

CANSCAN 1.0

Overview

CANSCAN 1.0 is Multi Channel Scanner designed to interface with 4 / 8 / 16 Channels of 3-Wire RTD PT-100 inputs as per the user requirement. The input channels are sequentially scanned and displayed on the front panel. Measured values are compared with set points to generate Alarm conditions. The CANSCAN-1.0 Process Scanners are designed with an advanced 32-bit Micro-controller which brings speed and complex computational capabilities to the instrument system. A high-performance A/D Conversion circuit is used to achieve measurement resolution of 16 Bits, thus allowing precision measurements of input signals.

Software algorithms are implemented to filter the signal noise and to compensate for the Non-Linearity arising due to RTD response characteristics. The instrument has the facility to periodically interrogate the sensor inputs to detect SENSOR FAULT conditions. This is extremely useful in monitoring abnormal conditions such as Wire Break or Burn-Out of RTD's in a running process.

RTD Sensors are connected in 3-wire mode with in-built Line Resistance Compensation (LRC). This allows interface of RTD Sensors without introducing errors due to the resistance of Cable. Proper choice of cable allows cable length exceeding 100 meters to be used without introducing error in measurement.

7 Segment LED Displays on the front panel indicate Process value and Channel number during normal operation. LED indications are provided to indicate FAULT status of individual channels.

A user-friendly Parameter setting interface is provided with the help of Function Keys on the front panel. Provision is made to Password protect these settings so that unauthorized tampering is prevented.

Fault/Alarm indications are provided on the front panel for each channel status. Relay contact is available for activation of external Hooter, which turns ON in case of a Channel Fault.

Four Relay output contacts are provided for activation of control signals in case of CHANNEL FAULT condition which can be configured as required. Additionally, a CARD HEALTH feedback Relay contact is provided to monitor system status if required by the control system.

RS485 Serial Interface is offered (optional) for transferring data to a host device.



Features

- ✓ RTD Non-linearity Compensation
- ✓ Line Resistance Compensation
- ✓ Sensor fault/Wire break monitoring
- ✓ Password protection to safeguard settings
- ✓ Automatic /Manual scan modes.
- ✓ Up to 4 configurable Relay Outputs for Alarms/Faults
- ✓ Card Health Signal Output for System Status Monitoring.

User Selections -

- Input Channels: 4/8/16
- Range Selection
- Enable/Disable Channels
- ✓ Energy Efficient Design reduces carbon footprint.
- ✓ RS485 Communication (Isolated port for Multidrop Network Connection)

Related Products

- ✓ Programmable Loadcell Amplifier with Isolation
- ✓ Programmable Process Indicator (Single channel)

Applications

- Motor winding Temp. Monitoring
- Process Control Instrumentation

Technical Specifications			
Input	PT-100	4/8/16 Channels RTD–PT100,3Wire	
	Range	-200 to +850 °C	
	Calibration	Software Calibrated (NO field Calibration required.)	
	Corrections	LRC For 3–Wire PT100 RTD RTD Nonlinearity Compensated in Software.	
	Scan Rate	400 msec/Channel	
User Interface	Keypad	System Setting	5 Front Panel keys.
		Alarm Function	2 Front Panel keys for ASK & TEST.
	Display (7Segment)	5 digits, (Red) for Process Value 4 digits, (Green) for Channel Number	
	Alarms	Four Soft Alarms for Channel Fault (Relay Output) One Common Output for Hooter Signal (Relay Contact) Channel–wise Alarm Status Indication Front Panel Alarm Acknowledge Key	
	Indications	Red LED: Under Range, Over Range, Hooter, System Fault	
Green LED: Auto, Manual, Communication Status 16 LEDs for Alarm Status Indication of each Channel			
Performance	Resolution	0.1°C	
	Response Time	400 millisecc per Channel.	
	Accuracy	±0.1 % of FS (i.e. ±1°C of FS)	
	Linearity	0.05%	

General Specifications	
Power Supply Voltage	90 – 270 VAC, 50/60Hz
Power Consumption	15VA Approx.
Protection	Fuse: 1A (In-Built) Slow Blow type
Enclosure	Panel Mount: Size: 96 X 192 mm; Depth – 140 mm Panel Cutout – 92X188 mm Weight: 500 grams(approx.)
Operating temp. range	0 – 55°C
Storage temp. range	-10 to70°C
Relative Humidity	5 – 95% RH Non-Condensing
Max. Altitude	1000 mts above MSL

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Ordering Information

CANSCAN Series	Input	No. of Channels	Interface
	X	X	Y
CANSCAN 1.0 (7 Segment Display) CANSCAN 2.0 (OLED Display)	RTD – PT100: 1	16 Ch: 0	RS485 (Isolated): A
	Thermocouple: 2		
	mV (0-10): 3	12 Ch: 1	RS232 (Non-Isolated): B
	mA (0-20): 4		
	RTD – PT1000: 5	8 Ch: 2	RS485 (MODBUS Isolated): C
	mA (4-20): 6		
	V (0-10):7	4 Ch: 3	No Field Communication: N
	V (2-10):8		

Note: e.g. 16 Channel RTD – Pt100 with RS485 Interface Model No.: CANSCAN-1.0 –10–A or 16 Channel 0-20 mA OLED Display without Serial Interface Model No.: CANSCAN-2.0-40-N

About Us

CANOPUS INSTRUMENTS is engaged in the development & manufacturing of industrial automation and process control instrumentation products. The product areas cover mainly Analog Signal Conditioning Instruments for Process Automation, Embedded Systems & Ultrasonic Equipment for Non-Destructive Testing Applications.

All the CANOPUS range of products are designed and manufactured with special care, to ensure trouble free performance in Industrial applications where Electromagnetic Interference (EMI) & Harsh environmental conditions exist.

Today these products come to our customers with the quality assurance and tech-support in H/W & S/W, which has evolved with our experience of over 25 years, to ensure uninterrupted operation in field conditions. This has enabled us to successfully create an installed base of tens of thousands of units performing satisfactorily in a wide spectrum of Critical Real time Industrial applications all over India and in other parts of the world.

INNOVATION – QUALITY – RELIABILITY

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