

General - CANopen® nodes

CANopen® node handles up to 64 inputs and outputs, both divided into 8 bytes. Output typologies include solenoid valves, digital outputs (e.g. 5130.08.M8) and analog outputs (e.g. 5130.2T.00). Connectable inputs typologies include digital inputs modules (e.g. 5230.08.M8), analog input modules (e.g. 5230.2T.00), and Pt100 inputs modules (e.g. 5230.4P.02). Optional modules can be connected to the manifold in any order and configuration, provided that modules are installed starting from the node and optional position modules left to furthest end.

Electrical power must be supplied via circular M12 4 pins type A male connector. The separation between 24VDC supply of the node and 24VDC of the outputs allows to turn off outputs leaving the node and eventual inputs operational.

CANopen® network connection is achieved via two circular male-female M12 5 pins type A connectors connected in parallel; connectors pinout is compliant to CiA Draft Recommendation 303-1 (V. 1.3 : 30 December 2004).

Transmission speed and address are set via DIP-switch.

Internal termination resistance is on-board and can be enabled via DIP-switch as well.

There are two CANopen® node versions: they differ by number of outputs directly allocated to solenoid valve positions.

5530.64.32CO part number provides the first 32 out of 64 outputs, corresponding to less significant 4 bytes, are permanently allocated to solenoid valve positions, regardless how many they physically are and how many valves are installed. The remaining 32 outputs can be used to handle optional output modules. Bytes allocation to optional modules is done automatically.

5530.64.48CO part number provides the first 48 out of 64 outputs, corresponding to less significant 6 bytes, are permanently allocated to solenoid valve positions, regardless how many they physically are and how many valves are installed. The remaining 16 outputs can be used to handle optional output modules. Bytes allocation to optional modules is done automatically.

Two part-numbers have been provided to tailor configuration on your needs. 5530.64.48CO part number is recommended in case several solenoid valves must be handled, whilst ensuring room for future expansions.

5530.64.32CO part number is recommended in case increased flexibility is needed for digital outputs.

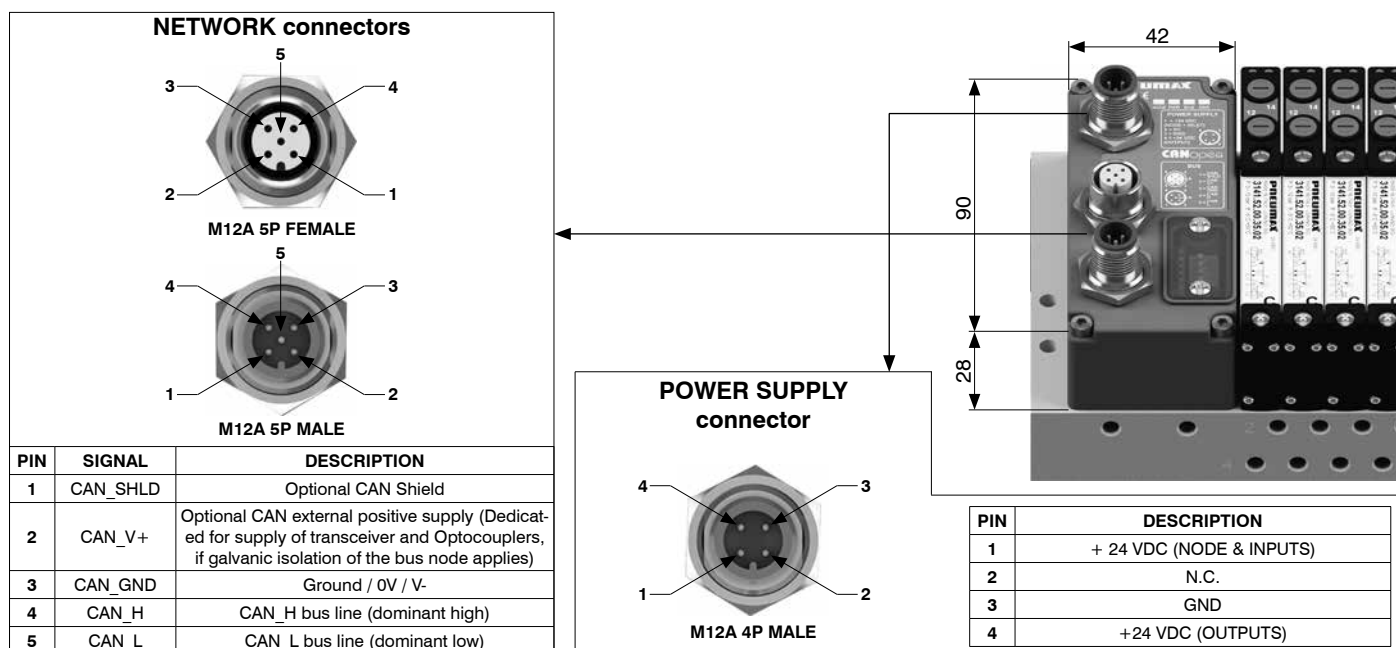
To better understand different possibilities offered during configuration, some examples follow.

