

# MIC 3200

## MICROBASED 1/32 DIN LIMIT CONTROLLER

3 2 0 0

**Process Output and Alarm One Output**

- 00 Indicator Only
- 01 Indicator with Relay Output for Alarm 1
- 02 Indicator with SSR Output for Alarm 1
- 12 Controller with Relay Output and SSR Alarm 1 Output
- 21 Controller with SSR Output and Relay Alarm 1 Output

**Option**

- 0 None
- 1 Relay Alarm 2
- 2 RS-485 Comms - MODBUS Protocol

**Display Color/Line Voltage**

- 0 Green Display 90-264VAC
- 1 Red Display 90-264VAC
- 2 Green Display 24V AC/DC
- 3 Red Display 24V AC/DC

**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.



**DESCRIPTION**

The Partlow Brand MIC 3200 microbased 1/23 DIN process controller has been designed to offer users a smaller controller without sacrificing functionality. The 3200 has been designed to offer straightforward set-up and use. The controller comes with a specially developed hands-free PID tuning algorithm which gives excellent general control. For more specific performance requirements, there is also pre-tune followed by manual fine-tune to get the very best control for a specific application.

**SPECIFICATIONS**

**Input**

Thermocouple types	J, K, T, R, S, B, and N.
RTD	100 ohm (.00385 ohm/ohm/C)
Millivolts	0 to 50mVDC and 10 to 50mVDC
Milliamps	0 to 20mADC and 4 to 20mADC

**Outputs**

Relay	SPDT 2A Resistive at 120/240 VAC
SSR Driver	>10V DC into 500 dim minimum (50mA maximum)

**Display**

Digital Display	Four 7 segment LEDs, .39" high
Status Indicators	Individual LED indicators for Control, alarm and configuration status

**Alarm Adjustment**

Process Alarm	- Input Span
Deviation Alarm	-1999 to +Input Span
Deviation Band Alarm	1 to Input Span

**Control Adjustments**

On/Off Hysteresis	0.1% to 10.0% of Input Span
Proportional Band	0.5% to 999.9%
Manual Reset	0% to 100%
Auto Reset	1 sec to 99 minutes 59 seconds and OFF
Rate	0 (OFF) to 9 mins. 59 sec
Cycle Time	0.5 sec (SSR Drive only) 1, 2, 4, 8, 16, 32, 64, 128, 256, and 512 seconds
Control Algorithms	Direct/reverse acting PID or ON/OFF
Automatic Tuning Types	Pre-Tune or Hands OFF EASY TUNE

**Performance**

Measurement Accuracy	- 0.1% of span, - 1 LSD at 20 deg C Note: Reduced performance with Type "B" thermocouple between 100-600C (212-1112F).
Ambient Temperature Error	0.01% of span /deg C change in ambient
Linearization Accuracy (TC and RTD)	Better than - 0.2 deg C any point, 0.1 deg C range (- 0.05 deg C typical). Better than - 0.5 deg C any point, any 1 deg C range
Cold Junction Compensation	Better than - 0.7 deg C
Noise Rejection	Common mode: >120dB at 50/60Hz giving negligible effect at up to 264V 50/60Hz Series Mode: >500% of span (at 50/60 Hz) causes negligible effect
Line Voltage	90 to 264VAC 50/60 Hz (standard) 12 to 24VAC 50/60Hz or 12 to 30VAC (optional)
Operating Temperature	0 to 55 C
Storage Temperature	-20 to 80 C
Humidity	20 to 95% non condensing
Source Resistance	1000 ohm maximum (thermocouple)

Lead Resistance	50 ohm per lead maximum balanced (Pt100)
Dimensions	1.93" (49mm) X .98" (25mm) 3.94" (100mm) deep
Front Panel Sealing	IP66
Power Consumption	4 Watts
<b>Digital Communications</b>	
Type	Serial asynchronous UART-to UART Link
Data Format	1 start bit, selectable parity (odd, even or none), 8 data bits, 1 stop bit.
Physical Layer	RS-485 (two wire)
Presentation Layer	Modbus RTU protocol
Maximum Number of Zones	128
Baud Rate	Selectable in range 9600, 4800, 2400, 1200
Zone Address Range	1 to 128