

**General:**

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

Optyma-F 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 5225.08F.

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 mantaining 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.

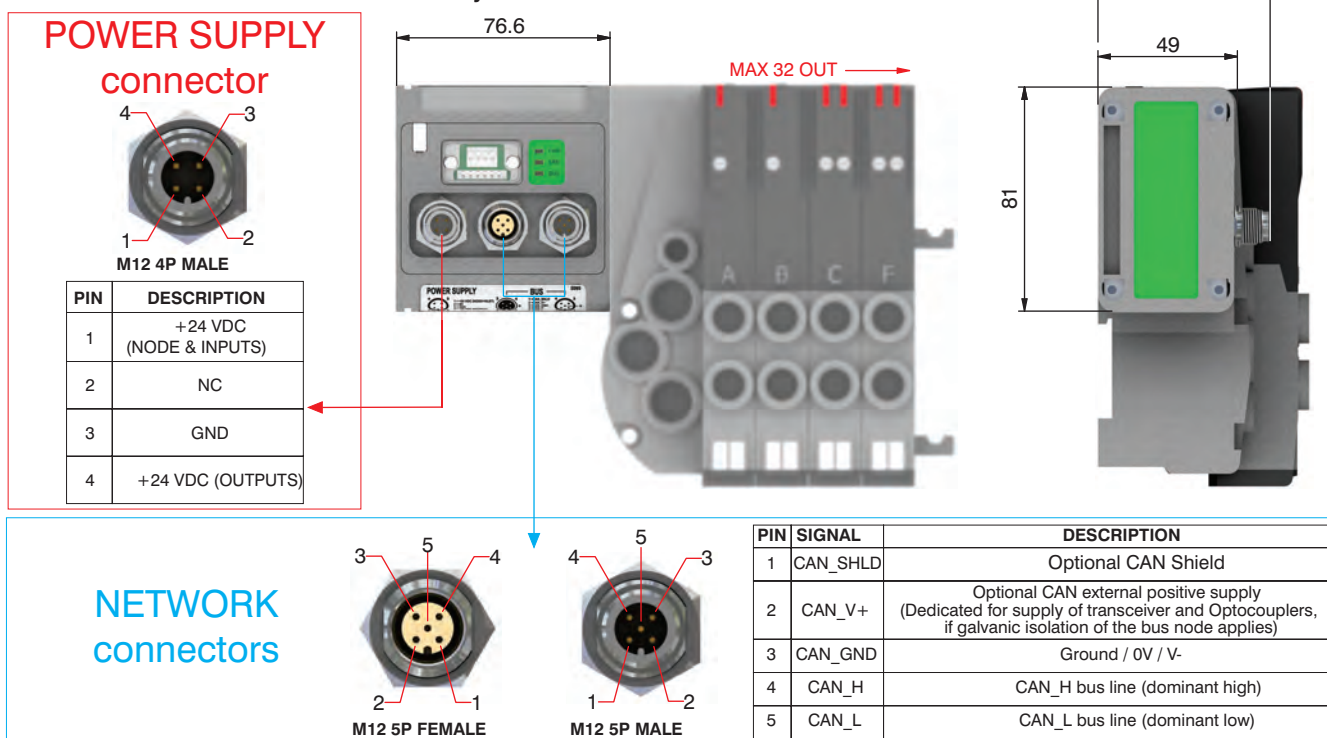
The module includes an internal terminating resistance that can be activated by a dip-switch.

