

ACTIVE POWER TRANSDUCER

TX-160



PRECISION CONTROL

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-160 Active Power Transducers measure the AC Voltage and AC Current and compute the power factor component. The active power is calculated and this value is converted into an isolated DC Current signal [or as required]. The Output signal is linear with respect to the Active Power component and is galvanically and optically isolated to a potential level of 1.5 KV rms for one minute.

The instruments operate on 110 or 230 Volts AC 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 auxillary power output, etc.

The instruments are available in compact industrial grade enclosures in DIN Rail / Wall-mounting 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.

Features

- Optical & Galvanic Isolation between Inputs, Output & Power Supply.
- High accuracy and linearity to input signals
- 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
- 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

Specifications

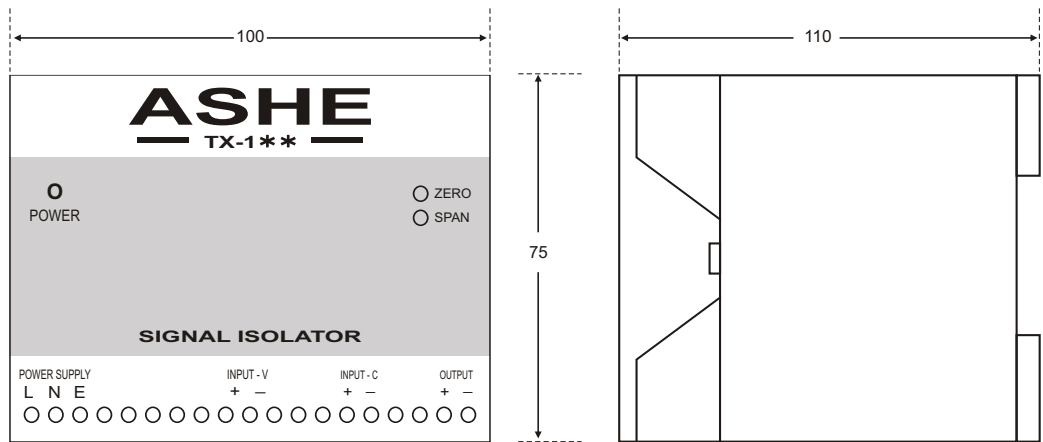
Model	ASHE TX-160.
Type	Active Power Isolating Transducer.
Principle	Optical Isolation and Signal Conditioning.
Input Signal (Voltage)	0 to 230 V AC [or as required].
Input Signal (Current)	0 to 1 or 5 Ampere from CT [or as required].
Output Signal	4 to 20 mA DC [or as required], proportional to active power.
Linearity	0.25%.
Isolation	Between Inputs // Output // Power Supply.
Isolation type	Optical and Galvanic.
Isolation level	1.5 kV rms for one minute.
Output protection	Short / Open Circuit protection.
Calibration facility	Zero and Span settings [external].
Accuracy	0.1%.
Indication	Red LED for Power On.
Power Supply	110 V AC or 230 V AC, 50 hz. [Optionally 20 to 70 V DC].
Initial warm-up time	One minute.
Dimensions	75 x 100 x 110 mm. [H x W x D].
Execution	DIN-Rail / Rear panel mounting.
Enclosure	Industrial grade ABS.
Enclosure colour	Light Grey [RAL 7035]
Weight	Approximately 0.4 Kgs.
Operating Temperature	0 to 50 °C.

ACTIVE POWER TRANSDUCER

TX-160

DIMENSIONAL DIAGRAM

Dimensions : 75 x 100 x 110 mm
Execution : DIN Rail mount.



HOW TO ORDER

ACTIVE POWER ISOLATING TRANSDUCER
Input (pre-specified) : AC Voltage & AC Current.
Output : 4 to 20 mA DC.
Isolation : Optical and Galvanic.
Power Supply : 230 V AC, 50 Hz.
Dimensions : 75 x 100 x 110 mm.

TX-160

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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