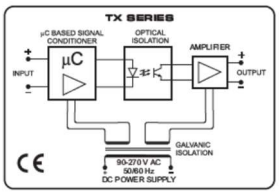
SIGNAL ISOLATOR
TX-330

DESCRIPTION

The Signal Isolator TX-330 is a compact and reliable high performance instrument used in process control applications to buffer and isolate an analog DC current loop signal for indication, feedback, control or data logging. The instrument provides one optically isolated DC current output signal with enhanced load driving capacity.



The TX-330 Signal Isolator provides buffering of the Input DC current signal. The output analog signal is linear with respect to the input signal and is optically and galvanically isolated to a potential level of 1.5 KV.

The instrument accepts a DC Current loop input signal and provides DC current output of 4 to 20 mA DC. The instrument operates on 20 to 70Vdc power supply..

The instrument is offered in a slim and rugged enclosure in 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 ambiences.

INSTALLATION

The instrument should be mounted on a standard DIN Rail using the snap-on bracket on the rear of the instrument. All interconnections to the instrument should be made using strong, multi-stranded shielded cable preferably of twisted-pair type. The instrument should be earthed to a proper ground-point. The ends of the wires should be properly ferruled and suitably terminated.

The cables carrying the input and output signals should be properly isolated and insulated from the power line cables to prevent any electromagnetic interferences or noise-related malfunctions from the mains power line.

After connecting the input signal to a suitable DC Current source, the power may be switched ON.

OPERATION & SETTINGS

The DC Current Signal Isolator is easy to connect and operate. The terminals bear self-explanatory wiring details for Power Supply, Input signal and Output signal (See Termination Diagram below for details). Once wired as per the specified configuration, the instrument should operate smoothly under normal operating conditions for many years, without any trouble or requirements of maintenance.

The front panel of the TX-330 DC Signal Isolator is as shown alongside.

The Zero and Span calibration settings for output are accessible from the front panel. A Red LED indicates Power On status of the instrument.

TERMINAL DETAILS

UPPER TERMINAL BLOCKS

1	2	3	4
+	-	+	-
POWER SUPPLY 24VDC		OUTPUT 4-20mA	

LOWER TERMINAL BLOCKS

5	6	7	8
+	-	X	X
INPUT 4-20mA			

TERMINAL DETAILS

TERMINAL BLOCK	TERMINAL NO.	NOTATION	DETAILS
UPPER BLOCKS	1	+	POWER SUPPLY 24VDC
	2	-	
	3	+	OUTPUT 4-20mA
	4	-	
LOWER BLOCKS	5	+	INPUT 4-20mA
	6	-	
	7	X	
	8	X	

TECHNICAL SPECIFICATIONS

Model	:	TX-330
Type	:	Analog signal Isolator.
Principle	:	Optical Isolation, Signal Conditioning and Amplification.
Input Signal	:	4 to 20 mA DC.
Output Signal	:	4 to 20 mA DC.
Load Driving Capacity	:	600 Ohm.
Linearity	:	± 0.1%.
Isolation	:	Between Input // Output // Power Supply.
Isolation type	:	Optical and Galvanic.
Isolation level	:	1.5 kV.
Output protection	:	Short-circuit / Open-circuit protection.
Calibration facility	:	Zero and Span settings (external).
Accuracy	:	± 0.1%.
Indication	:	Red LED for Power On status.
Power Supply	:	24 VDC. Optionally 20 to 70 VDC.
Dimensions	:	75 x 22.6 x 170 mm. (H x W x D).
Execution	:	DIN-Rail mounting.
Enclosure	:	Industrial grade ABS.
Execution	:	DIN-Rail mounting.
Weight	:	Approximately 0.12 Kgs.
Operating Temperature	:	0 to 55 ^{O}C.