**Ordering code**

**5525.32F**



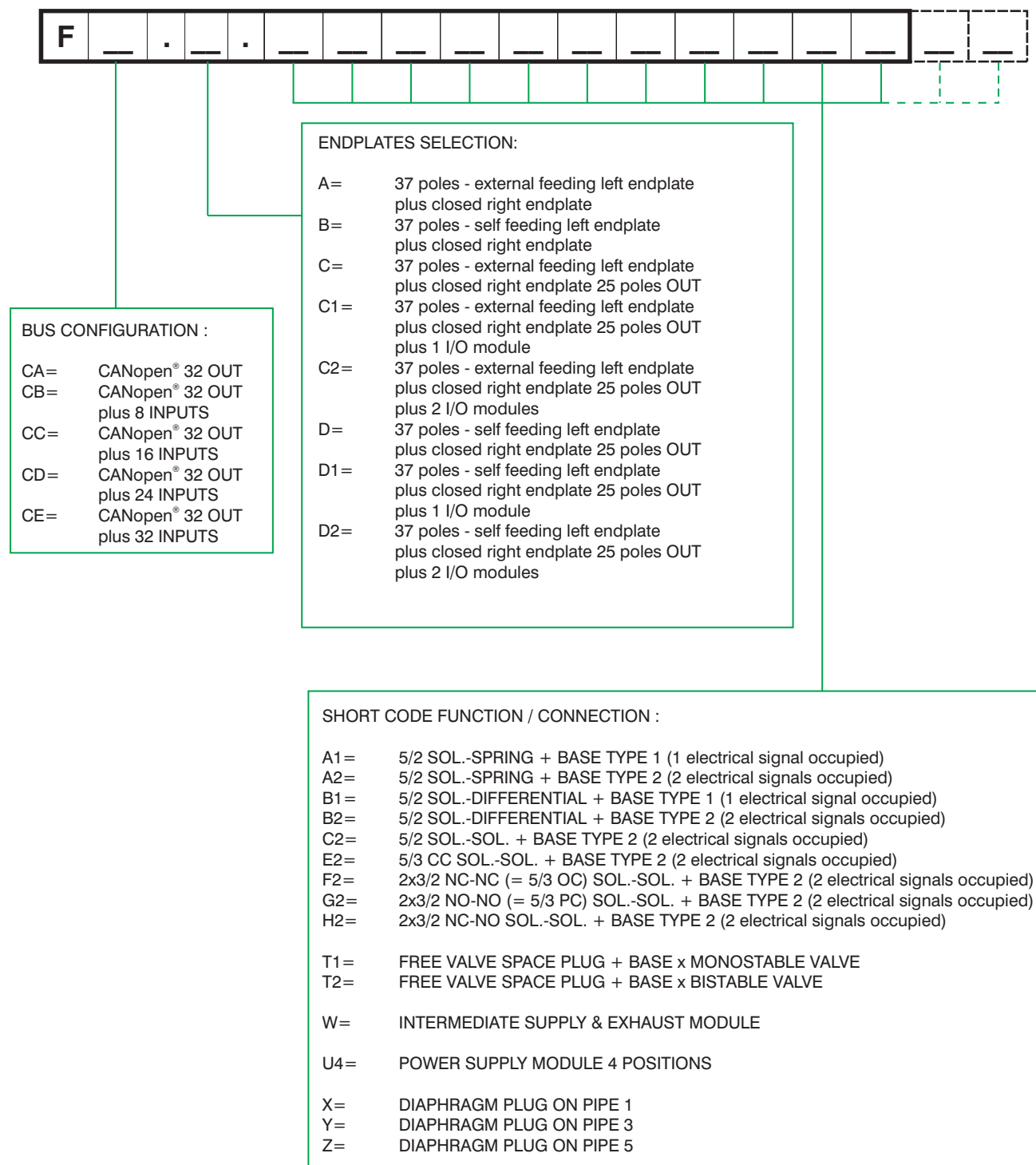
**Scheme / Overall dimensions and I/O layout :**



**Technical characteristics**

Model	5525.32F	
Specifications	CiA Draft Standard Proposal 301 V 4.10 (15 August 2006)	
Case	Reinforced technopolymer	
<b>Power supply</b>	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
<b>Outputs</b>	PNP equivalent outputs	+24 VDC +/- 10%
	Maximum current for output	100 mA
	Maximum output number	32
	Max output simultaneously actuated	32
<b>Network</b>	Network connectors	2 M12 5P connectors male-female (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 a 500 Kbit/s
	Bus diagnosis	Green led + Red led
	Configuration file	Available from our web site: <a href="http://www.pneumaxspa.com">http://www.pneumaxspa.com</a>
	IP protection grade	IP65 when assembled
	Temperature range	From -0° to +50° C

Manifold layout configuration complete with CANopen® node



**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 example : 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.

**General:**

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

Optyma-F 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 5225.08F.

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.

