

General:

CANopen® module is directly integrated on Optyma-S solenoid valves manifold via a 37 poles connector, normally used for multipolar cable connection.
Optyma-S solenoid valves connected to node must be PNP equivalent (final 02 in ordering code).
The node can be easily installed also on solenoid valves manifold already mounted on equipment.
Module can manage up to 32 solenoid valves, and, in the same time, a max number of 4 Input modules 5222.08S.
CANopen® module recognizes automatically the presence of the Input modules on power on. Regardless of the number of Input modules connected, the managable solenoid valves are 32.
Node power supply is made by a M12 4P male circular connector.
The separation between node 24 VDC Power supply and outputs 24 VDC allows to switch off the outputs maintaining powered the node and inputs, if present.
Connection to Bus CANopen® is possible via 2 M12 5P male - female circular connectors; these two are connected in parallel and according to CiA Draft Recommendation 303-1 (V. 1.3 : 30 December 2004).
Transmission speed can be set by 3 dip-switches.
The node address can be set by 6 dip-switches using BCD numeration.
The module includes an internal terminating resistance that can be activated by a dip-switch.

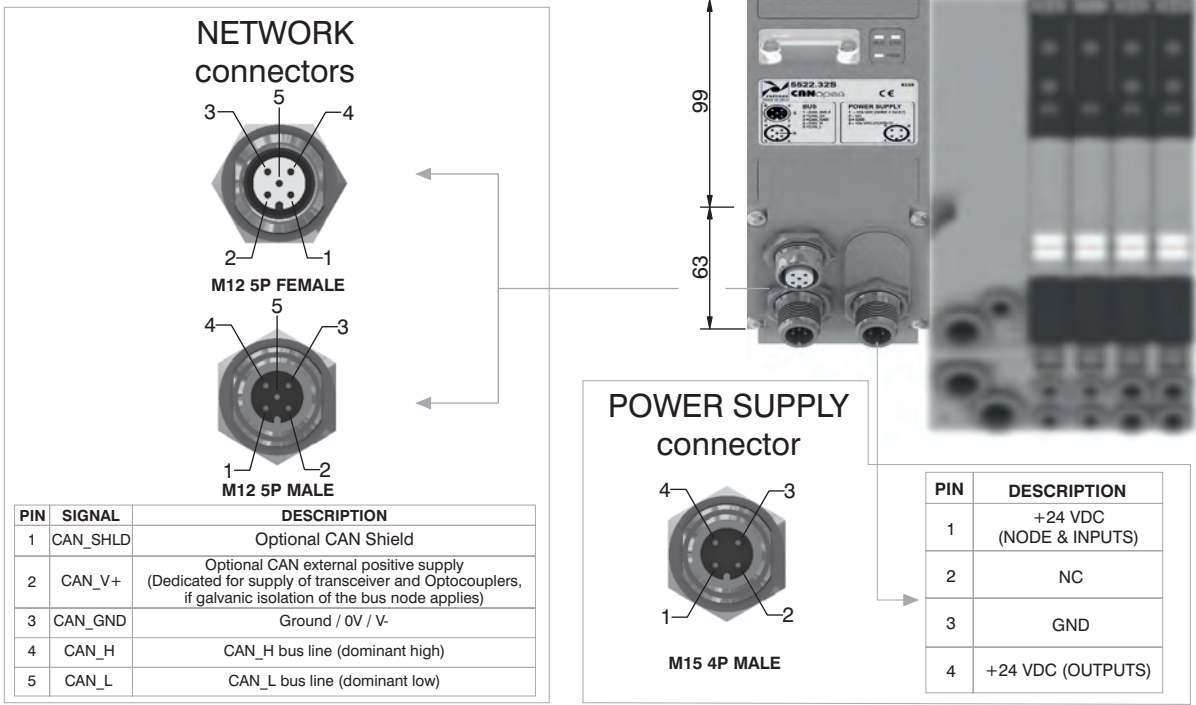
Ordering code

5522.32S



2

Scheme / Overall dimensions and I/O layout :



Technical characteristics

	Model	5522.32S
	Specifications	CiA Draft Standard Proposal 301 V 4.10 (15 August 2006)
	Case	Reinforced technopolymer
Power supply	Power supply connection	M12 4P male connector (IEC 60947-5-2)
	Power supply voltage	+24 VDC +/- 10%
	Node consumption (without inputs)	30 mA
	Power supply diagnosis	Green LED PWR
Outputs	PNP equivalent outputs	+24 VDC +/- 10%
	Maximum current for each output	100 mA
	Maximum output number	32
	Max output simultaneously actuated	32
Network	Network connectors	2 M12 5P 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 nodes 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 protection grade	IP65 when assembled
	Temperature range	From 0° to +50° C

General:

DeviceNet module is directly integrated on Optyma-S solenoid valves manifold via a 37 poles connector, normally used for multipolar cable connection.

Optyma-S solenoid valves connected to node must be PNP equivalent (final 02 in ordering code).

The node can be easily installed also on solenoid valves manifold already mounted on equipment.

Module can manage up to 32 solenoid valves, and, in the same time, a max number of 4 Input modules 5222.08S.

DeviceNet module recognizes automatically the presence of the Input modules on power on.

Regardless of the number of Input modules connected, the manageable solenoid valves are 32.

Node power supply is made by a M12 4P male circular connector.

The separation between node 24 VDC Power supply and outputs 24 VDC allows to switch off the outputs maintaining powered the node and inputs, if present.

Connection to Bus DeviceNet is possible via 2 M12 5P male - female circular connectors; these two are connected in parallel and according to DeviceNet Specifications Volume I, release 2.0.

Transmission speed can be set by 3 dip-switches.

The node address can be set by 6 dip-switches using BCD numeration.

