



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 RS484 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 Inouts, 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

Digital Inputs 8 (24 up n) with LED indicators Digital Inputs Encoder Inputs 2 x 32-bit High Speed Counter (quadrature (quadrature (quadrature (quadrature (quadrature (quadrature (quadrature quadrature (quadrature quadrature qquadrature qquadrature qquadrature qqqqqqqquadrature qqqqqqq	Operating Voltage	$12 \pm 0.24 \text{ //} \text{ DC} (\pm 1.5\%)$		
Organ modul Encoder Inputs 2 x 32-bit High Speed Counter (quadrature 2 Dr)s per channel) Digital Outputs # x user-defined interrupt glatency - D Sms, vere or vere deg triggered) #1 to #6 : 24V, Max 1R mpr, Continuous Output Current 2 SOMR, Driver Type: NNN Darlington Transistor #7 to #6 : 24V, Max 4R mpr, Continuous Output Current 2 SomR, Driver Type: NNN Darlington Transistor #7 to #8 : 24V, Max 4R mpr, Continuous Output Current 2 SomR, Driver Type: NNN Darlington Transistor #7 to #8 : 24V, Max 4R mpr, Continuous Output Current 2 SomR, Driver Type: NNN Darlington Transistor #7 to #8 : 24V, Max 4R mpr, Continuous Output Current 2, Brower Type: NNN Darlington Transistor #7 to #8 : 24V, Max 4R mpr, Continuous Output Current 2, Brower Type: NNN Darlington Transistor #10 Input Interface 8 x R1 - 12 bit, 0-5V Output Interface 8 x R1 - 12 bit, 0-5V Output Interface 2 x AD - 12 bit, 0-5V Output Interface 3 x Dis of the assurement channels (Transis Sequencers Sequencers 5 12 Internal relays. 64 timers (any one or all can be configured as "HighSpeed" timers) Sequencers 5 12 Internal relays. 64 timers (any one or all can be configured as "HighSpeed" timers) Real-Time Clock Standard _: Real Time Clock and Calendar (Vear, Day, Month, Hours, Min, Sec, day-of-week) - battery backup	Digital Joputs	8 (24) op with LED indicators		
Encode 12 S2 encode Digital Outputs 4 x user-defined interrupt filterrup, c0 Smi, tve trive edge triggered) Bigital Outputs 8 (24V ngn) with LED indicators #1 to #6 : 24V, Max 1R ngn, Continuous Output Current 22R, Driver Type : NPN Darlington Transistor #7 to #8 : 24V, Max 4R ngn, Continuous Output Current 22R, Driver Type : NPN Darlington Transistor #7 to #8 : 24V, Max 4R ngn, Continuous Output Current 22R, Driver Type : NPN Darlington Transistor Processing 14 x PWW, shares with D/0 #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) Input Interface 8 x A1 - 12 bit, 0.5V 10 Input interface 8 x A1 - 12 bit, 0.5V 10 Processing I/O Scan time = Ims (Can be interrupted by lipout interrupts), Program Scan time = 4µs per step High-Speed Counter 2x high-speed counters, As pulse measurement channels (frequency period and width) Sequencess 5 12 internal relays, 64 timers (any one or all can be configured as "HighSpeed" timers) Sequences 8 with 32 steps (step# 0 + 34 Beal-Time Clock Standard : Real Time Clock and Calendar (ver, Day, Month, Hours, Min, Sec, day-of-week) - no battery backup Vith FRBM-RTC : Real Time Clock and	Digital Inputs	Encoder Inputs	2 x 32-bit High Spage Country (quadrature 2 D/ls per chappel)	
Digital Dutputs Interrupts Investigene (with general vector) Digital Dutputs #1 to #6 : 24V, Max 1A npn, Continuous Dutput Current 250mR, Driver Type: N-PN Darlington Transistor #7 to #8 : 24V, Max 1A npn, Continuous Dutput Current 250mR, Driver Type: N-PN Darlington Transistor #7 to #8 : 24V, Max 4A npn, Continuous Dutput Current 250mR, Driver Type: N-PN duty cycle resolution) Stepper Motor Control 4 x PVMY, shares with D/O #5 to #8 (continuous frequencies, 0.1% duty cycle resolution) Input Interface [8 xAI -12 bit, 0-5V Processing // O Scan time = Tims (can be interrupted by input Interrupts), Program Scan time = 4µs per step High-Speed Counter 2 x high-speed counters, 4x pulse measurement channels (frequencie, period and width) Sequencers 5 12 internal relays, 64 timers (any one or all can be configured as "HighSpeed" timers) Sequencers 5 12 internal relays, 64 timers (any one or all can be configured as "HighSpeed" timers) Sequencers 5 12 internal relays, 64 timers (any, one or all can be configured as "HighSpeed" timers) Sequencers 5 12 internal relays, 64 timers (any, one or all can be configured as "HighSpeed" timers) Sequencers 5 12 internal relays, 64 timers (any, one or all can be configured as "HighSpeed" timers) Sequencers 5 12 internal relays, 64 timers (any, one or all can be configured as "HighSpee		Interrupts	A v user-defined interrupt (latencu < 0.5ms, ±ve or sve endne trianered)	