Ordering code

5530.64.32CO
5530.64.48CO



Scheme / Overall dimensions and I/O layout



Technical characteristics

Power supply	Specifications	CiA Draft Standard Proposal 301 V 4.10 (15 August 2006)
	Case	Reinforced technopolymer
	Power supply connection	M12 4 P male connector type A (IEC 60947-5-2)
	Power supply voltage	+24 VDC +/- 10%
	Node consumption (without inputs)	30 mA
Network	Power supply diagnosis	Green LED PWR / Green LED OUT
	Network connectors	2 M12 5 P connectors male-female type A (IEC 60947-5-2)
	Baud rate	10 - 20 - 50 - 125 - 250 - 500 - 800 - 1000 Kbit/s
	Addresses possible numbers	From 1 to 63
	Max. node in net	64 (slave + master)
	Bus maximum recommended length	100 m at 500 Kbit/s
	Bus diagnosis	Green LED + red LED
	Configuration file	Available from our web site http://www.pneumaxspa.com
	IP Rating	IP65 when assembled
	Temperature range	0°C ... +50°C

General - PROFIBUS DP nodes

PROFIBUS DP node handles up to 64 inputs and outputs, both divided into 8 bytes. Output typologies include solenoid valves, digital outputs (e.g. 5130.08.M8) and analog outputs (e.g. 5130.2T.00). Connectable inputs typologies include digital inputs modules (e.g. 5230.08.M8), analog input modules (e.g. 5230.2T.00), and Pt100 inputs modules (e.g. 5230.4P.02). Optional modules can be connected to the manifold in any order and configuration, provided that modules are installed starting from the node and optional position modules left to furthest end.

Electrical power must be supplied via circular M12 4 pins type A male connector. The separation between 24VDC supply of the node and 24VDC of the outputs allows to turn off outputs leaving the node and eventual inputs operational.

PROFIBUS DP network connection is achieved via two circular male-female M12 5 pins type B connectors, connected in parallel; connector pinout is PROFIBUS Interconnection Technology compliant (Version 1.1 August 2001).

Network node address is set via DIP-switch.

Internal termination resistance is on-board and can be enabled via DIP-switch as well.

There are two PROFIBUS DP node versions: they differ by number of outputs directly allocated to solenoid valve positions.

5330.64.32PB part number provides the first 32 out of 64 outputs, corresponding to less significant 4 bytes, are permanently allocated to solenoid valve positions, regardless how many they physically are and how many valves are installed. The remaining 32 outputs can be used to handle optional output modules. Bytes allocation to optional modules is done automatically.

5330.64.48PB part number provides the first 48 out of 64 outputs, corresponding to less significant 6 bytes, are permanently allocated to solenoid valve positions, regardless how many they physically are and how many valves are installed. The remaining 16 outputs can be used to handle optional output modules. Bytes allocation to optional modules is done automatically.

Two part-numbers have been provided to tailor configuration on your needs. 5330.64.48PB part number is recommended in case several solenoid valves must be handled, whilst ensuring room for future expansions. 5330.64.32PB part number is recommended in case increased flexibility is needed for digital outputs.

To better understand different possibilities offered, some configuration examples are made in the following pages.

