OPTYMA 32 -T

General characteristics

With the introduction of the “T” configuration of solenoid valves with integrated pneumatic connections fitted directly on the sub base the 2500 series (called OPTYMA) is now richer than ever.
Many technical features make the new product interesting:
- Flow rate of 800 Nl/min
- Low consumption coils placed all in one side of the valve
- Quick mounting of the valve to the base using just one screw
- Possibility to use different pressures along the manifold (including vacuum)
- Possibility to replace the valve without the need to disconnect the connections
- IP65 environmental protection
- Electrical connection directly integrated into the base, 32 electrical signals available (can be used to build up a manifold of 32 monostable valves, 16 bistable valves or any combination within that limit).

The electrical connection is made via 37 pin SUB-D connector.
Possibility to integrate with Field Bus modules (all the most common protocols will be available).
Possibility to connect input modules (even on the base that does not have the Field Bus module.
Large use of technopolymer material reduces the overall weight of the manifold.

"Shifting time of pneumatic directional control valves or moving parts, logic devices were measured in accordance to ISO 12238:2001, Pneumatic fluid power-Directional control valves-Measurement of shifting time".

Main characteristics

Integrated and optimized electrical connection system
IP65 protection degree
Only one 19mm size
Electrical line connections on one side
Monostable and bistable solenoid valves with the same size dimensions
Easy and fast manifold assembly - tie rod system to hold the sub bases together
All pneumatic connections (push-in) on the same side of the manifold

Construction characteristics

Body	Technopolymer
Operators	Technopolymer
Spools	Nikel plated steel / Technopolymer
Spacers	Technopolymer
Seals	NBR
Piston seals	NBR
Springs	AISI 302 stainless steel
Pistons	Technopolymer

Functions

5/2 MONOST. SOL. SPRING
5/2 MONOST. SOL. DIFFERENTIAL
5/2 BISTABLE SOL. SOL.
5/3 CC SOL. SOL.
2x3/2 NC-NC (= 5/3 OC) SOL. SOL.
2x3/2 NO-NO (= 5/3 PC) SOL. SOL.
2x3/2 NC-NO SOL. SOL.

Technical characteristics

Voltage	24 VDC ±10% PNP (NPN and AC on request)
Pilot consuption	1,2 Watt
Valve working pressure [1]	from vacuum to 10 bar max.
Pilot working pressure [12-14]	From 3 to 7 bar max.
Operating temperature	-5°C+50°C
Protection degree	IP65
Life (standard operating conditions)	50.000.000
Fluid	Filtered and lubricated air or not (if lubricated air, the lubrication must be continuous)

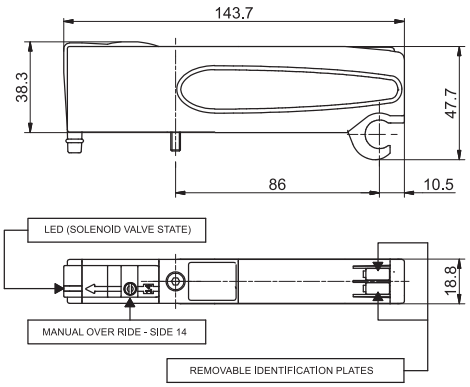
2

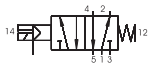
Solenoid - Spring

Ordering code

2541.52.00.39.Ⓥ

Ⓥ	VOLTAGE
	02 = 24 VDC PNP
	12 = 24 VDC NPN
	05 = 24 VAC





SHORT FUNCTION CODE "A"
"Shifting time of pneumatic directional control valves or moving parts, logic devices were measured in accordance to ISO 12238:2001, Pneumatic fluid power - Directional control valves - Measurement of shifting time."

Operational characteristic

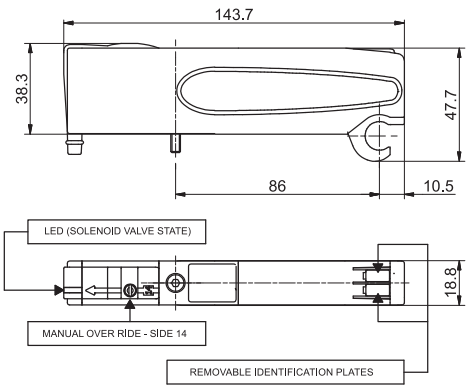
Fluid	Flow rate at 6 bar with Δp=1 (Nl/min)	Responce time according to ISO 12238, activation time (ms)	Responce time according to ISO 12238, deactivation time (ms)	Working pressure (bar)	Pressure range (bar) pilots 12-14	Temperature °C	Weight (gr.)
Filtered air, with or without lubrication	750	14	40	From vacuum to 10	3 - 7 bar	-5° / +50°	129

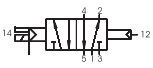
Solenoid - Differential

Ordering code

2541.52.00.36.Ⓥ

Ⓥ	VOLTAGE
	02 = 24 VDC PNP
	12 = 24 VDC NPN
	05 = 24 VAC





SHORT FUNCTION CODE "B"
"Shifting time of pneumatic directional control valves or moving parts, logic devices were measured in accordance to ISO 12238:2001, Pneumatic fluid power - Directional control valves - Measurement of shifting time."

Operational characteristic

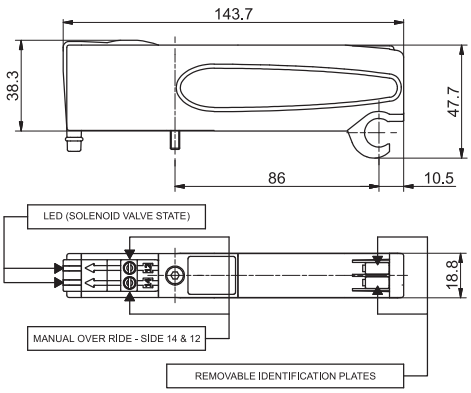
Fluid	Flow rate at 6 bar with Δp=1 (Nl/min)	Responce time according to ISO 12238, activation time (ms)	Responce time according to ISO 12238, deactivation time (ms)	Working pressure (bar)	Pressure range (bar) pilots 12-14	Temperature °C	Weight (gr.)
Filtered air, with or without lubrication	750	20	29	From vacuum to 10	3 - 7 bar	-5° / +50°	126

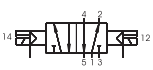
Solenoid - Solenoid

Ordering code

2541.52.00.35.Ⓥ

Ⓥ	VOLTAGE
	02 = 24 VDC PNP
	12 = 24 VDC NPN
	05 = 24 VAC





SHORT FUNCTION CODE "C"
"Shifting time of pneumatic directional control valves or moving parts, logic devices were measured in accordance to ISO 12238:2001, Pneumatic fluid power - Directional control valves - Measurement of shifting time."

Operational characteristic

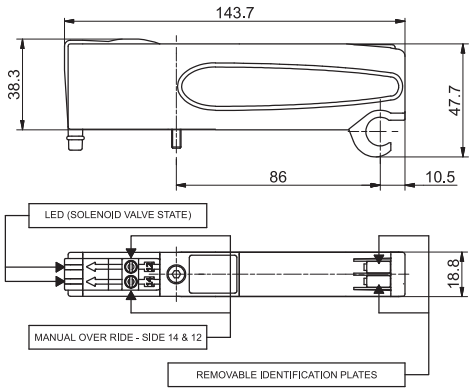
Fluid	Flow rate at 6 bar with Δp=1 (Nl/min)	Responce time according to ISO 12238, activation time (ms)	Responce time according to ISO 12238, deactivation time (ms)	Working pressure (bar)	Pressure range (bar) pilots 12-14	Temperature °C	Weight (gr.)
Filtered air, with or without lubrication	750	10	14	From vacuum to 10	3 - 7 bar	-5° / +50°	134

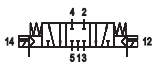
Solenoid - Solenoid - (5/3 Closed centres)

Ordering code

2541.53.31.35.Ⓥ

	VOLTAGE
Ⓥ	02 = 24 VDC PNP
	12 = 24 VDC NPN
	05 = 24 VAC





SHORT FUNCTION CODE "E"
"Shifting time of pneumatic directional control valves or moving parts, logic devices were measured in accordance to ISO 12238:2001, Pneumatic fluid power - Directional control valves - Measurement of shifting time."

Operational characteristic

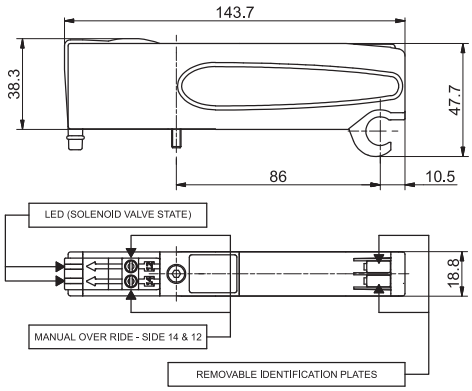
Fluid	Flow rate at 6 bar with Δp=1 (Nl/min)	Responce time according to ISO 12238, activation time (ms)	Responce time according to ISO 12238, deactivation time (ms)	Working pressure (bar)	Pressure range (bar) pilots 12-14	Temperature °C	Weight (gr.)
Filtered air, with or without lubrication	600	15	20	From vacuum to 10	3 - 7 bar	-5° / +50°	132

Solenoid - Solenoid 2x3/2

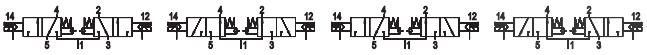
Ordering code

2541.62.Ⓕ.35.Ⓥ

	FUNCTION
	44 = NC - NC (5/3 Open centres)
Ⓕ	55 = NO - NO (5/3 Pressured centres)
	45 = NC - NO (Normally Closed - Normally Open)
	54 = NO - NC (Normally Open - Normally Closed)
	VOLTAGE
Ⓥ	02 = 24 VDC PNP
	12 = 24 VDC NPN
	05 = 24 VAC



SHORT FUNCTION CODE:
NC-NC (5/3 Open centres) = "F"
NO-NC (5/3 Pressured centres) = "G"
NC-NO = "H"



"Shifting time of pneumatic directional control valves or moving parts, logic devices were measured in accordance to ISO 12238:2001, Pneumatic fluid power - Directional control valves - Measurement of shifting time."

Operational characteristic

"Example: If inlet pressure is set at 5bar then pilot pressure must be at least Pp=3+0.2*5)= 4bar"

Fluid	Flow rate at 6 bar with Δp=1 (Nl/min)	Responce time according to ISO 12238, activation time (ms)	Responce time according to ISO 12238, deactivation time (ms)	Working pressure (bar)	Pressure range (bar) pilots 12-14	Temperature °C	Weight (gr.)
Filtered air, with or without lubrication	700	15	25	From vacuum to 10	≥2,5+(0,2xP.alim.)	-5° / +50°	122

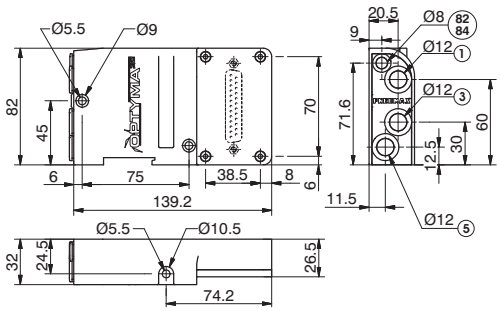
2

Right Endplates

Ordering code
2540.03.C

C	CONNECTOR TYPE
	00 = Exhaust electrical connection closed
	25P = Connectors 25 poles

Weight gr. 274



CONDUIT 82/84= DO NOT PRESSURIZE, SOLENOID PILOTS EXHAUST

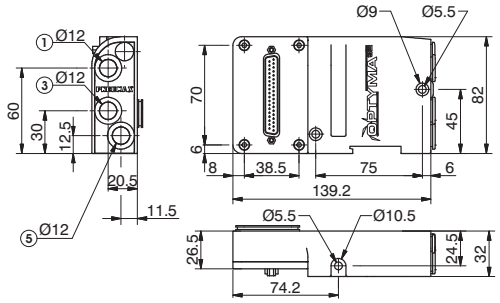
Operating Characteristics	Fluid	Pressure range (bar)	Temperature °C
	Filtered and lubricated air or not	From vacuum to 10	-5 - +50

Left Endplates - External feeding base

Ordering code
2540.02.C

C	CONNECTOR TYPE
	37P = Connector 37 poles PNP
	25P = Connector 25 poles PNP
	37N = Connector 37 poles NPN
	25N = Connector 25 poles NPN
	37A = Connector 37 poles AC
	25A = Connector 25 poles AC

Weight gr. 300



12/14 divided from conduct 1

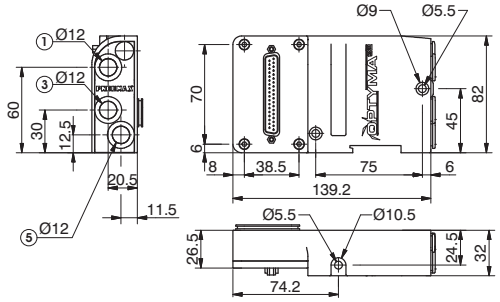
Operating Characteristics	Fluid	Pressure range (bar)	Pilot working pressure (bar)	Temperature °C
	Filtered and lubricated air or not	From vacuum to 10	3 - 7	-5 - +50

Left Endplates - Self-feeding Base

Ordering code
2540.12.C

C	CONNECTOR TYPE
	37P = Connector 37 poles PNP
	25P = Connector 25 poles PNP
	37N = Connector 37 poles NPN
	25N = Connector 25 poles NPN
	37A = Connector 37 poles AC
	25A = Connector 25 poles AC

Weight gr. 300



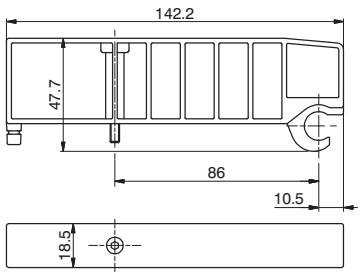
12/14 connected with conduct 1

Operating Characteristics	Fluid	Pilot working pressure (bar)	Temperature °C
	Filtered and lubricated air or not	3 - 7	-5 - +50