Anglesis Octpots #1 to #6 : 24V, Max 1A npn, Continuous Output Current 2AD Driver Type - NChannel power MOSFET with low rDS #7 to #8 : 24V, Max 1A npn, Continuous Output Current 2A, Driver Type, -NChannel power MOSFET with low rDS PWM (current) 4 x PWM; shares with D/0 #5 to #8 (continuous frequencies, 0.1% output current 2A). Analog I/O 3 x stepper motor control pulse/direction outputs (2 D/Os per stepper output). Processing 10 Input Interface 8 x AI -12 bit, 0-5V Output Interface 2 x AD -12 bit, 0-5V or 0-10V (Software selectable!). Expandable to 4 channels (0-5V) Output Interface 2 x AD -12 bit, 0-5V or 0-10V (Software selectable!). Expandable to 4 channels (0-5V) Output Interface 2 x AD -12 bit, 0-5V or 0-10V (Software selectable!). Expandable to 4 channels (0-5V) Output Interface 2 x high-speed counters, 4 x pulse measurement channels (frequency, period and width) 5 stepper motor selectable!). Expandable to 4 channels (0-5V) Sequencers 5 12 internal relays. 64 timers (any one or all can be configured as "HighSpeed" timers). 5 generes Sequencers 8 with 32 steps (step# 0-4 # 3). 64 Real-Time Clock Standard Real Time Clock and Calendar (Vear, Day, Month, Hours, Min, Sec, day-of-week) - no battery backup	Digital Outputs	interrupts	8 (24V non) with LED Indicators	
#7 to #8:240, Max AA nop. Continuous Output Current 2A, Driver Type: N-Channel power MOSFET with low rDS PWM (current) 4 × PVM, shares with 0/0 #5 to #8 (continuous frequencies, 0.1% duty cycle resolution) Stepper Motor Control 3 × stepper motor control pulse/direction outputs (2 D/Os per stepper output) Analog I/O 10 Input Interface 8 × AI - 12 bit, 0-5V Output Interface 2 × AO - 12 bit, 0-5V or 0-10V (Software selectable), Expandable to 4 channels (0-5V) Processing I/O Scan time = Tims (can be interrupted by input interrupts), Program Scan time = 4us per step 4 channels (0-5V) Processing I/O Scan time = Tims (can be interrupted by input interrupts), Program Scan time = 4us per step 4 channels (0-5V) Sequencers 5 12 internal relays, 64 timers (any one or all can be configured as "HighSpeed" timers) 5 sequencers Built 32 test Standard. : Real Time Clock and Calendar (Vear, Day, Month, Hours, Min, Sec, day-of-week) - no battry backup With EBM_RTC: Real Time Clock and Calendar (Vear, Day, Month, Hours, Min, Sec, day-of-week) - battry backup PID Built-13 female socket) RS485 1 x (D89 female socket) Connection Ports RS232 1 x (D89 female socket) RS485 Communications Ethernet 1 x R/45 1 merest concer	Digital Outputs	#1 to #6 · 24\/ May 1	A ppp. Continuous Output Current 250mg. Driver Tupe : NPN Darlington Transistor	
End End End PWM (current) 4 x PVM, shares with 0/2 mSt ares with 0/2 mSt ares with 0/2 mSt ares with 0/2 mSt ares with 0/2 mSt are solution in the straight on the straight of the straight straight of the straight of the straight straight of		#7 to #8 : 24V, Max A	A pape Continuous Output Current 20. Driver Tune : N-Chapel power MOSEET with low rDS	
Image: Second		$P_{M}(current)$	A v DWM shares with $D/0.45$ to 48 (continuous fraguencies 0.1% dutu such resolution)	
Analog I/O Total Control Diversion of processing Total Structure of processing Processing I/O Scan time = Ims (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) 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 (tepd 0 - # 31) Real-Time Clock Standard_: Real Time Clock and Calendar (Year, Day, Month, Hours, Min, Sec, day-of-week) - no battery backup PID Built-in 16 channels PID Computation function (Proportional, Integral, Derviative digital control) Connection Ports RS232 1x (D89 Female socket for Analog Inputs and Outputs LCO 11(D1-14-pin) Rs485 11 x (two-pin screw terminals) Ethernet 1x RH45 Ranalog I/Os 1x D8-15 female socket for Analog Inputs and Outputs Communications Ethernet Direct connection to any Server (P address.port numpic PL communication. TCP connection to any Server (P address.port numpic PL communication. Communications Ethernet Direct connection to any Server (P address.port numpic PL coddres), Wooddbus/TCP Clenn		Stepper Motor Control	3 x stepper motor control culse /direction outputs (2 D/os per stepper output)	
