

## TX-242 Variable Resistance Tap Position Transmission



### OVERVIEW

The ASHE TX series of Signal Conditioners, Isolators, Transducers, Transmitters and Multipliers comprise a wide range of high quality and reliable instruments for the conversion, amplification, isolation and multiplication 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 etc. and provide buffered and isolated outputs with enhanced load driving capacity. The instruments find wide usage in single loop or distributed process measurement and control applications.

The new Series TX-242 Resistance signal Isolating Multipliers measure the signal from a variable resistance and convert the signal into two or more isolated analog current loop signals of 4 to 20 mA DC [or as required]. The Output signals are linear with respect to the Input sensor signal and each output is galvanically and optically isolated to a potential level of 1.5 KV rms for one minute.

The instruments operate on 90 to 270 Volts AC, 50/60 Hz universal power supply. Optional features include higher load driving capability, digital indication facility, control relay outputs, two-wire operation with auxillary 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 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.

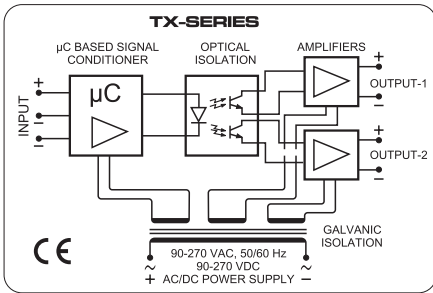
### SPECIFICATIONS

<b>Model</b>	ASHE TX-242.
<b>Type</b>	Resistance Isolating Multiplier for Tap Position Transmission
<b>Principle</b>	Optical Isolation and Signal Conditioning.
<b>Input Sensor</b>	Variable Resistance [potentiometric transformer] Taps.
<b>Output Signals</b>	Two isolated and buffered outputs of 4 to 20 mA DC. [or as required].
<b>Load Driving Capacity</b>	600 Ohms for each output.
<b>Linearity</b>	± 0.1%.
<b>Range</b>	To be specified.
<b>Isolation</b>	Between Input // Outputs // 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] for each output.
<b>Accuracy</b>	± 0.1%.
<b>Indication</b>	Red LED for Power On.
<b>Power Supply</b>	90 V AC to 270 V AC, 50/60 Hz.
<b>Initial Warm-up Time</b>	One minute.
<b>Dimensions</b>	100 x 22 x 110 mm. [H x W x D].
<b>Execution</b>	DIN-Rail / Rear panel mounting.
<b>Enclosure</b>	Industrial grade ABS.
<b>Enclosure Colour</b>	Light Grey [RAL 7035]
<b>Weight</b>	Approximately 0.4 Kgs.
<b>Operating Temperature</b>	0 to 55°C.

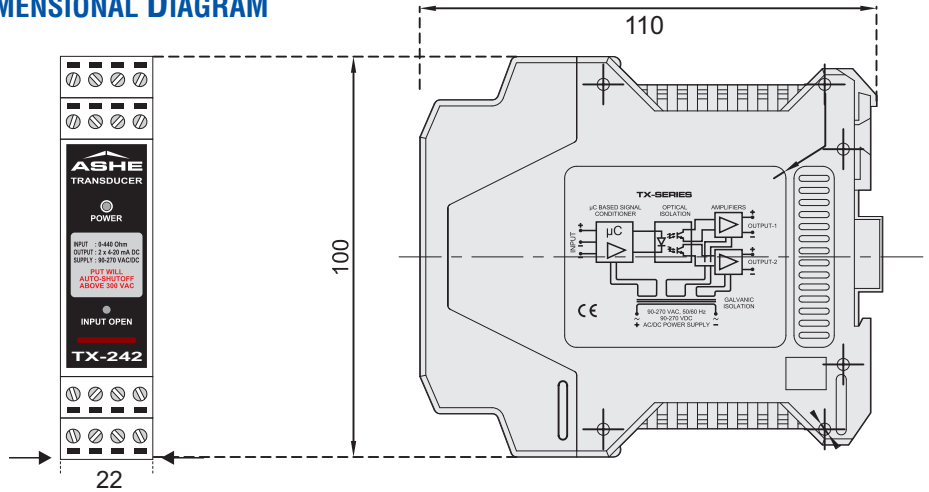
### FEATURES

- Optical & Galvanic Isolation between Input, Outputs & 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 all channels
- Digital Indication option with/without control relay outputs
- Rugged, industrial grade ABS enclosure
- Panel / Field / Hazardous area installation in IP66 execution
- Current limiting for I/O protection
- Customized outputs offered
- Proven record of several thousand installations

**BLOCK DIAGRAM**



**DIMENSIONAL DIAGRAM**



**How To ORDER**

RESISTANCE SIGNAL REPEATER (dual channel)	TX-242				
Configuration and add-on options					
<b>1 OPTICAL AND GALVANIC ISOLATION</b>					
▶ Isolation Required		Y			
▶ Isolation Not Required		N			
<b>2 POWER SUPPLY</b>					
▶ 90 to 270 V AC, 50/60 Hz			A		
▶ 20 to 70 V DC			D		
<b>3 OUTPUT SIGNAL</b>					
▶ 4 to 20 mA DC				G	
▶ 0 to 10 V DC				O	
<b>4 EXECUTION</b>					
▶ DIN Rail mounting					D
▶ Field mounting in Weather-proof execution (Polycarbonate enclosure, Ingress protection)					W
▶ Field mounting in Flame/Ex-d execution (Cast Aluminum Alloy LM6 enclosure, for Gas groups IIA, IIB)					X

**OUR OTHER PRODUCTS**



FLOW TOTALIZER



SIGNAL ISOLATORS & TRANSDUCERS



TEMPERATURE SCANNER



FLAMEPROOF INSTRUMENTS



STATIC POWER SWITCHES



Designed and Manufactured by :

**ASHE CONTROLS PRIVATE LIMITED**

6/317, 318 & 319, Jogani Industrial Complex, Near ATI, Sion-Trombay Road, Chunabhathi (East), Mumbai - 400 022, India.

Phone : (022) 2405 1561, 2405 5791, 2405 5543 • E-mail : sales@ashecontrols.com • Website: http://www.ashecontrols.com