Valve Island V Series with **⊘**IO-Link connection

The P2M Moduflex �IO-Link 24 DO node allows a very simple and cost efficient connection to any IO-Link master, centralised into the PLC or decentralised through an industrial Ethernet network.

Designed in both Class A and Class B versions with an isolated auxiliary power, it can easily be adapted to all power supply architectures and follow machine directives



P2M IO-link 24 DO Class A node with independent Auxiliary Power Supply



The P2M **⊘**IO-**Link** 24 DO Class A node can handle a Moduflex Valve bank having up to 19 pilot solenoid valves.

Thanks to its $2 \times M12$ A codded male connectors, it can be connected to any IO-Link Class A masters and separately receive its auxiliary power supply for valves from an independent source.

The P2M OC-Link 24 DO Class A node exists in 3 versions with the Auxiliary Power M12 connector pin out adapted to any sourcing through a standard M12 cable:

- P2M2HBVL12400A13 / -SPC version: 24 Vdc / 0 Vdc on pins 1 & 3 Standard version
- P2M2HBVL12400A43 / -SPC version: 24 Vdc / 0 Vdc on pins 4 & 3 Compatible with Siemens wiring
- P2M2HBVL12400A42 / -SPC version: 24 Vdc / 0 Vdc on pins 4 & 2 Compatible with Rockwell wiring

P2M IO-link 24 DO Class B node



The P2M OIO-Link 24 DO Class B node can handle a Moduflex Valve bank having up to 19 pilot solenoid valves.

Thanks to its single M12 A codded male connectors, it can be connected to any IO-Link Class B masters receiving its auxiliary power supply for valves on pins 2 & 5 from the only cable simplifying the connection

Diagnostic



The P2M ♦ IO-Link 24 DO node offers a local diagnostic through 4 LED's located on the visible top side, showing:

- IO-Link com status
- Node error
- Output error
- Auxiliary power

Additionnal useful diagnostic information can be read by the PLC through the network simplifying diagnostic and allowing predictive maintenance (all details in the user manual)

Safe Power Capable version (-SPC)

Auxiliary power of -SPC version of P2M IO-Link 24 DO node can be supplied from a safe output device following machinery directives. This includes:

- Output Signal Switch Device (OSSD) test pulse compatible
- Galvanic isolation between 0 Vdc Logic and Aux power
- PP or PM cabling modes

For more details, refer to the "Communication nodes – connection and configuration" section.



V series valve island: Communication node for IO-Link

Communication node for 19 outputs (Moduflex Pilot Valves) (The last 5 outputs of this 24 DO node can't be used with Moduflex Valve)

		M12 A codded Connector connection						
	Description	IO-Link Class	♦ IO-Link	Aux.@Power	Aux. Power Pinout	Weight (g)	Order code	
000000	P2M IO-Link Communication Node	Class A	3 Pin's	3 Pin's	1 & 3	160	P2M2HBVL12400A13	
			3 Pin's	3 Pin's	4 & 3	160	P2M2HBVL12400A43	
			3 Pin's	5 Pin's	4 & 2	160	P2M2HBVL12400A42	
		Class B	5 Pin's		2 & 5	140	P2M2HBVL12400B25	
	P2M IO-Link Communication Node Safe Power Capable	Class A	3 Pin's	3 Pin's	1 & 3	165	P2M2HBVL12400A13-SPC	
			3 Pin's	3 Pin's	4 & 3	165	P2M2HBVL12400A43-SPC	
			3 Pin's	5 Pin's	4 & 2	165	P2M2HBVL12400A42-SPC	
		Class B	5 Pin's		2 & 5	145	P2M2HBVL12400B25-SPC	

IODD file can be downloaded from IODD Finder or the Moduflex web site: https://ioddfinder.io-link.com www.parker.com/pde/io-link

Accessories





Valve Island V Series with Industrial Ethernet connection

EtherNet/IP

POWERLINK

The P2M Industrial Ethernet 24 DO node allows a very simple and cost efficient connection to the most popular Industrial Ethernet networks.

Designed with an isolated auxiliary power, it can easily be adapted to all power supply architectures and follow machine directives.



Product Set-Up





The P2M Industrial Ethernet 24 DO node offers an IP addressing through 3 rotary switches located on the top side.

The 3 rotary switches allow also a Factory Reset, IP address storage, and DHCP mode addressing.

As soon as supported by protocol, this IP address can be modified through an imbedded web page.

For an application requiring a regular disconnection / reconnection of the node, Profinet and EtherNet/IP protocols allow respectively a Fast Start-Up (FSU) and Quick Connect mode. This mode can be enable or disable .