Instal (I) 0 Input Interface 8 × AI -12 bit, 0-5V Processing I/O Scan time = Ims (can be interrupted by input Interrupts), Program Scan time = 4µs per step High-Speed Counter 2 x high-speed counters, 4x pulse measurement channels (frequency, period and width) Sequences 64 Counters 64 Internal Relays / Timers 512 internal relays, 64 timers (any one or all can be configured as "HighSpeed" timers) Sequences 8 with 32 steps (step# 0 - # 31) Real-Time Clock Standard_: Real Time Clock and Calendar (Year, Day, Month, Hours, Min, Sec, day-of-week) - no battery backup PID Built-in 16 channels PID Computation function (Proportional, Integral, Derviative digital control) Connection Ports RS232 1x (UB9 Female Socket) Communications Ethernet 1 x RJ45 Analog I/Os 1 x DB-15 female socket for Analog Inputs and Outputs LCD 10(EC 14-pin) Others Others 2 x 8 way detachable screw terminals (Smm pitch) for digital inputs and outputs Communications Ethernet Support both Modbus/TCD Server (S simult. commation, monitoring and Remote Control With ErRAM-RTC Program A k words (16-bit) of program memory Stere) and Modbu		Stepper motor control (S x stepper motor control puse/anection outputs (2 b/ OS per stepper output)		
Interface D X R0 - 12 bit, 0-50 or 0-10V (Software selectable). Expandable to 4 channels (0-50) Processing I/O Scan time = 1ms (can be interrupted by input interrupts), Program Scan time = 4µs per step High-Speed Counters 2 x high-speed counters, x pulse measurement channels (frequency, period and width) 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 Standard_: Real Time Clock and Calendar (Year, Day, Month, Hours, Min, Sec, day-of-week) - no battery backup PID Built-in 6 channels PID Computation function (Proportional, Integral, Derviative digital control) Connection Ports RS3425 1 x (two-pin screw terminals) Ethernet 1 x R)45 1 x R)45 Analog I/Os 1 x BI45 1 x R)45 Communications Ethernet 2 x 8 way detachable screw terminals) (Smm pitch) for digital inputs and outputs Communications Ethernet 1 x R)45 1 x R)45 Grammunications Ethernet 2 x 8 way detachable screw terminals (Smm pitch) for digital inputs and outputs Communications Ethernet 1 x R)45	Hilalog I/O	loout lotorfaco	10 10	
Processing 1/2 kit, 05 / 12 kit, 05 / 10 ki		Output Interface	2×0.12 bit, $0.5 \times 0.10 \times 0.10 \times 0.5$	
Processing Processing Processing Processing High-Speed Counters 2x high-speed counters, 4x pulse measurement channels (Frequency, period and width) simultaneous position and speed measurement on each channel Counters 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 Standard_: Real Time Clock and Calendar (Year, Day, Month, Hours, Min, Sec, day-of-week) - no battery backup PID Built-in 16 channels PID computation function (Proportional, Integral, Derviative digital control) Connection Ports R5232 1x (UB9 Female Socket) R5485 1x (two-pin screw terminals) Ethernet Ethernet 1x RJ45 Analog I/Os Analog I/Os 1x D8-15 female socket for Analog Inputs and Outputs LCD 1(DC 14-pin) Others Communications Ethernet Direct connection to LAB vor 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. Communications Ethernet Supportb	Drocossing		z x ho 12 bit, 050 bi otoriv (software selectable). Expandable to 4 channels (050)	
Implespeed Conters 2 A inglespeed conters, 4x poise measurement channels (updency, pendency) Sequences 64 Internal Relays / Timers 512 internal relays, 64 timers (any one or all can be configured as "HighSpeed" timers) Sequences 8 with 32 steps (step# 0 - # 31) Real-Time Clock Standard_: Real Time Clock and Calendar (Year, Day, Month, Hours, Min, Sec, day-of-week) - no battery backup PID Built-in 16 channels PID Computation function (Proportional, Integral, Derviative digital control) Connection Ports RS232 1x (DB9 Female Socket) Ethernet 1 x RJ45 Ethernet 1 x RJ45 Communications Connection to LGN or Internet for programming, monitoring and Neutrol Communications Ethernet Direct connection to LGN or Internet for programming, monitoring and Medbus/TCP Client Extremety easy Pert-driven Emailing, Create and Save dat 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 WW RS232 & RS485 Supported Protocols : Native ASCII Host Link Commands Program Memory Storage Standard Program BK words (16-bit) of program memory stored in flash memory. Data <td< td=""><td>High Speed Couptor</td><td colspan="3">I/O Scari time = Ims (can be interrupted by input interrupts), Program Scan time = 4µs per step</td></td<>	High Speed Couptor	I/O Scari time = Ims (can be interrupted by input interrupts), Program Scan time = 4µs per step		
