

Multi Loop Controller

MLC41



Ex 'd' Enclosure for Gas Group IIA, IIB

Capacitive Touch Keys

Dual Analog Outputs

5 Digital Outputs

RS485 - MODBUS

10 Digital Inputs (24V)

3 Analog Inputs (RTD, RTD & 4-20mA)

Low cost Multi Loop Controller provides easy process configurability and robust control capability.

Incorporates features from decades of POLMON's instrumentation & process control experience in the Pharma manufacturing industry.

Prevents Contamination Issues with automated valve interlocking and built-in control.

Features

- Capacitive Touch keys operation
- Optimized to include commonly used ready to call functions
- Level control
- Dead band control
- ON / OFF control
- Inbuilt PI control
- Provides 2 direct input channels for RTDs in addition to 4-20mA Analog Input for process value feedback
- 3 Analog Input, Two Analog Output channels, 10 Digital Input and 5 Digital Output Channels
- Can be ordered with Flame Proof (FLP) enclosure for use in Ex zones, Clean rooms and with Stainless Steel enclosures for outdoor installations
- Multi Loop Controller MLC41 is an advanced micro-controller based Control System that can be used to measure process parameters such as temperature & any 4-20mA analog input and provide configured control outputs
- The unit can be programmed for On/Off & PI control methods with field configurable Input & Output logic configuration
- Programmable Baud rate selection (9600/19200/38400)
- User friendly Keyboard Display Interface: 7-Segment display for process values & LCD for diagnostic messages
- Multiple Digital Inputs (DI) for level switches & feedback from pumps or valves
- Digital Outputs (DO) for controlling valves & pumps
- All DOs & AO can be configured to operate either in Auto or Manual mode
- Dual Analog Output (AO) for Retransmission or proportional valve control
- User friendly local software calibration facility for instrument & sensor
- Non volatile Flash memory for storing program parameters
- Enhanced hardware debugging incorporated for Relays & AOs
- Individual PROCESS START/STOP
- Individual OUTPUT ON /OFF
- PI selection for Proportional valve control
- PV Retransmission
- Dead Band
- Dual Set
- Acknowledgement
- Levels Switch

Applications

- Utility Automation
- Reactor control
- Prevents utility contamination
- Heating & cooling skids
- AHU control

Specifications

Technical					
Model No	MLC41-X-X-X-X-X				
No. of channels	Analog Inputs: 3				
	Digital Inputs: 10				
	Digital Outputs: 5				
Analog Input Type	Analog Output :2				
	RTD / 4-20mA (2Channels) (Field Configurable), 4-20mA (1Channel)				
Measuring Range, Accuracy and Resolution	Measuring Range	Resolution	Accuracy		
	RTD	-199.0 to 500.0°C	0.1	±0.1% of FSR	
		-1.999 to 9.999	0.001		
	4-20mA		-19.99 to 99.99	0.01	±0.1% of FSR
			-199.9 to 999.9	0.1	
		-1999 to 9999	1		
Digital Input	24VDC (10 No's) / 24VDC (8 No's), 230VAC (2 No's)				
Analog Output	Current O/P PI (4-20mA@500 Ω load, Software Selectable for a Single Channel) / Voltage O/P retransmission (2-10 Volt)				
Digital Output	5 C NO (Relays)				
Output Accuracy	± 0.05mA				
Calibration	Zero & Span through keypad				
Display	0.39" 4 digit seven segment LED Display for CH1				
	0.39" 4 digit seven segment LED Display for CH2 / CH3				
	16 Characters *2line Alphanumeric LCD for Diagnosis messages				
Scan rate	1 Sec				
Communication	RS485 MODBUS RTU				
Control Type	On / Off				
Control Modes	PI for 4-20mA				
Keypad	Capacitive Touch Keys				
Security	Password protected programming mode				
I/P Impedance	mA : 100 Ω, Voltage: > 1MΩ.				
Power Supply					
Power Supply	100 to 260V AC, 50 Hz, 60W				
Physical					
Enclosure	Ex 'd' Enclosure for Gas Group IIA, IIB				
Dimensions	Size- 250X250 (LxW)mm				
Mounting	Wall Mounting				
Weight	6.2Kg (Approx.)				
Environmental					
Operating Temperature	10 - 50°C				
Humidity	10-95%RH, Non-Condensing				

Ordering Information for MLC41						
MLC41	X	X	X	X	X	X
Model No	Enclosure Type	System Type	AO	Keys	Future use	Future use
MLC41	F – FLP	1 – Hot Water Control System	X – Single 4-20mA	1 – Touch Keys		
		2 – VTD Control System	1 – Dual 4-20mA			
		3 – Customized System#				

Note: # - Provide P&ID, Control Logic, Input and Output interface & customized overlay details

Mechanical Drawing of MLC41

