



Single MLC 9000+™

Maximum Productivity and Versatility for Control without Compromise!

DESCRIPTION

The Single Loop Controller Module (LCM), when combined with a Bus Control Module (BCM), is part of the MLC 9000+ DIN rail mount PID control system. Each Single Loop Controller Module (LCM), is an independent PID controller. Up to a max of eight LCMs can be configured for each Bus Communication Module (BCM). Each LCM contains its own PID processor as well as all input and output connections. Mixed installations of Single Loop and Four Loop LCMs are possible. Each LCM can be removed and replaced (“hot swapped”) while the process is running.

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APPLICATIONS:

Ideal for multi-zone temperature or process control applications (speed, flow, pressure, etc). Takes the place of either a PLC and multiple discrete controllers or combination PLC/HMI. For users seeking an integrated solution for improved PLC performance with factory networks.

INDUSTRIES

Packaging, plastics, converting, semi-conductor, food processing, heat treat and environmental test chambers to name a few.

FEATURE/BENEFITS

- Heat/Cool Operation
- Process & Heater Alarms
- 100ms Scan Time
- Soft Start
- Heater Current Monitoring
- Hot Swapping with Auto Loop Configuration

PARTLOW™ brand

MLC 9000+™

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MLC 9000+ Single Loop Controller Module

STANDARD FEATURES

Power Supply: Powered by BCM within its operating condition

Function: One loop temperature or DC process input. Type and scale user selectable

Measuring Accuracy: DC = ±0.1% of span ±1 LSD; RTD = ±0.1% of span, ±0.3°C; Thermocouple = ±0.1% of span, +1°C for CJC, +0.3°C for 0.1°C resolution ranges, or 1°C for 1° resolution ranges

Input sample rate: 10Hz (100msec)

Sensor Break Detection: Break detected within two seconds; Control outputs turn to off (0% power); Alarms activate (except heater break alarms)

Construction/Enclosure: Compact, modular, behind the panel (BTP), DIN rail design.

OPERATING CHARACTERISTICS (APPLIES TO BOTH BCM/LCM)

Operating Temp: 32° to 131°F (0° to 55°C)
Storage Temp: -4° to 176°F (-20° to 80°C)
Humidity: 30% to 90% non-condensing R.H.

UNIVERSAL INPUT

Input will accept signal from any of the following:

Thermocouple: B, N, J, R, K, S, L, T; Spans from -400°F to +3198°F (-240°C to +1759°C) dependent on T/C type

RTD: 3-Wire PT100: -327.3°F to 1472.5°F (-199.9°C to +800.3°C)

DC Linear: 0-20mA, 4-20mA, 0-50mV, 10-50mV, 0-5V, 1-5V, 0-10V, 2-10V; Scaleable -32000 to +32000

HEATER BREAK ALARM

Function: Optional. Compares heater current to nominal. Alarms for High/Low current or Short Circuit output

Heater Current Input: 0 to 50mA Sinusoidal rms, from Current Transformer. Scaleable 0.1 to 1000.0A AC

OUTPUTS

Output types provided is dependent upon specific LCM model. See "ORDERING INFORMATION" for details.

Relay Outputs: Contact type: Single Pole Single Throw (SPST); Rating: 2A resistive @ 120/240 VAC; Lifetime: >500,000 operations at rated voltage/current

SSR Driver Outputs: Drive Capability: 12VDC nominal (10V minimum), at up to 20mA; Isolation: Isolated from process input and relay outputs. Not isolated from each other, other similar outputs or linear outputs in the same system.

Linear Output: Only available on 3 O/P models. Resolution: 8 bits in 250msec, (10 bits in 1 second typical); Accuracy ±0.25% (mA into 250 ohm load, V into 2kohm load), degrading linearly to ±0.5% for increasing burden to maximum derive capability (500 ohm).

RATINGS/AGENCY APPROVALS

Safety: EN61010 and UL/ULc 3121-1
EMC: Certified EN61326-1: 1997
Other: ISO 9002 Registered; CiA approval pending.

PROTECTION

IEC IP20; Designed for installation in an enclosure which is sealed against dust and moisture.

PHYSICAL DIMENSIONS

Width: 0.87" (22mm)
Depth: 4.72" (120mm)
Height: 3.94" (100mm)
Weight: 5.3 oz (0.15kg)
Mounting: directly fitted onto 35mm Top-Hat DIN rail mounting (EN55022, DIN 46277-3)

WARRANTY

3 Years

* 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 companies. All rights reserved.

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ORDERING INFORMATION

MLC 9002-Z1200-00 One Universal input, two SSR/relay outputs
MLC 9002-Z1300-00 One Universal input, two SSR/relay outputs and one Linear output or three SSR/relay outputs
MLC 9002-Z1301-00 One Universal input, one Heater Break input, two SSR/relay outputs and one Linear output or three SSR/SP relay outputs

