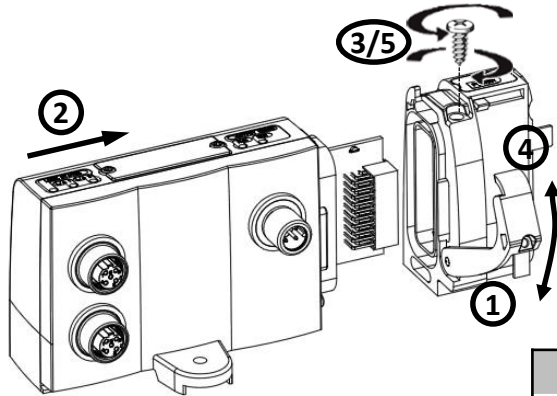


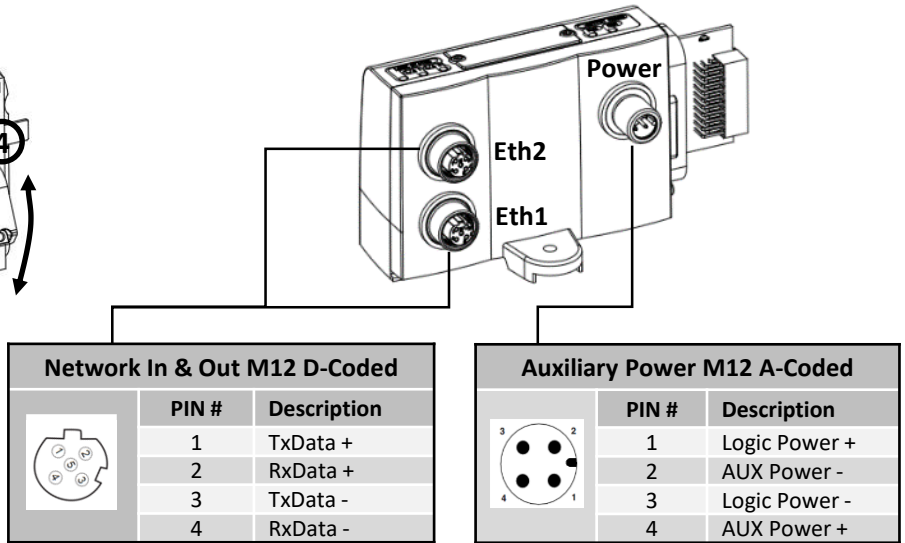
For further details, please refer to the User Manual: it can be downloaded from [www.parker.com/pde/P2M\\_IE](http://www.parker.com/pde/P2M_IE)

### Module assembly / disassembly



For details on appropriate valve adaptor to use, please refer to the respective valve series technical catalogue and instruction sheets.

### Module connection



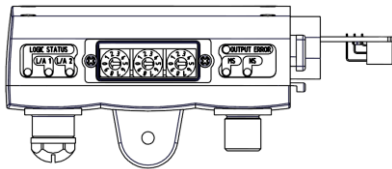
Note : 2 A Auxiliary Power Max Current



### P2M Node 24DO connected to SAFE power supply for Auxiliary Power

The P2M Node 24DO Auxiliary Power for valves can be supplied from a SAFE 24Vdc auxiliary source in PP or PM mode, as well as from Output Switching Signals Device Failsafe Digital Outputs (OSSD FDO).

### P2M Node IP-Address Setting & Configuration File



IP-Address Setting		
x 100	x 10	x 1

The configuration files and integration tools are available for download at from the P2M Node 24DO web site:  
[www.parker.com/pde/P2M\\_IE](http://www.parker.com/pde/P2M_IE)

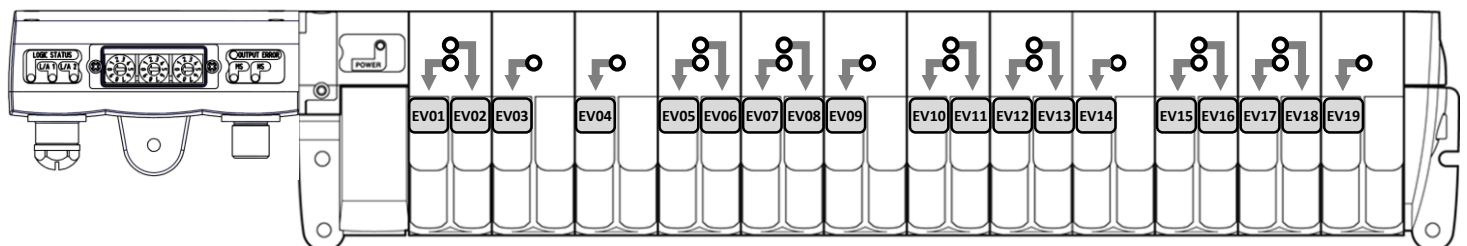
**NOTE 1:** keep the screws attached to the plastic window when setting IP-Address  
**NOTE 2:** 0,35 Nm torque rating for IP-Window screws (for IP65 rating).