Closing plate

Ordering code
2530.00

Weight gr. 53,5
SHORT FUNCTION CODE "T"



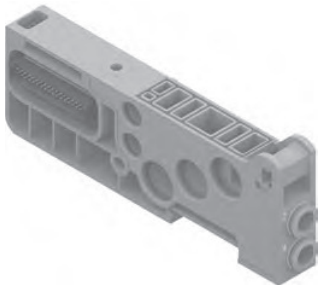
Operating Characteristics	Fluid	Pressure range (bar)	Temperature °C
	Filtered and lubricated air or not	From vacuum to 10	-5 - +50

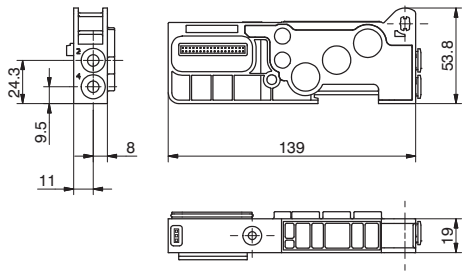
Modular base

Ordering code

254Ⓒ.01Ⓥ

	CONNECTIONS
Ⓣ	1 = G1/8" Female
	4 = Cartridge Ø 4
	6 = Quick fitting tube Ø 6
	8 = Quick fitting tube Ø 8
	VERSION
Ⓥ	M= Monostable
	B= Bistable





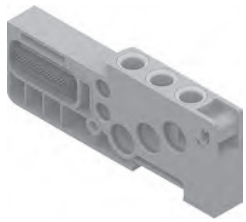
Weight gr. 96,5

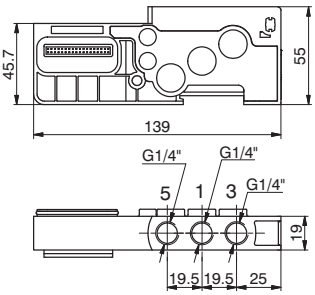
Operating Characteristics	Fluid	Pressure range (bar)	Temperature °C
	Filtered and lubricated air or not	From vacuum to 10	-5 - +50

Intermediate Inlet/Exhaust module

Ordering code

2540.10





Weight gr. 115
SHORT FUNCTION CODE "W"

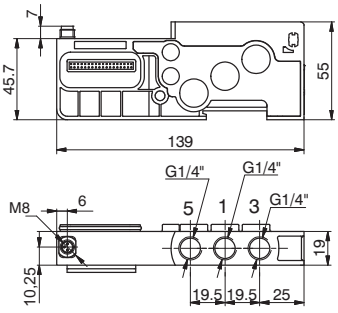
Operating Characteristics	Fluid	Pressure range (bar)	Temperature °C
	Filtered and lubricated air or not	From vacuum to 10	-5 - +50

Additional power supply module

Ordering code

2540.10.Ⓥ

	VERSION
Ⓥ	2A = 2 signals
	4A = 4 signals



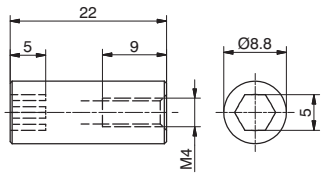
Weight gr. 115
SHORT FUNCTION CODE "U"
Working principle / simplified functional diagram / Usage examples, see the OPTYMA-F pages.

Operating Characteristics	Fluid	Pressure range (bar)	Temperature °C
	Filtered and lubricated air or not	From vacuum to 10	-5 ÷ +50

2

Nut

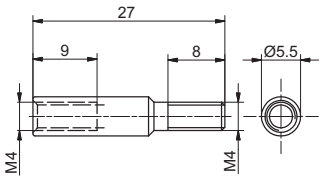
Ordering code
2540.KD.00



Weight gr. 10
The Kit includes 4 pieces

Extension (1 Position)

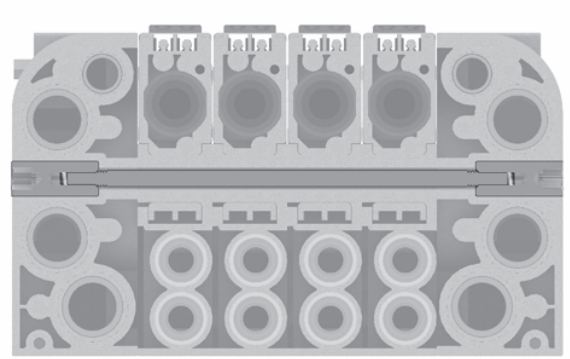
Ordering code
2540.KP.01



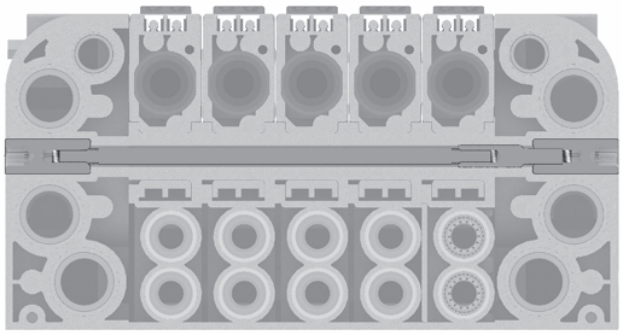
Weight gr. 3,5
The Kit includes 2 pieces

2

Set with single tie-rod (max. 32 Solenoid valves)



Set with tie-rod, more extension adding a valve

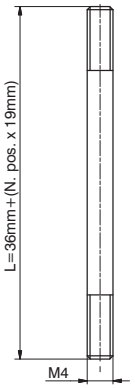


2

Tie-rod M4

Ordering code
2540.KT.Ⓟ

	N. POSITIONS
	01=Nr. 1 Position
	02=Nr. 2 Positions
	03=Nr. 3 Positions
	04=Nr. 4 Positions
	05=Nr. 5 Positions
	06=Nr. 6 Positions
	07=Nr. 7 Positions
Ⓟ	08=Nr. 8 Positions
	09=Nr. 9 Positions
	10=Nr. 10 Positions
	11=Nr. 11 Positions
	12=Nr. 12 Positions
	13=Nr. 13 Positions
	14=Nr. 14 Positions
	15=Nr. 15 Positions
	16=Nr. 16 Positions

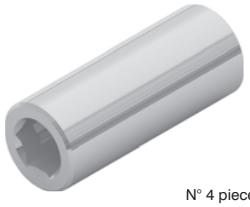


CODE LIST	CODE	"L" DIMENSION
	2540.KT.01	55
	2540.KT.02	74
	2540.KT.03	93
	2540.KT.04	112
	2540.KT.05	131
	2540.KT.06	150
	2540.KT.07	169
	2540.KT.08	188
	2540.KT.09	207
	2540.KT.10	226
	2540.KT.11	245
	2540.KT.12	264
	2540.KT.13	283
	2540.KT.14	302
	2540.KT. ...	...
	2540.KT.32	644

Accessories table for manifolds

.	Set of N° positions	Ordering code
	2	2540.KD.00 + 2540.KT.02
	3	2540.KD.00 + 2540.KT.03
	4	2540.KD.00 + 2540.KT.04
	5	2540.KD.00 + 2540.KT.05
	6	2540.KD.00 + 2540.KT.06
	7	2540.KD.00 + 2540.KT.07
	8	2540.KD.00 + 2540.KT.08
	9	2540.KD.00 + 2540.KT.09
	10	2540.KD.00 + 2540.KT.10
	11	2540.KD.00 + 2540.KT.11
	12	2540.KD.00 + 2540.KT.12
	13	2540.KD.00 + 2540.KT.13
	14	2540.KD.00 + 2540.KT.14
	15	2540.KD.00 + 2540.KT.15
	16	2540.KD.00 + 2540.KT....
	32	2540.KD.00 + 2540.KT.32

2540.KD.00



N° 4 pieces

2540.KT.XX

N° 2 pieces

Polyethylene Silencer Series SPL-R

Ordering code
SPLR.Ⓕ

	TUBE DIAMETER
Ⓕ	8=8 mm
	12=12 mm

Diaphragm plug

Ordering code

2530.17

Weight gr. 6,5

Cable complete with connector, 25 Poles IP65

Ordering code

2300.25.Ⓛ.Ⓒ

	CABLE LENGHT
Ⓛ	03 = 3 meters
	05 = 5 meters
	10 = 10 meters
	CONNECTORS
Ⓟ	10 = In line
	90 = 90° Angle

Cable complete with connector, 37 Poles IP65

Ordering code

2400.37.Ⓛ.Ⓒ

	CABLE LENGHT
Ⓛ	03 = 3 meters
	05 = 5 meters
	10 = 10 meters
	CONNECTORS
Ⓟ	10 = In line
	90 = 90° Angle

Cable complete with connector, 25 Poles IP65

Ordering code

2400.25.Ⓛ.25

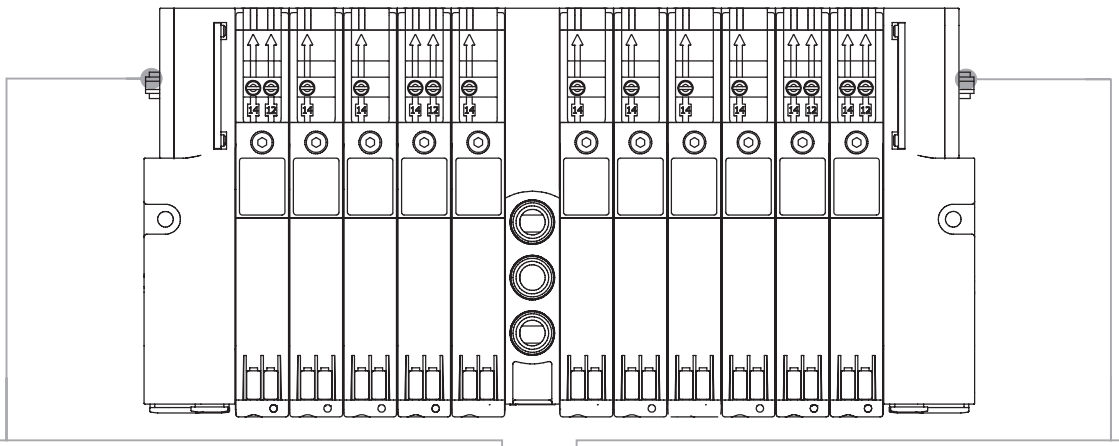
	CABLE LENGHT
Ⓛ	03 = 3 meters
	05 = 5 meters
	10 = 10 meters

2

The electrical connection is achieved by a 37 pin connector and can manage up to 32 solenoid pilots.
It is also possible use a 25 sub-D pin connector and, in this case, it is possible to manage a maximum of 22 outputs.
The management and distribution of the electrical signals between each valve is obtained thanks to an electrical connector which receives the signals from the previous module, uses one, two or none depending on the type, and carries forward to the next module the remaining.
Bistable valves, 5/3 and 2x3/2 valves which have two solenoid pilots built in, use two signals; the first is directed to the pilot side 14 the second to the pilot side 12. Modular bases can be fitted with two type of electrical connector: the monostable version uses only one signal (connected to the pilot side 14) and carries forward the remaining, the bistable version which always uses two signals.
This solution allows the modification of the manifold (replacement of monostable valves without bistable for example) without having to reset the PLC output layout.
On other hand this solution limits the maximum number of valves to 16 when it is used a 37 pin connector or 11 when it is used a 25 pin connector.
Intermediate supply/exhaust module uses an electrical connector directly forwarding signals to the next one without any kind of modification.
This allows the use of intermediate modules in any position of the manifold.
All the electrical signals that have not been used on the manifold can be used placing at the end of the manifold the end plate complete with the 25 sub-D female connector.
The number of available signals depends of the connector used to the type of the left end plate and by the total signals used along the manifold:

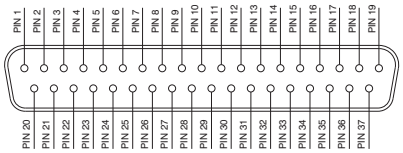
37 pin connector nr of output = 32 – (total of used signals)
25 pin connector nr of output = 22 – (total of used signals)

Following we show some examples of possible combination and the relative pin assignment.



