

2 x 4~20 mA out for Tmax and Channel No.

ISOSCAN-H



96(H) x 192(W) x 220(D) mm

ISOSCAN-V



192(H) x 96(W) x 220(D) mm

FLAMEPROOF

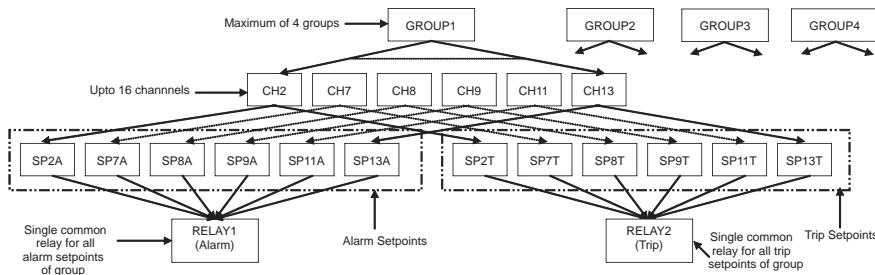


- Upto 16 inputs/8 outputs
- For Temperature, Pressure, Flow, Level, RH, Conductivity, etc.
- Universal Input : 8 Thermocouples, Pt100, mV or mA input front panel selection without DIP for each channel
- Front panel user calibration
- Input burn protection
- Non-volatile memory for parameters - no batteries
- Password protection for program mode
- 3 key, 5 level programming
- Setpoint and level locks
- 4~20 mA output corresponding to maximum temperature or any selected channel, maximum temperature of all channels, or temperature of any selected channel.
- 4~20 mA output corresponding to channel number, complimentary to maximum temperature facility to track the channel no.
- Tactile membrane keypad
- 85~265 V AC SMPS or 24 V DC supply

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GROUPING / INDIVIDUAL ALARMS / COMMON RELAYS VERSION 19.XX

Fig 1



Maximum No.	
Channels	16
Groups	4
Channels in a group	16
Setpoints in a group	32
Setpoints in all	32
Relays	8

Note : Once a channel is selected in one group, you cannot select it in another group.

Example

- No. of channels : 16 • Input type / unit / resolution : See Table 2
- No. of groups : 4 • No. of relays : 8
- Channels / relays / relay logic in each group : See Table 1

TABLE 1

Group No.	Channels Selected	Relay No.	Relay Logic
1	2, 7, 8, 9, 11, 13	1 (alarm) 2 (trip)	Lo Trip Hi
2	3, 14, 16	3 (alarm) 4 (trip)	Hi Trip Lo
3	10, 12	5 (alarm) 6 (trip)	HiHi Trip Hi
4	1, 4, 5, 6, 15	7 (alarm) 8 (trip)	LoLo Trip Lo

TABLE 2

Channel No.	Input type	Unit	Resolution
1	TC B	°C	0.1
2	TC E	°F	1
3	TC J	°K	0.1
4	TC K	°C	0.1
5	TC N	°C	0.1
6	TC R	°C	1
7	TC S	°F	1
8	TC T	°F	0.1
9	Pt100	°F	0.1
10	LIN V (0-50 mV)	BAR	0.01
12	4-20 mA	BAR	0.1
13	Pt100	°F	1
14	TC N	°K	1
15	TC J	°K	0.1
16	TC K	°K	0.1

CURRENT OUTPUT MODES

There are 6 current output modes :

Mode No.	Mode Name	Current output 1	Current output 2
1	T max	T max	Channel no. of T max
2	T max + Hold	Run mode - T max Hold mode - T of hold channel	Run-mode-channel no. of T max Hold mode-channel no. of hold channel
3	T _A + A	T of assigned channel A	Assigned channel number A
4	T _A + T _B	T of channel A	T of channel B
5	Display Scan Rate	T of displayed channel	Displayed channel no.
6	Output Scan Rate	T	Channel No.

Mode 1 : T Max

Current output1 (I₁) corresponds to highest temperature (Tmax) from all channels.
Current output2 (I₂) corresponds to channel no. of that channel.

