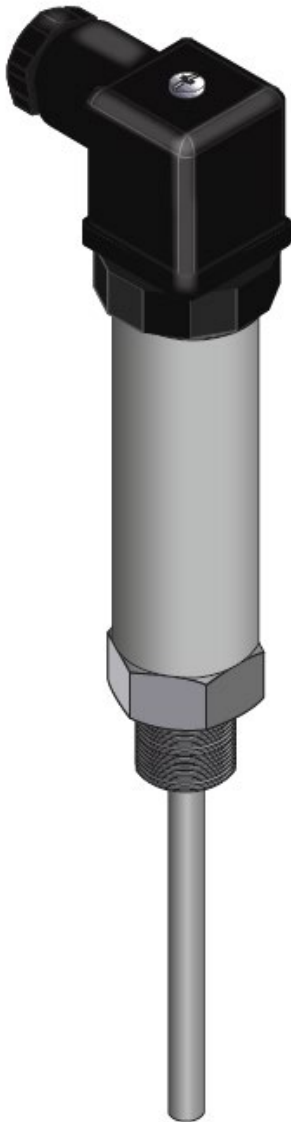


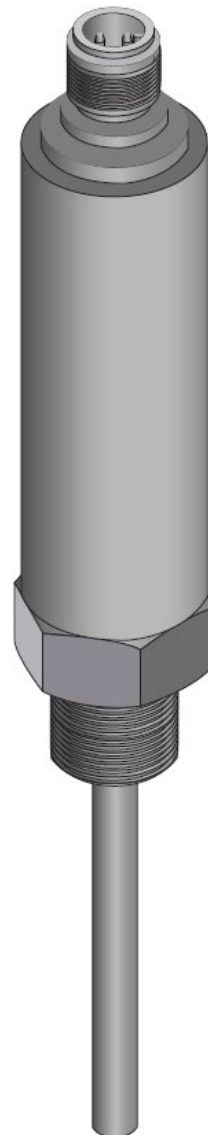
USER MANUAL

ASTR - TEMPERATURE TRANSMITTER

ASTR-DIN



ASTR-M12



CE

INDEX

- 1. SAFETY INSTRUCTIONS**
- 2. OPERATING SPECIFICATIONS**
- 3. FUNCTION**
- 4. ELECTRICAL CONNECTION**
- 5. TECHNICAL DATA**
- 6. INSTALLATION**
- 7. OPERATION**
- 8. DIMENSIONS**

Compliant to electromagnetic compatibility according to regulation EMC 2014/30/EU according to EMC test EN 61326-1:2013

1. Safety instructions

- Read this manual before installing the device.
- Make sure the device suits your process conditions with no restrictions.
- The lack of respect of usage instructions or technical data indicated may cause personal injury and/or property damages.
- Improper use may cause device malfunctioning or undesirable effect on the process. Therefore installation, electrical connection, set up and maintenance must be carried out only by qualified and authorized personnel from the plant or machine operator.
- To ensure the right functioning and conservation of the device, please use it only with appropriate gases and fluids according to construction material. Consider the actual resistance.
- The device suitability in its specific process is operator responsibility. The manufacturer assumes no responsibility towards improper uses. Improper installation and usage entails the loss of guarantee.

2. Operating specifications

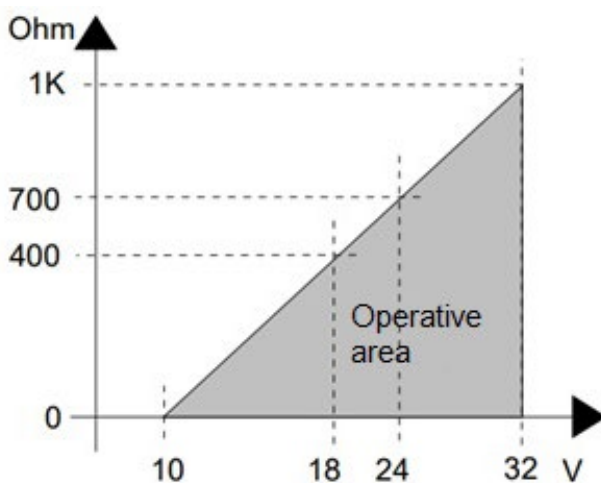
The device detects fluid or gas temperature and it converts them into an analogue output: DC from 4 to 20 mA, two-wires technology.

