

MICROSCAN series is a range of process scanners, based on the latest single chip microcontroller technology. There are three models to choose from.



**Model 101**

- Model 101 is a low end, exclusive RTD input temperature scanner with provision upto 12 channel input and 8 Relay output.
- Model 102 is a high density, exclusive RTD input temperature scanner with provision upto 32 channel input and 16 Relay output.
- Model 103 is a versatile Universal input process scanner with provision upto 16 channel input and 16 Relay output. Each channel can be field programmed for different types of input, selectable from different thermocouples, RTD & 4-20mA type.

## Features

- 4/5 digits LED display for displaying temperature/PV values and 2 digits for channel number.
- Direct Engineering unit display by programming the measuring range for transmitter inputs.
- One Tri-color LED per channel for indicating Alarm / Trip / Open or Short status.
- Powerful keypad operation to program all settings through keypad.
- Optional RS232C/RS485/RS422 serial port with MODBUS slave RTU protocol . Station Number, Baud Rate & Parity programmable from keypad.
- Upto 32 units can be connected in RS485 multidrop network and these units can be distributed over a distance of more than 1 km from the PC/PLC/DCS.
- Optional Centronics Printer interface port.
- Field grouping of channels and Relay assignment for the groups through front keypad. Type of output High or Low type, hysteresis & delay timer programmable for each relay output.
- Remote display unit option for locating the Field Unit in the field and Display Unit at a remote place and connecting both by RS485 communication port. Distance between both the units can be as high as 1.2 kms. This results in enormous saving in the cable cost.
- Password protection for changing the settings.
- All settings stored in EEPROM to prevent data loss.
- Minimum modules and easy removability for easy servicing.
- Universal SMPS (90 to 270 V AC/DC) or optional 24V DC-DC converter for operation .



**Model 102**



**Model 103**

Technical Specifications	Model 101	Model 102	Model 103
Type	Microcontroller based	Microcontroller based	Microcontroller based
Input	Exclusive RTD PT 100 or CU53	Exclusive RTD PT 100 or Cu53	Each channel input field selectable from the following: TC - R,S,J,K,T,E RTD - PT100, CU53 4-20 mA or 0-10 V
Number of Channels	Max 12	Max 32	16 if inputs are Universal 32 if all inputs are TC or mA.
Measuring Range	PT100 - 200 °C to 850 °C CU53 - 50°C to 150 °C	PT100 - 200 °C to 850 °C CU53 - 50°C to 150 °C	R 0 °C to 1760 °C S 0 °C to 1760 °C J - 50 °C to 760 °C K - 50 °C to 1350 °C T - 50 °C to 400 °C E - 50 °C to 1000 °C PT100 -200 °C to 850 °C CU53 - 50 °C to 200 °C 4 - 20mA or 0 10-V inputs Engineering Units programmable
Cold Junction Compensation	Not applicable	Not applicable	Built in IC Sensor
Decimal point format	1 decimal	1 decimal	0 / 1 for TC & RTD 0 / 1 / 2 for 4-20mA or 0-10V
Accuracy	± 0.2% FS, ±1 Dgt	± 0.2% FS, ± 1 Dgt	± 0.1%FS, ±1 Dgt for mA & V ±0.2% FS, ±1 Dgt for TC & RTD
Resolution	0.1 °C	0.1 °C	0.1 Units
Display	4 digits for Temp, 2 for Ch.No.	4 digits for Temp, 2 for Ch.No.	5 digits for PV display, 2 for Ch.No.
Parameter settings Parameter protection Parameter storage	Through Keypad Password protection EEPROM	Through Keypad Password protection EEPROM	Through Keypad Password protection EEPROM
Alarm & Trip Settings	Individual channelwise	Individual channelwise	Individual channelwise
LED indications	One Tri color LED per channel Green - Alarm Red - Trip Amber - Sensor fault One Dual led for comm.. status. One red led for Auto/Manual mode & one for Power Good status	One Tri color LED per channel Green - Alarm Red - Trip Amber - Sensor fault One Dual led for comm.. status. One red led for Auto/Manual mode & one for Power Good status	One Tri color LED per channel Green - Alarm Red - Trip Amber - Sensor fault One Dual led for comm.. status. One red led for Auto/Manual mode & one for Power Good status
No. of Groups	Max. 8	Max. 16	Max. 16
Grouping of channels	Through keypad	Through keypad	Through keypad
Output Relays	Max. 8 with 1 or 2 C/O each	Max. 16 with 1 or 2 C/O each	Max. 16 with 1 or 2 C/O each
Field input terminations	Through TBs at rear or D type connector at rear.	Through D type connector at rear.	Through TBs on external DIN Rail mountable module.
Relay Location	Built in - upto 6 Rlys. with 1 C/O Ext. - more than 6 Rlys. or 2 C/O.	Through external DIN rail mountable relay modules.	Through external DIN rail mountable relay modules.
Relay Contact Rating	230V AC/DC, 5A (100VA Max)	230V AC/DC, 5A (100VA Max)	230V AC/DC, 5A (100VA Max)
Optional Communication port	RS232C / RS485 / Rs422	RS232C / RS485 / Rs422	RS232C / RS485 / Rs422
Communication Protocol	MODBUS RTU Slave	MODBUS RTU Slave	MODBUS RTU Slave
Communication Parameter settings	Station No., Baud Rate, Parity field programmable.	Station No., Baud Rate, Parity field programmable.	Station No., Baud Rate, Parity field programmable.
Optional Printer port	Not Available	Available	Available
Enclosure	MS powder coated Ex-proof /IP65 on request	MS powder coated Ex-proof /IP65 on request	MS powder coated Ex-proof /IP65 on request
Dimension (in mm)	i. Overall ii. Cutout 96 (W) x 192 (H) x 350 (D) 92 (W) x 189 (H)	96 (W) x 192 (H) x 350 (D) 92 (W) x 189 (H)	96 (W) x 192 (H) x 350 (D) 92 (W) x 189 (H)
Power Supply	SMPS - 90 to 270 V AC/DC Optional-24VDC;VA Rating 15 VA	SMPS - 90 to 270 V AC/DC Optional -24V DC; VA Rating 15 VA	SMPS - 90 to 270V AC/DC Optional 24VDC; VA Rating 15 VA
Environment Condition	55 °C, 95% Rh	55 °C, 95% Rh	55 °C, 95% Rh



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Information in this Catalogue is subject to change without notice

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