

# TEMPERATURE TRANSMITTERS

## TX-12D



### Overview

The ASHE TX series of Temperature Transmitters comprise a wide range of high quality and reliable instruments for the conversion, amplification and transmission of temperature signals.

The instruments accept standard industrial temperature sensors like RTD Pt-100, Thermocouples (Types J, K, R, S, T, B, E, etc) and provide a buffered analog current loop output signal with enhanced load driving capacity. The instruments find wide usage in single loop or distributed process measurement and control applications.

The instruments are offered in Sensor Head-mount execution and standard DIN Rail mount options. The Output signal is linear with respect to the Input signal and can drive loads of up to 600 Ohms. The instruments operate on 24 VDC in two-wire / four-wire configuration and offer excellent stability and linearity to temperature signals. Optional features include higher load driving capability, digital indication facility, control relay outputs, etc.

The instruments are also offered in IP65 protected field mount weather-proof enclosures, or in CIMFR certified explosion-proof enclosures. Absence of any moving parts provides these instruments inherent advantages like immunity to mechanical shocks, dust, ambient temperature, humidity and corrosive atmosphere.

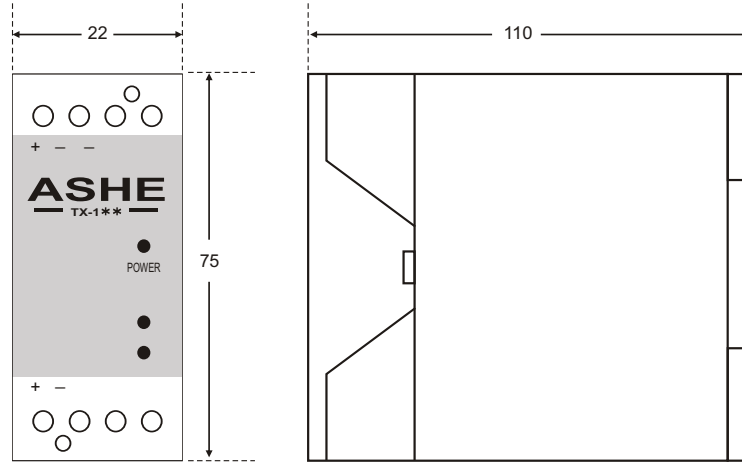
### Features

- Slim, compact and rugged execution.
- High accuracy and linearity to input signal
- Very low power consumption and heat dissipation
- High load driving capacity of transmitted signal
- Short-circuit / Open-circuit protection of output
- Front accessible Zero and Span calibration
- Digital Indication option with/without control relay outputs
- Two-wire or Four-wire system configuration
- Auxillary power for two-wire transmitters
- AC or DC Power Supply options
- Industrial grade enclosures
- Panel / Field / Hazardous area installation in IP65 execution
- Current limiting for I/O protection
- Customized outputs offered
- Proven record of several thousand installations
- Lifetime warranty on design and workmanship

### Specifications

<b>Model</b>	ASHE Series TX.
<b>Type</b>	Temperature Transmitters.
<b>Principle</b>	Signal Conditioning, buffering and amplification.
<b>Input Signal</b>	RTD Pt-100, Thermocouples (type J, K, R, S, T, B, E, etc).
<b>Output Signal</b>	4 to 20 mA DC.
<b>Load Driving Capacity</b>	600 Ohms.
<b>System</b>	Two-wire
<b>RTD excitation</b>	Internal.
<b>Temperature Range</b>	-75 to +500 deg C [RTD] 0 to 1800 deg C [Thermocouple]
<b>Linearity</b>	0.2% [RTD] 1.0% [Thermocouple]
<b>Output protection</b>	Short / Open Circuit protection.
<b>Calibration facility</b>	Zero and Span settings [external].
<b>Accuracy</b>	0.1%.
<b>Indication</b>	Red LED for Power On.
<b>Power Supply</b>	24 VDC [two-wire / four-wire].
<b>Initial warm-up time</b>	One minute.
<b>Execution</b>	DIN-Rail / Sensor-Head mounting.
<b>Operating Temperature</b>	0 to 50 °C.

### DIMENSIONAL DIAGRAM



### HOW TO ORDER

TEMPERATURE TRANSDUCER (Non Isolated)  
 Input : RTD Pt-100 (three-wire).  
 Output : 4 to 20 mA DC.  
 Power Supply : 24 V DC.  
 Dimensions : 75 x 22 x 110 mm.

TX-12D

Configuration and Add-on options w

#### 1 OPTICAL AND GALVANIC ISOLATION

- ▶ Required
- ▶ Not Required

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#### 2 POWER SUPPLY

- ▶ 230 V AC ( $\pm 10\%$ ), 50 Hz ( $\pm 10\%$ ).
- ▶ 110 V AC ( $\pm 10\%$ ), 50/60 Hz ( $\pm 10\%$ ).
- ▶ 24 V DC ( $\pm 10\%$ ).
- ▶ Other (to be specified).

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#### 3 EXECUTION

- ▶ DIN Rail mounting [75 x 55 x 110 mm]
- ▶ Field mounting in Weather-proof execution (Polycarbonate enclosure, IP65 protection)
- ▶ Field mounting in Flame/Explosion-proof execution (Cast Aluminum Alloy LM6 enclosure, for Gas groups IIA, IIB)

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#### 4 RETRANSMISSION

- ▶ Retransmission of 0 to 10 V DC
- ▶ No Retransmission
- ▶ Other (to be specified)

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### OUR OTHER PRODUCTS



PROCESS CONTROLLER

UNIVERSAL CONTROLLER

FLOW TOTALIZER

TEMP. SCANNER

SIGNAL ISOLATORS & TRANSDUCERS

SMPS POWER SUPPLIES

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