ASHE CONTROLS PVT LTD
an ISO 9001:2015 certified company

# TX-240

## TX-Series Resistance Transducer




RoHS Compliant CE MAKE IN INDIA Modbus

## 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, 4 to 20 mA DC, RTD Pt-100 sensor, Thermocouple sensor, Frequency [Pulse], Resistance, etc. and provide a buffered and isolated output with enhanced load driving capacity. The TX Series Transducers are optionally available with RS485 Modbus RTU communication, enabling seamless transmission of the input process signal in digital format. The instruments find wide usage in single loop or distributed process measurement and control applications.

The new Series TX-240 Resistance Signal Isolating Transducers measure a variable Resistance in Ohms and buffer the signal into an isolated 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 3 KV RMS for one minute. An RS485 signal can also be provided at the terminals for data communication.

The instruments operate on 90 to 270 Volts AC, 50/60 Hz mains power supply or 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 auxiliary power output, data communication etc.

The instruments are available in compact industrial grade enclosures in DIN Rail / Wall-mounting execution, or optionally in IP66 protected field mount weather-proof enclosures, or in Ex-d 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.

This product is backed by a full two-year warranty, covering all manufacturing defects and workmanship issues under normal operating conditions.

## Specifications

| | |
|---|---|
| **Model** | ASHE TX-240. |
| **Type** | Resistance signal Isolating Transducer. |
| **Principle** | Optical Isolation and Signal Conditioning. |
| **Input Signal** | 0 to 1K Ohm Variable Resistance [or as required]. |
| **Output Signal** | 4 to 20 mA DC [or as required]. |
| **Communication** | RS485 on Modbus RTU communication (optional) (to be pre-specified) |
| **Linearity** | $\pm$ 0.1%. |
| **Isolation** | Between Input // Output // Power Supply. |
| **Isolation Type** | Optical and Galvanic. |
| **Isolation Level** | 3 kV RMS for one minute. |
| **Output Protection** | Short / Open Circuit protection. |
| **Calibration Facility** | Zero and Span settings [external]. |
| **Accuracy** | $\pm$ 0.1%. |
| **Indication** | Red LED for Power On. |
| **Power Supply** | 90 to 270 V AC, 50/60 Hz Universal AC/DC Power Supply [Optionally 20 to 70 V DC]. |
| **Dimensions** | 100 x 22 x 110 mm. [H x W x D]. |
| **Execution** | DIN-Rail / Wall mounting. |
| **Enclosure** | Industrial grade ABS. |
| **Weight** | Approximately 0.4 Kgs. |
| **Operating Temperature** | 0 to 55$^0$C. |

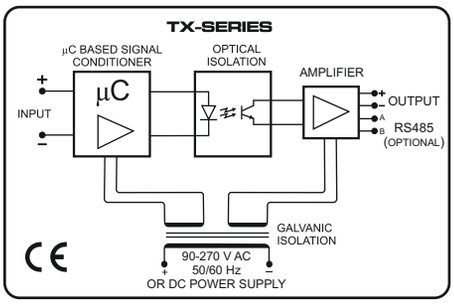
## Features

- 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 (offered in other enclosure)
- High load driving capacity of retransmitted signal
- RS485 on Modbus RTU output option (to be specified)
- Configurable output option of current / voltage
- Short-circuit / Open-circuit protection of outputs
- Front accessible Zero and Span calibration for all channels
- AC or DC Power Supply options (pre-specified)
- Rugged, industrial grade ABS enclosure
- Panel / Field / Hazardous area installation in IP66 execution
- Current limiting for I/O protection
- Customized outputs offered
- Two-year Performance Warranty
- Proven track record of successful site installations

# TX-240

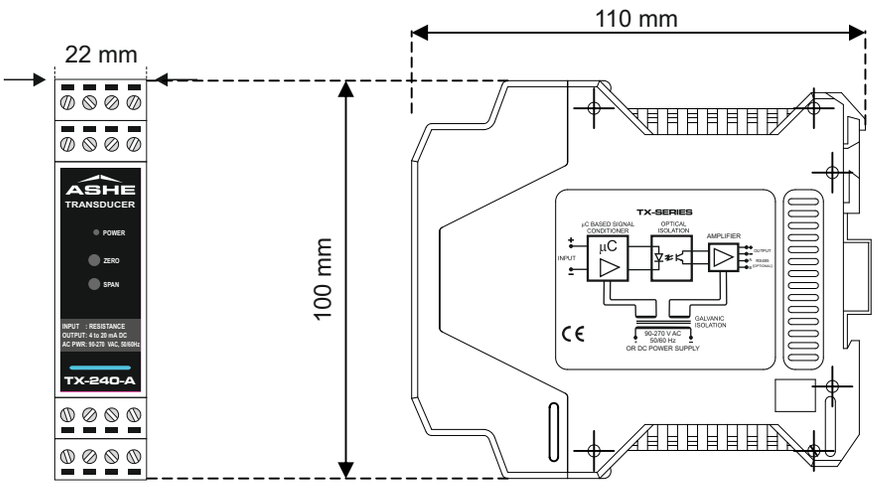
TX-Series Resistance Transducer

## Block Diagram




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

## Dimensional Diagram




FRONT VIEW SIDE VIEW

## How To Order

| | | | | | |
|---|---|---|---|---|---|
| | **RESISTANCE TRANSDUCER** | **TX-240-** | | | |
| | **Configuration and add-on options** | | | | |
| 1 | **POWER SUPPLY** | | | | |
| ▸ | AC Voltage 90 to 270 V AC, 50/60 Hz. | | A | | |
| ▸ | DC Voltage 20 to 70 V DC | | D | | |
| 2 | **INPUT SIGNAL** | | | | |
| ▸ | Resistance | | | E | |
| 3 | **OUTPUT SIGNAL** | | | | |
| ▸ | DC Current | | | | L |
| ▸ | DC Voltage | | | | V |

## Our Other Products


FLOW TOTALIZER


SIGNAL ISOLATORS & TRANSDUCERS


TEMPERATURE SCANNER


FLAMEPROOF INSTRUMENTS


STATIC POWER SWITCHES

ASHE CONTROLS PVT LTD
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