



8208

8 Channel Scanner/ DAQ Module

Compact. Advanced. Fast



8208 Scanner offers multi-channel monitoring with advanced functions and simple programming features in very compact 1/4 DIN size for monitoring process values and protection application.

8208 has flexible configuration option for 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 panel keypad.

8208 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 has optional 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.

Features

- Universal input for each analog input
- Compact 1/4 DIN mounting
- Front panel programming
- 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
- 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 Input	8	Standard	85-265VAC / 110-300VDC	
Input Type	Thermocouple (E, J, K, T, B, R, S, N), RTD (Pt-100, 3W), current, voltage	Optional	18-36VDC	
Display Range	Refer table-1	Power Consumption	<15VA	
Accuracy	±0.1% of FS ± 1 count	Isolation (Withstanding Voltage)		
ADC Resolution	17 bits	Between primary terminals* and secondary terminals** At least 1500 V AC for 1 minute		
Display Resolution	0.1 / 1.0°C	Between primary terminals* and grounding terminal: At least 1500 V AC for 1 minute		
Sampling Rate	TC and linear input: 100m sec./channel RTD input: 200m sec./channel	Between grounding terminal and secondary terminals** At least 1500 V AC for 1 minute		
CJC Error	±2.0°C	Between secondary terminals** At least 500 V AC for 1 minute		
Sensor Open	All inputs except 0-5VDC / 10VDC	* Primary terminals indicate power terminals and relay output terminals.		
T/C Burnout Current	0.25µA	** Secondary terminals indicate analog I/O signal and communication O/P.		
RTD Excitation Current	1 mA (Approx.)	Insulation resistance: 20MΩ or more at 500V DC between power terminals and grounding terminal.		
NMRR	> 40dB	Physical		
CMRR	> 120dB	Dimension (in mm)	96(H) x 96(W) x 110(D)	
Temperature-Co	< 100ppm/°C	Front Bezel (in mm)	96(H) x 96(W)	
Input Impedance	> 1MΩ	Panel Cutout (in mm)	92.5(H) x 92.5(W)	
Max. Voltage	20VDC	Depth Behind Panel	110 mm	
Display & Keys		Enclosure	Molded ABS	
Process Value	4-Digit, 0.56", red seven segment LED	Weight	500 Grams approx.	
Channel No.	2-Digit, 0.56", green seven segment LED	Protection	IP20	
Group No.	1-Digit, 0.56", red seven segment LED	Terminal Cable Size	2.5 mm ²	
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	Accessories	2 Numbers mounting clamps	
Keys	Menu/enter, escape, A/M, increment, shift key/decrement	Environmental		
Output		Operating Temperature	-12 to 55° C	
Relay		Storage Temperature	-40 to 80° C	
No of Relays	4	Humidity	30-95% RH non-condensing	
Type	Single change over (C, NO, NC)	Type test		
Rating	2A@230VAC / 30VDC	Shock Test	IEC 60068-2-27	
Time Delay	1 to 99 secs.	Cold Test	IEC 60068-2-1: 2007	
Retransmission Output (Optional)		Table 1: Display Range		
Current	0/4-20mA @ 500Ω max.	Thermocouple	Input Type	Range
Voltage	0/1-5V, 0-10V @3KΩ min.		E	-200 °C to 1000 °C
Accuracy	0.25% of FS	J	-200 °C to 1200 °C	
Selection	Max. or min. or Avg. reading of channels	K	-200 °C to 1370 °C	
Communication Output (Optional)		T	-200 °C to 400 °C	
Interface	RS-485	B	450 °C to 1800 °C	
Protocol	Modbus RTU	R	0 to 1750 °C	
Baud Rate	9600, 19200	S	0 to 1750 °C	
		N	-200 °C to 1300 °C	
		RTD	Pt-100	-199.9 to 850.0 °C
		Linear	-10 - 20mV	-1999 to 9999
			0 - 75mV	
			0 - 100mV	
			0.4 - 2V DC	
			4-20 mA (Ext.100Ω)	
			0 - 2 VDC	
			0 - 20mA (Ext 100Ω)	
			0 - 5V	
		1 - 5V		
		0 - 10V		

Ordering Code

Model	Input Type	Auxilliary Power Supply	Retransmission Output Type	Communication Output Type
8208	1 E	U1 85-265 VAC / 110-300VDC	N None	N None
	2 J	U2 18-36 VDC	1 4-20mA	Y 1 x RS-485
	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				

Prefab Cables Ordering Code

Part Code	Description
8208-AIC-2.5	8 Channel Analog Input cable, 25 Core 2.5 mtrs long with one end Fork/U Type lugs and other end pig tails