Ordering code

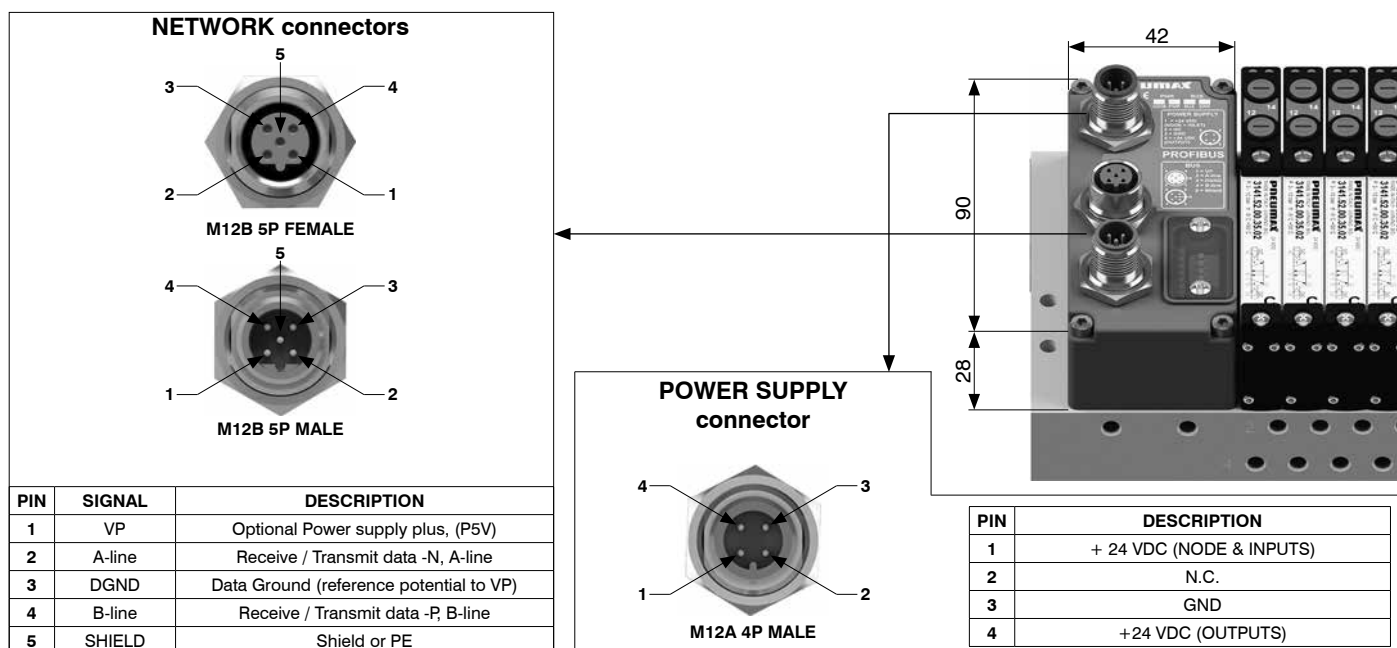
5330.64.32PB

5330.64.48PB



AIR DISTRIBUTION

Scheme / Overall dimensions and I/O layout



Technical characteristics

Power supply	Specifications	PROFIBUS DP
	Case	Reinforced technopolymer
	Power supply connection	M12 4 P male connector type A (IEC 60947-5-2)
	Power supply voltage	+24 VDC +/- 10%
	Node consumption (without inputs)	50 mA
Network	Power supply diagnosis	Green LED PWR / Green LED OUT
	Network connectors	2 M12 5 P connectors male-female type B
	Baud rate	9,6 - 19,2 - 93,75 - 187,5 - 500 - 1500 - 3000 - 6000 - 12000 Kbit/s
	Addresses possible numbers	From 1 to 99
	Max. node in net	100 (slave + master)
	Bus maximum recommended length	100 m at 12 Mbit/s - 1200 m at 9,6 Kbit/s
	Bus diagnosis	Green LED + red LED
	Configuration file	Available from our web site http://www.pneumaxspa.com
	IP Rating	IP65 when assembled
	Temperature range	0°C ... +50°C

General - EtherNet/IP - EtherCAT® - PROFINET IO RT nodes

5730.128.48PN, 5730.128.48EC and 5730.128.48EI nodes handle up to 128 inputs and outputs, both divided into 16 bytes. Output typologies include solenoid valves, digital outputs (e.g. 5130.08.M8) and analog outputs (e.g. 5130.2T.00). Connectable input types include digital inputs modules (e.g. 5230.08.M8), analog inputs modules (e.g. 5230.2T.00) and Pt100 inputs modules (e.g. 5230.4P.02). Optional modules can be connected to the manifold in any order and configuration, provided that modules are installed starting from the node and optional position modules left to furthest end.

Electric power must be supplied via circular M12 4 pins male type A connector. The separation between 24VDC supply of the node and 24VDC of the outputs allows to turn off outputs leaving the node and eventual inputs operational.

The network connection is achieved via two circular female connectors (M12 4 pins, type D); these two circular connectors belong to two separate communication ports; hence they are not connected in parallel.