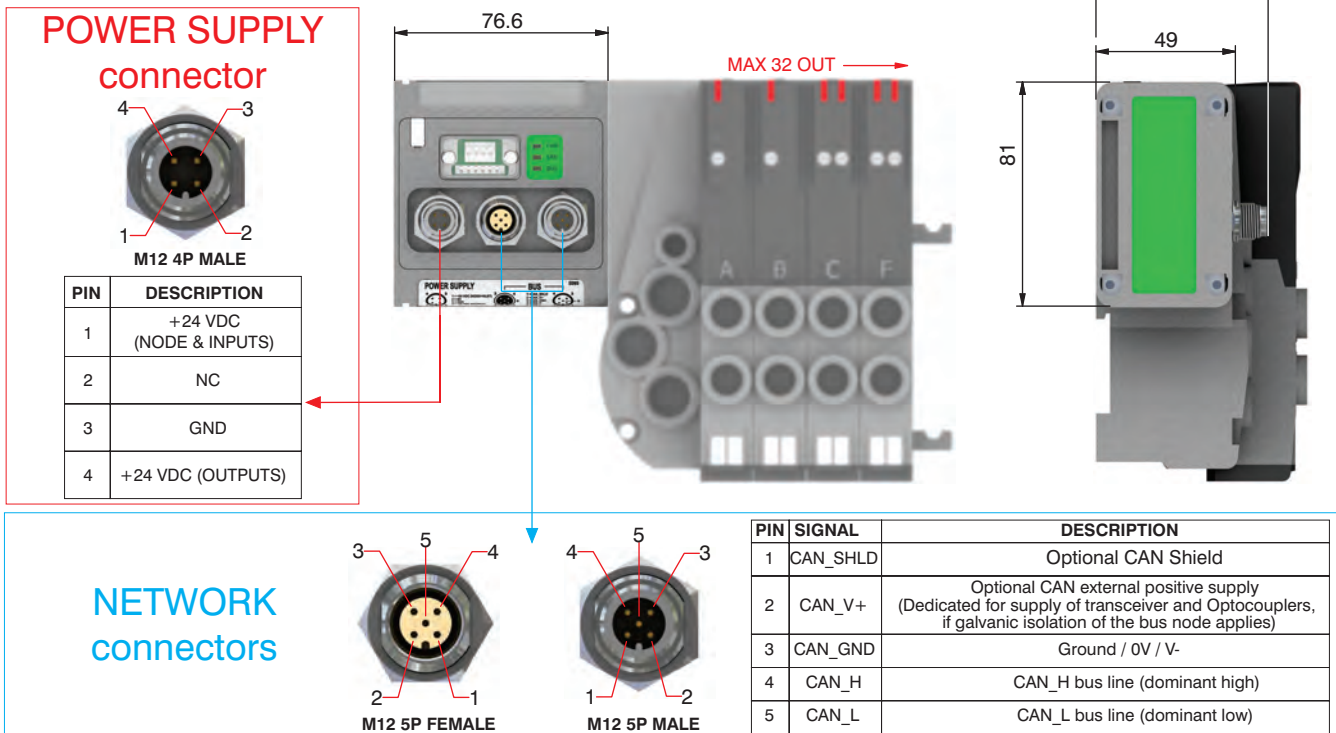
The module includes an internal terminating resistance that can be activated by a dip-switch.

**Ordering code**

**5425.32F**



**Scheme / Overall dimensions and I/O layout :**

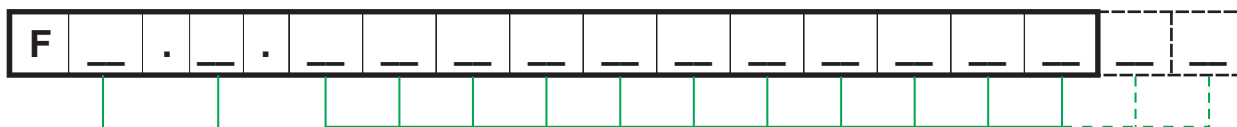


**Technical characteristics**

Model	5425.32F	
Specifications	DeviceNet® Specifications Volume I, release 2.0.	
Case	Reinforced technopolymer	
<b>Power supply</b>	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
<b>Outputs</b>	PNP equivalent outputs	+24 VDC +/- 10%
	Maximum current for output	100 mA
	Maximum output number	32
	Max output simultaneously actuated	32
<b>Network</b>	Network connectors	2 M12 5P connectors male-female (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 a 500 Kbit/s
	Bus diagnosis	Green led + Red led
	Configuration file	Available from our web site: <a href="http://www.pneumaxspa.com">http://www.pneumaxspa.com</a>
	IP protection grade	IP65 when assembled
	Temperature range	From -0° to +50° C