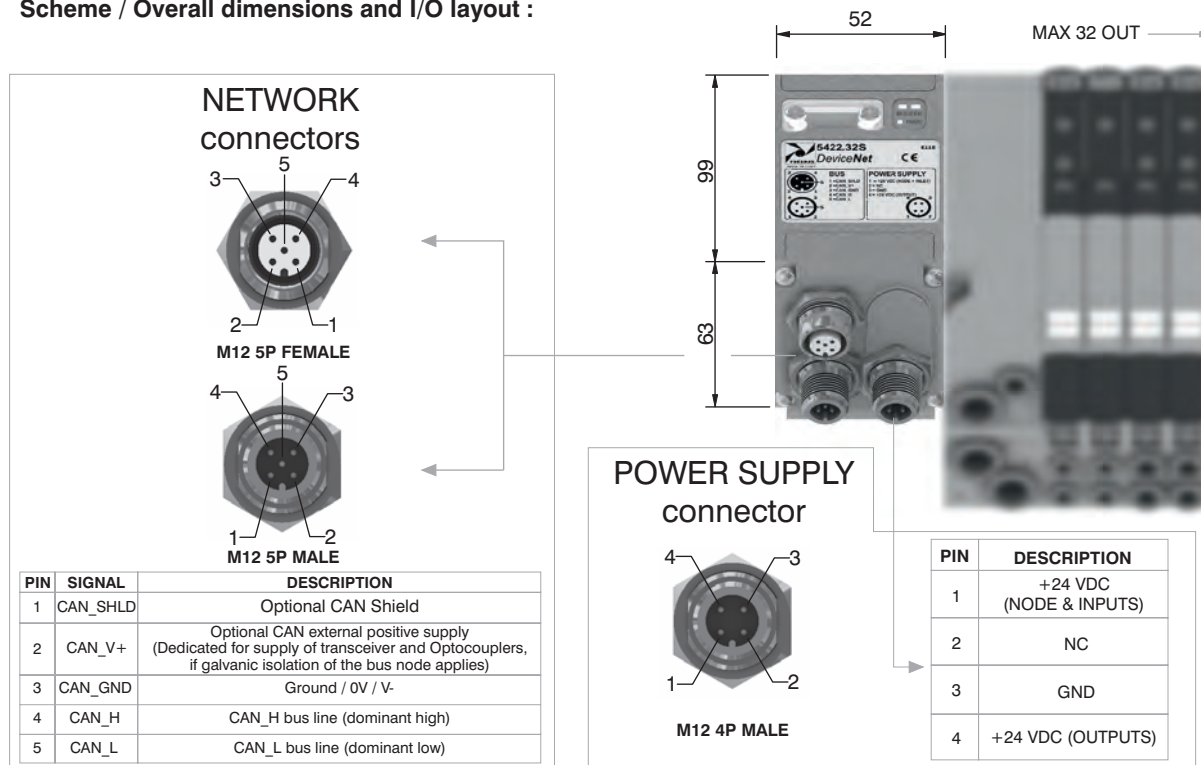
The module includes an internal terminating resistance that can be activated by a dip-switch.

Ordering code

5422.32S



Scheme / Overall dimensions and I/O layout :



Technical characteristics

Power supply	Model	5422.32S
	Specifications	DeviceNet Specifications Volume I, release 2.0.
	Case	Reinforced technopolymer
	Power supply connection	M12 4P male connector (IEC 60947-5-2)
	Power supply voltage	+24 VDC +/- 10%
	Node consumption (without inputs)	30 mA
	Power supply diagnosis	Green LED PWR
	Outputs	PNP equivalent outputs
		+24 VDC +/- 10%
		Maximum current for each output
		100 mA
		Maximum output number
		32
		Max output simultaneously actuated
Network		32
	Network connectors	2 M12 5P connectors male-female Type A (IEC 60947-5-2)
	Baud rate	125 - 250 - 500 Kbit/s
	Addresses, possible numbers	From 1 to 63
	Max nodes 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 protection grade	IP65 when assembled
	Temperature range	From 0° to +50° C



General:

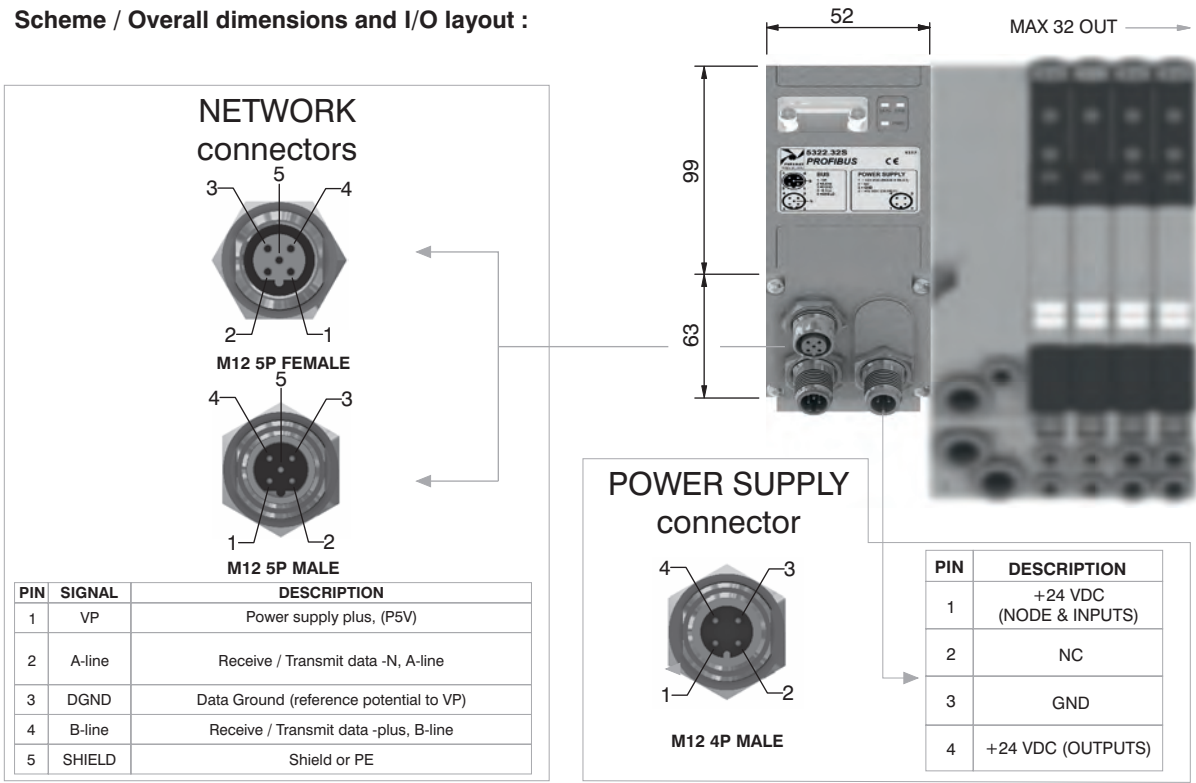
PROFIBUS DP module is directly integrated on Optyma-S solenoid valves manifold via a 37 poles connector, normally used for multipolar cable connection.
Optyma-S solenoid valves connected to node must be PNP equivalent (final 02 in ordering code).
The node can be easily installed also on solenoid valves manifold already mounted on equipment.
Module can manage up to 32 solenoid valves, and, in the same time, a max number of 4 Input modules 5222.08S.
PROFIBUS DP module recognizes automatically the presence of the Input modules on power on.
Regardless of the number of Input modules connected, the manageable solenoid valves are 32.
Node power supply is made by a M12 4P male circular connector.
The separation between node 24 VDC Power supply and outputs 24 VDC allows to switch off the outputs maintaining powered the node and inputs, if present.
Connection to Bus PROFIBUS DP is possible via 2 M12 type B 5P male - female circular connectors; these two are connected in parallel and according to PROFIBUS Interconnection Technology (Version 1.1 : August 2001).
The node address can be set using BCD numeration: 4 dip-switches for the units and 4 dip-switches for the tens.
The module includes an internal terminating resistance that can be activated by a dip-switch.

