PARTLOW™ brand

Data Sheet

Controllers



MIC 3200™

Small Size – Big Capability

1/32 DIN Temperature Controller/Indicator

DESCRIPTION

The MIC 3200 is straightforward, easy to use, and designed to offer users a smaller controller without sacrificing functionality. The controller comes equipped with specially developed hands-free PID (easy tune) for 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.

APPLICATIONS:

Ideal for temperature control applications requiring a compact, value-priced, easy-to-use general-purpose controller.

INDUSTRIES:

- Industrial and lab ovens/furnaces, plastics and thermal forming
- Form/Fill and seal
- Packaging applications
- And any others where low costs, smaller size and unmatched connectivity are critical requirements.

FEATURES/BENEFITS

- Single, 4-digit, 0.39” LED display
- 1/32 DIN panel mount
- Universal Input for thermocouple, RTD, DC linear mA/mV; user-selectable
- 1 or 2 outputs; relay or SSR driver
- Process or deviation/band alarm functions
- ON/OFF, direct/reverse acting PID Control
- Optional RS-485 serial communications

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SPECIFICATIONS*

STANDARD FEATURES

Full PID capability

Single or dual outputs via relay or SSR driver

Indicator only, indicator with alarm or full contoller models available

One or two alarm outputs

Universal Input for thermocouple, RTD, DC linear mA/mV

ENVIRONMENTAL CHARACTERISTICS

Operating Temperature: 0 to 55°C, 32 to 131°F

Storage Temperature: -20 to 80°C, -4 to 176°F

Humidity: 20 to 90% RH, non condensing

ELECTRICAL

Line Voltage: 90 to 264VAC, 50/60 Hz standard; 12 to 24VAC 50/60Hz or 12 to 30VDC (optional)

Power Consumption: 4 Watts maximum

INPUTS

Thermocouple types: J, K, T, R, S, B, and N.

RTD: 100 ohm (.00385 Ohm/Ohm/C)

Millivolts: 0 to 50mVDC, 10 to 50mVDC

Milliamps: 0 to 20 or 4 to 20mADC,

OUTPUTS

Relay: SPDT, 2.0 A Resistive @ 120/240VAC

SSR Driver: >10V DC into 500Ω minimum (50mA maximum)

DISPLAY

Digital Display: Four 7 segment LEDs, 0.39" high

Status Indicators: Individual LED indictors 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 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 50/60Hz) causes negligible effects.

Source Resistance: 1000 ohm maximum (thermocouple)

Lead Resistance: 50 ohm per lead maximum balanced (Pt100)

PHYSICAL DIMENSIONS

Dimensions: 1/32 DIN front panel, 100mm (3.9") deep

Weight: 100 g. (3.53 oz.)

COMMUNICATIONS

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

RATINGS/AGENCY APPROVALS

UL & cUL recognized (E67237), CE

WARRANTY

3 years

* Specifications are for base models with standard features only unless otherwise noted. Specifications subject to change without notice in accordance with our DBS policy of continuous improvement. All product and brand names are trademarks of their respective owners. All rights reserved.

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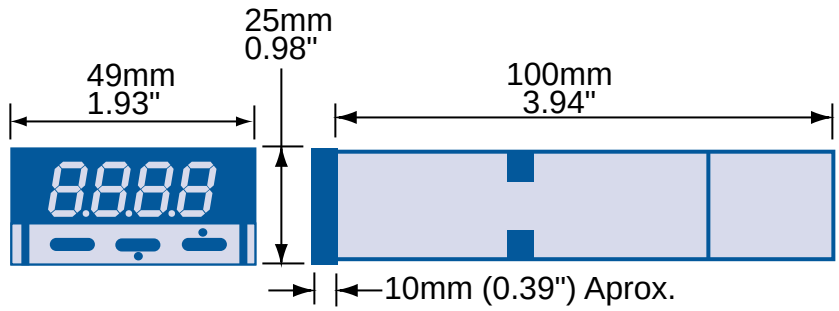
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MODELS

Code 1: Model #	Code 2: Process & Alarm 1 Outputs	Code 3: Option	Code 4: Display Color/ Line Voltage
3200	☐ ☐	☐	☐
I/32 DIN Temperature Controller/Indicator	00 Indicator Only 01 Indicator with Relay Output for Alarm 1 02 Indicator with SSR Driver Output for Alarm 1 12 Controller with Relay Output and SSR Alarm 1 Output 21 Controller with SSR Driver Output and Relay Alarm 1 Output	0 None 1 Relay Alarm 2 2 RS-485 Comms	0 Green Display 90-264VAC 1 Red Display 90-264VAC 2 Green Display 24V AC/DC 3 Red Display 24V AC/DC