Manifold layout configuration complete with DeviceNet® node



**BUS CONFIGURATION :**

DA= DeviceNet® 32 OUT  
 DB= DeviceNet® 32 OUT plus 8 INPUTS  
 DC= DeviceNet® 32 OUT plus 16 INPUTS  
 DD= DeviceNet® 32 OUT plus 24 INPUTS  
 DE= DeviceNet® 32 OUT plus 32 INPUTS

**ENDPLATES SELECTION:**

A= 37 poles - external feeding left endplate plus closed right endplate  
 B= 37 poles - self feeding left endplate plus closed right endplate  
 C= 37 poles - external feeding left endplate plus closed right endplate 25 poles OUT  
 C1= 37 poles - external feeding left endplate plus closed right endplate 25 poles OUT plus 1 I/O module  
 C2= 37 poles - external feeding left endplate plus closed right endplate 25 poles OUT plus 2 I/O modules  
 D= 37 poles - self feeding left endplate plus closed right endplate 25 poles OUT  
 D1= 37 poles - self feeding left endplate plus closed right endplate 25 poles OUT plus 1 I/O module  
 D2= 37 poles - self feeding left endplate plus closed right endplate 25 poles OUT plus 2 I/O modules

**SHORT CODE FUNCTION / CONNECTION :**

A1= 5/2 SOL.-SPRING + BASE TYPE 1 (1 electrical signal occupied)  
 A2= 5/2 SOL.-SPRING + BASE TYPE 2 (2 electrical signals occupied)  
 B1= 5/2 SOL.-DIFFERENTIAL + BASE TYPE 1 (1 electrical signal occupied)  
 B2= 5/2 SOL.-DIFFERENTIAL + BASE TYPE 2 (2 electrical signals occupied)  
 C2= 5/2 SOL.-SOL. + BASE TYPE 2 (2 electrical signals occupied)  
 E2= 5/3 CC SOL.-SOL. + BASE TYPE 2 (2 electrical signals occupied)  
 F2= 2x3/2 NC-NC (= 5/3 OC) SOL.-SOL. + BASE TYPE 2 (2 electrical signals occupied)  
 G2= 2x3/2 NO-NO (= 5/3 PC) SOL.-SOL. + BASE TYPE 2 (2 electrical signals occupied)  
 H2= 2x3/2 NC-NO SOL.-SOL. + BASE TYPE 2 (2 electrical signals occupied)

T1= FREE VALVE SPACE PLUG + BASE x MONOSTABLE VALVE  
 T2= FREE VALVE SPACE PLUG + BASE x BISTABLE VALVE

W= INTERMEDIATE SUPPLY & EXHAUST MODULE

U4= POWER SUPPLY MODULE 4 POSITIONS

X= DIAPHRAGM PLUG ON PIPE 1  
 Y= DIAPHRAGM PLUG ON PIPE 3  
 Z= DIAPHRAGM PLUG ON PIPE 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 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 example : 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.

**General:**

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

Optyma-F 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 5225.08F.

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 mantaining 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.

