

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

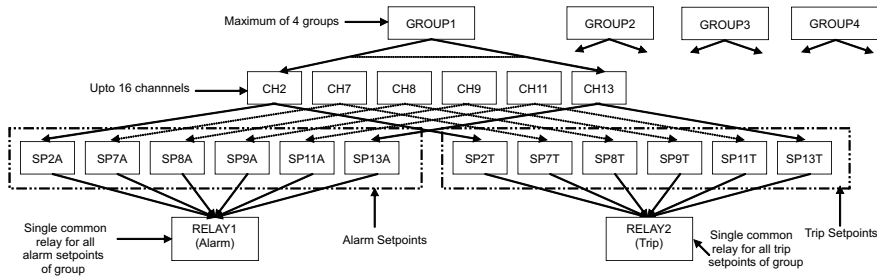


- Upto 16 inputs/8 outputs
- For Temperature, Pressure, Flow, Level, RH, Conductivity, etc.
- Universal Input : 8 Thermocouples, Pt100, mV or mA input front panel selection without DIP for each channel
- Front panel user calibration
- Input burn protection
- Non-volatile memory for parameters - no batteries
- 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
11	0~20 mA	°F	0.001
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.

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

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

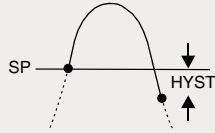
MULTI-CHANNEL SCANNER — ISOSCAN Ver 19.XX

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

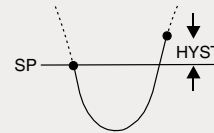
Fig 2 CONTROL FUNCTIONS

— 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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