DIMENSIONS - 1/32 DIN



Mount to panel 6mm (0.24") thick, minimum.
Panel Cutout: 45mm x 22.5mm (1.77" x 0.89")

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Process Automation Worldwide Brands:

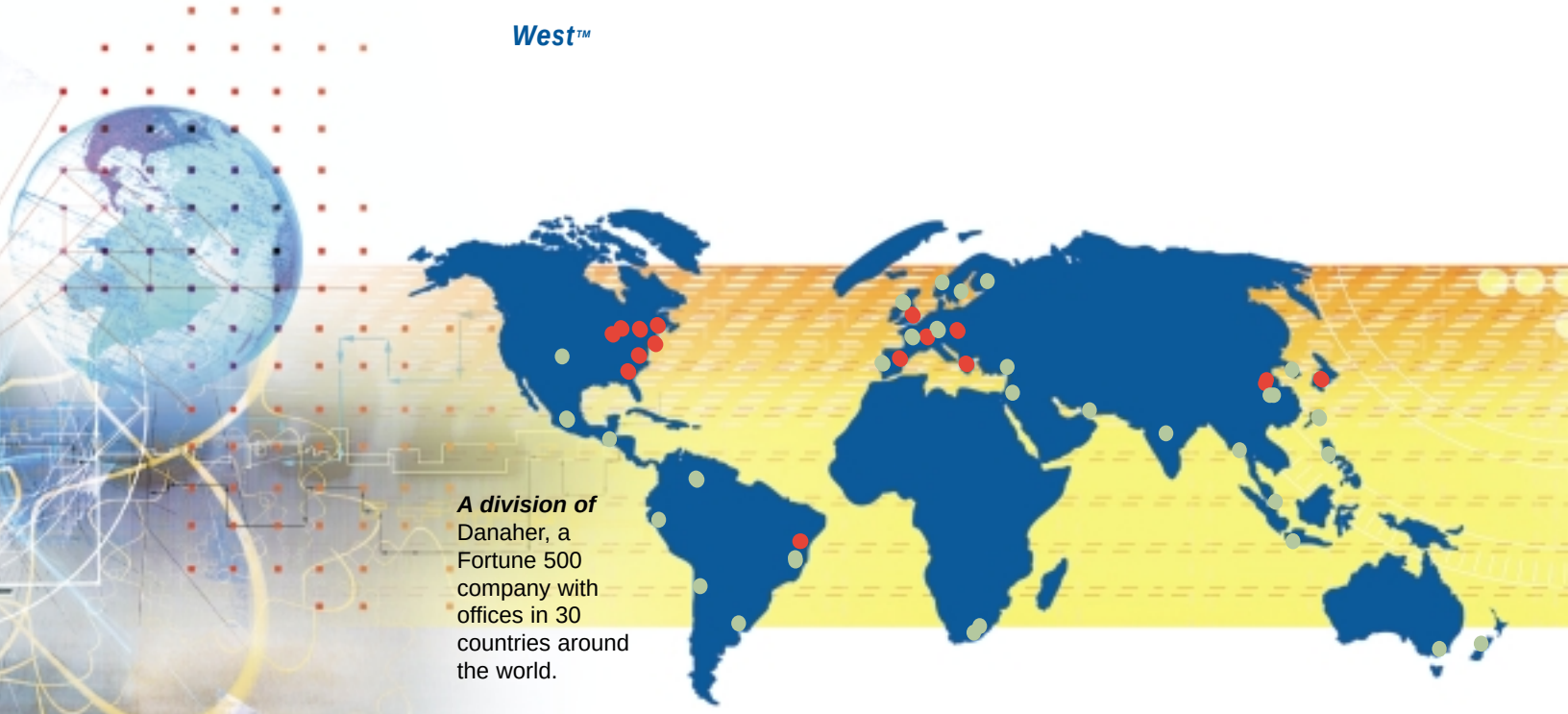
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Partlow™

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West™



A division of Danaher, a Fortune 500 company with offices in 30 countries around the world.

More Available. With factories around the world, global sales and applications support, and an expansive network of distributors, we stay close to our customers - shortening lead times and fostering responsiveness. Three-day lead time is standard, with same-day shipments available on many of our products.

More Selection. We have a broad selection of controllers to meet application requirements in a variety of industries. User-configurable, accurate and flexible, with low, mid, or high level performance ranges, our controller products meet your system and budgetary requirements.

More Reliable. Our experience with more than 25,000 customers has taught us to design controllers that are reliable and durable, with quality standards that meet six sigma requirements.

For additional information or a full-line catalog, contact DICG Customer Service or visit our web site.

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DANAHER INDUSTRIAL CONTROLS