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 Standard_: Real Time Clock and Calendar (Year, Day, Month, Hours, Min, Sec, day-of-week) - no battery backup PID Built-in 16 channels PID Computation function (Proportional, Integral, Derviative digital control) Connection Ports R5485 R5485 1x (DB9 Female Socket) R5485 1x (DB9-15 female socket) R5485 1x (DB9-15 female socket) Communications Ethernet LCD 1(DC 14-pin) Others 2 x 8 way detachable screw terminals (Smm pitch) for digital inputs and outputs Communications Ethernet Direct connection to LBN 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. RCP 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 Exzet Supported Protocols : Native ASCII Host Link Commands (programming/monitoring) MOBUS RTU, MODBU	High-speed Counter	2x mgn-speed counters, 4x puse measurement channels (nequency, period and WIdth)		
Clouriers 04 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 Standard_: Real Time Clock and Calendar (Year, Day, Month, Hours, Min, Sec, day-of-week) - no battery backup PID Built-in 16 channels PID Computation function (Proportional, Integral, Derviative digital control) Connection Ports RS232 1x (DB9 Female Socket) RS445 1x (two-pin screw terminals) Ethernet 1 x (two-pin screw terminals) Ethernet 1 x (two-pin screw terminals) Communications Ethernet 1 x (two-pin screw terminals (5mm pitch) for digital inputs and outputs Communications Ethernet 1 x (two-pin screw terminals (5mm pitch) for digital inputs and outputs Communications Ethernet 1 x (two-pin screw terminals (5mm pitch) for digital inputs and outputs Communications Ethernet Direct connection to LRN or Internet for programming, monitoring and Remote Control Support both Modbus/TCP Server (5 simult. connections) and Modbus/TCP Client Externely 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	Countage	simultaneous position and speed measurement on each channel		
Internal Relagy / Internal Relagy, 04 Uniters (any One of an Carlo Por and Carlo Por Configured as "Highspeed" (Inters) Sequencers 8 with 32 steps (step# 0 + # 31) Real-Time Clock Standard_: 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, Derviative digital control) Connection Ports R5232 R485 1x (Rb9 Female Socket) Rhanlog I/Os 1x R45 Analog I/Os 1x R45 Analog I/Os 1x R45 Communications Ethernet Ethernet 1x R45 Communications Direct connection to LRN 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 can log PLC data directly via the With SE Supports web query. Enterprise Database or MS Excel software can log PLC data directly via the With SE Supported Protocols : Native ASCIII Host Link Commands Memory Storage	Lotoreal Delaus (Timers	E 12 into	col colors - C4 timers (any one or all can be configured on "Light Chood" timers)	
Sequences Sequences Sequences Sequences Real-Time Clock Standard : Real Time Clock and Calendar (Year, Day, Month, Hours, Min, Sec, day-of-week) - no battery backup PID Built-in 16 channels PID Computation function (Proportional, Integral, Derviative digital control) Connection Ports RS232 1x (DB9 Female Socket) R485 1x (two-pin screw terminals) Ethernet 1x RJ45 Analog I/Os 1x BP15 female socket for Analog Inputs and Outputs LCD 1(IDC 14-pin) Others 2 x 8 way detachable screw terminals (Smm pitch) for digital inputs and outputs Communications Ethernet Support both Modus/TCP Server (S simult, connection and Remote Control Support both Modus/TCP Server (S simult, connection, and Remote Control Support both Modus/TCP Server (S simult, connection, and Remote Control Communications Ethernet Supports Wed puery. Enterprise Database or MS Excel software can log PLC data directly via the With ERAM-RTC Real-Time Server) Event-driven Emailing. Create and Save data file on a networked PC's hard disk Excel spreadsheet Data Logging using TRi-Excel Link software Supports Wed query. Enterprise Database or MS Excel software can log PLC data directly via the With REAM-RTC Program BK words (16-bi	Finite marketays / miners	5 IZ IIIte	martelags, 64 timers (any one of all can be compared as highspeed timers)	
