masibus

Type-1

Type-2

8208-XP

8-Channel Ex-Proof Scanner

Masibus model 8208-XP Scanner, is the Ex-proof version of model 8208, and is certified for use in Hazardous areas and is available in two types of enclosures.

8208-XP is the most compact multi-point scanner available in the market; designed with the latest Touch Sense Keys to give full programmability and ease of operation.

8208-XP comes in density of 4 or 8 channels; each channel input type is universal and has 4 fully programmable relay output for Alarm/Trip purpose. The unit has separate Numeric displays for Channel, Group and PV. All Configuration and Calibration can be done from front panel keypad

The 4 relays can be freely mapped as Alarm, Trip or control set point. User has option to program 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 status indication.

8208-XP has built-in Isolated RS485 serial communication port with Modbus RTU protocol and provides optional analog retransmission output with group Max/ Min to further interface with PLC/DAS/DCS/SCADA.

8208-XP is available in two options Type-1 and Type-2 Wall Mount Enclosure. 8208-XP Type-1 Enclosure has maximum 8 glands possibility, whereas 8208-XP Type-2 Enclosure has maximum of 12 glands possibility and also has Rotary Switch for on/off.

Features

- Universal input per channel
- Ex-proof protection for Gas groups IIA & IIB, IP65, Zone-1 (optional: IIC group)
- Operation by front Touch sense keys
- Fast Sampling rate with instantaneous relay action
- Four relays for alarm/trip
- RS485 Serial communication port for remote monitoring
- Comprehensive Alarm/Trip logic programming
- Multiple Levels of configuration and password protection
- Analog Retransmission (Optional)

Applications

- Hazardous areas like Chemical / Oil & Gas Petrochemical Industries
- Pharma application
- Gas compressors
- Mining Equipment monitoring and protection
- Gas detection
- Fire detection and annunciation
- As a distributed I/O module for interface with PLC/DCS/DAS etc

Technical Specifications

Input

No of Input	4 or 8
Input Type	Thermocouple (E, J, K, T, B, R, S, N), RTD (Pt100), Current, Voltage
Display Range	Refer Table-1
ADC Resolution	17 bits
Display Resolution	0.1 / 1.0°C
Sampling Rate	TC and Linear Input :100mSec/per channel RTD Input: 200mSec/per channel
Accuracy	±(0.1% of Full Scale +1digit)
CJC Error	±2.0° C
T/C Burnout current	0.25µA
RTD Excitation current	1 mA (Approx.)
NMRR	> 40dB
CMRR	> 120dB
Temp-co	< 100ppm/°C
Input Impedance	> 1MΩ
Max Voltage	20VDC

Display & Keys

Process Value	4-digit, 0.56", Red seven segment LED
Channel No	2-digit, 0.56", Green seven segment LED
Group No	1-digit, 0.56", Red seven segment LED
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
Keys	Menu, Escape / A/M , Increment, Shift/Down/ ACK

Output

Relay

No of Relays	4
Type	Single Change over (C, NO, NC)
Rating	2A@250VAC/ 30VDC
Time Delay	1 to 99 secs

Re-transmission (Option)

Current: Voltage:	0 / 4-20mA @ 500Ω Max 0/1-5VDC, 0 -10VDC @ 3KΩ Min
Accuracy	0.25% FS
Selection	Max or Min Reading of Channels

Communication Output

Type	RS485
Protocol	Modbus RTU
Baud Rate	9600/19.2K

Power Supply

Standard	85-265VAC @ 50 Hz / 60 Hz / 110-290VDC
Optional	18-36VDC
Consumption	15VA Max

Isolation (Withstanding voltage)

Between primary terminals* and secondary terminals**: **At least 1500 V AC for 1 minute**
Between primary terminals* and grounding terminal: **At least 1500 V AC for 1 minute**
Between grounding terminal and secondary terminals**: **At least 1500 V AC for 1 minute**
Between secondary terminals**: **At least 500 V AC for 1 minute**
* Primary terminals indicate power terminals and relay output terminals.
** Secondary terminals indicate I/O signal and Communication O/P.
Insulation resistance: 50MΩ @ 500V DC or more between power terminals and grounding terminal.

Physical

Enclosure	ALUMINIUM ALLOY LM-6 **Type-1***: Type-1 Enclosure do not have Rotary Switch and max upto 8 glands only possible **Type-2**: Type-2 Enclosure has On/Off Rotary Switch and max upto 12 glands possible
Weight (without glands)	8208-XP Type 1: 5 Kg 8208-XP Type 2: 8 Kg
Dimension in mm (HxWxD)	8208-XP Type 1: 220 X 237 X 140 8208-XP Type 2: 250 x 270 x 150
Type of Protection	GAS GROUPS IIA & IIB, IP65, Zone: 1, 2 Optional: Group IIC
Cable Entry Size	3/4" ET
Cable Entry No	8208-XP Type 1: Max 8 glands 8208-XP Type 2: Max 12 glands
Mounting	Wall Mount

Environmental

Operating Temperature	0-70° C
Storage Temperature	0-80° C
Humidity	30-95% RH non-condensing

Table 1: Display Range

	Input Type	Ranges
Thermocouple	E	-200 °C to 1000 °C
	J	-200 °C to 1200 °C
	K	-200 °C to 1370 °C
	T	-200 °C to 400 °C
	B	450 °C to 1800 °C
	R	0 to 1750 °C
	S	0 to 1750 °C
	N	-200 °C to 1300 °C
RTD	RTD	-199.9 to 850.0° C
Linear	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 -10 - 20mV	-1999 to 9999

Ordering Code

Model	No of Input		Enclosure Type		Input Type		Auxilliary Power Supply		No of Glands		Retransmission Output Type		Gas Group	
8208-XP	4	4 Channels	T1	Type-1*	1	E	U1	85-265 VAC / 110-290VDC	4	4 Glands	N	None	1	IIA/IIB
	8	8 Channels	T2	Type-2	2	J	U2	18-36 VDC	6	6 Glands	1	4-20mA	2	IIC
					3	K			8	8 Glands	2	0-20mA		
					4	T			12	12 Glands#	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	0.4-2 V								
					E	0-2 V								
					F	0-5 V								
					G	1-5 V								
					H	0-10 V								

* Max upto 8 glands only possible in Type-1 Enclosure
\# 12 glands is possible only in Type-2 Enclosure