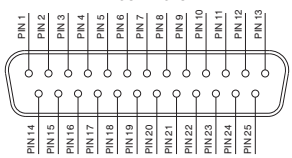
IN-LET ELECTRIC CONNECTIONS

SUB-D 37 POLE
MALE CONNECTOR



1 - 32 = SOLENOID VALVES SIGNAL
33 - 35 = GND
36 - 37 = THROUGH LINE

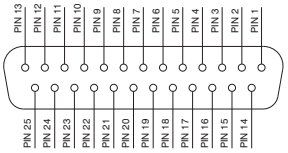
SUB-D 25 POLE
MALE CONNECTOR



1 - 22 = SOLENOID VALVES SIGNAL
23 - 24 = GND
25 = THROUGH LINE

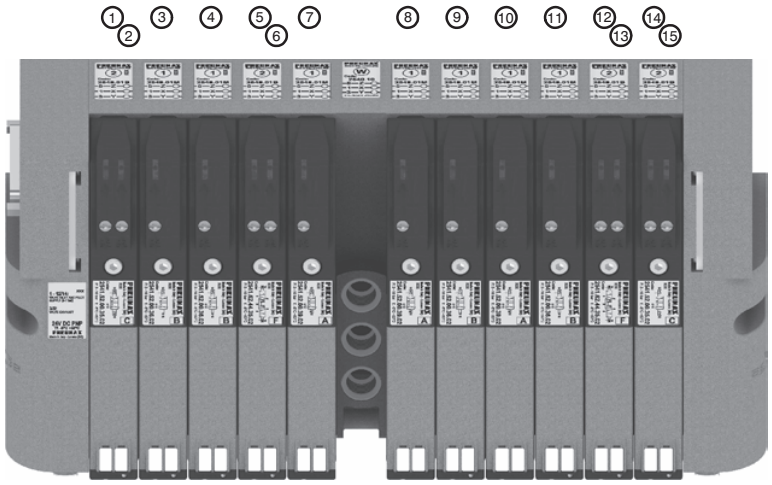
OUTLET ELECTRIC CONNECTIONS (IF PRESENT)

SUB-D 25 POLE
FEMALE CONNECTOR



1 - 22 = SOLENOID VALVES SIGNAL
23 - 24 = GND
25 = THROUGH

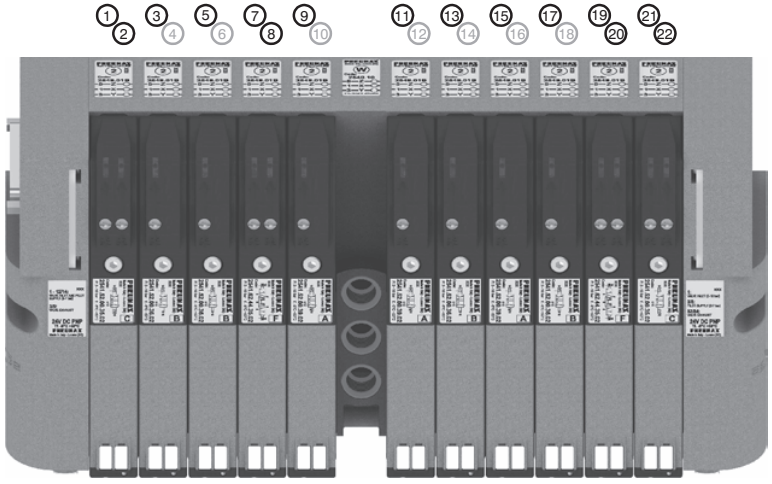
37 PIN Connector correspondence for valves assembled on mixed bases



PIN 1 = PILOT 14 EV POS.1
PIN 2 = PILOT 12 EV POS.1
PIN 3 = PILOT 14 EV POS.2
PIN 4 = PILOT 14 EV POS.3
PIN 5 = PILOT 14 EV POS.4
PIN 6 = PILOT 12 EV POS.4
PIN 7 = PILOT 14 EV POS.5
PIN 8 = PILOT 14 EV POS.7
PIN 9 = PILOT 14 EV POS.8
PIN 10 = PILOT 14 EV POS.9
PIN 11 = PILOT 14 EV POS.10
PIN 12 = PILOT 14 EV POS.11
PIN 13 = PILOT 12 EV POS.11
PIN 14 = PILOT 14 EV POS.12
PIN 15 = PILOT 12 EV POS.12

POS.	1	2	3	4	5	6	7	8	9	10	11	12

37 PIN Connector correspondence for manifold mounted on bases for bistable valves

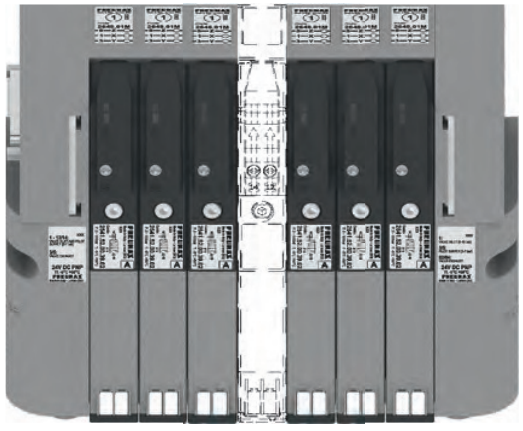


PIN 1 = PILOT 14 EV POS.1
PIN 2 = PILOT 12 EV POS.1
PIN 3 = PILOT 14 EV POS.2
PIN 4 = NOT CONNECTED
PIN 5 = PILOT 14 EV POS.3
PIN 6 = NOT CONNECTED
PIN 7 = PILOT 14 EV POS.4
PIN 8 = PILOT 12 EV POS.4
PIN 9 = PILOT 14 EV POS.5
PIN 10 = NOT CONNECTED
PIN 11 = PILOT 14 EV POS.7
PIN 12 = NOT CONNECTED
PIN 13 = PILOT 14 EV POS.8
PIN 14 = NOT CONNECTED
PIN 15 = PILOT 14 EV POS.9
PIN 16 = NOT CONNECTED
PIN 17 = PILOT 14 EV POS.10
PIN 18 = NOT CONNECTED
PIN 19 = PILOT 14 EV POS.11
PIN 20 = PILOT 12 EV POS.11
PIN 21 = PILOT 14 EV POS.12
PIN 22 = PILOT 12 EV POS.12

POS.	1	2	3	4	5	6	7	8	9	10	11	12

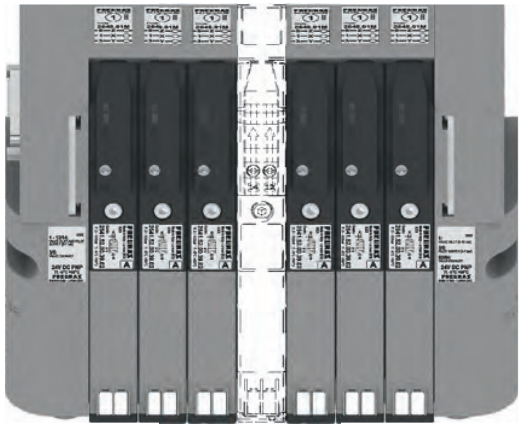
37 PIN Connector correspondence for manifold for 32 position manifold with monostable valves on base

37P



POS.	1	2	3	...	30	31	32

25P



POS.	1	2	3	...	20	21	22

2

General :

Using the 2540.03.25P output terminal it is possible to make any electrical signals not used by valves available on a 25 sub-D female connector at the right end of the manifold.
It is possible to then join a multi-core cable to link to the next manifold, or connect directly to one or two I/O modules.
The I/O modules can accept input or output signals, depending upon what is connected.

Ordering code

2540.08T

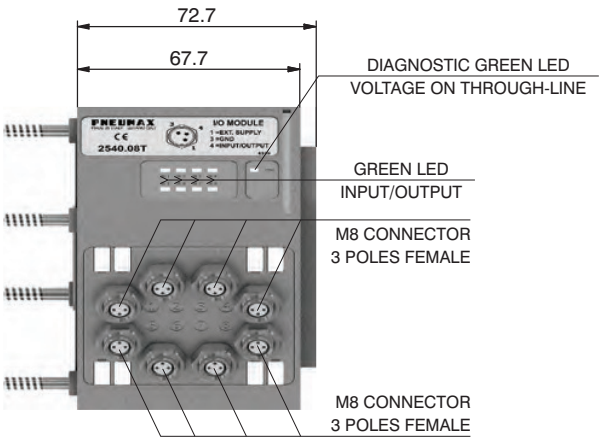
Please note: If the manifold is connected by a multi-core connection, each connection can be used as either an input or an output, while if the manifold is connected to a serial node the connections can only be used as an output.

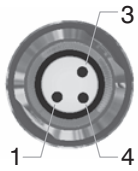
It is possible to connect the manifold to up to two I/O modules.

Each I/O module includes 8 diagnostic LEDs which indicate the presence of an Input / Output signal for each connector.

Please note: For an LED to function, a signal of at least +15VDC must be present on pin 4 of the connector. If this signal is lower, the LED will not light, this does not compromise the normal Input / Output function of the unit.

Overall dimensions and I/O layout :





PIN	DESCRIPTION
1	+24 VDC
4	INPUT/OUTPUT
3	GND

Input features:

Each connection can accept either two wire (switches, magnetic switches, pressure switches, etc.) or three wire connections (photocells, electronic end of stroke sensors, etc.) If +24VDC is required on at Pin 1 of each connector, it is possible to provide this via the through-line pin of the multi-pole connector.
I.E :
Pin 25 of the 25 pin multi-pole connector (code 2540.02.25P or 2540.12.25P)
Pin 36-37 of the 37 pin multi-pole connector (code 2540.02.37P or 2540.12.37P)

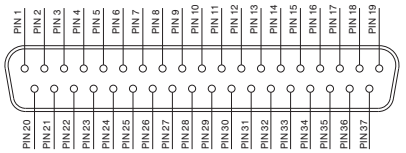
Output features:

Attention: The output connections are not protected against short-circuit. Please pay attention when wiring (avoid Pin 4 being connected to Pin 3 or Pin 1).

General characteristics	Model	2540.08T
	Case	Reinforced technopolymer
	I/O Connector	M8 connector 3 poles female (IEC 60947-5-2)
	PIN 1 voltage (connector used as Input)	by the user
	PIN 4 voltage diagnosis	Green Led
	Node consumption (Outlets excluded)	7mA per each LED with 24 VDC signal
	Outlets voltage	+23,3 VDC (serial) /by the user (multipolar)
	Input voltage	Depend by the using
	Maximum outlet current	100 mA (serial) / 400 mA (multipolar)
	Maximum Input/Output	8 per module
	Multiconnector max. Current	100 mA
	Connections to manifold	Direct connection to 25 poles connector
	Maximum n. of moduls	2
	Protection degree	IP65 when assembled
	Ambient temperature	from -0° to +50° C

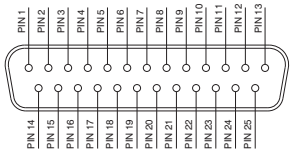
CORRESPONDENCE BETWEEN MULTI-POLE SIGNAL AND CONNECTOR

SUB-D TYPE 37 POLE MALE CONNECTOR

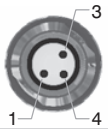


1 - 32 = SIGNALS
33 - 35 = GND
36 - 37 = THROUGH LINE

SUB-D TYPE 25 POLE MALE CONNECTOR



1 - 22 = SIGNALS
23 - 24 = GND
25 = THROUGH LINE



PIN	DESCRIPTION
1	THROUGH LINE
4	SIGNAL
3	GND

Connection modes:

The I/O module changes it is operation depending on the way the manifold is controlled. There are two possible modes:

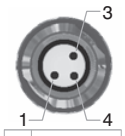
A) Control via multi-pole connection
B) Control via fieldbus

In order to use the I/O module, the correct right hand endplate with 25 pole female outlet connector must be used.
(Code 2540.03.25P).

A) Control via multi-pole :

M8 connector used as Input:

Attention: Voltage applied to each connector is passed to multi-pole connector pin.

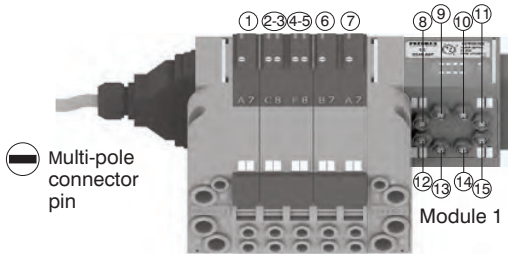


PIN	DESCRIPTION
1	THROUGH LINE
4	SIGNAL
3	GND

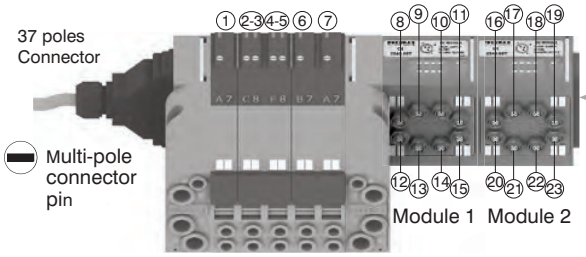
M8 connector used as Output:

Output voltage will the same as is applied at the multi-pole connector pin.
The maximum output current depends upon the power unit used, but we recommend no more than 250mA.

Attention: Since every cable has a degree of resistance, there will always be a voltage drop depending on the cable's length, sectional area and the current.

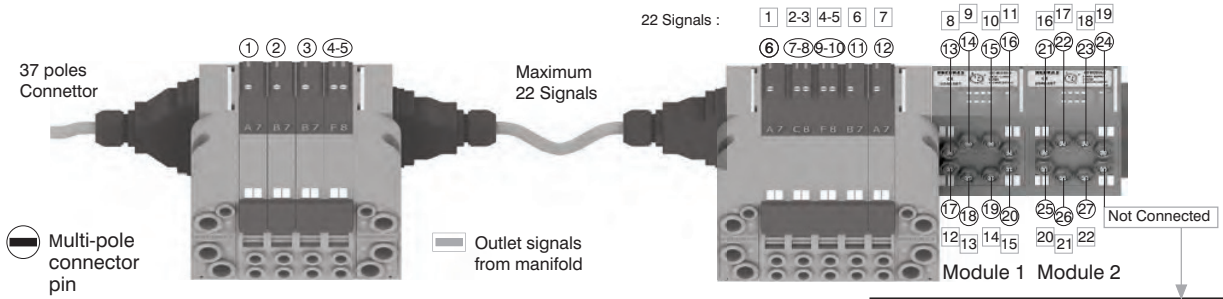


Attention: Only one more I/O module can be added.



Attention: No more additions are possible

Attention : Optyma 32-**T** solenoid valve manifolds permit up to 22 electrical signals that are not used by manifolds to be made available: these signals can be managed by another manifold and / or by I/O modules.
The I/O module will manage these unused signals. Connections that are not managing useful signals will remain unconnected.

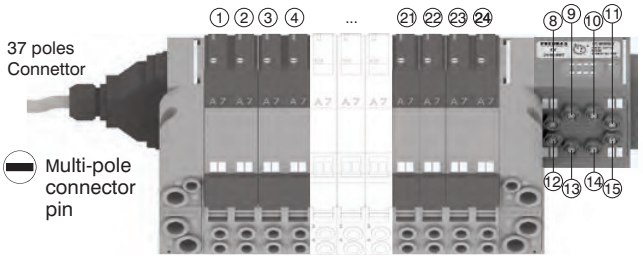


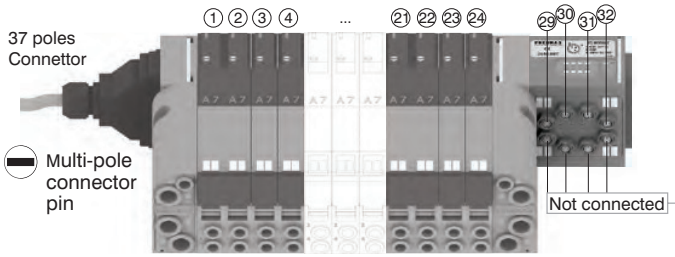
Please note: this example considers a 37 pin multi-pole connector.
The same configuration managed by a 25 pin multi-pole connector will stop at number 22 of multi-pole connector and at number 17 of the manifold. 22 17

Attention:
Signal Not connected
GND Connected
Through line Connected

2

Please note: Optyma 32-T solenoid valve manifolds manage up to 32 signals. If the manifold uses more than 24 signals the I/O module will manage only the remainder. Connections that are not managing useful signals will remain unconnected.

