71629783

Brief Operating Instructions
iTEMP TMT36

IO-Link temperature transmitter

These Brief Operating Instructions are not a substitute for the Operating Instructions pertaining to the device. Detailed information can be found in the Operating Instructions and the additional documentation.

Available for all device versions via:
- Internet: www.endress.com/deviceviewer
- Smartphone/tablet: Endress+Hauser Operations app

Basic safety instructions

Manufacturer: Endress+Hauser Wetzer GmbH + Co. KG, Obere Wank 1, D-87484 Nesselwang or www.endress.com

Requirements for the personnel

The personnel must fulfill the following requirements for its tasks:
- Trained, qualified specialists must have a relevant qualification for this specific function and task.
- Are authorized by the plant owner/operator.
- Are familiar with federal/national regulations.
- Before starting work, read and understand the instructions in the manual and supplementary documentation as well as the certificates (depending on the application).
- Follow instructions and comply with basic conditions.

Intended use

The device is a universal and configurable temperature transmitter with a sensor input for resistance thermometers (RTD). The head transmitter version of the device is intended for mounting in a terminal head (flat face) as per DIN EN 50446. It is also possible to mount the device on a DIN rail using the optional DIN rail clip.

If the device is used in a manner not specified by the manufacturer, the protection provided by the device may be impaired.

The manufacturer is not liable for damage caused by improper or unintended use.

Workplace safety

When working on and with the device:
- Wear the required personal protective equipment as per national regulations.

Operational safety

- Operate the device only if it is in proper technical condition, free from errors and faults.
- The operator is responsible for the interference-free operation of the device.

Hazardous area

To eliminate a danger for persons or for the facility when the device is used in the hazardous area (e.g. explosion protection or safety equipment):
- Based on the technical data on the nameplate, check whether the ordered device is permitted for the intended use in the hazardous area. The nameplate can be found on the side of the transmitter housing.
- Observe the specifications in the separate supplementary documentation included as an integral part of these instructions.

Electromagnetic compatibility

The measuring system complies with the EMC requirements stipulated in the IEC/EN 61326 series and NAMUR Recommendation NE 21.

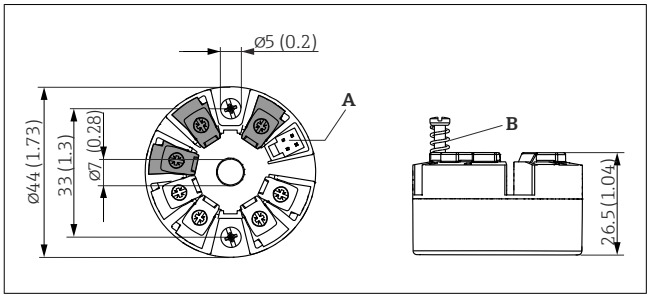
NOTICE

- The device must only be powered by a power unit that operates using an energy-limited electric circuit according to UL/EN/IEC 61010-1, Section 9.4 and the requirements in Table 18.

Product safety

This product is designed in accordance with good engineering practice to meet state-of-the-art safety requirements and has been tested and left the factory in a condition in which it is safe to operate.

Mounting



1 *Version with screw terminals*

A Display connection
B Spring travel L ≥ 5 mm (not for US - M4 securing screws)

The same dimensions apply to the version with push-in terminals. Exception: Height of housing H = 30 mm (1.18 in).

Mounting the device

A Phillips head screwdriver is required to mount the head transmitter:
- Maximum torque for securing screws = 1 Nm (¾ lbf ft), screwdriver: Pozidriv PZ2
- Maximum torque for screw terminals = 0.35 Nm (¼ lbf ft), screwdriver: Pozidriv PZ1

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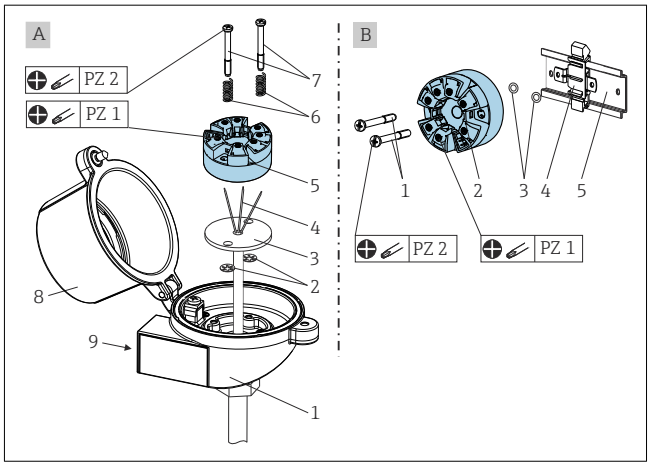