Ordering code

5322.32S



Scheme / Overall dimensions and I/O layout :



Technical characteristics

	Model	5322.32S
	Specifications	PROFIBUS DP
	Case	Reinforced technopolymer
Power supply	Power supply connection	M12 4P male connector (IEC 60947-5-2)
	Power supply voltage	+24 VDC +/- 10%
	Node consumption (without inputs)	50 mA
	Power supply diagnosis	Green LED PWR
Outputs	PNP equivalent outputs	+24 VDC +/- 10%
	Maximum current for each output	100 mA
	Maximum output number	32
	Max output simultaneously actuated	32
Network	Network connectors	2 M12 5P male-female connectors 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 nodes 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 protection grade	IP65 when assembled
	Temperature range	From 0° to +50° C

General:

EtherCAT® module is directly integrated on Optyma-S solenoid valves manifold via a 37 poles connector, normally used for multipolar cable connection.
Optyma-S solenoid valves connected to node must be PNP equivalent (final 02 in ordering code).

The node can be easily installed also on solenoid valves manifold already mounted on equipment.

Module can manage up to 32 solenoid valves, and, in the same time, a max number of 4 Input modules 5222.08S.

The EtherCAT® module, regardless the number of Input module connected, reports to have connected 4 Input modules.

Regardless of the number of Input modules connected, the managable solenoid valves are 32.

Node power supply is made by a M12 4P male circular connector.

The separation between node 24 VDC Power supply and outputs 24 VDC allows to switch off the outputs maintaining powered the node and inputs, if present.

Connection to Bus EtherCAT® is possible via 2 M12 4P type D female circular connectors. These two connectors lead the signal to two different communication ports, so they are not connected in parallel.

The node address is assigned during configuration.

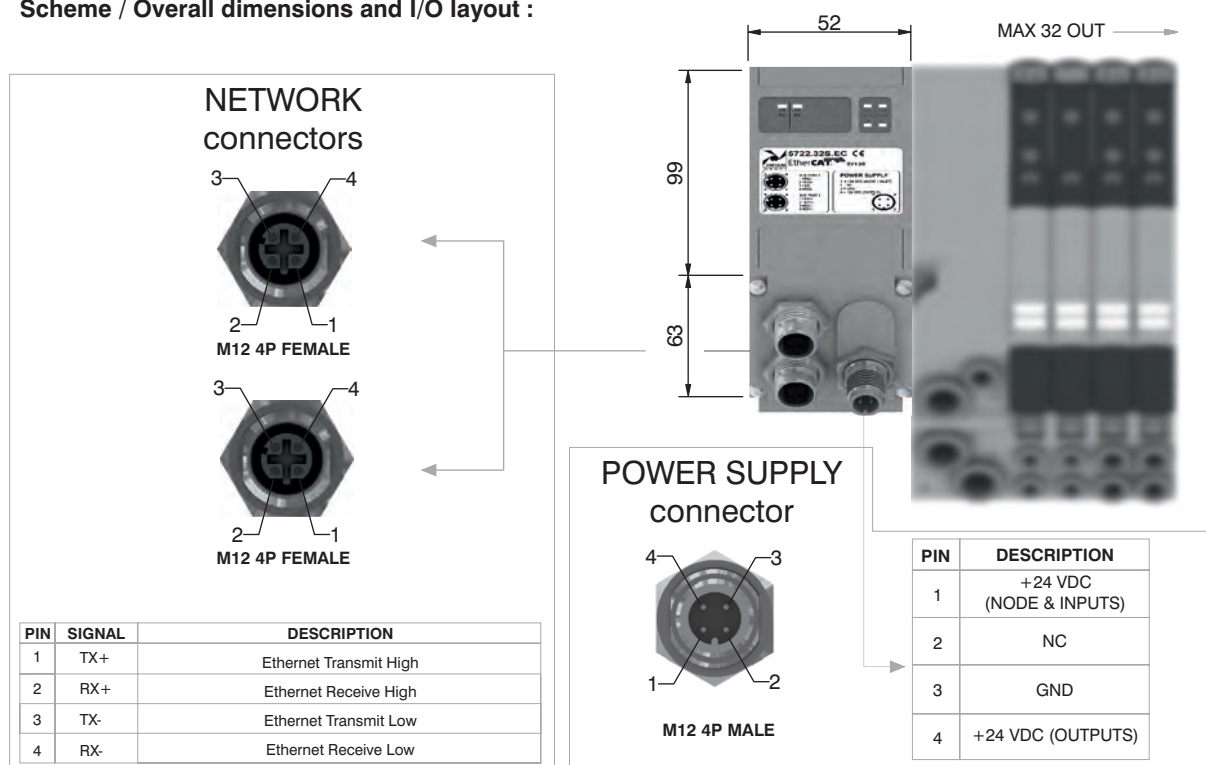
Note: 5700 series has a different configuration file from series 5600.

