

# TEMPERATURE TRANSDUCER

TX-210



## OVERVIEW

The ASHE TX series of Signal Conditioners, Isolators, Transducers and Transmitters comprise a wide range of high quality and reliable instruments for the conversion, amplification and isolation of analog and digital signals.

The instruments accept standard industrial process input signals such as DC/AC Voltage, DC/AC Current, 4 to 20 mA DC, RTD Pt-100 sensor, Thermocouple sensor, Frequency [Pulse], Resistance, Strain-gauge, etc. and provide a buffered and isolated output with enhanced load driving capacity. The instruments find wide usage in single loop or distributed process measurement and control applications.

The new Series TX-210 Temperature Isolating Transducers measure the signal from an RTD Pt-100 [three-wire] temperature sensor and convert the signal into an isolated analog current loop signal of 4 to 20 mA DC [or as required]. The Output signal is linear with respect to the Input signal and is galvanically and optically isolated to a potential level of 1.5 KV rms for one minute.

The instruments operate on 85 to 270 V Universal AC power supply, or alternatively 20 to 70 VDC power supply. Optional features include Signal repeating [multiple isolated outputs], higher load driving capability, digital indication facility, control relay outputs, two-wire operation with auxillary power output, etc.

The instruments are available in compact industrial grade enclosures in DIN Rail execution, or optionally 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.

## SPECIFICATIONS

<b>Model</b>	ASHE TX-210.
<b>Type</b>	Temperature Isolating Transducer.
<b>Principle</b>	Optical Isolation and Signal Conditioning.
<b>Input Sensor</b>	RTD Pt-100 [three-wire].
<b>Output Signal</b>	4 to 20 mA DC
<b>Load Driving Capacity</b>	600 Ohms.
<b>Linearity</b>	± 0.15%.
<b>Range</b>	To be specified.
<b>Isolation</b>	Between Input // Output // Power Supply.
<b>Isolation type</b>	Optical and Galvanic.
<b>Isolation level</b>	1.5 kV rms for one minute.
<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>	90 to 270 V AC, 50 Hz [Optionally 20 to 70 V DC].
<b>Dimensions</b>	100 x 22 x 110 mm. [H x W x D].
<b>Execution</b>	DIN-Rail mounting.
<b>Enclosure</b>	Industrial grade ABS.
<b>Enclosure colour</b>	Opaline Green
<b>Weight</b>	Approximately 0.3 Kgs.
<b>Operating Temperature</b>	0 to 50°C.

## FEATURES

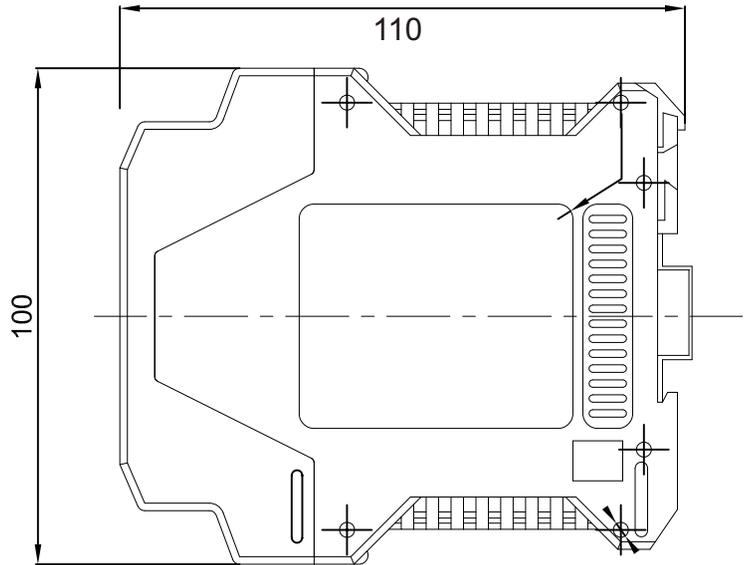
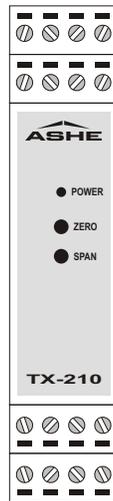
- Optical & Galvanic Isolation between Input, Output & Power Supply.
- High accuracy and linearity to input signal
- Very low power consumption and heat dissipation
- Options of multiple [upto four] isolated outputs
- High load driving capacity of retransmitted signal
- Configurable output option of current / voltage
- Short-circuit / Open-circuit protection of outputs
- Front accessible Zero and Span calibration for outputs
- Digital Indication option with/without control relay outputs
- Auxillary power for two-wire transmitters
- AC or DC Power Supply options
- Rugged, industrial grade ABS enclosure
- 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

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### DIMENSIONAL DIAGRAM

Dimensions : 100 x 22 x 110 mm  
Execution : DIN Rail mount.



### HOW TO ORDER

#### TEMPERATURE TRANSDUCER

Input (pre-specified) : RTD Pt-100 (three-wire).  
Output : 4 to 20 mA DC.  
Isolation : Optical and Galvanic.  
Power Supply : 85 to 270 V AC, 50/60 Hz or 20 to 70 VDC.  
Dimensions : 100 x 22 x 110 mm.

TX-210

#### Configuration and Add-on options

#### 1 OPTICAL AND GALVANIC ISOLATION

- ▶ Required
- ▶ Not Required

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#### 2 POWER SUPPLY

- ▶ 85 to 270 V AC, 50/60 Hz
- ▶ 20 to 70 VDC
- ▶ Other (to be specified)

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#### 3 EXECUTION

- ▶ DIN Rail mounting [100 x 22 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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### OUR OTHER PRODUCTS



FLOW TOTALIZER



SIGNAL ISOLATORS & TRANSDUCERS



TEMP. SCANNER



FLAMEPROOF INSTRUMENTS



STATIC POWER SWITCHES