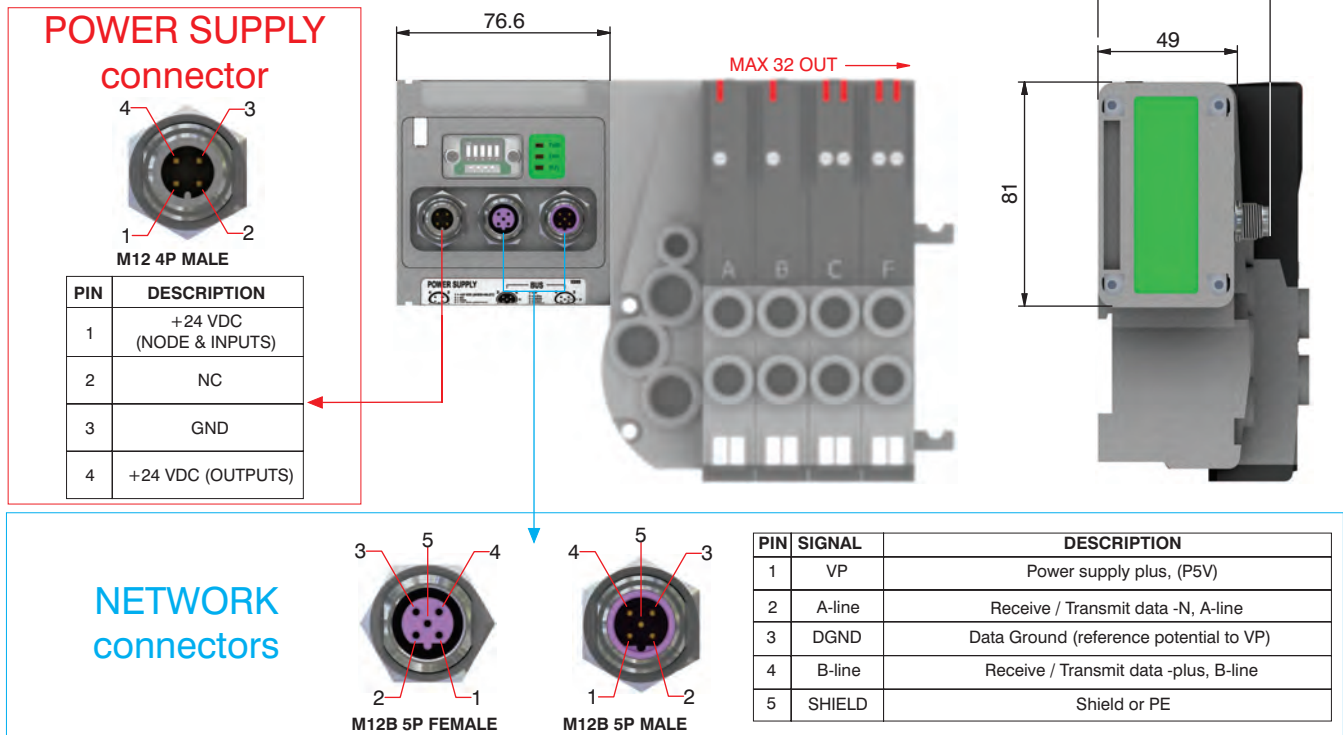
The module includes an internal terminating resistance that can be activated by a dip-switch.

**Ordering code**

**5325.32F**



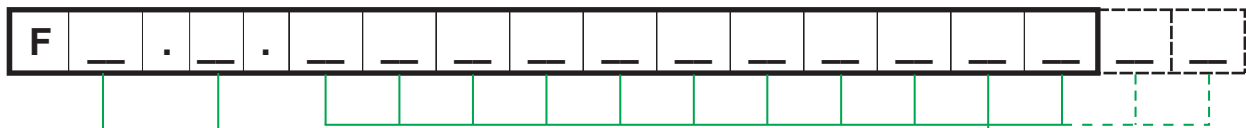
**Scheme / Overall dimensions and I/O layout :**



**Technical characteristics**

Model	5325.32F	
Specifications	PROFIBUS DP	
Case	Reinforced technopolymer	
<b>Power supply</b>	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
<b>Outputs</b>	PNP equivalent outputs	+24 VDC +/- 10%
	Maximum current for output	100 mA
	Maximum output number	32
	Max output simultaneously actuated	32
<b>Network</b>	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: <a href="http://www.pneumaxspa.com">http://www.pneumaxspa.com</a>
	IP protection grade	IP65 when assembled
	Temperature range	From -0° to +50° C

Manifold layout configuration complete with PROFIBUS node



**BUS CONFIGURATION :**

PA= PROFIBUS 32 OUT  
PB= PROFIBUS 32 OUT plus 8 INPUTS  
PC= PROFIBUS 32 OUT plus 16 INPUTS  
PD= PROFIBUS 32 OUT plus 24 INPUTS  
PE= PROFIBUS 32 OUT plus 32 INPUTS