Ordering code

5722.32S.EC



Scheme / Overall dimensions and I/O layout :



Technical characteristics

Power supply	Model	5722.32S.EC
	Specifications	EtherCAT® Specifications ETG.1000 series
	Case	Reinforced technopolymer
	Power supply connection	M12 4P male connector (IEC 60947-5-2)
	Power supply voltage	+24 VDC +/- 10%
Outputs	Node consumption (without inputs)	400 mA
	Power supply diagnosis	Green LED PWR / Green LED OUT
	PNP equivalent outputs	+24 VDC +/- 10%
	Maximum current for each output	100 mA
	Maximum output number	32
Network	Max output simultaneously actuated	32
	Network connectors	2 M12 4P female connectors Type D (IEC 61076-2-101)
	Baud rate	100 Mbit/s
	Addresses, possible numbers	From 1 to 65535
	Max nodes in net	65536 (Master + Slave)
	Maximum distance between 2 nodes	100 m
	Bus diagnosis	1 green and 1 red LED for status + 2 LEDs for link & activity
	Configuration file	Available from our web site: http://www.pneumaxspa.com
IP protection grade	IP65 when assembled	
	Temperature range	From 0° to +50° C



General:

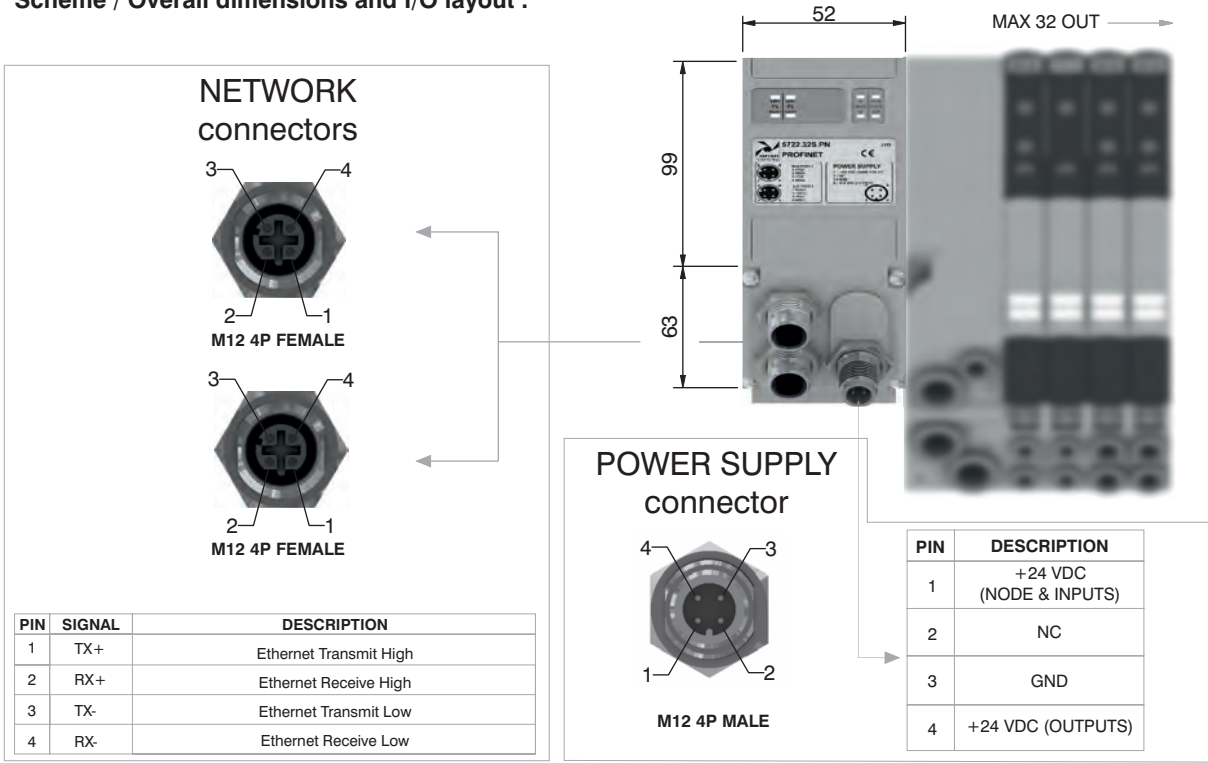
PROFINET IO RT/IRT module is directly integrated on Optyma-S solenoid valves manifold via a 37 poles connector, normally used for multipolar cable connection.
Optyma-S solenoid valves connected to node must be PNP equivalent (final 02 in ordering code).
The node can be easily installed also on solenoid valves manifold already mounted on equipment.
Module can manage up to 32 solenoid valves, and, in the same time, a max number of 4 Input modules 5222.08S.
The PROFINET IO RT/IRT module, regardless the number of Input module connected, reports to have connected 8 Input modules.
Regardless of the number of Input modules connected, the manageable solenoid valves are 32.
Node power supply is made by a M12 4P male circular connector.
The separation between node 24 VDC Power supply and outputs 24 VDC allows to switch off the outputs maintaining powered the node and inputs, if present.
Connection to Bus PROFINET IO RT/IRT is possible via 2 M12 4P type D female circular connectors. These two connectors lead the signal to two different communication ports, so they are not connected in parallel.
The node address is assigned during configuration.

Ordering code

5722.32S.PN



Scheme / Overall dimensions and I/O layout :



Technical characteristics

	Model	5722.32S.PN
	Specifications	PROFINET IO RT/IRT
	Case	Reinforced technopolymer
Power supply	Power supply connection	M12 4P male connector (IEC 60947-5-2)
	Power supply voltage	+24 VDC +/- 10%
	Node consumption (without inputs)	400 mA
	Power supply diagnosis	Green LED PWR / Green LED OUT
Outputs	PNP equivalent outputs	+24 VDC +/- 10%
	Maximum current for each output	100 mA
	Maximum output number	32
	Max output simultaneously actuated	32
Network	Network connectors	2 M12 4P female connectors Type D (IEC 61076-2-101)
	Baud rate	100 Mbit/s
	Addresses, possible numbers	As an IP address
	Max nodes in net	As an Ethernet Network
	Maximum distance between 2 nodes	100 m
	Bus diagnosis	1 green and 1 red LED for status + 4 LEDs for link & activity
	Configuration file	Available from our web site: http://www.pneumaxspa.com
	IP protection grade	IP65 when assembled
	Temperature range	From 0° to +50° C

General:

EtherNet/IP module is directly integrated on Optyma-S solenoid valves manifold via a 37 poles connector, normally used for multipolar cable connection.
Optyma-S solenoid valves connected to node must be PNP equivalent (final 02 in ordering code).

The node can be easily installed also on solenoid valves manifold already mounted on equipment.

Module can manage up to 32 solenoid valves, and, in the same time, a max number of 4 Input modules 5222.08S.

