



# 8208-IP

## Weather Proof Scanner

4 / 8 - Channel

The 8208-IP Scanner offers 4 / 8 channel monitoring with advanced functions and full programming features with touch sense keys in IP65 weather proof protection for monitoring process values and protection application.

8208-IP has option for 4/ 8 channels accepting universal input and 4 relays to serve various applications. The unit has separate numeric displays for CH. No., Group and process value. All configuration and calibration can be done from front keypad.

8208-IP has 4 relays with full mapping and logic flexibility. User has facility to program alarm, trip set-points and logic individually or group wise. Channels can be configured up to 4 groups with one relay per group; 2 groups with 2 relays per group or 1 group with 4 relays per group. Two discrete LEDs are provided per channel and one LED per relay for indication.

8208-IP has built-in Isolated RS-485 serial communication port with modbus RTU protocol and provides optional analog retransmission output with max./ min. to further interface with PLC/DAS/DCS/ SCADA.

8208-IP is a wall mounting unit with 6 nos of PG11 glands for multi-core cable wiring. However 8 channels scanner has an optional possibility of upto 12 nos. PG11 glands.

### Features

- Universal input for each analog input
- IP65 for weather proof protection
- Easy programming by front touch sense keypad
- Fast sampling rate with instantaneous relay action
- Four relays for alarm/trip
- RS-485 serial communication port for remote monitoring
- Comprehensive alarm/trip logic programming multiple levels of configuration and password protection
- Retransmission output (Optional)

### Applications

- Generator monitoring and protection
- Pharma application
- Chemical industries
- Monitoring of air compressor, pump, transformers, fans and blowers DG temperature monitoring
- Motor protection: Winding & bearing temperature
- Water and waste-water remote monitoring
- Electrical sub-station monitoring
- Drying ovens
- Fermentation processes
- Flow monitoring
- Retorts and cooking processes
- Heat treatment: to achieve desired result of hardening or softening material
- Power monitoring
- As a SCADA RTU
- Metal and mining applications
- Machine condition monitoring
- As a distributed I/O module for interface with PLC/DCS/DAS etc.

# TECHNICAL SPECIFICATIONS

Input		Power Supply	
No of Channels	4 or 8	Standard	85-265VAC @ 50Hz / 60 Hz / 110-290VDC
Input Type	Thermocouple (E, J, K, T, B, R, S, N), RTD (Pt-100), Current, Voltage	Optional	18-36VDC
Display Range	Refer table-1	Power Consumption	15VA Max.
Accuracy	0.1% of FS + 1 digit	<b>Isolation (Withstanding voltage)</b>	
ADC Resolution	17 bits	Between primary terminals* and secondary terminals**: <b>At least 1500 V AC for 1 minute</b>	
Display Resolution	0.1 / 1.0°C	Between primary terminals* and grounding terminal: <b>At least 1500 V AC for 1 minute</b>	
Sampling Rate	TC and linear input :100mSec./channel RTD input: 200mSec./channel	Between grounding terminal and secondary terminals**: <b>At least 1500 V AC for 1 minute</b>	
CJC Error	±2.0°C	Between secondary terminals**: <b>At least 500 V AC for 1 minute</b>	
T/C Burnout current	0.25µA	* Primary terminals indicate power terminals and relay output terminals.	
RTD Excitation current	1 mA (Approx.)	** Secondary terminals indicate Analog I/O signal and communication O/P.	
NMRR	> 40dB	<b>Insulation resistance:</b> 20MΩ or more at 500V DC between power terminals and grounding terminal.	
CMRR	> 120dB	<b>Physical</b>	
Temp-co	< 100ppm/°C	Dimension (in mm)	200(H) x 200(W) x 120(D)
Input Impedance	> 1MΩ	Weight	4 Kgs.
Max. Voltage	20VDC	Enclosure	Steel sheet, 1.25 mm
<b>Display &amp; Keys</b>		Type of Protection	NEMA 4, IP65
Process Value	4-Digit, 0.56", red seven segment LED	Cable Entry Size / No.	6 nos. PG11 glands*
Channel No.	2-Digit, 0.56", green seven segment LED	Mounting	Wall mount
Group No.	1-Digit, 0.56", red seven segment LED	Accessories	4 numbers mounting clamps
Status	4 Red LEDs for relay status, 1 red LED auto/manual mode status, 2 Green LEDs for communication, 1 red LED for fault, 16 red LEDs for alarms	<b>Environmental</b>	
Keys	Menu, escape / A/M, increment, shift / down / ACK	Operating Temperature	-20 to 70° C
<b>Output</b>		Storage Temperature	-20 to 80° C
<b>Relay</b>		Humidity	30-95% RH non-condensing
No of Relays	4	<b>Type test</b>	
Type	Single change over (C, NO, NC)	Cold Test	IEC 60068-2-1: 2007
Rating	2A@250VAC / 30VDC	Dry Heat Test	IEC 60068-2-2: 2007
Time Delay	1 to 99 secs.	IP Test	IP65
<b>Retransmission Output (Optional)</b>		<b>Table 1: Display Range</b>	
Current	0/4-20mA @ 500Ω max.	<b>Input Type</b>	
Voltage	0/1-5VDC, 0-10VDC @3KΩ min	<b>Range</b>	
Accuracy (DAC)	0.25% of FS	E	-200 °C to 1000 °C
Selection	Max. or min. reading of channels	J	-200 °C to 1200 °C
<b>Communication Output</b>		K	-200 °C to 1370 °C
Interface	RS-485	T	-200 °C to 400 °C
Protocol	Modbus RTU	B	450 °C to 1800 °C
Baud Rate	9600, 19200	R	0 to 1750 °C
		S	0 to 1750 °C
		N	-200 °C to 1300 °C
		RTD	Pt-100
			-199.9 to 850.0° C
			-10 - 20mV
			0 - 75mV
			0 - 100mV
			0.4 - 2V DC
		Linear	4-20 mA (Ext.100Ω)
			0 - 2 VDC
			0 - 20mA (Ext 100Ω)
			0 - 5V
			1 - 5V
			0 - 10V

## Ordering Code

Model	No. of Input	Input Type	Auxilliary Power Supply	Retransmission Output Type
8208-IP	4 4 Channels	1 E	U1 85-265 VAC / 110-290VDC	N None
		2 J	U2 18-36 VDC	1 4-20mA
	8 8 Channels	3 K		2 0-20mA
		4 T		3 1-5 V
		5 B		4 0-5 V
		6 R		5 0-10 V
		7 S		
		8 N		
		9 Pt-100		
		A -10 to 20mV		
		B 0-75 mV		
		C 0-100 mV		
		D 0-2 V		
		E 0.4-2 V		
		F 0-5 V		
		G 1-5 V		
H 0-10 V				

\*Standard 6 nos. PG11 glands are supplied for both 4/8 channel Scanner. In 8 channel scanner upto 12 nos.PG11 glands can be provided if required at extra cost. Any change in type and no. of glands please consult factory before order placement