Mode 2 : T Max + Hold

- i) Instruments in RUN mode
 - I₁ corresponds to highest temperature (Tmax) from all channels.
 - I₂ corresponds to channel no. of that channel.
- ii) Instruments in HOLD mode
 - I₁ corresponds to temperature (T) of HOLD channel.
 - I₂ corresponds to channel no. of HOLD channel.

Mode 3 : T_A + A

I₁ corresponds to temperature (T) of any assigned channel A.
I₂ corresponds to channel no. of channel A.

Mode 4 : T_A + T_B

I₁ corresponds to temperature (T_A) of assigned channel A.
I₂ corresponds to temperature (T_B) of assigned channel B.

Mode 5 : Display Scan Rate

I₁ corresponds to temperature (T) of displayed channel.
I₂ corresponds to channel no. of displayed channel.

Mode 6 : Output Scan Rate

I₁ corresponds to PV_A.
I₂ corresponds to Channel No.A
I₁ & I₂ change simultaneously at the programmed Output Scan Rate (I.out SCANRATE).

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SPECIFICATIONS

Specifications & features are subject to change without notice.

<p>INPUTS</p> <p>Maximum no. of channels (X) 16</p> <p>Input types</p> <p> Thermocouple B, E, J, K, N, R, S, T</p> <p> RTD Pt100, 3-wire</p> <p> Linear input 0~50 mV, 0~20 mA, 4~20 mA (each input independently scalable and without any DIP reconfiguration)</p> <p>Channel scan rate < 1.6 seconds for 16 channels</p> <p>Channel-to-channel isolation Suitable for low (leakage) voltages less than 3V AC</p> <p>Input protection</p> <p> Thermocouple, mV, RTD inputs ± 10 V DC max</p> <p> Current inputs Current limit < 30 mA, 28 V DC max</p> <p>Range limits See Table 4</p> <p>Accuracy See Table 4</p> <p>Cold junction compensation Automatic</p> <p>Sensor break protection User programmable</p> <p>CONTROL</p> <p>Control functions (Fig 2)</p> <p> High alarm</p> <p> Low alarm</p> <p> Trip Hi</p> <p> Trip Lo</p> <p> Trip Hi Hi</p> <p> Trip Lo Lo</p> <p>Control action Direct / reverse</p> <p>Hysteresis 0.1 - 99.9 °C / °F / EU</p> <p>Compressor ON time delay 1 - 200 sec</p> <p>Alarm type</p> <p> Latch (Ltch) Once relay gets ON, it remains 'ON' until alarm is acknowledged by ▲ key</p> <p> Hold Alarm is disabled at power ON. After process variable reaches normal (non alarm) value, the alarm is enabled.</p> <p> Ltch.Hold Combination of Latch & Hold logic.</p> <p>OUTPUTS</p> <p>Maximum no. of outputs (Y) 8</p> <p>Output type</p> <p> a) Electromagnetic relay</p> <p> b) SSR drive</p> <p>Relay contact type NO-C</p> <p>Relay contact rating 5A / 230V AC, resistive</p> <p>ADJUSTMENTS</p> <p>Setpoint Full range adjustable</p> <p>Alarm Full range adjustable</p> <p>Unit User programmable</p> <p>Resolution User programmable 0.0001, 0.001, 0.01, 0.1 or 1 for linear input, 0.1 or 1 for temperature</p>	<p>OTHER MAJOR PARAMETERS</p> <p>Setpoint lock</p> <p>Level lock</p> <p>Display scan rate 1~99 seconds/channel</p> <p>SKIP channel Enable/disable</p> <p>Display channel Display/hide</p> <p>Output scan rate 1~99 seconds/channel</p> <p>CALIBRATION</p> <p>Zero & span Through front panel keys & display</p> <p>User calibration Sensor span and sensor zero</p> <p>CJC calibration Room temperature</p> <p>INDICATION</p> <p>Display type 0.56" (15 mm), 7 - segment LED and 2x16 character LCD display</p> <p>Process variable Upper, 4 ½ digit, LED display</p> <p>Setpoint Middle, 4 ½ digit, LED display</p> <p>Channel no. Lower, 2 digit, LED display</p> <p>Status indication 16 LEDs for alarm, 16 LEDs for relay status & 2x16 LCD</p> <p>OTHER</p> <p>Keypad Membrane, tactile, 3 keys</p> <p>Memory for programmed parameters Non-volatile, indefinite duration</p> <p>Field Connections Screw type connections in plug-in terminals</p> <p>Plug-in Terminal Type a) Standard (Brass nickel plated) b) Gold plated</p> <p>Supply voltage a) 85~265 V AC, 50/60 hz b) 24 V DC supply</p> <p>Power consumption 5 watts</p> <p>Dimensions (in mm)</p> <p> ISOSCAN-H 96(H)x192(W)x220(D)</p> <p> ISOSCAN-V 192(H)x96(W)x220(D)</p> <p> FLP ISOSCAN X8Y8 & below : 420(H)x365(W)x165(D)</p> <p> X12Y0 & above : 500(H)x365(W)x165(D)</p> <p>Mounting</p> <p> ISOSCAN-H In panel cutout of 92x184 mm</p> <p> ISOSCAN-V In panel cutout of 184x92 mm</p> <p> FLP ISOSCAN Surface</p> <p>FLP enclosure Certified flameproof for gas groups I, IIA & IIB</p> <p>Protection (FLP enclosure) IP55</p> <p>Operating ambient temperature 0 - 50 °C</p> <p>Relative humidity Below 90%, non condensing</p>
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TABLE 4

