

PMIU88 PLC

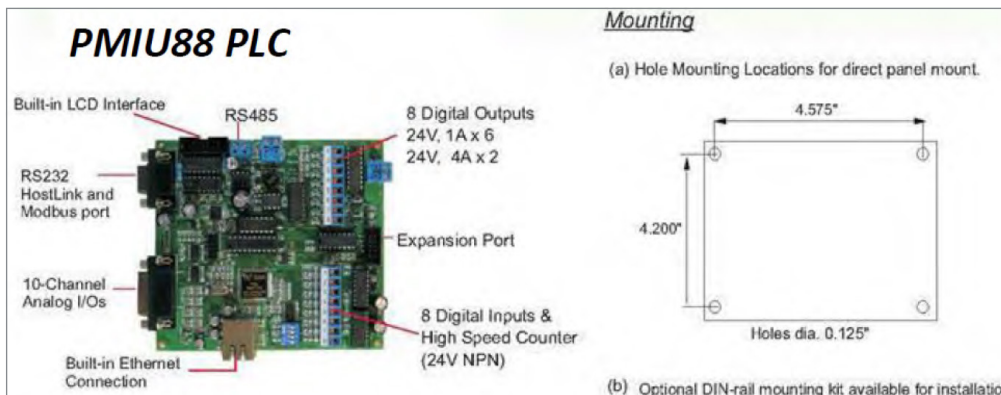
Built into the PMIU88 OEM PLC are 8 digital inputs (includes 2 high speed encoders and 4 interrupts), 8 digital outputs (supports 4 PWM channels and 2 stepper motor pulse/direction controls) and 10 analog I/Os. Digital I/O capacity can be expanded to 120 digital inputs and 120 digital outputs using expansion boards. Analog I/O expansion modules, which connect to the PLC's RS485 port, are also available.

The PLC is designed with ready connectivity to many peripheral device types. With the built-in Ethernet port and the i-TRiLOGI client/server software, the PLC is fully accessible for machine monitoring and reprogramming over the network. Built-in RS232 and RS485 connections and support of Modbus protocols also make the PLC easy to integrate into mixed-brand PLC environments and networks.

Programming of the PMIU88 PLC is simplified with the powerful Ladder+BASiC software that is shipped with the starter kit.

ACCESSORIES

- LCD Displays : LCD216 (2 lines x 16 char.), LCD420 (4 lines x 20 char.)
- Networked Display : MDS100-BW for multiple displays application or for extended mounting of display
- MD-HMI : 16-key pad with 8 LED and 4x20 LCD; plugs into LCD and expansion ports
- MMI6050 : 4.3" Color Graphics Touch Panel HMI
- I/O Expansion : Exp4040 or Exp1616R (16 Opto-isolated Digital Inputs, 16 Relay Outputs)
- FRAM RTC : Battery-Backed Real Time Clock plus Program/Data Memory Expansion
- Auto485 : RS232 to RS485 converter
- Analog Expansion : I-7000 series Analog I/O Expansion Modules
- USB-RS232 Interface : for connection to USB port on PC
- Din Rail Mounting : Din-Kit-2



