POLMON
Measure. Control. Automate.

Multi Loop Controller

MLC40



Ex 'd' Enclosure for Gas Group IIA, IIB	
	3- Analog Inputs (RTD, RTD & 4-20mA)
Dual Analog Outputs	
	5- Digital Outputs
RS485 - MODBUS	
	10- Digital Inputs (24V)

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

- 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 MLC 40 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

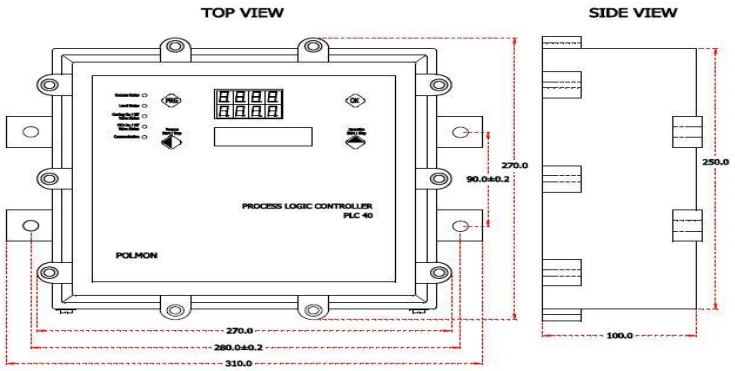
Specifications

Technical			
Model No	MLC40-X-X-X	MLC40-X-X-1	
No. of channels	Analog Inputs: 3	Analog Inputs: 3	
	Digital Inputs: 10	Digital Inputs: 10	
	Digital Outputs: 5	Digital Outputs: 5	
	Analog Output :1	Analog Output :2	
Analog Input Type	RTD (2 Channel's), 4-20mA (1 Channel)	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
4-20mA	-1.999 to 9.999	0.001	±0.1% of FSR
	-19.99 to 99.99	0.01	
	-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	Magnetic Keys		
Security	Password protected programming mode		
I/P Impedance	mA : 100 Ω, Voltage: > 1MΩ.		
Power Supply			
Power Supply	100 to 260V AC, 50 Hz, 25W	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 MLC40			
MLC40	X	X	X
Model No	*Enclosure Type*	*System Type*	*Future use*
MLC40	F – FLP	1 – Hot Water Control System	X – Single 4-20mA
		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 MLC40



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All specifications are subject to change without notice.
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