**ENDPLATES SELECTION:**

A= 37 poles - external feeding left endplate plus closed right endplate  
B= 37 poles - self feeding left endplate plus closed right endplate  
C= 37 poles - external feeding left endplate plus closed right endplate 25 poles OUT  
C1= 37 poles - external feeding left endplate plus closed right endplate 25 poles OUT plus 1 I/O module  
C2= 37 poles - external feeding left endplate plus closed right endplate 25 poles OUT plus 2 I/O modules  
D= 37 poles - self feeding left endplate plus closed right endplate 25 poles OUT  
D1= 37 poles - self feeding left endplate plus closed right endplate 25 poles OUT plus 1 I/O module  
D2= 37 poles - self feeding left endplate plus closed right endplate 25 poles OUT plus 2 I/O modules

**SHORT CODE FUNCTION / CONNECTION :**

A1= 5/2 SOL.-SPRING + BASE TYPE 1 (1 electrical signal occupied)  
A2= 5/2 SOL.-SPRING + BASE TYPE 2 (2 electrical signals occupied)  
B1= 5/2 SOL.-DIFFERENTIAL + BASE TYPE 1 (1 electrical signal occupied)  
B2= 5/2 SOL.-DIFFERENTIAL + BASE TYPE 2 (2 electrical signals occupied)  
C2= 5/2 SOL.-SOL. + BASE TYPE 2 (2 electrical signals occupied)  
E2= 5/3 CC SOL.-SOL. + BASE TYPE 2 (2 electrical signals occupied)  
F2= 2x3/2 NC-NC (= 5/3 OC) SOL.-SOL. + BASE TYPE 2 (2 electrical signals occupied)  
G2= 2x3/2 NO-NO (= 5/3 PC) SOL.-SOL. + BASE TYPE 2 (2 electrical signals occupied)  
H2= 2x3/2 NC-NO SOL.-SOL. + BASE TYPE 2 (2 electrical signals occupied)

T1= FREE VALVE SPACE PLUG + BASE x MONOSTABLE VALVE  
T2= FREE VALVE SPACE PLUG + BASE x BISTABLE VALVE

W= INTERMEDIATE SUPPLY & EXHAUST MODULE

U4= POWER SUPPLY MODULE 4 POSITIONS

X= DIAPHRAGM PLUG ON PIPE 1  
Y= DIAPHRAGM PLUG ON PIPE 3  
Z= DIAPHRAGM PLUG ON PIPE 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 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 example : 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.

**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 200 mA.

Each module includes a 200 mA resettable fuse. If a short circuit or a overcharge (overall current  $>200\text{mA}$ ) 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 light up indicating the ON state and the node will re-start to operate.

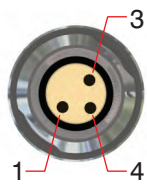
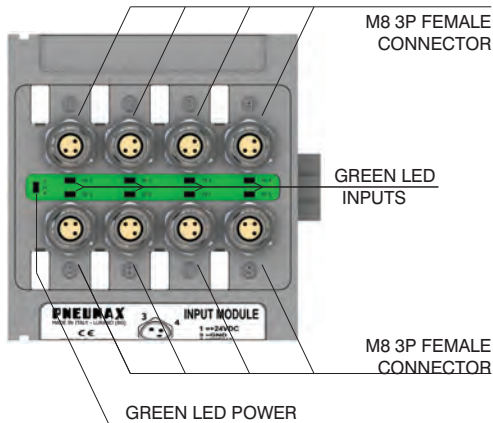
The maximum number of Input modules supported is 4.