Technology / Integrated Ethernet Switch



The P2M Industrial Ethernet 24 DO node offers 2 Ethernet ports allowing a line topology without external switch. The Ring topology can also be supported (enable/disable) for Profinet, EtherNet/IP and Modbus TCP/IP.

The integrated Ethernet switch support Class C Services allowing used in an isochronous real time (IRT) structure.

Diagnostic



The P2M Industrial Ethernet 24 DO node offers a local diagnostic through 7 LED's located on the visible top side, showing:

- Logic status
- Ethernet activity on both ports
- Standard Status due to protocol
- Output error / Auxiliary power

This local information as well as trouble shooting and predictive maintenance diagnostics (Power monitoring, Life cycle counting, ...) are available in PLC through the network and reported on imbedded web page.

When PLC is in "STOP", the web page allows to force ON/OFF solenoids state. This function has a password protection.

Safe Power Capable

Auxiliary power of P2M Industrial Ethernet 24 DO node can be supplied from a safe output device following machinery directives. This includes:

- Output Signal Switch Device (OSSD) test pulse compatible
- Galvanic isolation between 0 Vdc Logic and Aux power
- PP or PM cabling modes

For more details, refer to the "Communication nodes - connection and configuration" section.



V series valve island: Communication node for Industrial Ethernet

Industrial Ethernet node for 19 outputs (Moduflex Pilot Valves) (The last 5 outputs of this 24 DO node can't be used with Moduflex Valve)

	Description	Protocol	Eth. ports	Aux. Power	Weight (g)	Order code
000000	P2M ndustrial Ethernet Communication Node	Profinet IO	2 x M12 D-coded	M12 A-codded	190	P2M2HBVN12400
		EtherNet/IP	2 x M12 D-coded	M12 A-codded	190	P2M2HBVE12400
		EtherCAT	2 x M12 D-coded	M12 A-codded	190	P2M2HBVT12400
		PowerLink	2 x M12 D-coded	M12 A-codded	190	P2M2HBVW12400
		Modbus /TCP	2 x M12 D-coded	M12 A-codded	190	P2M2HBVM12400
		CC-Link IE	2 x M12 X-coded	M12 A-codded	190	P2M2HBVK12400*

^{*)} Coming soon

Configuration file can be download from the dedicated product web page: www.parker.com/pde/P2M_IE

Accessories



Description		Connector type	Weight (g)	Order code
Quick connect straight connector for module power supply	X	M12 - 5 Pin's Female - A Coding	25	P8CS1205AA



Valve Island V Series with Industrial Ethernet connection

The P2M Industrial Ethernet Lite node 24DO allows a very simple and cost efficient connection to the most popular Industrial Ethernet networks.

In its compact IP40 version equiped with two RJ45 Ethernet ports, it saves size in cabinet applications and offers an easy connection to the network in a line topology.



Product Set-Up





The P2M Lite Node 24DO is by default in DHCP mode. The module must be assigned to a static IP-Address in order be controlled via the network.

The Network Configuration settings can be done throung the embedded web server of the node as well as "IPconfig", "TIA Portal" or similar methods.

For an application requiring a regular disconnection / reconnection of the node, Profinet and EtherNet/IP protocols allow respectively a Fast Start-Up (FSU) and Quick Connect mode. This mode can be enable or disable.

Technology / Integrated Ethernet Switch



The P2M Industrial Ethernet Lite node 24DO offers 2 RJ45 ports allowing a line topology without external switch. The Ring topology can also be supported (enable/disable) for Profinet and EtherNet/IP.

The integrated Ethernet switch support Class C Services allowing used in an isochronous real time (IRT) structure.

Diagnostic



The P2M Industrial Ethernet Lite node 24DO offers a local diagnostic through 5 LED's located on the visible top side and 4 additionals on both Ethernet connectors showing:

- Logic status
- Ethernet activity on both ports
- Standard Status due to protocol
- Output error / Power Supply

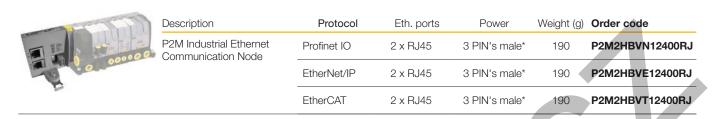
This local information as well as trouble shooting and predictive maintenance diagnostics (Power monitoring, Life cycle counting, ...) are available in PLC through the network and reported on imbedded web page.

When PLC is in "STOP", the web page allows to force ON/OFF solenoids state. This function has a password protection.



V series valve island: Communication node for Industrial Ethernet

P2M Lite Industrial Ethernet node for 19 outputs (Moduflex Pilot Valves) (The last 5 outputs of this 24 DO node can't be used with Moduflex Valve)



^{*)} Female 3,81 mm pitch connector included Configuration file can be download from the dedicated product web page: www.parker.com/pde/P2M_IE

