

OPERATION MANUAL

MULTI CHANNEL SIGNAL CONVERTER

TX-105-C3

MULTICHANNEL SIGNAL CONVERTER

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DESCRIPTION

The ASHE TX-105-C3 Multi Channel Signal Converter (Voltage to Current Isolation Transducer) unit is a compact and reliable instrument used in process control applications where it is desired to convert multiple Voltage signals to DC Current loop signals for purposes such as indication, feedback, control or recording.

Functionally, the ASHE TX-105-C3 Voltage to Current Transducer is essentially a Signal Transducer, providing three output current signals correspond to three input voltage signals. All outputs are isolated from each other.

The instrument accepts three Voltage signals (see Technical Specifications for calibration details) and provides three output signals of 4 to 20 mA DC, capable of driving independent loads of upto 600 Ohms each. The instrument operates on 230 Volts AC mains power supply.

The instrument is available in standard and rugged DIN Rail mounting execution. Absence of any moving parts provides these instruments inherent advantages like immunity to Mechanical Shocks, Dust, Ambient Temperature, Humidity and mildly Corrosive ambiances.

OPERATION

The ASHE TX-105-C3 Multi Channel Signal Converter (Voltage to Current Transducers) is easy to connect and operate. The terminals bear self-explanatory wiring details for Mains Power, Input Signal and Output signal (See Termination Diagram for details). Once wired as per the specified configuration, the instruments should operate smoothly under normal circumstances for many years, without any trouble or requirements of maintenance.

The instrument should first be mounted either on a standard DIN Rail, or alternatively wall-mounted on a vertical panel surface by direct bolting at the base. A Red LED on the front panel indicates *POWER ON* status of the instrument.

All inter-connections to the instrument should be made using strong, multi-stranded Shielded cable preferably of twisted-pair type. Control and Power Cables must be routed separately. Care should be taken to ensure correct polarities of the input and output signals.

An initial warm-up time of approximately two minutes is recommended since the Integrated Circuits and other temperature sensitive and compensated components are optimized to operate at the continuous-run temperature.

The Zero and Span calibration settings for individual Outputs are accessible externally.

FRONT FACIA



TERMINAL DIAGRAM

TERMINAL BLOCK	TERMINAL NO.	NOTATION	DESCRIPTION
LOWER ROW	1	LINE	POWER SUPPLY (230 V AC, 50 Hz)
	2	NEUTRAL	
	3	EARTH	
	4	X	NO CONNECTION
	5	+	OUTPUT SIGNAL-1
	6	-	
	7	+	OUTPUT SIGNAL-2
	8	-	
	9	+	OUTPUT SIGNAL-3
	10	-	
UPPER ROW	11	X	NO CONNECTION
	12	-	INPUT SIGNAL-3 (0 to 260 V AC)
	13	+	
	14	X	NO CONNECTION
	15	-	INPUT SIGNAL-2 (0 to 30 V DC)
	16	+	
	17	X	NO CONNECTION
	18	-	INPUT SIGNAL-1 (0 to 75 mV DC)
	19	+	
	20	X	NO CONNECTION

TECHNICAL SPECIFICATIONS

Model	:	ASHE TX-105-C3
Type	:	Multi Channel Signal Converter (Voltage to Current Transducer)
Input Signal	:	Input-1 0 to 75 mV DC Input 2 0 to 30 V DC Input 3 0 to 260 V AC
Output Signal	:	Output-1 4 to 20 mA DC. Output-2 4 to 20 mA DC. Output-3 4 to 20 mA DC.
Load Driving Capacity	:	600 Ohms each.
Linearity	:	± 0.1%.
Isolation	:	Between Outputs.
Isolation type	:	Galvanic.
Isolation level	:	1 kV.
Calibration facility	:	Zero and Span settings (external).
Accuracy	:	± 0.1%.
Indication	:	Red LED for <i>POWER ON</i> .
Power Supply	:	230 V AC (± 10%), 50 Hz (± 5%)
Dimensions	:	75 x 55 x 110 mm. (H x W x D).
Initial warm-up time	:	Two minutes.
Execution	:	DIN-Rail / Rear panel mounting.
Weight	:	Approximately 0.6 Kgs.
Operating Temperature	:	0 to 50 °C.

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