Real-Time Clock Standard: : Real Time Clock and Calendar (Year, Day, Month, Hours, Min, Sec, day-of-week) - no battery backup PID Built-in 16 channels PID Computation function (Proportional, Integral, Derviative digital control) Connection Ports RS232 1x (D89 Female Socket) RS485 1x (U00 The proportional integral, Derviative digital control) Connection Ports RS485 1x (U00 The proportional integral, Derviative digital control) Connection Ports RS485 1x (U00 The proportional integral, Derviative digital control) Communications Ethernet 1x RJ45 Analog I/Os 1x B15 female socket for Analog Inputs and Outputs LCD 1(IDC 14-pin) Others 2 x 8 way detachable screw terminals (Smm 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 NIS 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	Sequencers		8 With 32 steps (step# U - # 51)	
With FRAM-RTC_ : 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, Derviative digital control) Connection Ports RS232 1x (DB9 Female Socket) RS485 1x (two-pin screw terminals) Ethernet 1x RJ45 Analog I/Os 1x B15 female socket for Analog Inputs and Outputs LCD 10(DC 14-pin) Others 2 x 8 way detachable screw terminals (Smm pitch) for digital inputs and outputs Communications Ethernet Direct connection to LRD 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 (Drogramming/monitoring) MOBUS RTU, MODBUS RTU, MODBUS ASCII MORNO C20H Host Link Commands Default COM speed 38,400 bps, may be set from 1200 to 115.2K & 230.4K b	Real-Time Clock	<u>Standard</u> : Real Time Clock and Calendar (Year, Day, Month, Hours, Min, Sec, day-of-week) - no battery backup		
PID Built-in 16 channels PID Computation function (Proportional, Integral, Derviative digital control) Connection Ports RS232 1x (D89 Female Socket) RS485 1x (two-pin screw terminals) Ethernet 1 x RJ45 Analog I/Os 1 x D8-15 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 Wis RS232 & RS485 Supported Protocols : Native ASCII Host Link Commands (programming/monitoring) MOBUS RTU, MOBBUS RTU, MOBBUS RSCII, OMRON C20H Host Link Commands Default COM speed 38,400 bps, may be set from 1200 to 115.2K & 230.4K bps Memory Storage Standard Mith FRAM-RTC		With FRAM-RTC : Real Time Clock and Calendar (Year, Day, Month, Hours, Min, Sec, day-of-week) - battery backup		
Connection Ports RS232 1x (D89 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 LRN 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-drive Temailing. 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 Default COM speed 38,400 bps, may be set from 1200 to 115.2K & 230.4K bps Memory Storage 8K words (16-bit) of program memory stored in flash memory. Data R to Z (32-bit Integer), A \$ to Z \$ (ASCII strings) DM[1] to DM[1000] (16-bit integer array With FRAM-RTC.	PID	Built-in 16 ch	nannels PID Computation function (Proportional, Integral, Derviative digital control)	
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 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 MOBBUS 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 Standard Program Data BK words (16-bit) of program memory stored in flash memory. A to Z (32-bit Integer), A \$ to Z \$ (RSCII strings) DM[1] to DM[1000] (16-bit integer array IK W ords (16-bit) additional non-volatile Flash memory. Pata Mith ERAM-RTC Program Data I6K 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 IK W ords (16-bit) of program memory stored in flash memory. Pata	Connection Ports	RS232	1x (DB9 Female Socket)	
Ethernet 1 x RJ45 Analog I/Os 1 x 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 Supports web query. Enterprise Database or MS Excel software can log PLC data directly via the We Default COM speed 38,400 bps, may be set from 1200 to 115.2K & 230.4K bps Memory Storage Standard 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 IK W ords (16-bit) additional non-volatile Flash memory for integer and string storage With FRAM-RTC 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 IK W ords (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 IK to Z (32-bit Integer), A \$ to Z \$ (ASCII strings) DM[1] to DM[4000] (16-bit integer arr		RS485	1x (two-pin screw terminals)	