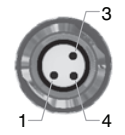




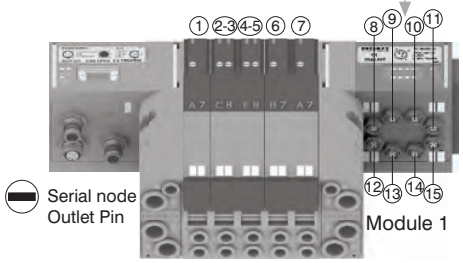
Attention:
Signal Not connected
GND Connected
Through line Connected

B) Control via fieldbus:

With this kind of control the I/O module can only be used as an output. Pin 1 of each connector is not connected. The output voltage will be 0.7V lower than that applied to Pin 4 of the connector.
The maximum output current for each output is 100mA. The correspondence between control byte and each single output depends on how many electrical signals are used by the manifold and by the relative position of the I/O module.

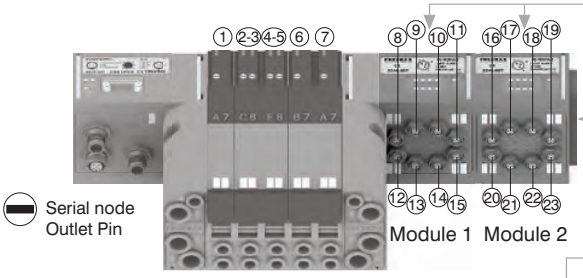


PIN	DESCRIPTION
1	NOT CONNECTED
4	SIGNAL
3	GND



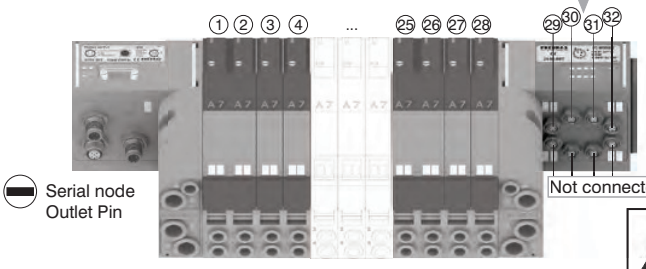
Attention:
Output only

Attention:
Only one more
I/O module
can be added.



Attention:
Output only

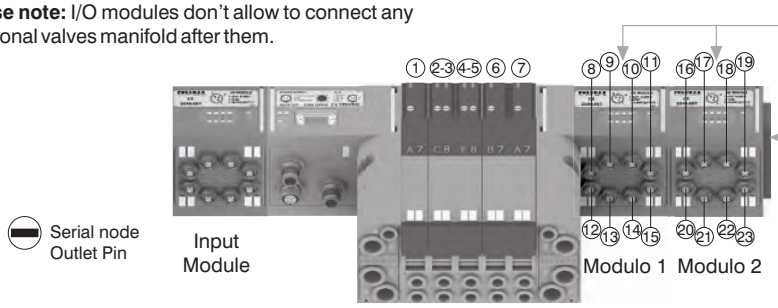
Attention:
No more additions
are possible



Attention:
Output only

Attention:
Signal Not connected
GND Connected

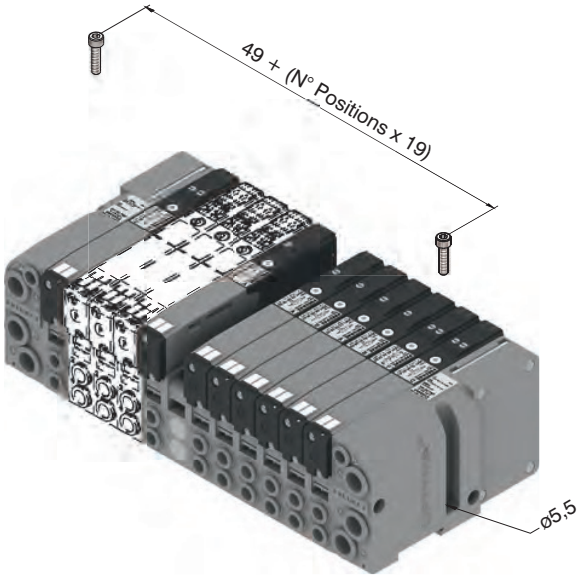
Please note: I/O modules don't allow to connect any additional valves manifold after them.

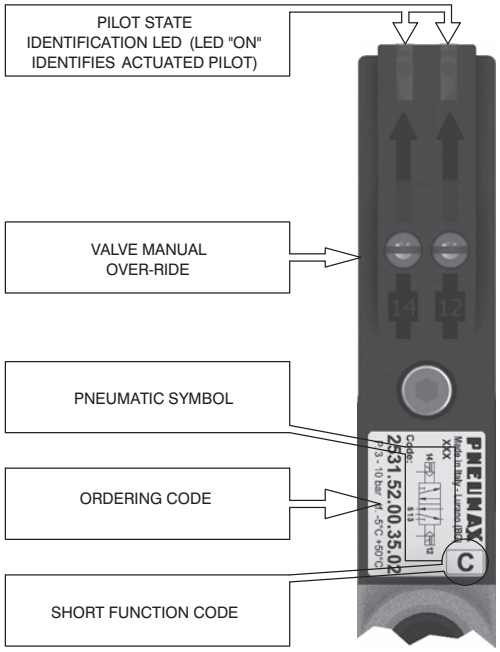


Attention:
Output only

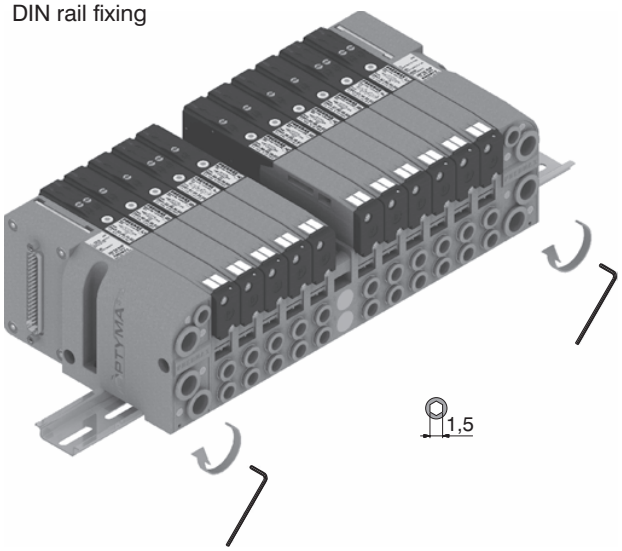
Attention:
No more additions
are possible

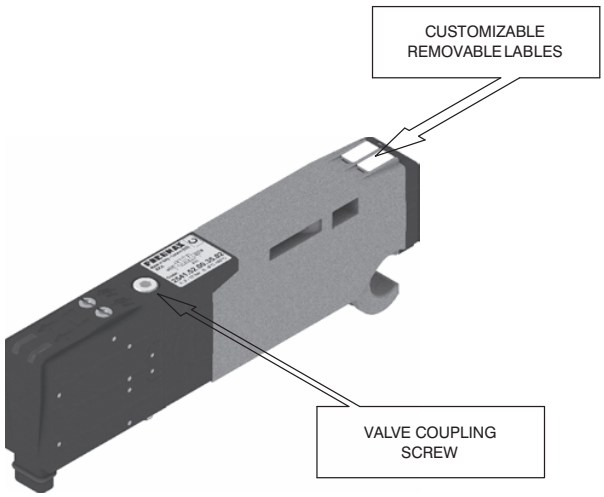
From the top



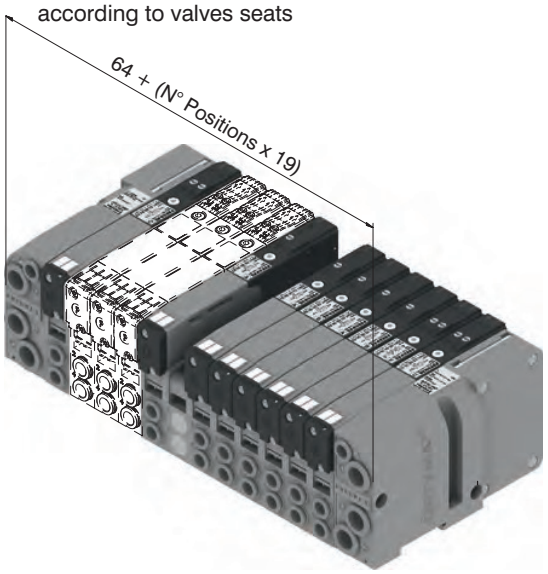


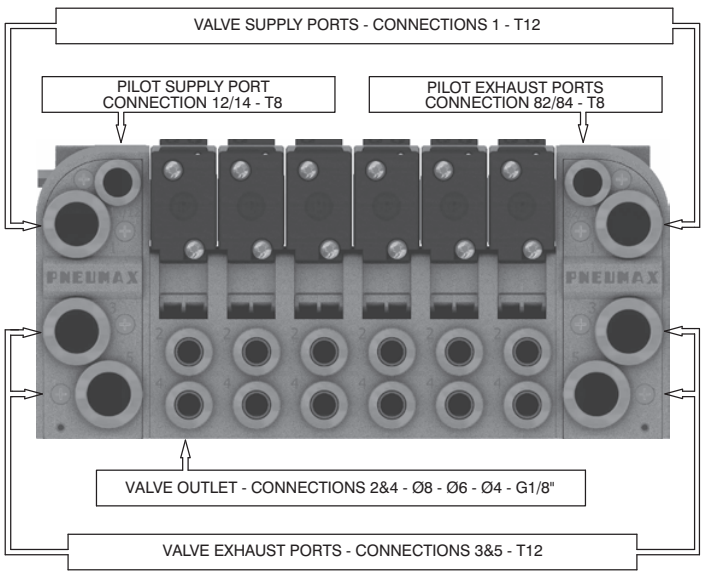
DIN rail fixing





Maximum possible size according to valves seats

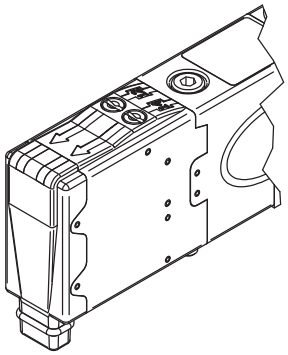


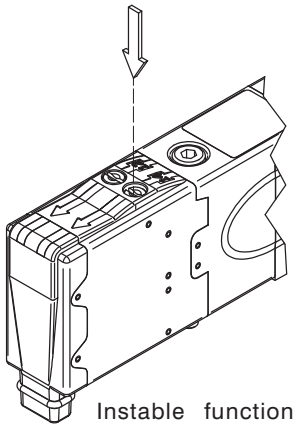


2

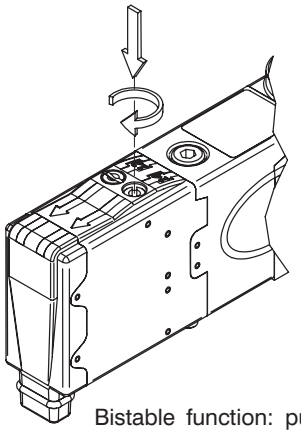
2

Manual override actuation





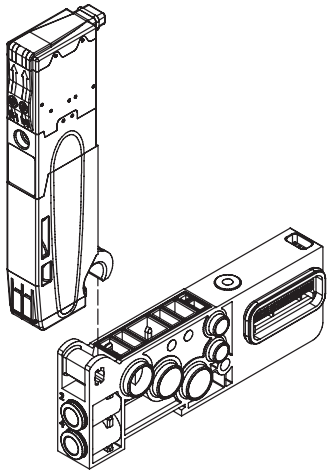
Instable function: push to actuate (when released it moves back to the original position).