A Terminal head in accordance with DIN EN 50446 form B, direct installation onto insert with cable entry (middle hole 7 mm (0,28 in))
B With DIN rail clip on DIN rail as per IEC 60715 (TH35)

Procedure for mounting in a terminal head, item A:

1. Open the terminal head cover (8) on the terminal head.
2. Guide the connection wires (4) of the insert (3) through the center hole in the head transmitter (5).
3. Fit the mounting springs (6) on the mounting screws (7).
4. Guide the mounting screws (7) through the side boreholes of the head transmitter and the insert (3). Then secure both mounting screws with the retaining rings (2).
5. Then tighten the head transmitter (5) along with the insert (3) in the terminal head.
6. After wiring (see 'Electrical connection' section), seal the terminal head cover (8) once again.

When installing the device in a terminal head, make sure there is enough space in the terminal head!

Procedure for mounting on a DIN rail, item B:

1. Press the DIN rail clip (4) onto the DIN rail (5) until it engages with a click.
2. Guide the mounting screws (1) through the side boreholes of the head transmitter (2) and secure with the retaining rings (3).
3. Screw the head transmitter (2) onto the DIN rail clip (4).

Important ambient conditions

Ambient temperature range	−40 to +85 °C (−40 to 185 °F)	Storage temperature	−50 to +100 °C (−58 to +212 °F)
Degree of protection	IP 20. When installed, the degree of protection depends on the terminal head.	Overvoltage category	II
Pollution degree	2	Humidity	Max. rel. humidity: 95 %
Altitude	≤ 4 000 m (4 374.5 ft)	Insulation class	Class III

Electrical connection

CAUTION

- Switch off the power supply before installing or connecting the device. Failure to observe this may result in the destruction of parts of the electronics.
- Do not occupy the display connection. An incorrect connection can destroy the electronics.

NOTICE

- ESD - Electrostatic discharge. Protect the terminals from electrostatic discharge. Failure to observe this may result in the destruction or malfunction of parts of the electronics.

Connecting requirements

A Phillips head screwdriver is required to wire the head transmitter with screw terminals. The push-in terminal version can be wired without any tools.

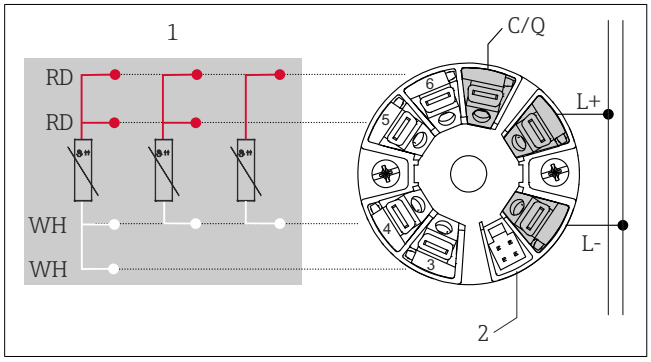
Maximum torque for screw terminals = 0.35 Nm (¼ lbf ft), screwdriver: Pozidriv Z1

Proceed as follows to wire a mounted head transmitter:

1. Open the cable gland and the housing cover on the terminal head or the field housing.
2. Feed the cables through the opening in the cable gland.
3. Connect the cables as shown in → 2.
4. Tighten the cable gland again and close the housing cover.

Connecting the device

Supply voltage	Values for non-hazardous areas, protected against polarity reversal: U = 18 to 30 V_{DC}
Current consumption	I ≤ 11 mA



2 Terminal assignment of head transmitter

1 RTD sensor input: 4-, 3- and 2-wire
2 Display connection
L+ 18 to 30 V_{DC} power supply
L- 0 V_{DC} power supply
C/Q IO-Link or switch output

Commissioning

Establish supply voltage and IO-Link connection. If the supply voltage is applied to the device, a sequence of information appears on the display, which is available as an option. This phase is finished after approx. 5 seconds and normal operation resumes. See the relevant Operating Instructions for detailed information on configuration and process data.

Maintenance and cleaning

No special maintenance work is required for the device.

A clean, dry cloth can be used to clean the device.