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) Evvent-driven Emailing. Create and save data file on a networked PC's hard disk Excel spreadsheet Data Logging using TRi-ExcelLink software can log PLC data directly via the We Supports web query. Enterprise Database or MS Excel software can log PLC data directly via the We Supports web query. Enterprise Database or MS Excel software can log PLC data directly via the We Default COM speed 38,400 bps, may be set from 1200 to 115.2K & 230.4K bps Memory Storage Standard 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 IK W ords (16-bit) of program memory stored in flash memory. Program Data		Ethernet	1 x RJ45	
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 Memory Storage Standard Program Data Supports defined program memory stored in flash memory. A to Z (32-bit Integer), A \$ to Z \$ (ASCII strings) DM[10 00] (16-bit integer array IK W ords (16-bit) of program memory stored in flash memory. A to Z (32-bit Integer), A \$ to Z \$ (ASCII strings) With FRAM-RTC 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 IK W ords (16-bit) of program memory stored in flash memory. A to Z (32-bit Integer), A \$ to Z \$ (ASCII strings)		Analog I/Os	1x DB-15 female socket for Analog Inputs and Outputs	
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 MoBBUS RTU, MODBUS RTU, MORDBUS 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 Standard Program Data BK 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 16K words (16-bit) of program memory stored in flash memory. A to Z (32-bit Integer), A \$ to Z \$ (ASCII strings)		LCD	1(IDC 14-pin)	
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 Exceptort-driven Emailing. Create and save data file on a networked PC's hard disk Exceptort-driven Emailing. Create and save data file on a networked PC's hard disk RS232 & RS485 Supports web query. Enterprise Database or MS Excel software can log PLC data directly via the We Supports web query. Enterprise Database or MS Excel software can log PLC data directly via the We MODBUS RTU, MODBUS RTU, MODBUS ASCII, OMRON C20H Host Link Commands Memory Storage Standard Program BK words (16-bit) of program memory stored in flash memory. Data A to Z (32-bit Integer), A \$ to Z \$ (ASCII strings) DM[1] to DM[1000] (16-bit integer array IK W ords (16-bit) additional non-volatile Flash memory. 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 IK W ords (16-bit) of program memory stored in flash memory.		Others	2 x 8 way detachable screw terminals (5mm pitch) for digital inputs and outputs	
Memory Storage Standard Program BK words (16-bit) of program memory stored in flash memory. Data At o Z (32-bit Integer), A \$ to Z \$ (ASCII strings) DM[1] to DM[4000] (16-bit integer array.	Communications	Ethernet	Direct connection to LAN or Internet for programming, monitoring and Remote Control	
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 & RS485RS232 & RS485Supported 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 bpsMemory StorageStandard Program DataMemory StorageStandard Program DataMemory StorageStandard Program DataMemory StorageIn to Z (32-bit Integer), A \$ to Z \$ (ASCII strings) DM[1] to DM[1000] (16-bit integer array IK W ords (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 IGK 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 IGK words (16-bit) of program memory stored in flash memory.			Support both Modbus/TCP Server (5 simult. connections) and Modbus/TCP Client	
Memory Storage Standard Program BK words (16-bit) of program memory stored in flash memory. Data 16K words (16-bit) of program memory stored in flash memory. Meth FRAM-RTC. Program Program 16K words (16-bit) of program memory stored in flash memory. Data 16K words (16-bit) of program memory stored in flash memory. Meth FRAM-RTC. Program Program 16K words (16-bit) of program memory stored in flash memory. Data 16K words (16-bit) of program memory stored in flash memory. Data 16K words (16-bit) of program memory stored in flash memory. Data 16K words (16-bit) of program memory stored in flash memory. Data 16K words (16-bit) of program memory stored in flash memory. Data 16K words (16-bit) of program memory stored in flash memory.			Extremely easy Peer-to-peer (or machine-to-machine) PLC communication.	