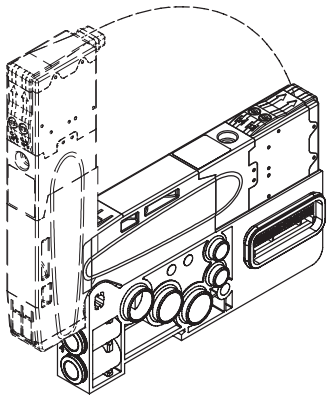


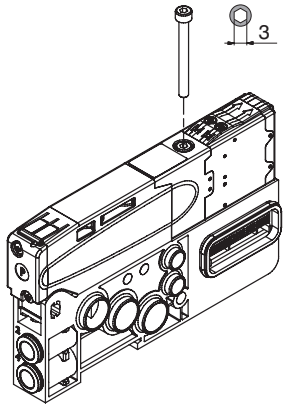
Bistable function: push and turn to get the bistable function

NOTE : It is strongly suggested to replace the original position after using

Valve Installation

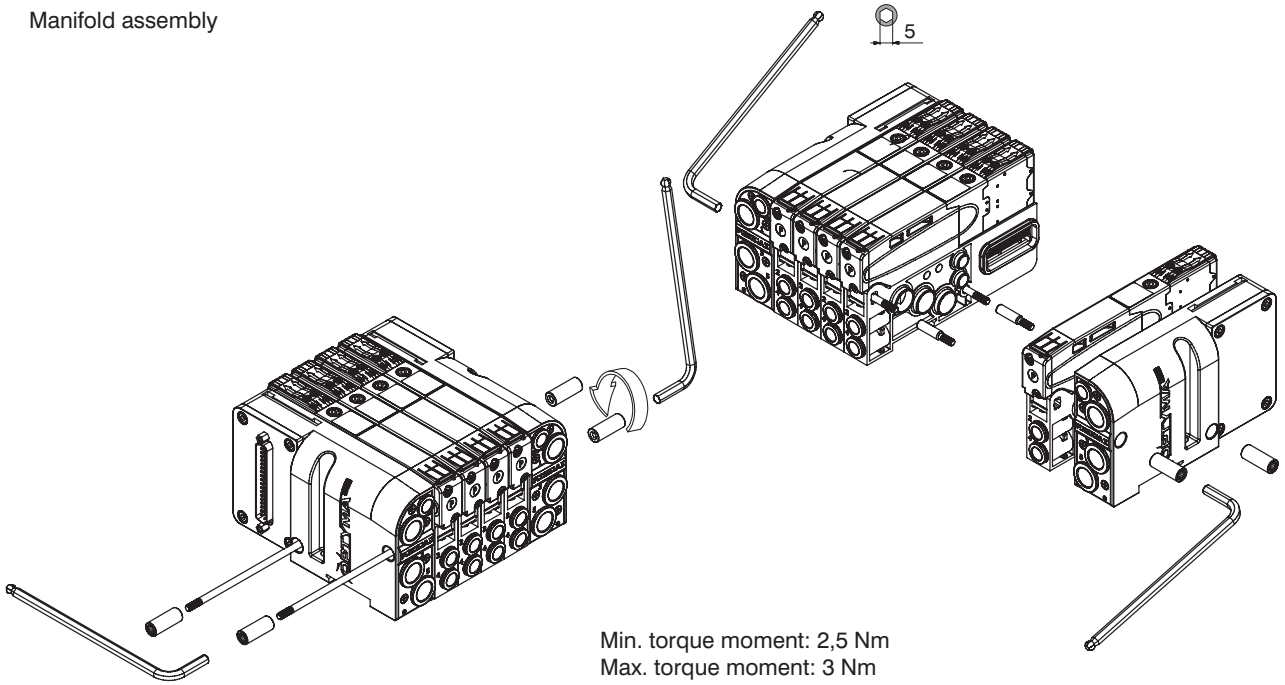






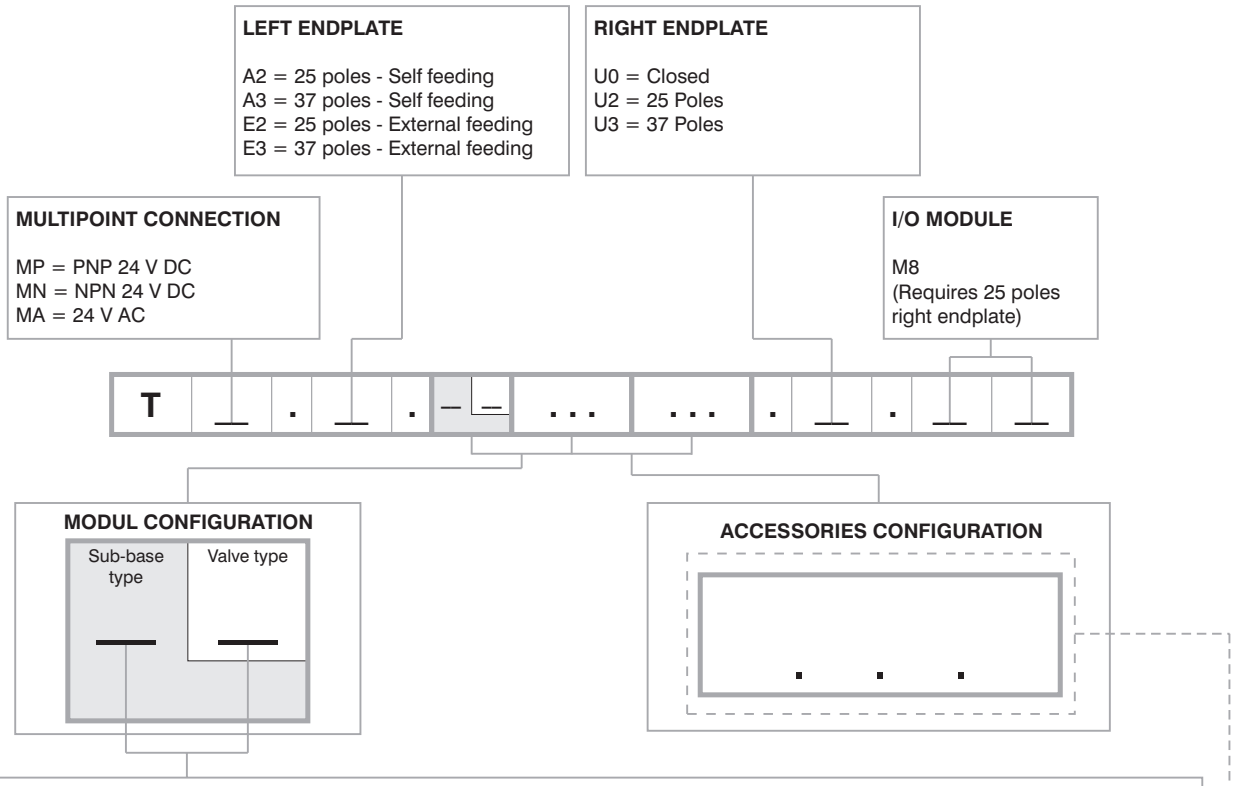
NOTE: Torque moment 1 Nm

Manifold assembly



Min. torque moment: 2,5 Nm
Max. torque moment: 3 Nm

Manifold Layout configuration



SHORT CODE FUNCTION / CONNECTION :

A1= 5/2 Sol.-Spring + BASE 1 - CARTR. G1/8" GAS
A2= 5/2 Sol.-Spring + BASE 2 - CARTR. G1/8" GAS
A3= 5/2 Sol.-Spring + BASE 1 - CARTR. Ø4
A4= 5/2 Sol.-Spring + BASE 2 - CARTR. Ø4
A5= 5/2 Sol.-Spring + BASE 1 - CARTR. Ø6
A6= 5/2 Sol.-Spring + BASE 2 - CARTR. Ø6
A7= 5/2 Sol.-Spring + BASE 1 - CARTR. Ø8
A8= 5/2 Sol.-Spring + BASE 2 - CARTR. Ø8
B1= 5/2 Sol.-Diff. + BASE 1 - CARTR. G1/8" GAS
B2= 5/2 Sol.-Diff. + BASE 2 - CARTR. G1/8" GAS
B3= 5/2 Sol.-Diff. + BASE 1 - CARTR. Ø4
B4= 5/2 Sol.-Diff. + BASE 2 - CARTR. Ø4
B5= 5/2 Sol.-Diff. + BASE 1 - CARTR. Ø6
B6= 5/2 Sol.-Diff. + BASE 2 - CARTR. Ø6
B7= 5/2 Sol.-Diff. + BASE 1 - CARTR. Ø8
B8= 5/2 Sol.-Diff. + BASE 2 - CARTR. Ø8
C2= 5/2 Sol.-Sol. + BASE 2 - CARTR. G1/8" GAS
C4= 5/2 Sol.-Sol. + BASE 2 - CARTR. Ø4
C6= 5/2 Sol.-Sol. + BASE 2 - CARTR. Ø6
C8= 5/2 Sol.-Sol. + BASE 2 - CARTR. Ø8
E2= 5/3 CC Sol.-Sol. + BASE 2 - CARTR. G1/8" GAS
E4= 5/3 CC Sol.-Sol. + BASE 2 - CARTR. Ø4
E6= 5/3 CC Sol.-Sol. + BASE 2 - CARTR. Ø6
E8= 5/3 CC Sol.-Sol. + BASE 2 - CARTR. Ø8

F2= 2x3/2 NC-NC (= 5/3 OC) Sol.-Sol. + BASE 2 - CARTR. G1/8" GAS
F4= 2x3/2 NC-NC (= 5/3 OC) Sol.-Sol. + BASE 2 - CARTR. Ø4
F6= 2x3/2 NC-NC (= 5/3 OC) Sol.-Sol. + BASE 2 - CARTR. Ø6
F8= 2x3/2 NC-NC (= 5/3 OC) Sol.-Sol. + BASE 2 - CARTR. Ø8
G2= 2x3/2 NO-NO (= 5/3 PC) Sol.-Sol. + BASE 2 - CARTR. G1/8" GAS
G4= 2x3/2 NO-NO (= 5/3 PC) Sol.-Sol. + BASE 2 - CARTR. Ø4
G6= 2x3/2 NO-NO (= 5/3 PC) Sol.-Sol. + BASE 2 - CARTR. Ø6
G8= 2x3/2 NO-NO (= 5/3 PC) Sol.-Sol. + BASE 2 - CARTR. Ø8
H2= 2x3/2 NC-NO Sol.-Sol. + BASE 2 - CARTR. G1/8" GAS
H4= 2x3/2 NC-NO Sol.-Sol. + BASE 2 - CARTR. Ø4
H6= 2x3/2 NC-NO Sol.-Sol. + BASE 2 - CARTR. Ø6
H8= 2x3/2 NC-NO Sol.-Sol. + BASE 2 - CARTR. Ø8
I2= 2x3/2 NO-NC Sol.-Sol. + BASE 2 - CARTR. G1/8" GAS
I4= 2x3/2 NO-NC Sol.-Sol.+ BASE 2 - CARTR. Ø4
I6= 2x3/2 NO-NC Sol.-Sol. + BASE 2 - CARTR. Ø6
I8= 2x3/2 NO-NC Sol.-Sol. + BASE 2 - CARTR. Ø8
T1= Free valve space plug + BASE 1 - CARTR. G1/8" GAS
T2= Free valve space plug + BASE 2 - CARTR. G1/8" GAS
T3= Free valve space plug + BASE 1 - CARTR. Ø4
T4= Free valve space plug + BASE 2 - CARTR. Ø4
T5= Free valve space plug + BASE 1 - CARTR. Ø6
T6= Free valve space plug + BASE 2 - CARTR. Ø6
T7= Free valve space plug + BASE 1 - CARTR. Ø8
T8= Free valve space plug + BASE 2 - CARTR. Ø8

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 base type 2 (2 electrical signals occupied) causes the loss of one electric signal. In this case the monostable valve can be replaced by a bistable valve. The diaphragms plugs are used to intercept the conduits 1,3 & 5 of the base. If it is necessary to interrupt more than one conduit in the same time then put in line the letters which identifies the position (for exemple : regarding the 3 & 5 conduits, put the Y & Z letters).
Should one or more conduits be cut more than one time it is necessary to add the relevant intermediate Supply/Exhaust module.

ACCESSORIES

U2 = Power supply 2 positions module
U4 = Power supply 4 positions module
W = Intermediate supply & exhaust module
X = Diaphragm plug on pipe 1
Y = Diaphragm plug on pipe 3
Z = Diaphragm plug on pipe 5
XY = Diaphragm plug on pipe 1 & 3
ZX = Diaphragm plug on pipe 5 & 1
ZY = Diaphragm plug on pipe 5 & 3
ZXY = Diaphragm plug on pipe 5, 1 & 3

2

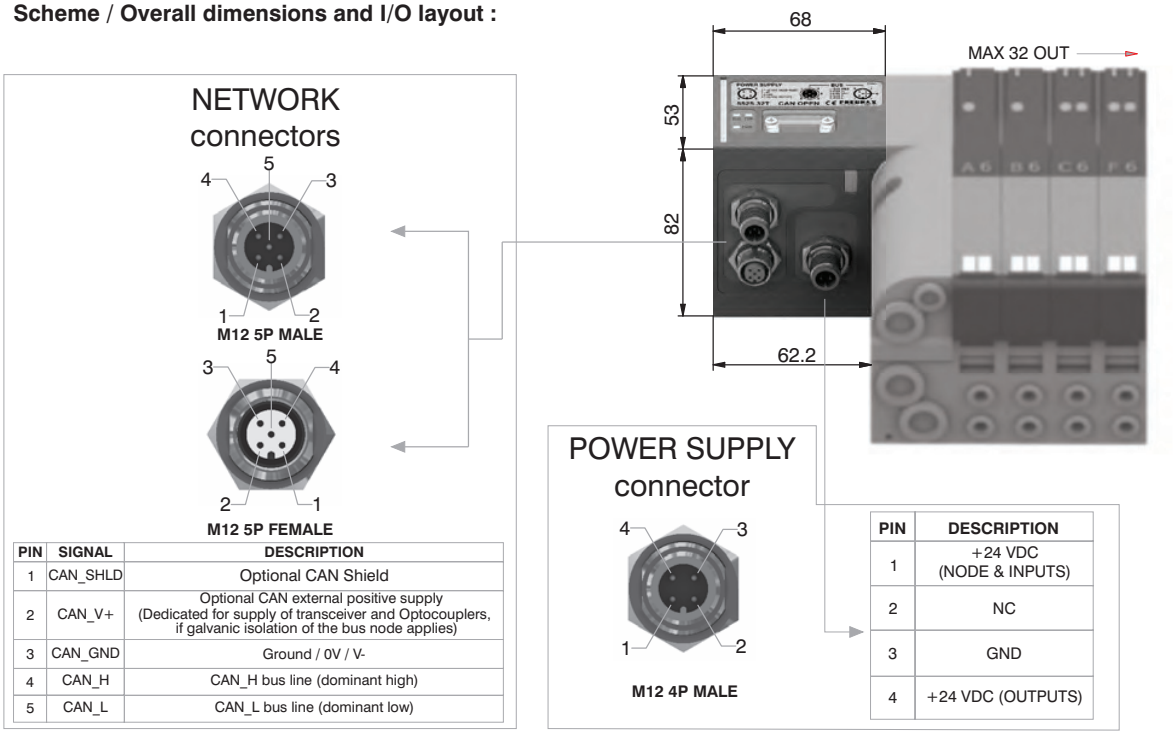
General:

CANopen® module is directly integrated on Optyma-T solenoid valves manifold via a 37 poles connector, normally used for multipolar cable connection.
Optyma-T 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 5225.08T.
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 maintaning 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

5525.32T

Scheme / Overall dimensions and I/O layout :