The EtherNet/IP module, regardless the number of Input module connected, reports to have connected 8 Input modules.

Regardless of the number of Input modules connected, the managable solenoid valves are 32.

Node power supply is made by a M12 4P male circular connector.

The separation between node 24 VDC Power supply and outputs 24 VDC allows to switch off the outputs maintaining powered the node and inputs, if present.

Connection to Bus EtherNet/IP is possible via 2 M12 4P type D female circular connectors. These two connectors lead the signal to two different communication ports, so they are not connected in parallel.

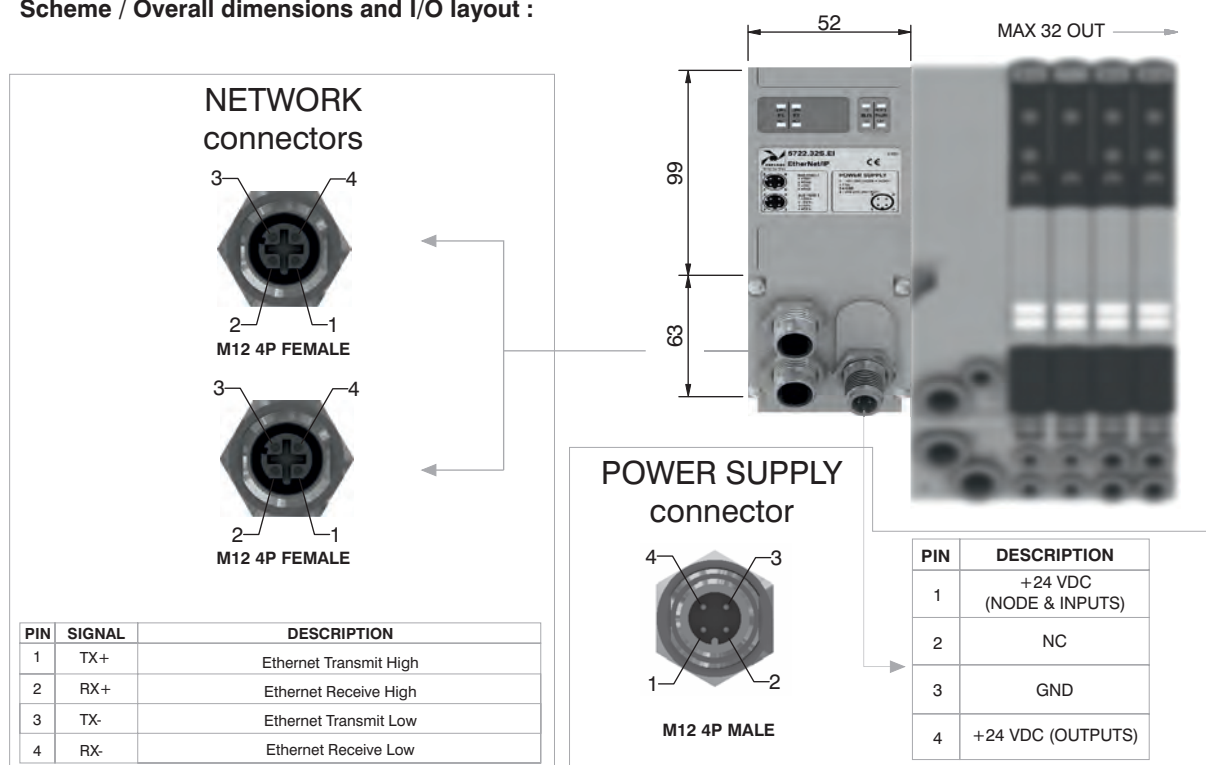
The node address is assigned during configuration.

Ordering code

5722.32S.EI



Scheme / Overall dimensions and I/O layout :



Technical characteristics

	Model	5722.32S.EI
	Specifications	The EtherNet/IP Specification
Power supply	Case	Reinforced technopolymer
	Power supply connection	M12 4P male connector (IEC 60947-5-2)
	Power supply voltage	+24 VDC +/- 10%
	Node consumption (without inputs)	400 mA
	Power supply diagnosis	Green LED PWR / Green LED OUT
Outputs	PNP equivalent outputs	+24 VDC +/- 10%
	Maximum current for each output	100 mA
	Maximum output number	32
	Max output simultaneously actuated	32
Network	Network connectors	2 M12 4P female connectors Type D (IEC 61076-2-101)
	Baud rate	100 Mbit/s
	Addresses, possible numbers	As an IP address
	Max nodes in net	As an Ethernet Network
	Maximum distance between 2 nodes	100 m
	Bus diagnosis	1 green and 1 red LED for status + 4 LEDs for link & activity
	Configuration file	Available from our web site: http://www.pneumaxspa.com
	IP protection grade	IP65 when assembled
	Temperature range	From 0° to +50° C

General:

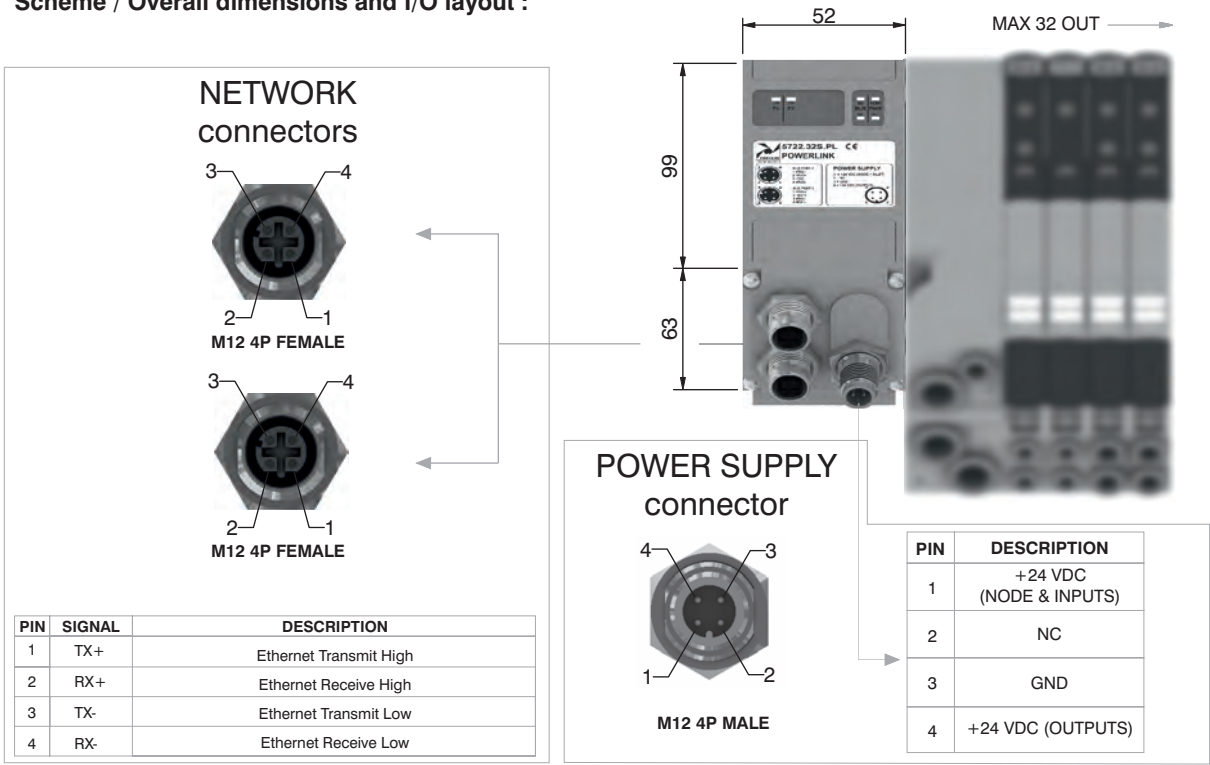
Powerlink module is directly integrated on Optyima-S solenoid valves manifold via a 37 poles connector, normally used for multipolar cable connection.
Optyima-S solenoid valves connected to node must be PNP equivalent (final 02 in ordering code).
The node can be easily installed also on solenoid valves manifold already mounted on equipment.
Module can manage up to 32 solenoid valves, and, in the same time, a max number of 4 Input modules 5222.08S.
The Powerlink module, regardless the number of Input module connected, reports to have connected 8 Input modules.
Regardless of the number of Input modules connected, the manageable solenoid valves are 32.
Node power supply is made by a M12 4P male circular connector.
The separation between node 24 VDC Power supply and outputs 24 VDC allows to switch off the outputs maintaining powered the node and inputs, if present.
Connection to Bus Powerlink is possible via 2 M12 4P type D female circular connectors. These two connectors lead the signal to two different communication ports, so they are not connected in parallel.
The node address is assigned during configuration.

Ordering code

5722.32S.PL



Scheme / Overall dimensions and I/O layout :



Technical characteristics

Power supply	Model	5722.32S.PL
	Specifications	Ethernet POWERLINK Communication Profile Specifications
	Case	Reinforced technopolymer
	Power supply connection	M12 4P male connector (IEC 60947-5-2)
	Power supply voltage	+24 VDC +/- 10%
	Node consumption (without inputs)	400 mA
	Power supply diagnosis	Green LED PWR / Green LED OUT
	Outputs	PNP equivalent outputs
		+24 VDC +/- 10%
	Maximum current for each output	100 mA
	Maximum output number	32
	Max output simultaneously actuated	32
	Network	Network connectors
		2 M12 4P female connectors Type D (IEC 61076-2-101)

Baud rate	100 Mbit/s
Addresses, possible numbers	239
Max nodes in net	240
Maximum distance between 2 nodes	100 m
Bus diagnosis	1 green and 1 red LED for status + 2 LEDs for link & activity
Configuration file	Available from our web site: http://www.pneumaxspa.com
IP protection grade	IP65 when assembled
Temperature range	From 0° to +50° C

General:

Modbus/TCP module is directly integrated on Optyma-S solenoid valves manifold via a 37 poles connector, normally used for multipolar cable connection.

Optyma-S solenoid valves connected to node must be PNP equivalent (final 02 in ordering code).

The node can be easily installed also on solenoid valves manifold already mounted on equipment.

Module can manage up to 32 solenoid valves, and, in the same time, a max number of 4 Input modules 5222.08S.

The Modbus/TCP module, regardless the number of Input module connected, reports to have connected 8 Input modules.

Regardless of the number of Input modules connected, the managable solenoid valves are 32.

Node power supply is made by a M12 4P male circular connector.

The separation between node 24 VDC Power supply and outputs 24 VDC allows to switch off the outputs maintaining powered the node and inputs, if present.

Connection to Bus Modbus/TCP is possible via 2 M12 4P type D female circular connectors. These two connectors lead the signal to two different communication ports, so they are not connected in parallel.

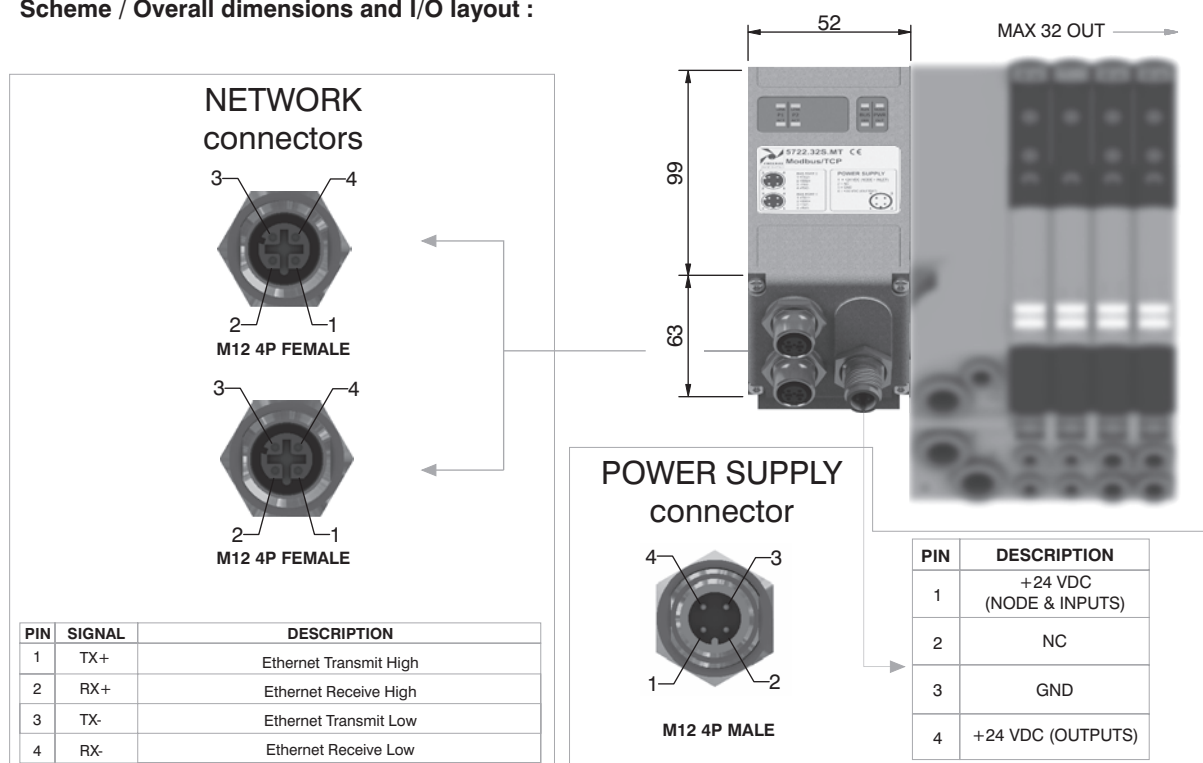
The node address is assigned during configuration.

