

MLC 9000+ Four Loop Controller Module



Each four Loop Module is an independent PID controller with 4 input and 6 outputs. Up to a max of eight Loop Modules can be connected to a single Bus Module making it possible to have up to 32 loops of independent control. Mixed installations of Single, Three and Four Loop Modules are possible. Each Loop Module can be removed and replaced (Hot Swapped) whilst the process is running.

- Heat/Cool operation
- Process & Loop Alarms
- 100ms Scan Time
- Soft Start
- Universal Input
- Hot Swapping with auto loop Configuration



Technical Data

Process Input

Function	One loop temperature or DC process input. Type and scale user selectable
Thermocouple	B, N, J, R, K, S, L, T Spans from -240°C to +1759°C (-400°F to +3198°F) dependent on T/C type
RTD	3-Wire PT100, NI120 Spans from -199.9°C to +800.3°C (-327.3°F to 1472.5°F)
DC Linear	0-20mA, 4-20mA, 0-50mV, 10-50mV, 0-5V, 1-5V, 0-10V, 2-10V. Scaleable -32000 to +32000
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

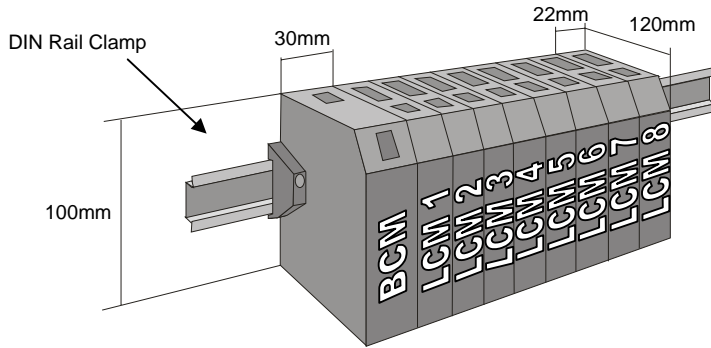
Outputs

Relay Outputs	Contact type: Single Pole Single Throw (SPST) Rating: 2A resistive @ 120/240VAC Lifetime: >500000 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.

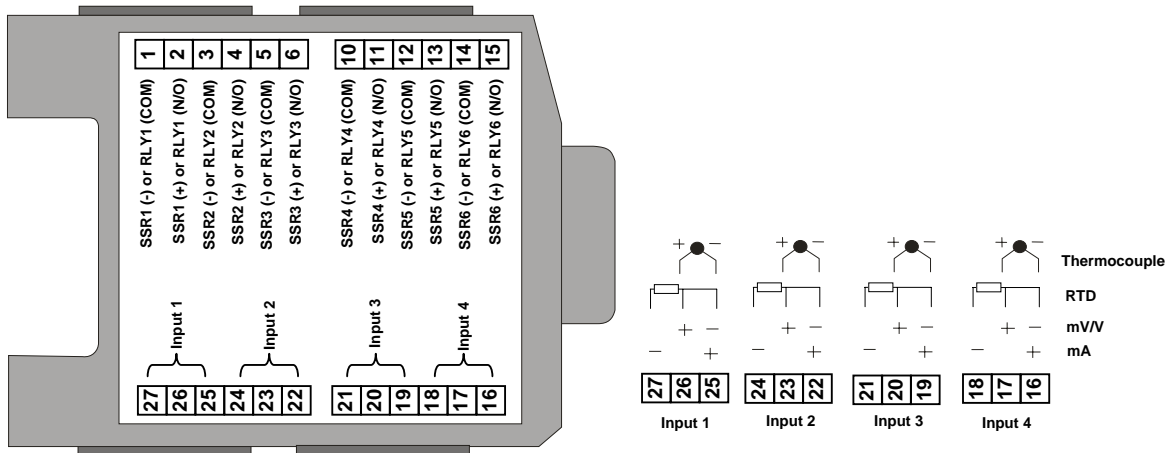
Environmental Specifications

Supply Voltage	Powered by Bus Module within its operating condition
Ambient Temperature	0C to 55C (32F to 131F)
Storage	-20C to 80C (-4F to 176F)
Relative Humidity	30% to 90% non condensing (operation and storage)
Dimensions	Width: 22mm, Height: 100mm, Depth: 120mm. Weight: 0.15kg
Mounting	DIN rail mounting via supplied interconnect module (EN50022, DIN46277-3)
Approvals & Certifications	EMC: Certified to EN61326. Safety: Complies with EN61010 and UL 3121-1

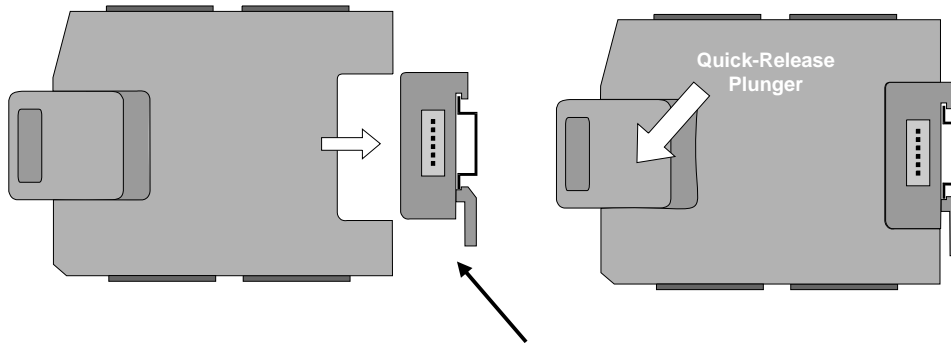
System Dimensions



Connection Details



LCM Mounting Details



Order Code

MLC 9000-Z4610
MLC 9000-Z4620
MLC 9000-Z4660

Inter-Connect Module

Four Universal inputs, six relay outputs
Four Universal inputs, six SSR outputs
Four Universal inputs, four SSR and 2 relay outputs

In accordance with our policy of continuous improvement, we reserve the right to change specifications from those shown in this document.