PIN	SIGNAL	DESCRIPTION
1	CAN_SHLD	Optional CAN Shield
2	CAN_V+	Optional CAN external positive supply (Dedicated for supply of transceiver and Optocouplers, if galvanic isolation of the bus node applies)
3	CAN_GND	Ground / 0V / V-
4	CAN_H	CAN_H bus line (dominant high)
5	CAN_L	CAN_L bus line (dominant low)

PIN	DESCRIPTION
1	+24 VDC (NODE & INPUTS)
2	NC
3	GND
4	+24 VDC (OUTPUTS)

Technical characteristics

	Model	5525.32T
	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 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:

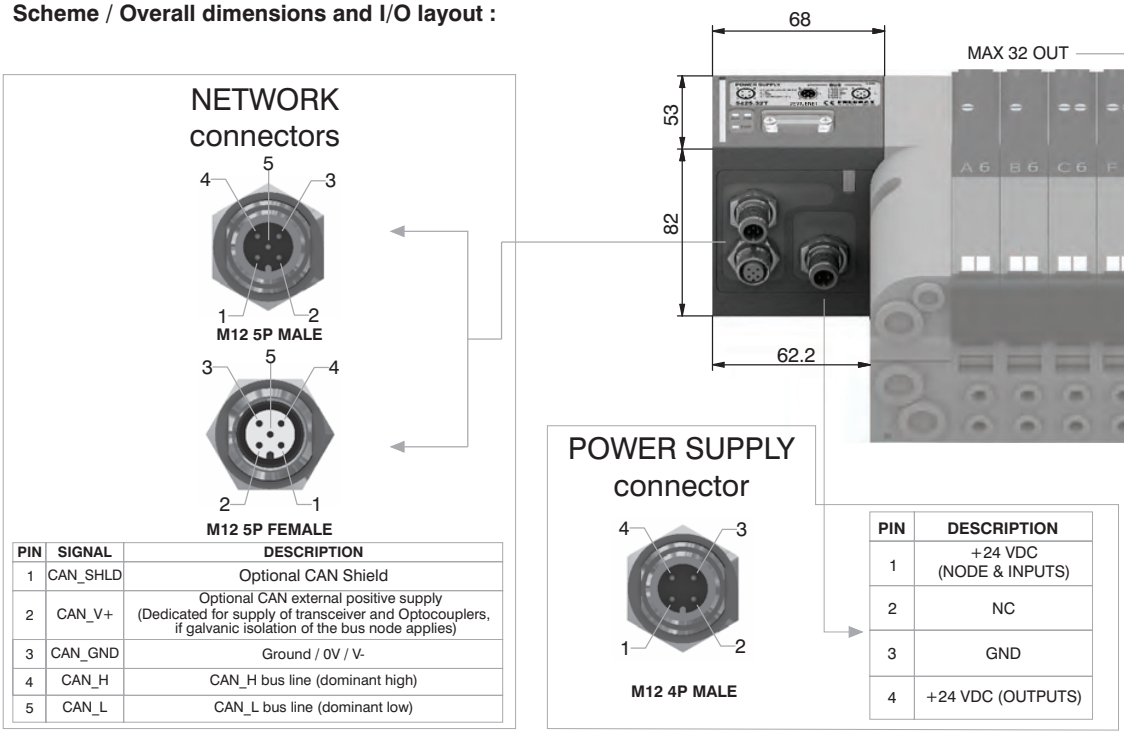
DeviceNet module is directly integrated on Optyma-T solenoid valves manifold via a 37 poles connector, normally used for multipolar cable connection.
Optyma-T solenoid valves connected to node must be PNP equivalent (final 02 in ordering code).
The node can be easily installed also on solenoid valves 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 5225.08T.
DeviceNet 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 maintaning 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

5425.32T

2

Scheme / Overall dimensions and I/O layout :



PIN	SIGNAL	DESCRIPTION
1	CAN_SHLD	Optional CAN Shield
2	CAN_V+	Optional CAN external positive supply (Dedicated for supply of transceiver and Optocouplers, if galvanic isolation of the bus node applies)
3	CAN_GND	Ground / 0V / V-
4	CAN_H	CAN_H bus line (dominant high)
5	CAN_L	CAN_L bus line (dominant low)

PIN	DESCRIPTION
1	+24 VDC (NODE & INPUTS)
2	NC
3	GND
4	+24 VDC (OUTPUTS)

Technical characteristics

	Model	5425.32T
	Specifications	DeviceNet Specifications Volume I, release 2.0.
	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 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	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

2

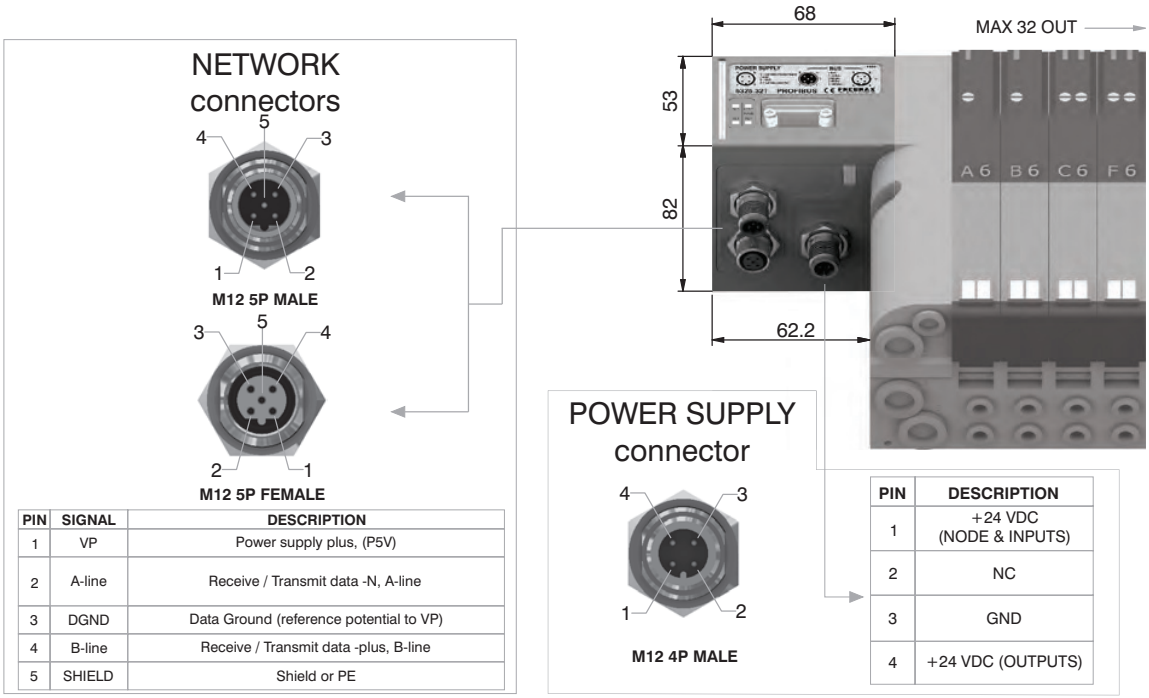
General:

PROFIBUS DP module is directly integrated on Optyma-T solenoid valves manifold via a 37 poles connector, normally used for multipolar cable connection.
Optyma-T 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 8 Input modules 5225.12T, and a max number of 4 Input modules 5225.08T.
PROFIBUS DP 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 maintaning 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 2 dip-switch.

Ordering code

5325.32T

Scheme / Overall dimensions and I/O layout :



PIN	SIGNAL	DESCRIPTION
1	VP	Power supply plus, (P5V)
2	A-line	Receive / Transmit data -N, A-line
3	DGND	Data Ground (reference potential to VP)
4	B-line	Receive / Transmit data -plus, B-line
5	SHIELD	Shield or PE

PIN	DESCRIPTION
1	+24 VDC (NODE & INPUTS)
2	NC
3	GND
4	+24 VDC (OUTPUTS)

Technical characteristics

	Model	5325.32T
	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 / Green led OUT
Outputs	PNP equivalent outputs	+24 VDC +/- 10%
	Maximum current for 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

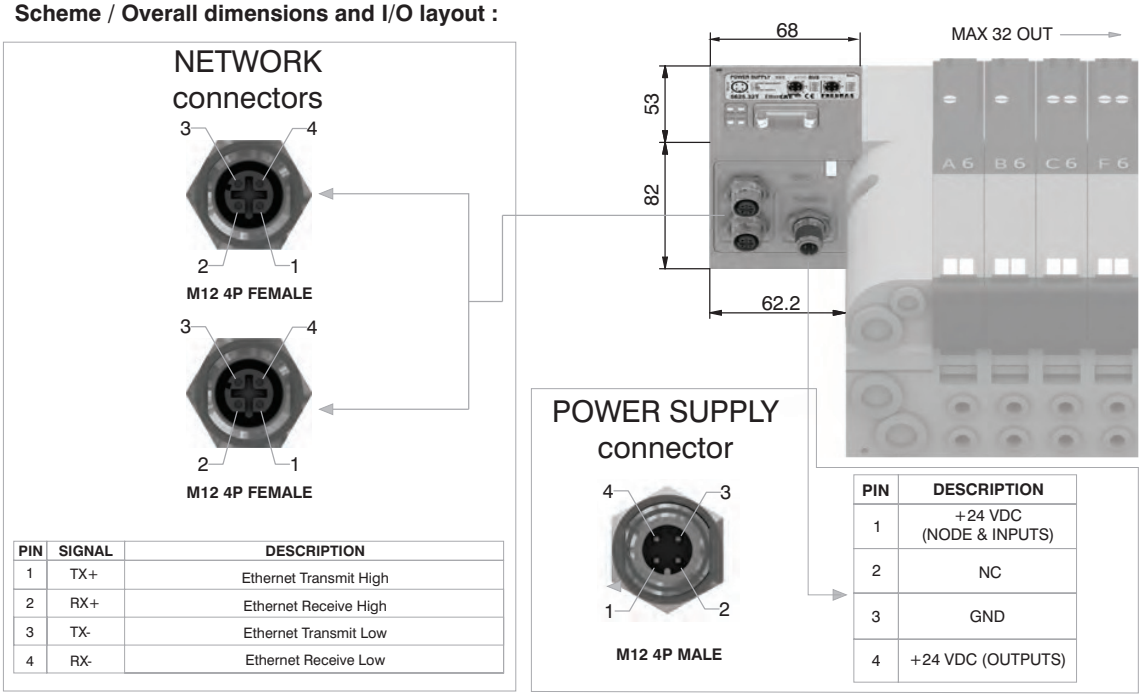
General:

EtherCAT® module is directly integrated on Optyma-T solenoid valves manifold via a 37 poles connector, normally used for multipolar cable connection.
Optyma-T 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 5225.08T.
EtherCAT® 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 maintaning 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. They are according to EtherCAT® Specifications ETG.1000 series.
By specifications, node ID should be automatically set during network configuration, but it is also possible to set the address via 6 dip-switches on the module, using BCD numeration.

Ordering code

5625.32T

Scheme / Overall dimensions and I/O layout :



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

PIN	DESCRIPTION
1	+24 VDC (NODE & INPUTS)
2	NC
3	GND
4	+24 VDC (OUTPUTS)

Technical characteristics

	Model	5625.32T
	Specifications	EtherCAT® Specifications ETG.1000 series
	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)	310 mA
	Power supply diagnosis	Green led PWR
Outputs	PNP equivalent outputs	+24 VDC +/- 10%
	Maximum current for output	100 mA
	Max output simultaneously actuated	32
	N.max. uscite azionabili contemp.	32
Network	Network connectors	2 M12 4P female connectors type D (IEC 61076-2-101)
	Baud rate	100 Mbit/s
	Addresses, possibile numbers	From 0 to 65535 (from 1 to 63 with dip-switches)
	Max nodes in net	65536 (master + slaves)
	Maximum distance between 2 nodes	100 m
	Bus diagnosis	1 status green led + 2 activity green 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

2

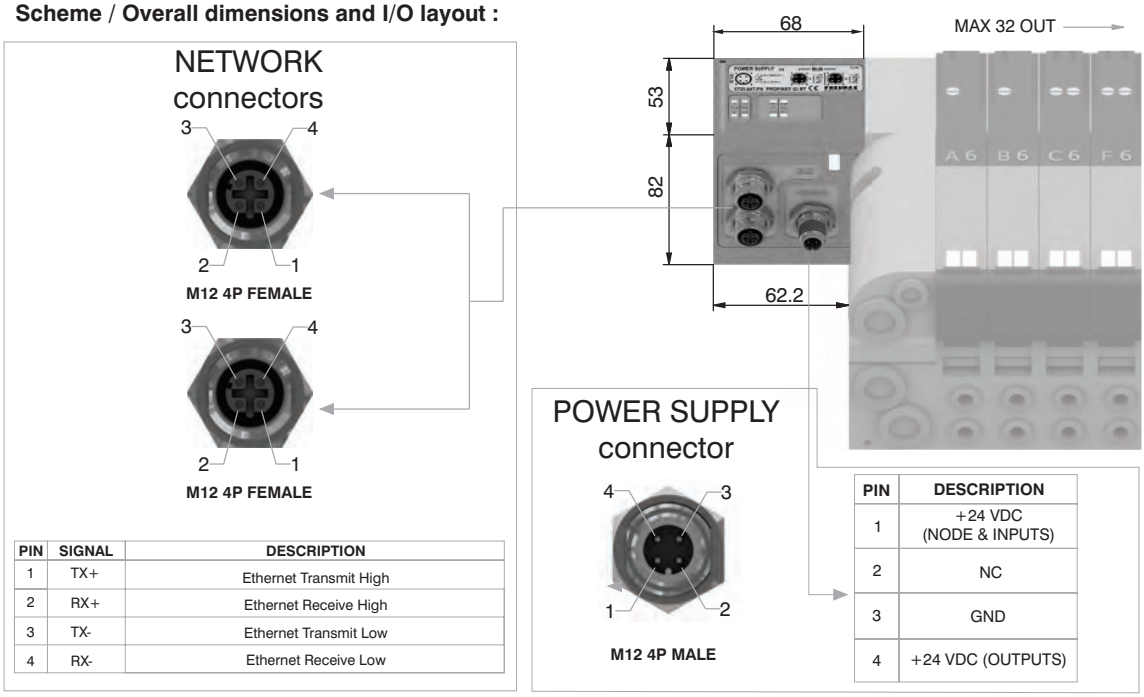
General :