Ordering code

5722.32S.MT



Scheme / Overall dimensions and I/O layout :



Technical characteristics

	Model	5722.32S.MT
	Specifications	MODBUS Application Protocol Specification V1.1a, June 4, 2004
Power supply	Case	Reinforced technopolymer
	Power supply connection	M12 4P male connector (IEC 60947-5-2)
	Power supply voltage	+24 VDC +/- 10%
	Node consumption (without inputs)	400 mA
	Power supply diagnosis	Green LED PWR / Green LED OUT
Outputs	PNP equivalent outputs	+24 VDC +/- 10%
	Maximum current for each output	100 mA
	Maximum output number	32
	Max output simultaneously actuated	32
Network	Network connectors	2 M12 4P female connectors Type D (IEC 61076-2-101)
	Baud rate	100 Mbit/s
	Addresses, possible numbers	248
	Max nodes in net	248
	Maximum distance between 2 nodes	100 m
	Bus diagnosis	1 green and 1 red LED for status + 2 LEDs for link & activity
	Configuration file	Modbus/TCP nodes don't require configuration file
	IP protection grade	IP65 when assembled
	Temperature range	From 0° to +50° C



General:

Modules have 8 connectors M8 3P female.

The Inputs are PNP equivalent 24 VDC $\pm 10\%$.

To each connector it is possible to plug both 2 wires Inputs (switches, magnetic switches pressure switches, etc) or 3 wires Inputs (proximity, photocells, electronic sensors, etc).

The maximum current available for all 8 Inputs is 300 mA.

Each module includes a 300 mA self-mending fuse. If a short circuit or a overcharge (overall current $>300\text{mA}$) occur the safety device acts cutting the 24 VDC power supply to all M8 connectors on the module and switching off the green LED PWR. Any other Input module connected to the node will remain powered and will function correctly.

Once the cause of the fault disappears the green LED PWR lights up indicating the ON state and the node will re-start to operate.

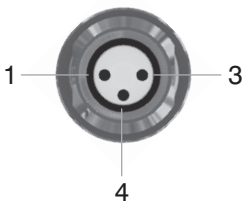
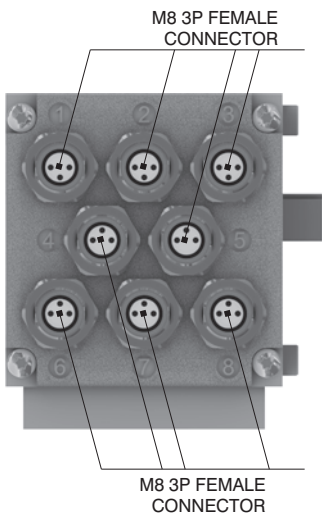
The maximum number of Input modules supported is 4.

Ordering code

5222.08S

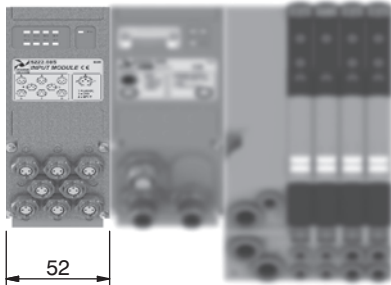


Scheme / Overall dimensions and I/O layout :

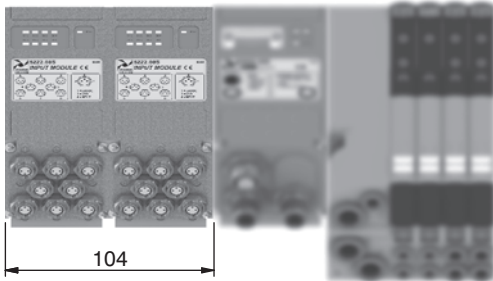


PIN	DESCRIPTION
1	+24 VDC
4	INPUT
3	GND

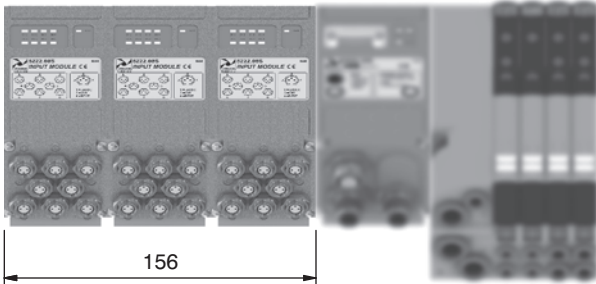
Module 1



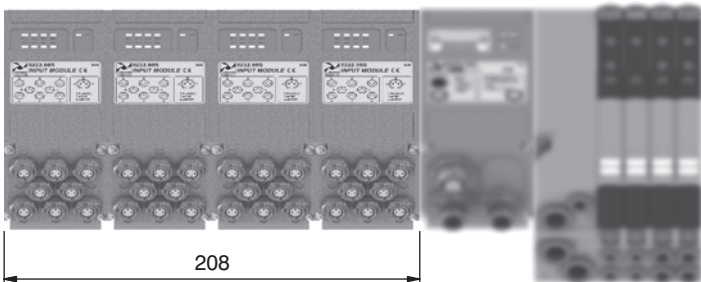
Module 2 Module 1



Module 3 Module 2 Module 1



Module 4 Module 3 Module 2 Module 1



M12A 4P female Socket

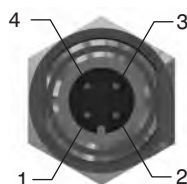
Ordering code

5312A.F04.00

Power supply straight connector.