IP Switch Setting	Description
000	IP-Address setting is stored into the NV-memory of the P2M node IP-Address setting is determined by the 3 rotary switches:
001 – 254	• IP Address: 192.168.1.xxx
	• Subnet Mask: 255.255.255.0
	• Default Gateway for 001: 192.168.1.2
	• Default Gateway for 002 - 254: 192.168.1.1
888	The device obtains its address via DHCP
999	Reset to Factory Status
All others	Invalid. The Module will not start (see Local Visual Diagnostic section for details)

### Solenoid pilots addressing and process data mapping

#### P2M Node 24DO addressing used with Moduflex Valve System

The P2M Node 24DO used with Moduflex Valve System can handle up to 19 pilot solenoid valves. Addressing is as shown below:



PLC Process outputs data mapping	
Byte 1	EV08 ..... EV01
Byte 2	EV16 ..... EV09
Byte 3*	EV24 ..... EV20 EV19 ... EV17

\*) Byte 3 / Bits 3 to 7 are not connected to valves with Moduflex Valve Range. When connected to H Micro or H Universal ISO Valve Series, Byte 3 can be fully exploited

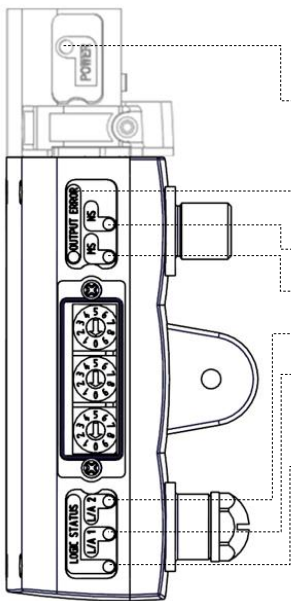
### P2M Node electrical specifications

Description	Value
Network power supply	According to ModBus TCP/IP standard
Speed communication	According to ModBus TCP/IP standard
Auxiliary power supply	Voltage 20,4 Vdc to 26,4 Vdc
Current limit per channel	150 mA
Max. current limit	2 A
Polarity inversion protection	YES
Short circuit protection	YES
Operating temperature	0°C to +55°C
Storage temperature	-25°C to +70°C
Shock	According to IEC 60068-2-27:2008
Vibration	According to IEC 60068-2-6:2007
EMC	According to EN 55011 & EN 61000-4-2 up to -4-6

### Diagnostic

#### Local diagnostic through LED:

The P2M Node 24 DO offers a local diagnostic by 7 LED's with interpretation described in the table below:



LED Name	Color	Function(s)
Power	Red / Green	<b>Solid GREEN:</b> Auxiliary power within specs <b>Blinking GREEN:</b> Auxiliary power in "Warning Range" <b>Solid RED:</b> Auxiliary power in "Error Range"
Output Error	Red	<b>OFF:</b> No active error / fault <b>Solid RED:</b> Detected error affecting output stage
NS	Red / Green	Network Status indicator accordingly to ModBus TCP/IP standard
MS	Red / Green	Module Status indicator accordingly to ModBus TCP/IP standard
L/A 2	Green / Yellow	Ethernet Port 2 (Eth 2) Link / Activity
L/A 1	Green / Yellow	Ethernet Port 1 (Eth 1) Link / Activity
Logic Status	Red / Green	<b>Solid GREEN:</b> Logic power OK <b>Blinking RED:</b> Invalid rotary switch setting <b>Solid RED:</b> Any error that requires acknowledge <b>Blinking RED-GREEN:</b> Unexpected / Invalid firmware version

**Note :** For further details, please refer to the user manual

### Diagnostic through network via ModBus Register "Module Error Input"

The P2M Node 24DO module offers diagnostic data transmitted to the PLC as Process Data Input via the ModBus Register "Module Error Input":

Address	Register Name	Data Type	Access
0x1210	Module Error Input	UINT16	Read

Byte 0	Diag 7 . . . . . Diag 0
Byte 1	Reserved

Bit #	Error Name	Error Description
Diag 0	Ack-Required	Set if any major fault active. Outputs are switched OFF and acknowledge is required to restart the module to normal operation
Diag 1	Auxiliary Voltage Warning	Set if auxiliary voltage in warning range. Module keeps normal operation
Diag 2	Auxiliary Voltage Failure	Auxiliary voltage in Error range. Outputs are switched OFF and acknowledge is required to restart the module to normal operation
Diag 3	Temperature Warning	Set if a temperature increase above warning levels is detected by the output drivers
Diag 4	Output Driver Channel Error	Set if a major fault is detected at the output stage – solenoid short circuit. Outputs are switched OFF and acknowledge is required to restart the module to normal operation
Diag 5	Module Error	Set if an internal communication error is active. Depending on the fault the module might require acknowledgment.
Diag 6	Outputs Stage Not Available	Set if auxiliary power is missing. No acknowledge is required
Diag 7-15	Reserved	These bits will be always set as 0