PMIU88 PLC: FEATURES & SPECIFICATIONS

Operating Voltage	12 to 24V DC (+/- 5%)	
Digital Inputs	8 (24V npn) with LED indicators	
	Encoder Inputs	2 x 32-bit High Speed Counter (quadrature: 2 D/Is per channel)
	Interrupts	4 x user-defined interrupt (latency <0.5ms, +ve or -ve edge triggered)
Digital Outputs	8 (24V npn) with LED Indicators	
	#1 to #6 : 24V, Max 1A npn, Continuous Output Current 250mA, Driver Type : NPN Darlingon Transistor	
	#7 to #8 : 24V, Max 4A npn, Continuous Output Current 2A, Driver Type : N-Channel power MOSFET with low rDS	
	PWM (current)	4 x PWM; shares with D/O #5 to #8 (continuous frequencies, 0.1% duty cycle resolution)
	Stepper Motor Control	3 x stepper motor control pulse/direction outputs (2 D/Os per stepper output)
Analog I/O	10	
	Input Interface	8 x AI -12 bit, 0-5V
	Output Interface	2 x AO - 12 bit, 0-5V or 0-10V (Software selectable!). Expandable to 4 channels (0-5V)
Processing	I/O Scan time = 1ms (can be interrupted by input interrupts), Program Scan time = 4µs per step	
High-Speed Counter	2x high-speed counters, 4x pulse measurement channels (frequency, period and width) simultaneous position and speed measurement on each channel	
Counters	64	
Internal Relays / Timers	512 internal relays, 64 timers (any one or all can be configured as "HighSpeed" timers)	
Sequencers	8 with 32 steps (step# 0 - # 31)	
Real-Time Clock	<u>Standard</u> : Real Time Clock and Calendar (Year, Day, Month, Hours, Min, Sec, day-of-week) - no battery backup	
	<u>With FRAM-RTC</u> : Real Time Clock and Calendar (Year, Day, Month, Hours, Min, Sec, day-of-week) - battery backup	
PID	Built-in 16 channels PID Computation function (Proportional, Integral, Derivative digital control)	
Connection Ports	RS232	1x (DB9 Female Socket)
	RS485	1x (two-pin screw terminals)
	Ethernet	1x RJ45
	Analog I/Os	1x DB-15 female socket for Analog Inputs and Outputs
	LCD	1 (IDC 14-pin)
	Others	2 x 8 way detachable screw terminals (5mm pitch) for digital inputs and outputs
Communications	Ethernet	Direct connection to LAN or Internet for programming, monitoring and Remote Control Support both Modbus/TCP Server (5 simult. connections) and Modbus/TCP Client Extremely easy Peer-to-peer (or machine-to-machine) PLC communication. TCP connection to any Server IP address:port number (e.g. to NIST Timer Server) Event-driven Emailing. Create and save data file on a networked PC's hard disk Excel spreadsheet Data Logging using TRi-ExcelLink software Supports web query. Enterprise Database or MS Excel software can log PLC data directly via the We
	RS232 & RS485	Supported Protocols : Native ASCII Host Link Commands (programming/monitoring) MODBUS RTU, MODBUS ASCII, OMRON C20H Host Link Commands Default COM speed 38,400 bps, may be set from 1200 to 115.2K & 230.4K bps
Memory Storage	<u>Standard</u> Program Data	8K words (16-bit) of program memory stored in flash memory. A to Z (32-bit Integer), A\$ to Z\$ (ASCII strings) DM[1] to DM[1000] (16-bit integer array) 1K Words (16-bit) additional non-volatile Flash memory for integer and string storage
	<u>With FRAM-RTC</u> Program Data	16K words (16-bit) of program memory stored in flash memory. A to Z (32-bit Integer), A\$ to Z\$ (ASCII strings) DM[1] to DM[4000] (16-bit integer array) configurable to non-volatile. 11K Words (16-bit) non-volatile Ferromagnetic RAM memory for integer and string storage.
Programming Lang. / Env.	iTRiLOGI Version 6.xx (Ladder+Basic) / Windows	
Dimensions / Weight	4.825"(L) x 4.45"(W) x 0.8"(H) / 4.9 oz (140 gms)	
I/O Expansion (Digital)	Expandable to 120 D/I and 120 D/O using EXP4040 and EXP1616R.	
I2C Interface (Future)	Optional I2C-FRTC module provides I2C interface and 256K bytes EEPROM. (To Be Announced)	

PLC Environmental Specs (Temperature and Vibration)

Operating Temperature	Operating 0 to 70 deg C (32 to 158 deg F) Storage -20 to +85 deg C (-4 to 185 deg F)
Operating Humidity	10% - 90% Rel. Humidity, non condensing
Electrical Noise Resistance	IEC801-4 (Fast transient) 2KV to power supply, 50 microsecond pulse width, 1 min. 1KV to I/O by capacitive coupling, 50 microsecond pulse width.
Vibration resistance	IEC 68-2-6/1980 Vibration 1.6mm 25Hz to 100Hz Amplitude = +1. Acceleration = + 4.0g

Absolute Max. Rating

Power Supply Input	30V
Digital Inputs	30V
Digital Outputs	30V
Relay Outputs	30VDC/250VAC
Analog Channels (0 to 5V)	7V

RoHS	Compliant
------	-----------

LEARN MORE

To learn more about the Quality Management System or if you would like more information on the products and services from DELMIAWORKS (formerly IQMS), please visit www.iqms.com.