PROFINET IO RT/IRT module is directly integrated on Optyma-T solenoid valves manifold via a 37 poles connector, normally used for multipolar cable connection.
Optyma-T 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 8 Input modules 5225.12T, and a max number of 4 Input modules 5225.08T.
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 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 maintaning 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

5725.32T.PN

Scheme / Overall dimensions and I/O layout :



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

PIN	DESCRIPTION
1	+24 VDC (NODE & INPUTS)
2	NC
3	GND
4	+24 VDC (OUTPUTS)

Technical characteristics

	Model	5725.32T.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 outputs)	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, possibile 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

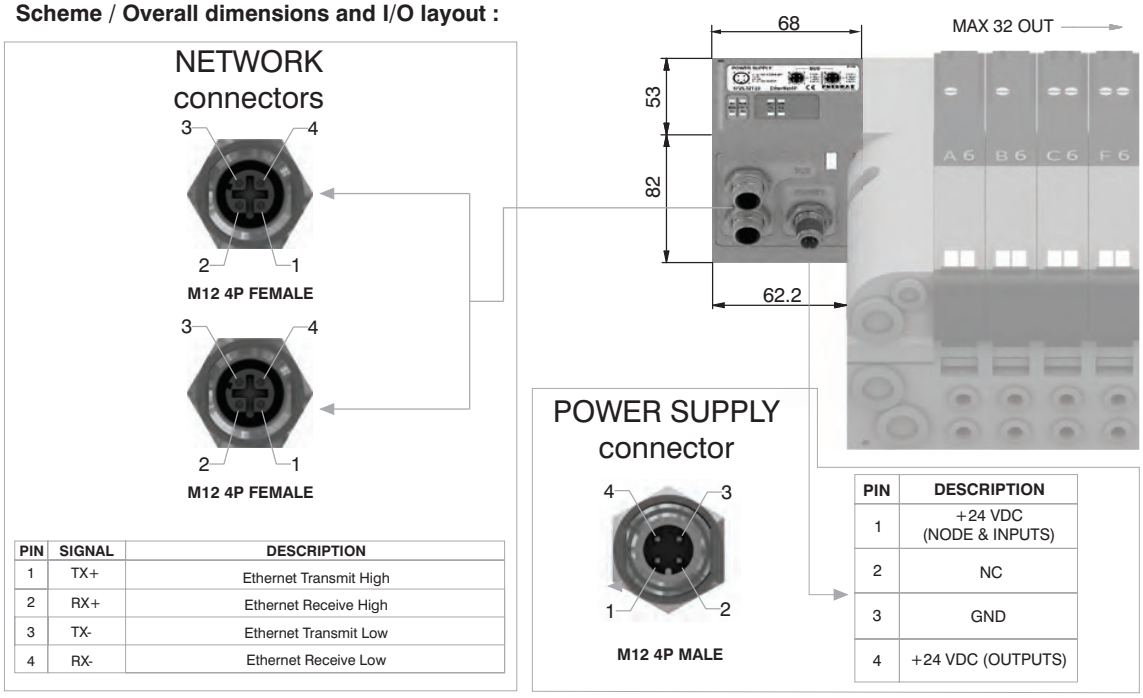
General :

EtherNet/IP module is directly integrated on Optyma-T solenoid valves manifold via a 37 poles connector, normally used for multipolar cable connection.
Optyma-T 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 8 Input modules 5225.12T, and a max number of 4 Input modules 5225.08T.
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 maintaning 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

5725.32T.EI

Scheme / Overall dimensions and I/O layout :



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

PIN	DESCRIPTION
1	+24 VDC (NODE & INPUTS)
2	NC
3	GND
4	+24 VDC (OUTPUTS)

Technical characteristics

	Model	5725.32T.EI
	Specifications	The EtherNet/IP Specification
	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 outputs)	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, possibile 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

2

General :

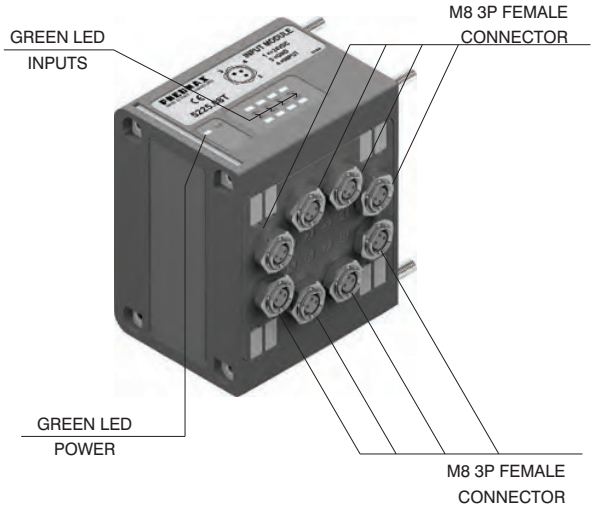
Modules have 8 connectors M8 3P female.

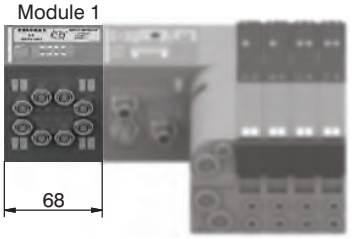
The Inputs are PNP equivalent 24 VDC ±10%.
To each connector it is possible to plug both 2 wires Inputs (switches, magnetic switches pressure switches, etc) or 3 wires Inputs (proximity, photocells, electronic sensors, etc).
The maximum current available for all 8 Inputs is 200 mA.
Each module includes a 200 mA resettable fuse. If a short circuit or a overcharge (overall current >200mA) 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 light up indicating the ON state and the node will re-start to operate.
The maximum number of Input modules supported is 4 for CANopen®, DeviceNet and EtherCAT®.
The maximum number of Input modules supported is 8 for PROFIBUS DP, PROFINET IO RT/IRT and EtherNet/IP.

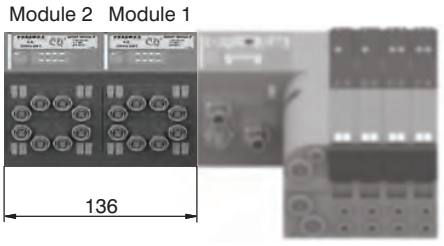
Ordering code

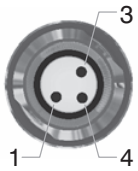
5225.08T

Scheme / Overall dimensions and I/O layout :

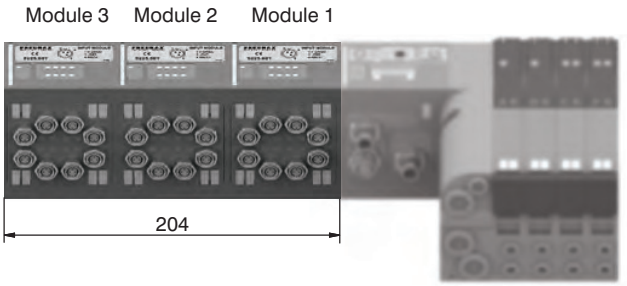


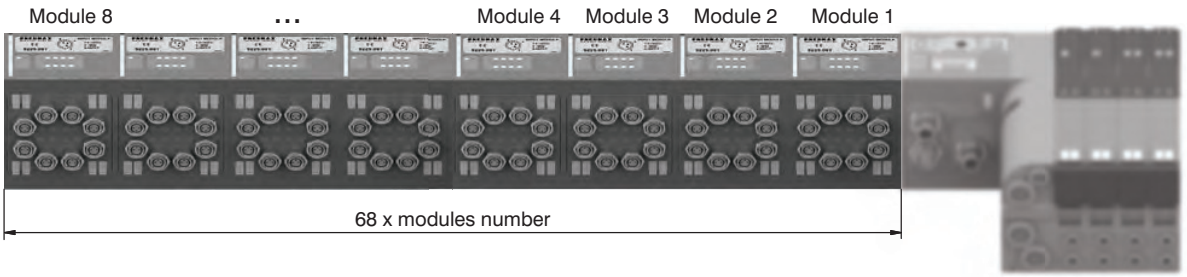






PIN	DESCRIPTION
1	+24 VDC
4	INPUT
3	GND





General :

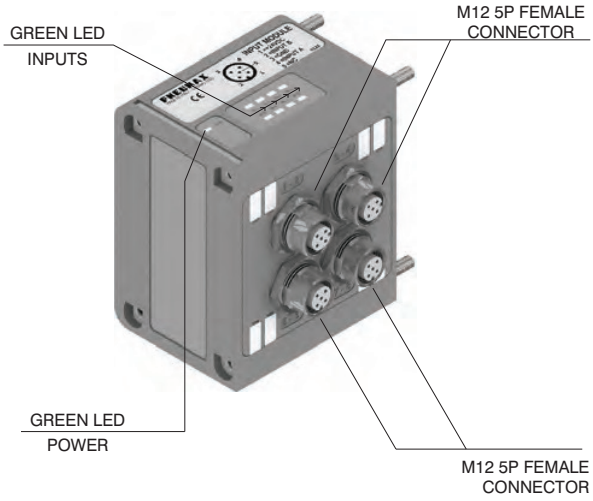
Modules have 4 connectors M12 5P female.

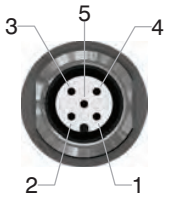
The Inputs are PNP equivalent 24 VDC ±10%.
To each connector it is possible to plug both 2 wires Inputs (switches, magnetic switches pressure switches, etc) or 3 wires Inputs (proximity, photocells, electronic sensors, etc).
The maximum current available for all 8 Inputs is 200 mA.
Each module includes a 200 mA resettable fuse. If a short circuit or a overcharge (overall current >200mA) occur the safety device acts cutting the 24 VDC power supply to all M12 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 light up indicating the ON state and the node will re-start to operate.
The maximum number of Input modules supported is 4 for CANopen®, DeviceNet and EtherCAT®.
The maximum number of Input modules supported is 8 for PROFIBUS DP, PROFINET IO RT/IRT and EtherNet/IP.

Ordering code

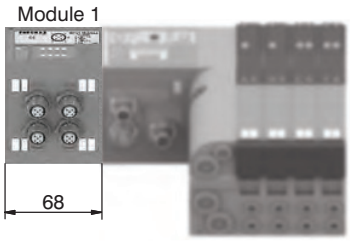
5225.12T

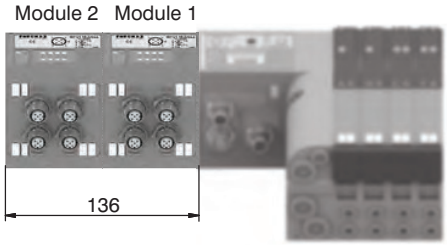
Scheme / Overall dimensions and I/O layout :

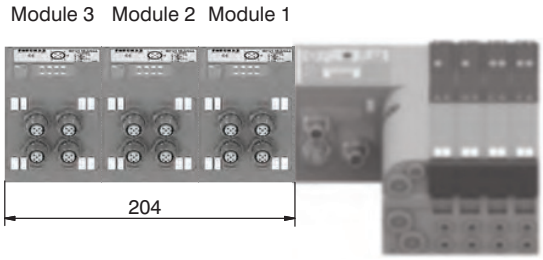


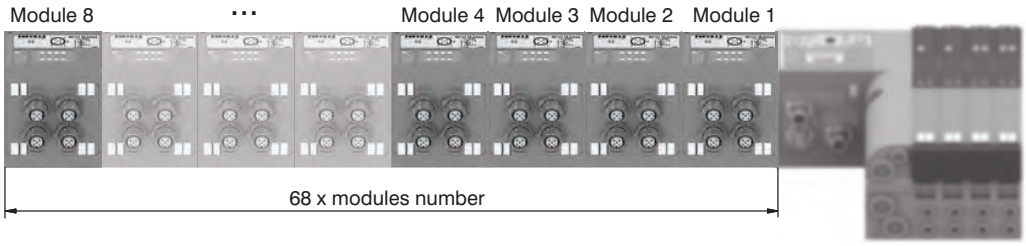


PIN	DESCRIPTION
1	+24 VDC
2	INPUT B
3	GND
4	INPUT A
5	NC









2

General :

This module is fitted with two M8 3 pin female connectors.

With this module is possible to read two analogue inputs (voltage or current).
The inputs are sampled at 12 bit.
For practicality the sampled value is transmitted with 16 bit, of which the four less significant are fixed at zero.

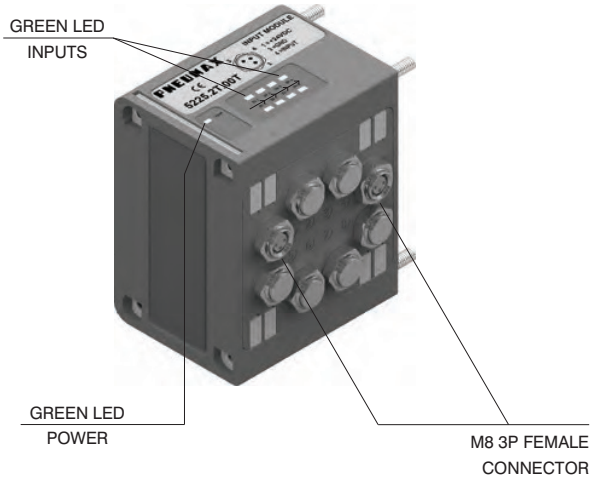
Available models:
5225.2T.00T (voltage signal 0 - 10V);
5225.2T.01T (voltage signal 0 - 5V);
5225.2C.00T (current signal 4 - 20mA);
5225.2C.01T (current signal 0 - 20mA).

