



OPENrio SL I/O modules



OPEN*rio* SL is an I/O modular system extremely compact, controlled by EtherCAT bus, to be installed on a standard DIN rail 35mm. The system is composed of a wide range of modules allowing the use in several application fields:

- EtherCAT Bus coupler
- Digital and analog I/O modules
- Temperature sensor module
- 2 Amp or relay output module
- PWM output module
- Encoder input module
- Power module

Each system element is composed by a terminal and by an electronic module installed on the terminal through a safe slide mechanism. Terminal module includes clamps, socket for the electronic module and sliding bus connector.

In case of maintenance, it is sufficient to replace the electronic module simply pulling it out, while wiring and assembly on the DIN rail remain unchanged.

High-performance backplane bus • Transmission rates up to 48 Mbit/s • Very fast reaction time up to 20μs Easy installation and maintenance • Easy mounting through safe slice mechanism • Two stage concept consisting of terminal modules and electronic modules allowing simple and fast maintenance Space saving connection technology • Space saving staircase-shaped wiring with cage clamps • Easy exchange of modules due to wiring

Main features and advantages

- Bus coupler module including power supply with easily replaceable power supply module
- Output modules powered by the Bus Coupler simplify the connections
- Possibility to separate the modules into groups with different electric potential inserting auxiliary Power Modules
- Modules provided with LED for diagnostics (cumulative for digital IOs) and module status for each channel
- Modules provided with removable customizable label for each channel, besides functional and wiring diagrams
- Coupling of the terminal socket with the 35 mm DIN rail through a simple system, safe and resistant, which does not require any tool
- Easy cables wiring on the terminal through spring contacts
- Wiring on inclined base with a considerable space-saving for the cables





Technical Data

	OPEN <i>rio</i> SL			
Bus coupler	8SMPM053-1EC00			
Fieldbus	EtherCAT			
N° of managed modules	Up to 64			
Assembly	DIN rail mounting - modules connected by side contacts			
Dimensions (W x H x D)	12,9 x 109 x 76,5 mm			
I/O signals insulation	Electrical isolation			
Operating Temperature	0°C to +60°C			
Relative humidity	10 to 95%			
Digital modules	8SMPM021-1BF00		8SMPM022-1BF00	
Number of I/O	8 Input		8 Output	
Current for each output	<u>-</u>		0,5A (max 4 A per module)	
Power output modules	8SMPM022-1BD20		8SMPM022-1HB10	
Number of I/O	4 Output		2 Relay Output	
Current for each output	2A (max 4A per module)		3A 30 VDC / 230 VAC	
Analog modules	8SMPM031-1BB40	8SMPM031-1BB70	8SMPM031-1BD70	8SMPM032-1BB70
Number of Input	2 Input	2 Input	4 Input	2 Output
Input/Output field	0/420mA	±10VDC	±10VDC	±10VDC
Resolution	12 bit			
Temperature Sensor Pt/Ni	8SMPM031-1BD80			
Number of I/O	4 Analog Input			
Resolution	16 bit			
Temperature sensors	Pt100/Pt1000 - Ni100/ Ni1000			
PWM Module	8SMPM022-1BB90			
Number of Output	2 Output			
Current for each output	0,5A			
Switching frequency	Max. 40 kHz			
Encoder Input Module	8SMPM050-1BA10			
Maximum input frequency	500 kHz			
Auxiliary Power Module	8SMPM007-1AB00			
Supported current	10A			