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 Standard Program BK words (16-bit) of program memory stored in flash memory. Data A to Z (32-bit Integer), A \$ to Z \$ (ASCII strings) DM[1] to DM[1000] (16-bit integer array With FRAM-RTC. Program Program 16K words (16-bit) of program memory stored in flash memory. Data 16K words (16-bit) of program memory stored in flash memory. Mata 16K words (16-bit) of program memory stored in flash memory. Nata 16K words (16-bit) of program memory stored in flash memory. Nata 16K words (16-bit) of program memory stored in flash memory. Nata 16K words (16-bit) of program memory stored in flash memory. Nata 16K words (16-bit) of program memory stored in flash memory. Nata 16K words (16-bit) of program memory stored in flash memory. Nata<			TCP connection to any Server IP address:port number (e.g. to NIST Timer Server)	
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 Memory Storage Standard Program BK words (16-bit) of program memory stored in flash memory. Data A to Z (32-bit Integer), A \$ to Z \$ (ASCII strings) DM[1] to DM[1000] (16-bit integer array IK W ords (16-bit) of program memory stored in flash memory. With FRAM-RTC. Program Program 16K words (16-bit) of program memory stored in flash memory. Data 16K words (16-bit) of program memory stored in flash memory. Mata 16K words (16-bit) of program memory stored in flash memory. Data 16K words (16-bit) of program memory stored in flash memory. Data 16K words (16-bit) of program memory stored in flash memory. Data 16K words (16-bit) of program memory stored in flash memory.			Event-driven Emailing. Create and save data file on a networked PC's hard disk	
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 Standard 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 IK W ords (16-bit) of program memory stored in flash memory for integer and string storage With FRAM-RTC 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 IK W ords (16-bit) of program memory stored in flash memory.			Excel spreadsheet Data Logging using TRi-ExcelLink software	
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 Standard 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 IK W ords (16-bit) of program memory stored in flash memory for integer and string storage With FRAM-RTC 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 ICK words (16-bit) of program memory stored in flash memory. Data			Supports web query. Enterprise Database or MS Excel software can log PLC data directly via the We	
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 Standard Program BK words (16-bit) of program memory stored in flash memory. Data A to Z (32-bit Integer), A \$ to Z \$ (ASCII strings) DM[1] to DM[1000] (16-bit integer array. With FRAM-RTC. Program Program 16K words (16-bit) of program memory stored in flash memory. Data 16K words (16-bit) additional non-volatile Flash memory for integer and string storage With FRAM-RTC. Program Data 16K words (16-bit) of program memory stored in flash memory. Data A to Z (32-bit Integer), A \$ to Z \$ (ASCII strings) DM[1] to DM[4000] (16-bit integer array.		RS232 & RS485	Supported Protocols : Native ASCII Host Link Commands (programming/monitoring)	
Default COM speed 38,400 bps, may be set from 1200 to 115.2K & 230.4K bps Memory Storage Standard Program BK words (16-bit) of program memory stored in flash memory. Data Data BK words (16-bit) of program memory stored in flash memory. IK W ords (16-bit) additional non-volatile Flash memory for integer and string storage With FRAM-RTC Program IGK words (16-bit) of program memory stored in flash memory. Data A to Z (32-bit Integer), A \$ to Z \$ (ASCII strings) DM[1] to DM[4000] (16-bit integer array. IGK words (16-bit) of program memory stored in flash memory.			MODBUS RTU, MODBUS ASCII, OMRON C20H Host Link Commands	