Each module includes a 300 mA self-mending fuse. Should a short circuit or a overcharge (overall current >300mA) occur the safety device intervenes cutting the 24VDC 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 is removed the green LED lights up indicating the ON state and the node will re-start to operate.
This module is counted as four 8 digital INPUT modules.
The maximum number of Input modules supported is 4 for CANopen®, DeviceNet and EtherCAT®.
The maximum number of Input modules supported is 8 for PROFIBUS DP, PROFINET IO RT/IRT and EtherNet/IP.

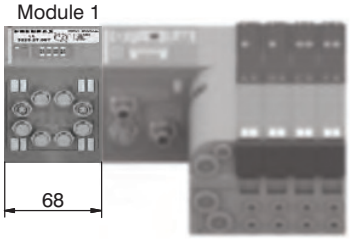
Ordering code

5225.2 _ . _ _T

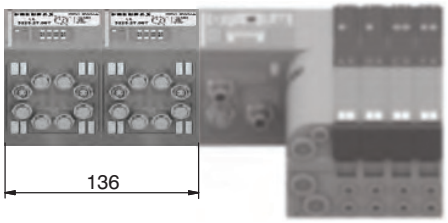
Scheme / Overall dimensions and I/O layout :

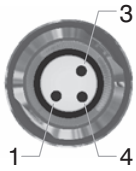


Module 1



Module 2 Module 1





PIN	DESCRIPTION
1	+24 VDC
4	INPUT
3	GND

General :

This module is fitted with two M8 3 pin female connectors.

With this module is possible to read two PT100 probes.
The inputs are sampled at 12 bit.
For practicality the sampled value is transmitted with 16 bit, of which the four less significant are fixed at zero.

It is possible to plug 3-wires probes or 2-wires probes.
The temperature is expressed in tenths of degree.
The temperature range is 0 – 250°C, beyond which the green LED for probe presence doesn't light on.
The module returns a value correspondent to 250°C when the probe is not connected.

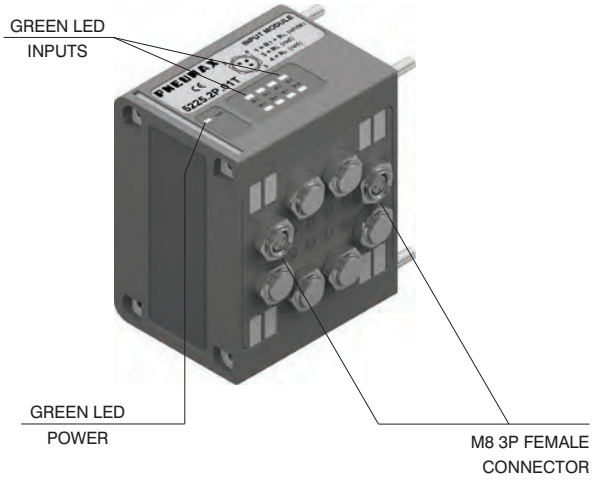
Available models:
5225.2P.00T (2-wires probes);
5225.2P.01T (3-wires probes).

Each module includes a 300 mA self-mending fuse. Should a short circuit or a overcharge (overall current >300mA) occur the safety device intervenes cutting the 24VDC 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 is removed the green LED lights up
indicating the ON state and the node will re-start to operate.
This module is counted as four 8 digital INPUT modules.
The maximum number of Input modules supported is 4 for CANopen®, DeviceNet and EtherCAT®.
The maximum number of Input modules supported is 8 for PROFIBUS DP, PROFINET IO RT/IRT and EtherNet/IP.

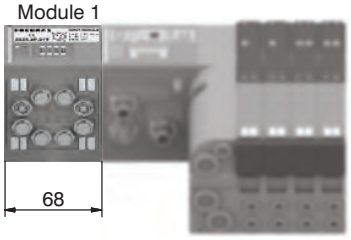
Ordering code

5225.2P . _ _T

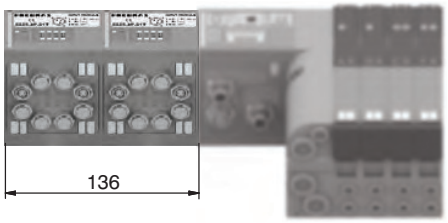
Scheme / Overall dimensions and I/O layout :



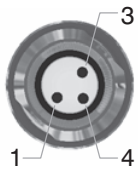
Module 1



Module 2 Module 1

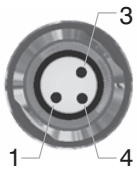


3 WIRES



PIN	DESCRIPTION
1	RT (white)
4	RL (red)
3	RL (red)

2 WIRES



PIN	DESCRIPTION
1	RT (white)
4	NC
3	RL (red)

2

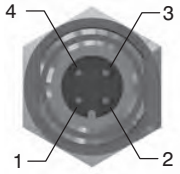
M12A 4P female Socket

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

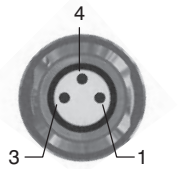
M8 3P male Plug

Ordering code

5308A.M03.00

Input straight connector.

Upper view Slave connector



PIN	DESCRIPTION
1	+24 VDC
4	INPUT
3	GND

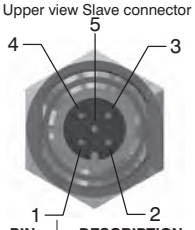
M12A 5P female Socket

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

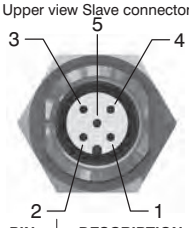
M12A 5P male Plug

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

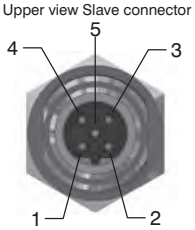
M12B 5P female Plug

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

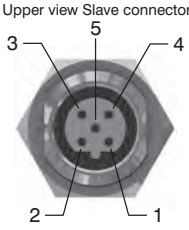
M12B 5P male Plug

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

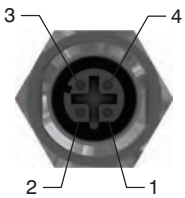
M12D 4P male Plug

Ordering code

5312D.M04.00

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

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

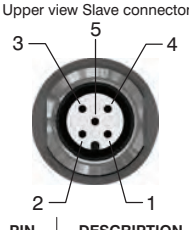
M12 5P male Plug

Ordering code

5312A.M05.00

Input straight connector.

Upper view Slave connector



PIN	DESCRIPTION
1	+24 VDC
2	INPUT B
3	GND
4	INPUT A
5	NC

M12 Plug

Ordering code

5300.T12

M8 Plug

Ordering code

5300.T08

Trademarks: EtherCAT® is registered trademark and patented technology, licensed by Beckhoff Automation GmbH, Germany.

Manifold Layout configuration

LEFT ENDPLATE

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

INPUT MODULES

A = No module
D1= 8 M8 digital inputs module
D2= 8 M12 digital inputs module
T1= 2 analog inputs 0-5V module
T2= 2 analog inputs 0-10V module
C1= 2 analog inputs 0-20mA module
C2= 2 analog inputs 4-20mA module
P1= 2 analog inputs PT 100
2 wires module
P2= 2 analog inputs PT 100
3 wires module

RIGHT ENDPLATE

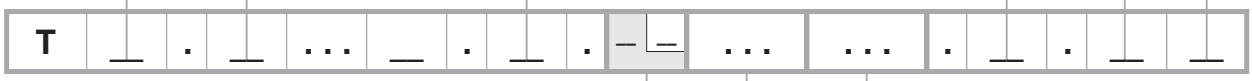
U0 = Closed
U2 = 25 Poles
U3 = 37 Poles

32 OUT VERSION

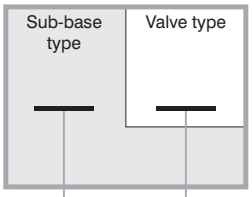
C3 = CANopen® 32OUT - 32IN
D3 = DeviceNet 32OUT - 32IN
P3 = PROFIBUS 32OUT - 32IN
E3 = EtherCAT® 32OUT - 32IN
I3 = EtherNet / IP 32OUT - 32IN
N3 = PROFINET IO RT/IRT 32OUT - 32IN

I/O MODULE

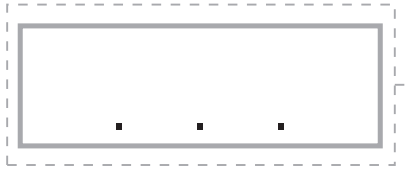
M8
(Requires 25 poles right endplate)



MODUL CONFIGURATION



ACCESSORIES CONFIGURATION



SHORT CODE FUNCTION / CONNECTION :

A1= 5/2 Sol.-Spring + BASE 1 - CARTR. G1/8" GAS
A2= 5/2 Sol.-Spring + BASE 2 - CARTR. G1/8" GAS
A3= 5/2 Sol.-Spring + BASE 1 - CARTR. Ø4
A4= 5/2 Sol.-Spring + BASE 2 - CARTR. Ø4
A5= 5/2 Sol.-Spring + BASE 1 - CARTR. Ø6
A6= 5/2 Sol.-Spring + BASE 2 - CARTR. Ø6
A7= 5/2 Sol.-Spring + BASE 1 - CARTR. Ø8
A8= 5/2 Sol.-Spring + BASE 2 - CARTR. Ø8
B1= 5/2 Sol.-Diff. + BASE 1 - CARTR. G1/8" GAS
B2= 5/2 Sol.-Diff. + BASE 2 - CARTR. G1/8" GAS
B3= 5/2 Sol.-Diff. + BASE 1 - CARTR. Ø4
B4= 5/2 Sol.-Diff. + BASE 2 - CARTR. Ø4
B5= 5/2 Sol.-Diff. + BASE 1 - CARTR. Ø6
B6= 5/2 Sol.-Diff. + BASE 2 - CARTR. Ø6
B7= 5/2 Sol.-Diff. + BASE 1 - CARTR. Ø8
B8= 5/2 Sol.-Diff. + BASE 2 - CARTR. Ø8
C2= 5/2 Sol.-Sol. + BASE 2 - CARTR. G1/8" GAS
C4= 5/2 Sol.-Sol. + BASE 2 - CARTR. Ø4
C6= 5/2 Sol.-Sol. + BASE 2 - CARTR. Ø6
C8= 5/2 Sol.-Sol. + BASE 2 - CARTR. Ø8
E2= 5/3 CC Sol.-Sol. + BASE 2 - CARTR. G1/8" GAS
E4= 5/3 CC Sol.-Sol. + BASE 2 - CARTR. Ø4
E6= 5/3 CC Sol.-Sol. + BASE 2 - CARTR. Ø6
E8= 5/3 CC Sol.-Sol. + BASE 2 - CARTR. Ø8

F2= 2x3/2 NC-NC (= 5/3 OC) Sol.-Sol. + BASE 2 - CARTR. G1/8" GAS
F4= 2x3/2 NC-NC (= 5/3 OC) Sol.-Sol. + BASE 2 - CARTR. Ø4
F6= 2x3/2 NC-NC (= 5/3 OC) Sol.-Sol. + BASE 2 - CARTR. Ø6
F8= 2x3/2 NC-NC (= 5/3 OC) Sol.-Sol. + BASE 2 - CARTR. Ø8
G2= 2x3/2 NO-NO (= 5/3 PC) Sol.-Sol. + BASE 2 - CARTR. G1/8" GAS
G4= 2x3/2 NO-NO (= 5/3 PC) Sol.-Sol. + BASE 2 - CARTR. Ø4
G6= 2x3/2 NO-NO (= 5/3 PC) Sol.-Sol. + BASE 2 - CARTR. Ø6
G8= 2x3/2 NO-NO (= 5/3 PC) Sol.-Sol. + BASE 2 - CARTR. Ø8
H2= 2x3/2 NC-NO Sol.-Sol. + BASE 2 - CARTR. G1/8" GAS
H4= 2x3/2 NC-NO Sol.-Sol. + BASE 2 - CARTR. Ø4
H6= 2x3/2 NC-NO Sol.-Sol. + BASE 2 - CARTR. Ø6
H8= 2x3/2 NC-NO Sol.-Sol. + BASE 2 - CARTR. Ø8
I2= 2x3/2 NO-NC Sol.-Sol. + BASE 2 - CARTR. G1/8" GAS
I4= 2x3/2 NO-NC Sol.-Sol.+ BASE 2 - CARTR. Ø4
I6= 2x3/2 NO-NC Sol.-Sol. + BASE 2 - CARTR. Ø6
I8= 2x3/2 NO-NC Sol.-Sol. + BASE 2 - CARTR. Ø8
T1= Free valve space plug + BASE 1 - CARTR. G1/8" GAS
T2= Free valve space plug + BASE 2 - CARTR. G1/8" GAS
T3= Free valve space plug + BASE 1 - CARTR. Ø4
T4= Free valve space plug + BASE 2 - CARTR. Ø4
T5= Free valve space plug + BASE 1 - CARTR. Ø6
T6= Free valve space plug + BASE 2 - CARTR. Ø6
T7= Free valve space plug + BASE 1 - CARTR. Ø8
T8= Free valve space plug + BASE 2 - CARTR. Ø8

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 base type 2 (2 electrical signals occupied) causes the loss of one electric signal. In this case the monostable valve can be replaced by a bistable valve. The diaphragms plugs are used to intercept the conduits 1,3 & 5 of the base. If it is necessary to interrupt more than one conduit in the same time then put in line the letters which identifies the position (for exemple : regarding the 3 & 5 conduits, put the Y & Z letters).
Should one or more conduits be cut more than one time it is necessary to add the relevant intermediate Supply/Exhaust module.

ACCESSORIES

U2 = Power supply 2 positions module
U4 = Power supply 4 positions module
W = Intermediate supply & exhaust module
X = Diaphragm plug on pipe 1
Y = Diaphragm plug on pipe 3
Z = Diaphragm plug on pipe 5
XY = Diaphragm plug on pipe 1 & 3
ZX = Diaphragm plug on pipe 5 & 1
ZY = Diaphragm plug on pipe 5 & 3
ZXY = Diaphragm plug on pipe 5, 1 & 3