MIC 8200 SERIES
1/4 DIN DUAL DISPLAY CONTROLLER

ORDERING

8 2 ☐ ☐ ☐ ☐ ☐ ☐

OUTPUT 1

1	Relay
2	SSR Driver
3	4-20mA & Relay
4	4-20mA & SSR Driver

OUTPUT 2

0	None
1	Relay
2	SSR Driver
3	4-20mA
4	4-20mA & Relay
5	4-20mA & SSR

ALARM OUTPUT

0	None
1	Relay
2	SSR Driver

REMOTE

0	None
1	Position Proportioning*
2	Remote Setpoint
3	RS-485 Standard Com.**
4	RS-485 Standard Com.***
5	RS-485 Total Access Com.**
6	RS-485 Total Access Com.***

VOLTAGE

1	115 VAC Input & Relays
2	230 VAC Input & Relays
3	115 VAC Input 230 VAC Relays

OPTION SUFFIX
(See Appendix for explanation/ specifications)

(Blank)	None
AB	Extended Feature Software
AD	Auto Reset Adj. 0/10.00
AE	AB plus Prop. Band of 9999
XP	24VDC Transmitter Power Supply
XA	24VDC Power Supply†

THE LIFEGUARD WATER-TIGHT PROTECTION ACCESSORY
To order the LifeGuard, specify Part # 64417801.

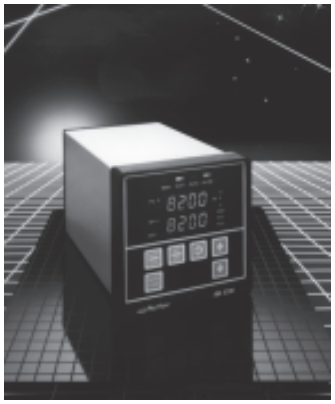
LR39885

* Limited to Model 8211X1X or 82X22X1X.
** Output Group 2 cannot be 3, 4, or 5.
*** Output Group 3 cannot be 1 or 2.
† ALARM not available when XA suffix if ordered.

Note: Option Suffix AB not available with RS-485 Standard Com.

WARRANTY
This instrument is backed by the Partlow comprehensive 3 year warranty. A complete warranty statement is published in the back of the product instruction manual. If you have further questions about warranties, please contact the Partlow factory.

ORDERING INFORMATION
For pricing and additional ordering information, refer to Form 3265, Electronic Price Book, Page 33.



DESCRIPTION

The MIC 8200 is a 1/4 DIN, microprocessor based, dual digital display, dual setpoint, single loop, auto tune, process controller capable of controlling a variety of processes including those requiring simple on-off to dual 4-20mA outputs with full PID, while providing an operator with constant visual indication of process and setpoint.

The top display may be programmed to show the process variable or deviation from setpoint. The lower display, when programmed, is keypad selectable to show setpoint 1, setpoint 2, or percent output.

Options include single or dual 4-20mA output, up to three relay outputs, three types of alarms, remote setpoint input, electric motor modulation, and RS-485 communications. Process value retransmission output is also available.

Access to configuration parameters and setpoint may be restricted by using the instrument's security-access mode.

SPECIFICATIONS

Input

Thermocouple types	J, K, T, R, S, E, B, N, and C.
RTD	100 ohm (.00385 Ohm/Ohm/C)
Volts	0 to 5VDC, 1 to 5 VDC
Millivolts	0 to 25mVDC, 0 to 50mVDC, 10 to 50mVDC
Milliamps	4 to 20mADC, accommodated via the addition of a shunt resistor
Remote Setpoint	0 to 5VDC, 1 to 5 VDC
Sensor Fault Detection	Displays Hi or Lo for thermocouple or RTD inputs (10% above or below range) and sensor break, SnSr. On/Off outputs go off, proportional outputs go to 0%. Sensor fault detection is not functional for 0 to 5VDC.

Outputs

Relay	SPST 115VAC: 5.0 A Resistive; 1/8 HP or 250VA 230VAC: 2.5 A Resistive; 1/8HP or 250VA
SSR Driver	Open collector output Short circuit protected at 100mA maximum Provides 4VDC at 20mA or 3VDC at 40mA
Current Output	4-20mADC into 650 ohms maximum

Display

Digital Display	Four 7 segment LED's each .36 inches high.
Status Indicators	Individual LED indictors for Setpoint 1, Setpoint 2, Out 1, Out 2, Manual, Alarm, Degrees F, Degrees C, or Engineering Units, minus sign for negative values, Process Value, Percent Output 1, Percent Output 2, and Remote Setpoint.

Alarm Adjustment

Process Alarm	-9999 to 9999 units
Deviation Alarm	-3000 to 3000 units
Deviation Band Alarm	1 to 3000 units

Control Adjustments

On/Off Hysteresis	0 to 300 units
Proportional Band	1 to 3000 units
Manual Reset	-1500 to 1500 units
Auto Reset	0.0 to 100.0 repeats/minute
Rate	0.0 to 10.0 minutes
Cycle Time	1 to 240 seconds
Position Prop. Sensitivity	0.0 to 50.0%
First Output Position	-1000 to 1000 units
Second Output Position	-1000 to 1000 units

Performance

Measurement Error Limit	• Type J, K, T, E, N, C thermocouples and RTD +/- 0.25% of reading plus 1 degree at 25 C • Type R, S, B thermocouple +/- 0.25% of span at 25 C • mVDC, mADC and VDC +/- 0.25% of span at 25 C
Ambient Temperature Error	0.01% of span per degree C deviation from 25 C
Scan Rate	1 scan per second, 3 scans available.
Display Resolution	T/C & RTD: 0.01 or 1 degree mV & VDC: 0.001, 0.01, 0.1, or 1.0
Auto Reset Windup Inhibit	Auto reset is disabled when the process is outside of the proportional band.
Cold Junction Compensation	Self compensation for ambient temperature. All calibration values are stored in memory.
Noise Rejection	Normal mode, 85dB minimum at 60Hz or greater. Common mode, 90dB minimum –24VAC maximum for RTD input, 115VAC maximum for other inputs.
Line Voltage	115/230VAC +/- 10% 50/60 Hz
Power Consumption	15VA maximum
Operating Temperature	0 to 55 C, 32 to 131 F
Storage Temperature	-40 to 65 C, -40 to 149 F
Humidity	0 to 90% RH, non condensing
Dimensions	1/4 DIN front panel, 5.8" deep
Weight	3 pounds maximum
Vibration	0.5 to 100Hz at 0.5g

Agency Approvals

UL and CSA

Transmitter Power Supply

Provides up to 40mA @ 24VDC.

Digital Communications

Type	RS-485 serial communication port: Half-Duplex bi-directional comm.
Character Format	ASCII
Protocol	Per ANSI X3.28 subcategories 2.5 A4
Configuration	User configuration to "Monitor" (read only) or "Normal" (read and write)
Bit Rate	User configurable to 300, 600, 1200, 2400, 4800, 9600 bits per second.
Address	User configurable 0 to 99.