Memory Storage Standard Program 8K words (16-bit) of program memory stored in flash memory. Data A to Z (32-bit Integer), A\$ to Z\$ (ASCII strings) DM[1] to DM[1000] (16-bit integer array. IK W ords (16-bit) additional non-volatile Flash memory for integer and string storage With FRAM-RTC. Program Data 16K words (16-bit) of program memory stored in flash memory. Data 16K words (16-bit) of program memory stored in flash memory. Data A to Z (32-bit Integer), A\$ to Z\$ (ASCII strings) DM[1] to DM[4000] (16-bit integer array.			Default COM speed 38,400 bps, may be set from 1200 to 115,2K & 230,4K bps	
Program 8K words (16-bit) of program memory stored in flash memory. Data A to Z (32-bit Integer), A\$ to Z\$ (ASCII strings) DM[1] to DM[1000] (16-bit integer array. IK W ords (16-bit) additional non-volatile Flash memory for integer and string storage With FRAM-RTC Program Data 16K words (16-bit) of program memory stored in flash memory. Data A to Z (32-bit Integer), A\$ to Z\$ (ASCII strings) DM[1] to DM[4000] (16-bit integer array.	Memory Storage	Standard		
Data A to Z (32-bit Integer), A\$ to Z\$ (ASCII strings) DM[1] to DM[1000] (16-bit integer array IK W ords (16-bit) additional non-volatile Flash memory for integer and string storage With FRAM-RTC Program 16K words (16-bit) of program memory stored in flash memory. Data A to Z (32-bit Integer), A\$ to Z\$ (ASCII strings) DM[1] to DM[4000] (16-bit integer array.		Program	8K words (16-bit) of program memory stored in flash memory.	
IK W ords (16-bit) additional non-volatile Flash memory for integer and string storage With FRAM-RTC Program 16K words (16-bit) of program memory stored in flash memory. Data A to Z (32-bit Integer), A \$ to Z \$ (ASCII strings) DM[1] to DM[4000] (16-bit integer array.		Data	A to Z (32-bit Integer), A\$ to Z\$ (ASCII strings) DM[1] to DM[1000] (16-bit integer array	
With FRAM-RTC. 2 Program 16K words (16-bit) of program memory stored in flash memory. Data A to Z (32-bit Integer), A\$ to Z\$ (ASCII strings) DM[1] to DM[4000] (16-bit integer array.			1K Words (16-bit) additional non-volatile Flash memory for integer and string storage	
Program 16K words (16-bit) of program memory stored in flash memory. Data A to Z (32-bit Integer), A\$ to Z\$ (ASCII strings) DM[1] to DM[4000] (16-bit integer array.		With FRAM-RTC		
Data A to Z (32-bit Integer), A\$ to Z\$ (ASCII strings) DM[1] to DM[4000] (16-bit integer array		Program	16K words (16-bit) of program memory stored in flash memory.	
		Data	A to Z (32-bit Integer). As to Z's (ASCII strings) DM[1] to DM[4000] (16-bit integer array	
configurable to non-volatile.			configurable to non-volatile.	
11K Words (16-bit) non-volatile Ferromagnetic RAM memory for integer and string storage.			11K Words (16-bit) non-volatile Ferromagnetic RAM memory for integer and string storage.	
Programming Lang, / Env. ITRILO GI Version 6 xx (Ladder+Basic) / Windows	Programming Lang / Env	iTRiLOGIVersion 6.xx (Ladder+Basic) / Windows		
Dimensions / Weight $4.825^{\circ}(L) \times 4.45^{\circ}(W) \times 0.8^{\circ}(H) / 4.9 \text{ or }(140 \text{ or }s)$	Dimensions / Weight	4.825"(L) x 4.45"(W) x 0.8"(H) / 4.9 oz (140 oms)		
I/O Expansion (Digital) Expandable to 120 D/Land 120 D/O using EXP4040 and EXP1616R.	I/O Expansion (Digital)	Expandable to 120 D/Land 120 D/O using EXP4040 and EXP1616R.		
I2C Interface (Future) Optional I2C-FRTC module provides I2C interface and 256K butes EEPROM. (To Be Announced)	I2C Interface (Future)	Optional I2C-FRTC module provides I2C interface and 256K butes 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	IEC801-4 (Fast transient)
Resistance	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 <u>www.iqms.com</u>.