In 5730.128.48PN, 5730.128.48EC and 5730.128.48EI part numbers the first 48 out of 128 outputs, corresponding to less significant 6 bytes, are permanently allocated to the solenoid valve positions, regardless how many they are and how many valves are installed. The remaining 80 outputs can be used to handle optional output modules. Bytes allocation to optional modules is done automatically.

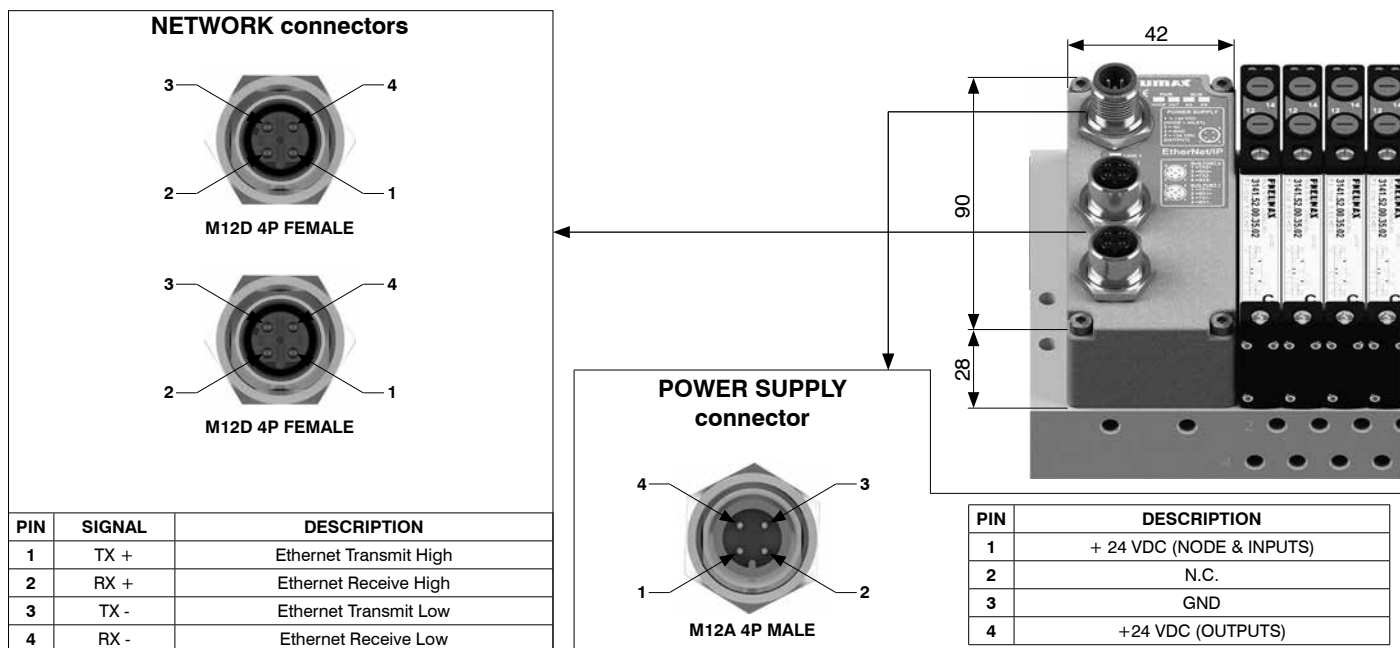
When more than 64 inputs are needed and current coming from 24VDC rail is higher than 2.5A, the use of additional power supply module (part number 5030.M12) is mandatory. 5030.M12 additional power supply module must be plugged-in upstream to the modules exceeding the above stated current limit, therefore close to the network node. On the other hand, whenever 64 outputs are used and further optional outputs modules are required, if total computed simultaneous current is higher than 2A, the 5030.M12 additional power supply module is mandatory. 5030.M12 additional power supply module is plugged-in upstream to additional modules; it will supply electrical power to downstream modules. If 5030.M12 additional power supply module has been already integrated to supply inputs modules, it is not necessary to install a second one, since it already supplies outputs modules.