Upper view Slave connector



PIN	DESCRIPTION
1	+24 VDC Node
2	
3	0 V
4	+24 VDC Output

M8 3P male Plug

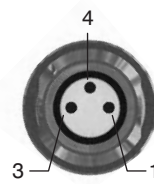
Ordering code

5308A.M03.00

Input straight connector.



Upper view Slave connector



PIN	DESCRIPTION
1	+24 VDC
4	INPUT
3	GND

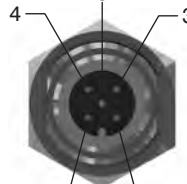
M12A 5P female Socket

Ordering code

5312A.F05.00

Network straight connector: for Bus
CANOpen®, DeviceNet.


Upper view Slave connector



PIN	DESCRIPTION
1	(CAN_SHIELD)
2	(CAN_V+)
3	CAN_GND
4	CAN_H
5	CAN_L

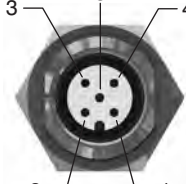
M12A 5P male Plug

Ordering code

5312A.M05.00

Network straight connector: for BUS
CANOpen®, DeviceNet.


Upper view Slave connector



PIN	DESCRIPTION
1	(CAN_SHIELD)
2	(CAN_V+)
3	CAN_GND
4	CAN_H
5	CAN_L

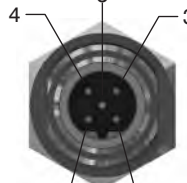
M12B 5P female Plug

Ordering code

5312B.F05.00

Network straight connector: for Bus
PROFIBUS DP.


Upper view Slave connector



PIN	DESCRIPTION
1	Power Supply
2	A-line
3	DGND
4	B-line
5	SHIELD

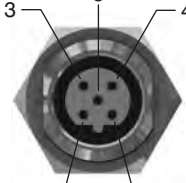
M12B 5P male Plug

Ordering code

5312B.M05.00

Network straight connector: for BUS
PROFIBUS DP.


Upper view Slave connector



PIN	DESCRIPTION
1	Power Supply
2	A-line
3	DGND
4	B-line
5	SHIELD

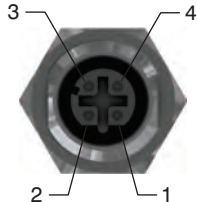
M12D 4P male Plug

Ordering code

5312D.M04.00

Network straight connector: for Ether-
CAT®, PROFINET IO RT/IRT, Ether-
Net/Ip, Powerlink and Modbus/TCP.


Upper view Slave connector



PIN	SIGNAL	DESCRIPTION
1	TX+	Ethernet Transmit High
2	RX+	Ethernet Receive High
3	TX-	Ethernet Transmit Low
4	RX-	Ethernet Receive Low

M12 Plug

Ordering code

5300.T12

M8 Plug

Ordering code

5300.T08


Manifold Layout configuration with serial systems

32 OUT VERSION

C3=CANopen® 32OUT
 D3=DeviceNet 32OUT
 P3=PROFIBUS 32OUT
 A3=EtherCAT® 32OUT (5700 Series)
 I3=EtherNet / IP 32OUT
 N3=PROFINET IO RT/IRT 32OUT
 L3=Powerlink 32OUT
 M3=Modbus/TCP 32OUT

INPUT MODULES

A = No module
 D1 = 8 M8 digital inputs module

RIGHT ENDPLATE

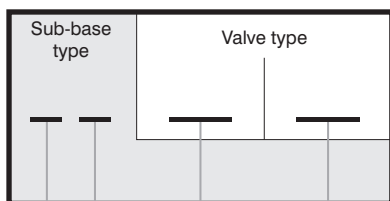
U0 = Closed
 U2 = 25 Poles
 U3 = 37 Poles

LEFT ENDPLATE

A3 = 37 poles - Self feeding
 E3 = 37 poles - External feeding

I/O MODULE

M8
 (Requires 25 poles right endplate)

**MODUL CONFIGURATION****ACCESSORIES CONFIGURATION****SUB-BASE TYPE**

- 3 = 2 Position Monostable sub base ø4 (2 electric signal used)
- 4 = 2 Position Bistable sub base ø4 (4 electric signals used)
- 5 = 2 Position Monostable sub base ø6 (2 electric signal used)
- 6 = 2 Position Bistable sub base ø6 (4 electric signals used)
- 7 = 2 Position Monostable sub base ø8 (2 electric signal used)
- 8 = 2 Position Bistable sub base ø8 (4 electric signals used)

VALVES TYPE

- A = 5/2 Solenoid - Spring
- B = 5/2 Solenoid - Differential
- C = 5/2 Solenoid - Solenoid
- E = 5/3 CC Solenoid - Solenoid
- F = 2x3/2 NC-NC (= 5/3 OC) Solenoid - Solenoid
- G = 2x3/2 NO-NO (= 5/3 PC) Solenoid - Solenoid
- H = 2x3/2 NC-NO Solenoid - Solenoid
- I = 2x3/2 NO-NC Solenoid - Solenoid
- T = Free valve space plug

ACCESSORIES

- W00 = Intermediate supply & exhaust module
- 0X0 = Diaphragm plug on pipe 1
- 00Y = Diaphragm plug on pipe E 3
- Z00 = Diaphragm plug on pipe 5
- 0XY = Diaphragm plug on pipe 1 & 3
- ZX0 = Diaphragm plug on pipe 5 & 1
- Z0Y = Diaphragm plug on pipe 5 & 3
- ZXY = Diaphragm plug on pipe 5, 1 & 3

SUB-BASE VARIANTS

EMPTY = No variants (SUB-BASE STANDARD)

- 6 = Diaphragm Plug on pipe 1 and 3
- 7 = Diaphragm Plug on pipe 1
- 8 = Diaphragm Plug on pipe 3 and 5

NOTE:

While configuring the manifold always be careful that the maximum number of electrical signals available is 32

The use of monostable valve mounted on a bistable base (2 electrical signals occupied for each position) causes the loss of one electric signal.

In this case the monostable valve can be replaced by a bistable valve without reconfiguring the PLC.

The diaphragms plugs are used to intercept the conduits 1,3 & 5 of the base.

Should one or more conduits be cut more than one time it is necessary to add the relevant intermediate Supply/Exhaust module.