3. Function

The unit converts resistance value in analogue signal proportional to the temperature measured. Output signal range is 4..20 mA.

Please find available pre-set range on our site www.thermocouple-pt100atex.com/temperature-transmitter or check the label on the transmitter.

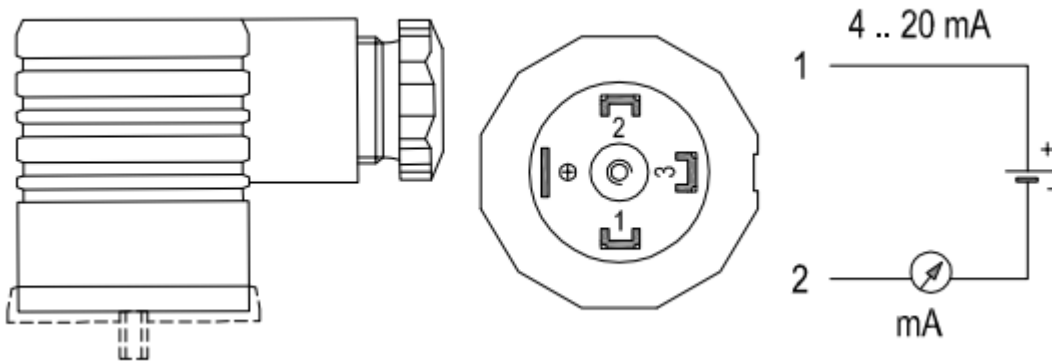
Resistance load - R_{load} (load in series to the input loop depending on the supply tension to the loop itself).



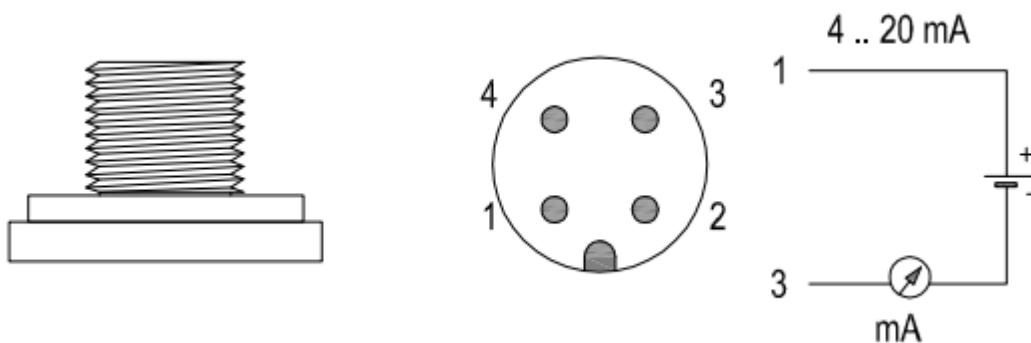
4. Electrical connection

The transmitter must be connected by a qualified electrician.
National and international electric regulation must be followed.
Supply must be direct current.
Before to use connect as follows:

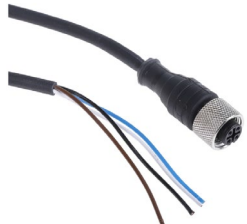
Squared connector DIN EN 175 301-803-A (IP65)



Circular M12 connector (IP65)



In case you purchased the extension cable sold as ASTR option, the pin assignment is the following:

	Conductor colour	Pin number / Function
	Brown	1 Supply, VDC (+)
	White	2
	Blue	3 Supply, VDC (-)
	Black	4
	Shield	Shield

5. Technical data

Supply voltage 10 to 32 VDC, protected against reverse polarity up to 60 VDC max

Output signal: two-wires analogue output 4..20 mA

Input impedance : $\geq 10 \text{ M}\Omega$

Response time (10÷ 90%): about 400 ms

Storage and operative temperature: -40 °C to +85 °C (0..90 %RH)

6. Installation

Horizontal installation recommended for medium/high measure temperature.

Secure the device in place through fitting element (fix fitting, sliding compression fitting, reductor etc.)

7. Operation

After switching on the transmitter, it starts operating mode within 5 seconds.

It is recommended to wait 10 minutes due to warm-up time.

8. Dimension

Transmitter body:

- cylinder diameter 23 mm in SS316, HEX24 upon thread
- total body length comprehensive of circular M12 connector: 80 mm
- total body length comprehensive of squared connector DIN EN 175 301-803-A: 120 mm