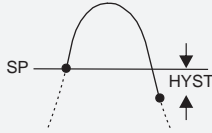
SENSOR / INPUT	RANGE LIMITS (°C / EU)		RANGE IN WHICH ACCURACY IS SPECIFIED		TYPICAL ACCURACY AT 30 °C (°C / EU)	WORST CASE ACCURACY (°C / EU)
	LOW SCALE	HIGH SCALE	LOW SCALE	HIGH SCALE		
Pt - 6% Rh / Pt - 30% RH (B)	400	1820	400	1820	± 3	± 5
Chromel / Constantan (E)	-270	1000	0	1000	± 1	± 3
Iron / Constantan (J)	-210	760	0	760	± 1	± 3
Chromel / Alumel (K)	-270	1372	-50	1200	± 1	± 3
Nicrosil / Nisil (N)	-270	1300	-50	1200	± 1	± 3
Pt / Pt - 13% Rh (R)	0	1760	0	1760	± 2	± 5
Pt / Pt - 10% Rh (S)	0	1760	0	1760	± 2	± 5
Copper / Constantan (T)	-270	400	-200	400	± 1	± 3
Pt100, 3-wire	-200	850	-200	850	± 0.5	± 2.0
Linear (0~50 mV, 0~20 mA, 4~20 mA)	-19999	19999	-19999	19999	± 5 EU	± 20 EU

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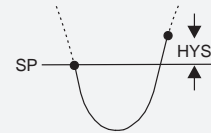
Fig 2 CONTROL FUNCTIONS

— ON - - - - - OFF

HIGH ALARM / TRIP HI / TRIP HI HI



LOW ALARM / TRIP LO / TRIP LO LO



ORDERING INFORMATION

A	B	C	D	E	F	G	H	I	J																																																						
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SALES INQUIRIES

1800-22-radix
1800-22-7234

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Radix Electrosystems Pvt Ltd
B-14, 2nd Floor, Ghanshyam Indl Estate
Veera Desai Road, Andheri (W)
Mumbai - 400 053, India
Tel : + 91 22 42537777 • Fax : + 91 22 42537700
Email : sales@radix.co.in • www.radix.co.in

BANGALORE C : 0-9341063830
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KARNATAKA C : 0-9341063831
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T : 020-24479759
PUNJAB C : 0-9316460869