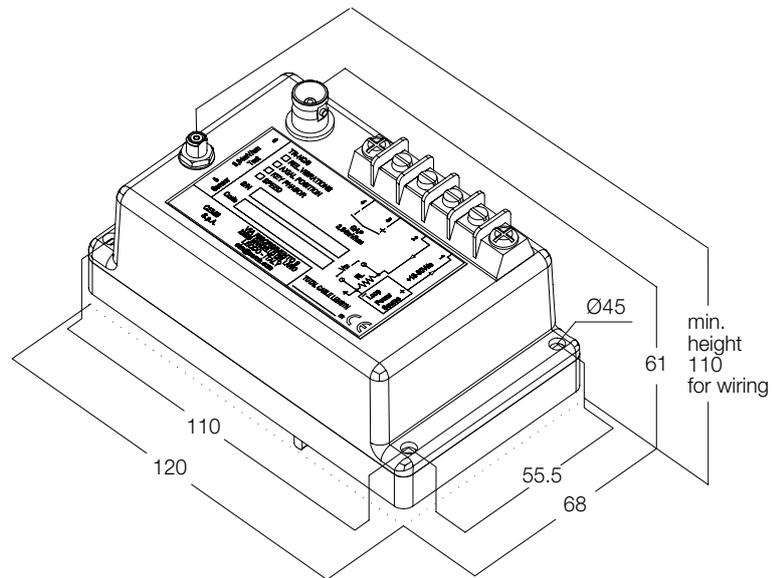
01 100 RPM  
02 500 RPM  
03 1000 RPM  
04 1500 RPM  
05 2000 RPM  
06 2500 RPM  
07 3000 RPM  
08 4000 RPM  
09 6000 RPM  
10 10000 RPM  
SP special

### D: TYPE OF TARGET

1 Standard  
2  II 1G Ex ia IIC T6,T5 Ga (ATEX)  
3 Ex ia IIC T6,T5 Ga (IECEX)

### E: NUMBER OF TEETH OF THE POLAR WHEEL

000 1 hole  
001 1 tooth  
XXX number of teeth



## INTEGRATED CABLE TYPES

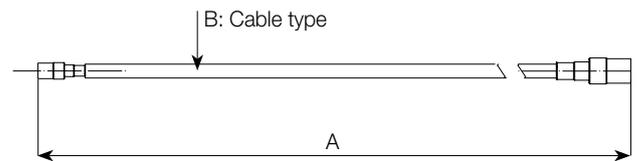
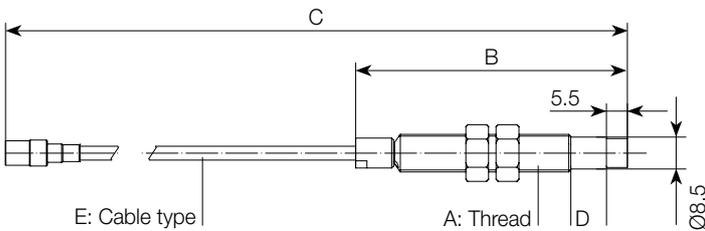


Material:	Stainless steel
Thread:	M10 o 3/8" - UNF
Body:	40 mm ÷ 250 mm
Oil proof:	Yes
Stainless steel armour cable:	Optional

## EXTENSION CABLE (optional)



Stainless steel armour cable: Optional



## PROBE

ST - NC / 8 /  /  /  /  /

### A: THREAD TYPE

0	M10x1
1	3/8"-24UNF
S	special

### B: BODY LENGHT

pitch 10 mm – minimum 40 mm (4) – maximum 250 mm (25)

5	50 mm (standard)
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### C: TOTAL SENSOR LENGTH (BODY + CABLE)

pitch 500 mm – minimum 500 mm (5) – maximum 9000 mm (90)

10	1000 mm (standard)
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### D: UNTHREADED PART LENGTH (ONLY FOR M10X1)

pitch 10 mm – Minimum 0 mm (0) – Maximum 120 mm (12)

0	0 mm (standard)
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### E: CABLE ARMATURE

0	not armoured
1	armoured

## EXTENSION CABLE (optional)

CPT - NC / 8 /  /

### A: CABLE LENGHT

pitch 500 mm – minimum 1500 mm (15) – maximum 8500 mm (85)

40	4000 mm (standard)
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### B: CABLE ARMOUR

0	not armoured
1	armoured

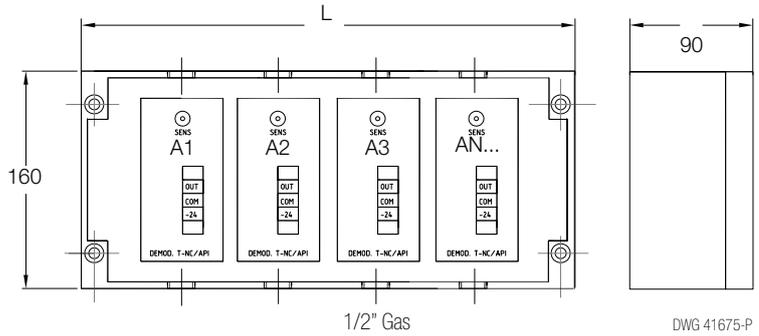
\* In the old coding, number zero "0" could be present before the code number.

Example:  
ST-NC/8/0/05/010/00/0 (old code)  
Equivalent to:  
ST-NC/8/0/5/10/0/0 (new code)

# CEMB

**JB-1**

Alu junction box Junction Box IP65 container for TR-NC/8V transmitter.

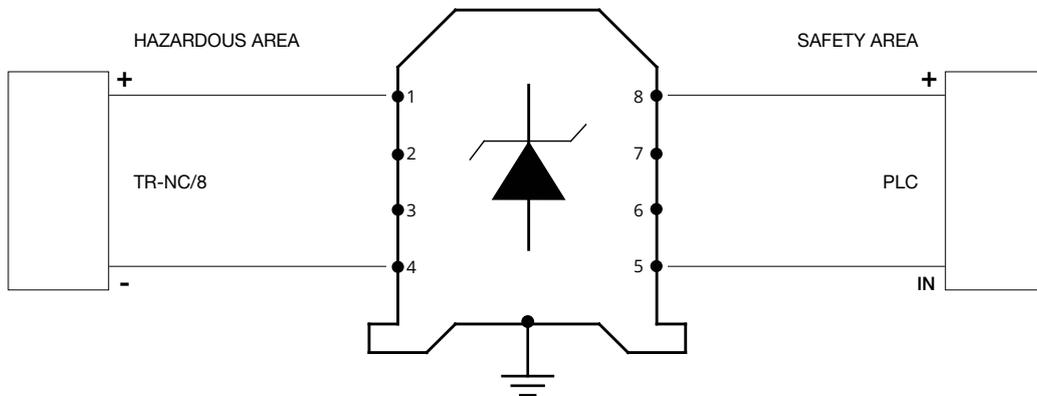


**A**  
JB-1 / □

**A: NUMBER OF TRANSMITTER MODULES**

1	1 Module	L= 160mm
2	2 Modules	L= 260mm
4	4 Modules	L= 360mm
6	6 Modules	L= 560mm

**ZENER BARRIER Z787 (FOR HAZARDOUS AREA)**



**PLASTIC TAG**  
040STR000

B5MAG10 CY002

**STAINLESS STEEL TAG**  
980710835

B5MAG10 CY002



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