Temperature Scanner

ICD Temperature Scanner Model No. SCN525 is capable to measure and control the Temperature upto 16 points. It accepts any one of temperature sensors like RTDs, Thermocouple, mV and mA signals from Transmitters. The Scanner is completely user programmable with High/Low set point control action, Auto/Manual operation, Channel grouping, Hold, Pause etc.

The Scanner is a single board construction with the latest integrated circuit, so as to reduce component counts. Fast A/D converter is used for quick refreshing of all the channels input and output. Digital Zero / Span calibration eliminates trim pot adjustments and settings are made through key pad.

Maximum 2 relay outputs are given for Alarm & Trip controls. Channel grouping optional and control modes are programmable.The Scanner scans all the channels continuously on the background while displaying and generates the Alarm & Trip outputs after comparison with respective settings.

The Scanner has two modes of operation:

1. Operator Level and,
2. Superior Level

The operator level permits channel display selection in Auto, Manual, Hold mode and Alarm acknowledge. Whereas supervisory level access, Alarm & Trip setting, group configuration, output delay adjustments, channel pause function, scan time etc.

Optionally, external relay box containing Max. 32 relays can be connected through serial link. The scanner is housed in 96 x 192 x 250 mm flush mounting enclosure.

FEATURES

- Microcontroller based design
- Accepts RTD, Thermocouple, mV, mA (any one)
- High Accuracy with software linearisation
- Multiplexing by Analog switches
- Channel pause & Hold facility
- Two set points per channel
- Over range & Open sensor indication
- Programmable scan time, set point & channel pause
- Alarm and Trip indication for each channel
- Error compensation at site
- Digital calibration for each channel
- Optional : PC Interface
- Optional : Relay output - Max.32 through external relay unit

- Compact in size / Modular construction
- EERAM storage, no battery required
- Protection against EMI/Stray noise
- Built-in Watchdog Timer
- 2 Relay output

APPLICATION

- Winding temperature monitoring of High Rating Motors, Power Generators and transformers
- Various parts of Engine bed,Ball bearings, Water and Steam pipe of boilers
- Various points in Sugar mills, Food processing, Chemical, Cement, Fertilizer & Pharmaceutical Industries

Technical Specification

MODEL NUMBER	SCN525
Type	Temperature Scanner
Circuit Design	Microcontroller based Design
No. of Inputs	6, 8, 12 and 16 a) Direct RTD (PT -100 ohms or 46 ohms) b) Thermocouple (Type J, K, R, S) c) mV (Please specify the range) d) mA (4 - 20 mA or 0-20 mA)
Resolution	0.1°C for RTD, 1°C for thermocouple and 0.1 or 1 unit for other inputs as per range
Accuracy	+0.25% over full scale + 1LSD
Type of A/D	12 bit fast AD Converter
Sampling Time	16 Channel / Second
DISPLAY	
No. of Digits	Six (2 digit for channel number and 4 digit for parameter)
Type of Display	7 Segment 0.5" Red LED
Scan Time	1 to 99 Seconds, Programmable
Scanning Mode	Auto / Manual
Auto Mode	For Automatic scrolling of a Channel
Manual Mode	For Continuous indication of a Channel selected and stepping one by one.

CJC & BTC Function	Available for thermocouples
Over Range Display	Available
Open Sensor Display	Available
Channel Skip Facility	Available
Channel Hold Facility	Available
Zero & Span Calibration	Digital Calibration available for each input through key pad
Type of PCB	Single board construction
Mains Failure	A non volatile EEPROM is used to store the set points, scan time and zero & span calibration constants
	ALARM / TRIP CONTROL
No. of Set Points	2 Per Channel for Low & High, Common Alarm and Trip
Setting Means	Through Key pad
Control Output	Common Relay output 1 No. each for two of the set points. Optionally, more relay outputs by grouping the channels or individual alarm output for each input with common trip relay output or individual trip output with common alarm output to extension box
Contact Rating	3 Amps at 240V AC
Alarm Acknowledge Facility	Available
tatus Indication	Normal - No Indication 1st Set Point - Green 2nd Set Point - Red Program, Auto, Manual & Hold mode by Red LED Indication
Watch dog Timer Supply brown out protection	Available
Operating Temperature	55°C Max.
Power Supply	240V AC + 10% 50 Hz
Box Dimension	96(W) x 192(H x 250(D) mm

COMMUNICATION (Option)	
Type	RS485
Protocol	MODBUS - RTU
Isolation	Provided
Traffic Status	Indicated through TXD, RXD LED
RELAY BOX	
No. of Relays	16 or 32. Two relays per channel or one relay per channel with common alarm relay for all 16 channels.
Input	Logic signal from scanner unit through 9 pin 'D' type connector
Operating Voltage	240V AC + 10% 50 Hz
Relay Type	PCB soldered 5V DC operated OEN relay
Contact Rating	3 Amps at 240AC
Box Dimension	225(W) x 180(H) x 55(D) mm
NOTE	
1. We also supply 16 - 32 channel Temperature Scanner in 144(W) x 288(H) x 300(D) mm enclosure	

OPTIONAL
DATALOGGING SOFTWARE

Custom Design software for logging process data and give online and historical reports of all channels.

INDUSTRIAL CONTROLS & DRIVES (INDIA) PVT. LTD.
#33, Mettukuppam Road, (Via Alapakkam Road)
Maduravoyal, Chennai - 600 095, Tamilnadu, India
Tel : +91 44 4293 4322, 4293 4324, 4293 4335
Email : sales@icdipl.net, Web : www.icdipl.net