Ordering code

5730.128.48EI
5730.128.48EC
5730.128.48PN



Scheme / Overall dimensions and I/O layout



Technical characteristics

Power supply	Case	Reinforced technopolymer
	Power supply connection	M12 4 P male connector type A (IEC 60947-5-2)
	Power supply voltage	+24 VDC +/- 10%
	Node consumption (without inputs)	100 mA
Network	Power supply diagnosis	Green LED PWR / Green LED OUT
	Network connectors	2 M12 4 P female connectors type D (IEC 61076-2-101)
	Baud rate	100 Mbit/s
	Addresses possible numbers	As an IP address
	Maximum distance between 2 nodes	100 m
	Bus diagnosis	2 bicolor red / green LEDs + 4 LEDs for link & activity
	Configuration file	Available from our web site http://www.pneumaxspa.com
	IP Rating	IP65 when assembled
	Temperature range	0°C ... +50°C

General - IO-Link nodes

IO-Link node handles up to 64 inputs and outputs, both divided into 8 bytes. Output typologies include solenoid valves, digital outputs (e.g. 5130.08.M8) and analog outputs (e.g. 5130.2T.00). Connectable inputs typologies include digital inputs modules (e.g. 5230.08.M8), analog input modules (e.g. 5230.2T.00), and Pt100 inputs modules (e.g. 5230.4P02). Optional modules can be connected to the manifold in any order and configuration, provided that modules are installed starting from the node and optional position modules left to furthest end.

Electrical power and connection to IO-Link Master come through male circular connector M12, 5 poles, type A, "CLASS B" according to IO-Link specifications. L+/- electrical power allows to supply the node while P24/N24 electrical power allows to supply inputs and outputs modules, including solenoid valves, connected to the manifold. L+/- and P24/N24 power supplies are galvanically isolated into the IO-Link node.

IO-Link node exists in two versions: they differ by number of outputs directly allocated to solenoid valve positions.

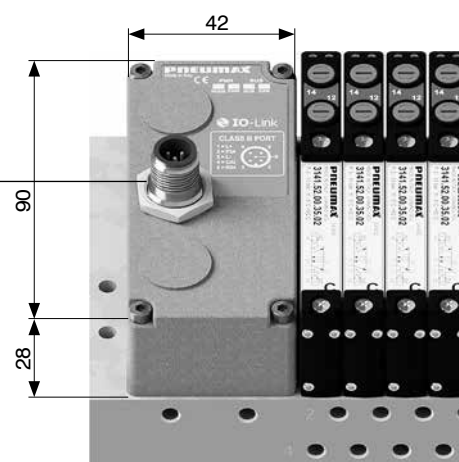
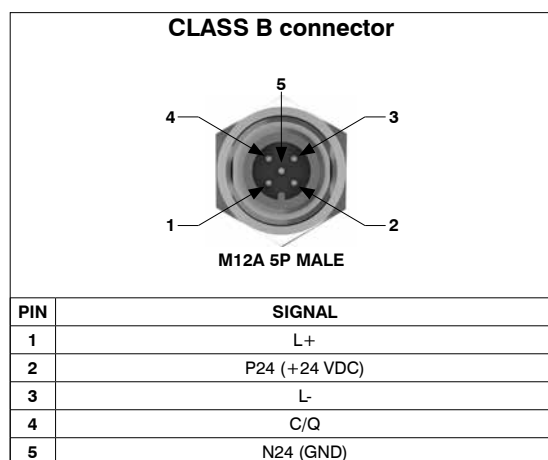
5830.64.32IK part number provides the first 32 out of 64 outputs, corresponding to less significant 4 bytes, are permanently allocated to solenoid valve positions, regardless how many they physically are and how many valves are installed. The remaining 32 outputs can be used to handle optional output modules. Bytes allocation to optional modules is done automatically.

5830.64.48IK part number provides the first 48 out of 64 outputs, corresponding to less significant 6 bytes, are permanently allocated to solenoid valve positions, regardless how many they physically are and how many valves are installed. The remaining 16 outputs can be used to handle optional output modules. Bytes allocation to optional modules is done automatically.

Two part-numbers have been provided to tailor configuration on your needs. 5830.64.48IK part number is recommended in case several solenoid valves must be handled, whilst ensuring room for future expansions. 5830.64.32IK part number is recommended in case increased flexibility is needed for digital outputs.

Ordering code**5830.64.32IK****5830.64.48IK**

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Scheme / Overall dimensions and I/O layout**Technical characteristics**

	Specifications	IO-Link Specification v1.1
	Case	Reinforced technopolymer
Outputs	PNP equivalent outputs	+24 VDC +/- 10%
	Maximum output number	64
	Maximum output simultaneously actuated	64
Network	Network connectors	Class B port
	Communication speed	COM2 (38.4 kbaud)
	Maximum distance from Master	20 m
	Bus diagnosis	1 green and 1 red LED for status
	Vendor ID / Device ID	1257 (hex 0x04E9) / 3000 (hex 0x0BB8)
	Configurations file IODD	Available from our web site http://www.pneumaxspa.com
	IP Rating	IP65 when assembled
	Temperature range	0°C ... +50°C