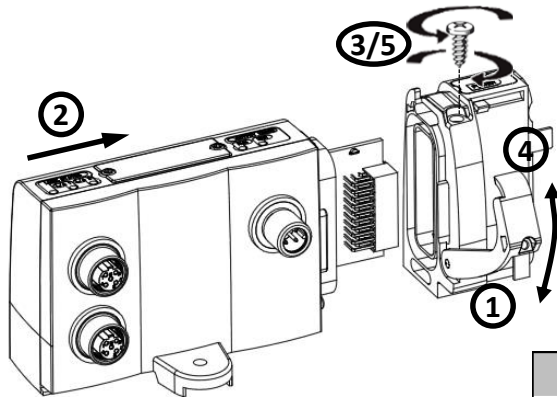


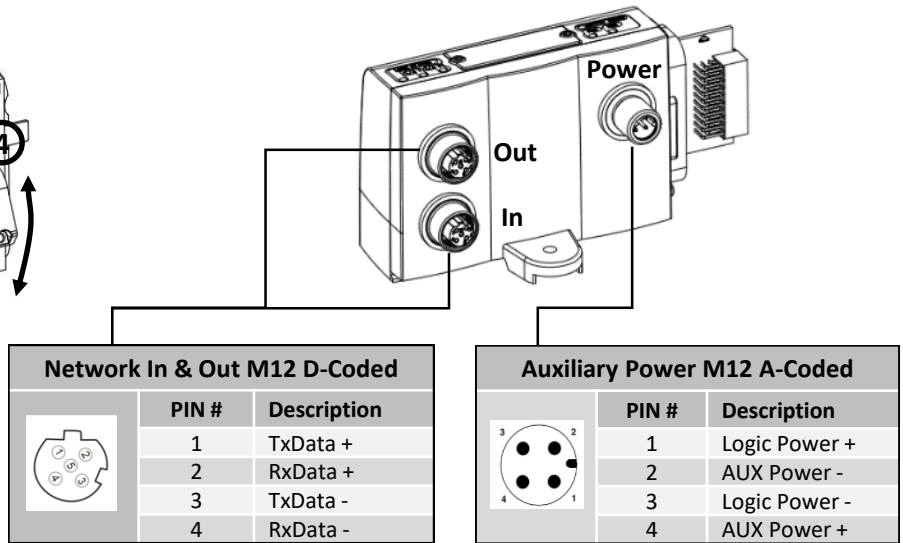
For further details, please refer to the User Manual: it can be downloaded from www.parker.com/pde/P2M_IE

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

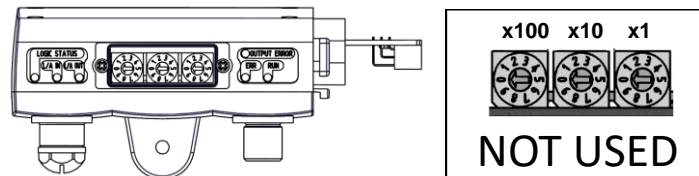


P2M Node 24DO connected to SAFE power supply for Auxiliary Power

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 Address Setting & Configuration File

The IP Address **cannot be set via the rotary switches**. The rotary switches are not used

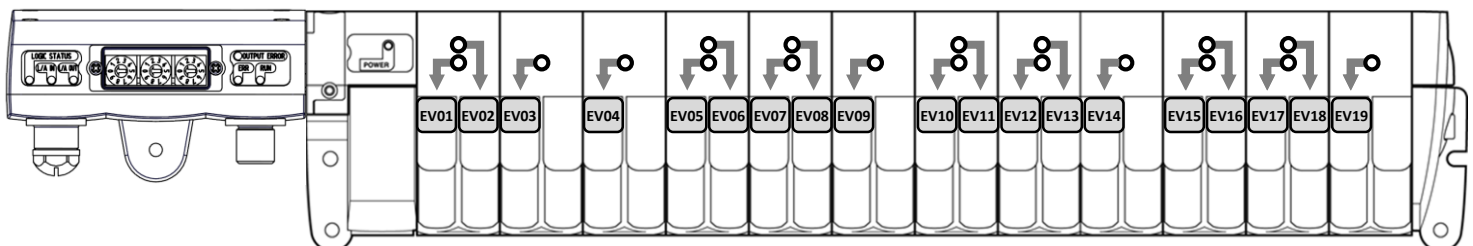


The ESI file, AOIs and Function Blocks can be downloaded from the P2M Node 24DO web site www.parker.com/pde/P2M_IE

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

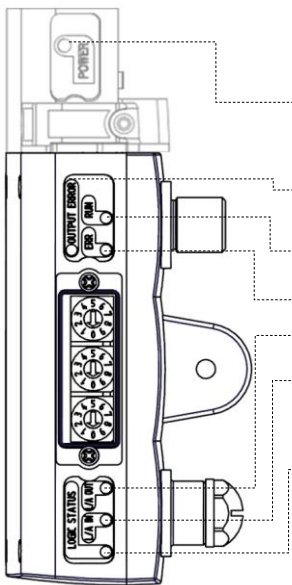
P2M Node electrical specifications

Description	Value
Network power supply	24Vdc +/- 10%
Speed communication	According to EtherCAT 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	Solid GREEN: Auxiliary power within specs Blinking GREEN: Auxiliary power in "Warning Range" Solid RED: Auxiliary power in "Error Range"
Output Error	Red	OFF: No active error / fault Solid RED: Detected error affecting output stage
RUN	Red / Green	RUN indicator accordingly to EtherCAT standard
ERR	Red	ERROR indicator accordingly to EtherCAT standard
L/A OUT	Green	Output Ethernet Port - Link / Activity
L/A IN	Green	Input Ethernet Port - Link / Activity
Logic Status	Red / Green	Solid GREEN: Logic power OK Solid RED: Any error that requires acknowledge Blinking RED-GREEN: Unexpected / Invalid firmware version

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

Diagnostic through Manufacturer Specific Object: "Module Error Input"

The P2M Node 24DO module offers diagnostic data transmitted to the Controller as Process Data Input or via the Manufacturer Specific Object "Module Error Input":

Index	Name	Data Type	Access
0x2009	Module Error Input	UINT	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