**Ordering code**

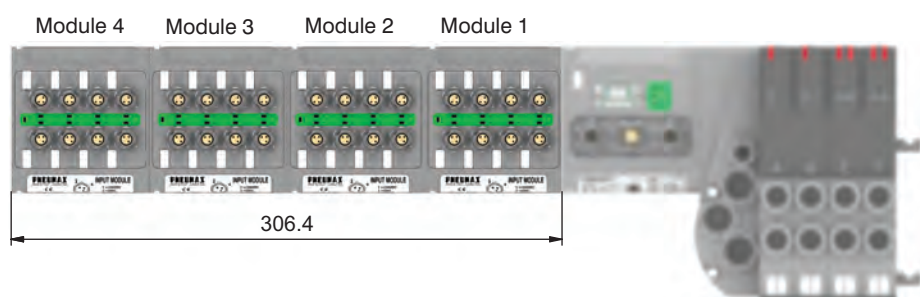
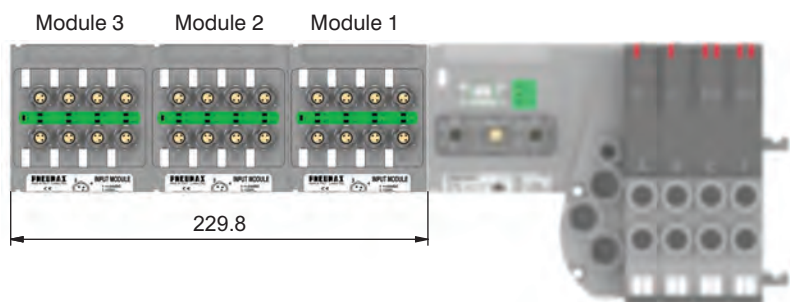
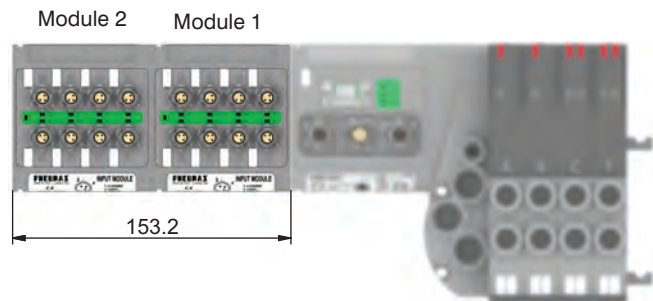
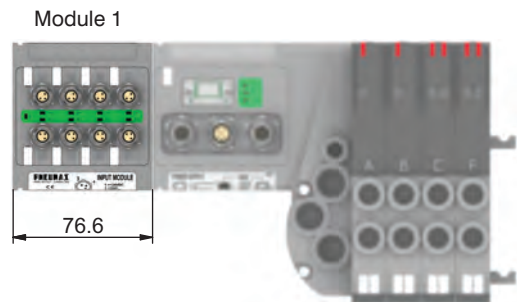
**5225.08F**



**Scheme / Overall dimensions and I/O layout :**



PIN	DESCRIPTION
1	+24 VDC
4	INPUT
3	GND



Socket for Power Supply  
STRAIGHT CONNECTOR  
M12A 4P FEMALE

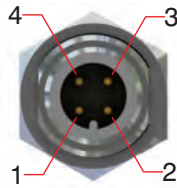
Ordering code

5312A.F04.00



**POWER SUPPLY connector**

Upper view  
Slave connector

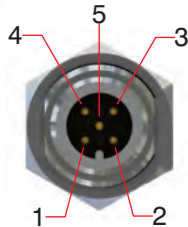


PIN	DESCRIPTION
1	+24 VDC Node
2	
3	0 V
4	+24 VDC Outputs

Socket for Bus CANopen  
STRAIGHT CONNECTOR  
M12A 5P FEMALE

Ordering code

5312A.F05.00



**NETWORK connectors**

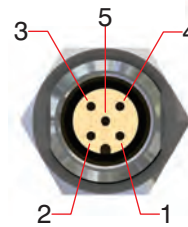
PIN	DESCRIPTION
1	(CAN_SHIELD)
2	(CAN_V+)
3	CAN_GND
4	CAN_H
5	CAN_L

Upper view  
Slave connector

Plug for Bus CANopen  
STRAIGHT CONNECTOR  
M12A 5P MALE

Ordering code

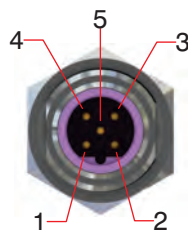
5312A.M05.00



Socket for Bus PROFIBUS  
STRAIGHT CONNECTOR  
M12B 5P FEMALE

Ordering code

5312B.F05.00



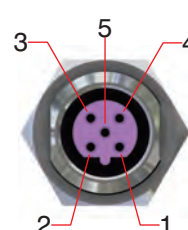
PIN	DESCRIPTION
1	Power Supply
2	A-line
3	DGND
4	B-line
5	SHIELD

Upper view  
Slave connector

Plug for Bus PROFIBUS  
STRAIGHT CONNECTOR  
M12B 5P MALE

Ordering code

5312B.M05.00



Plug for Input module  
STRAIGHT CONNECTOR  
M8 3P MALE

Ordering code

5308A.M03.00



**INPUT connectors**

Upper view  
Slave connector



PIN	DESCRIPTION
1	+24 VDC
4	INPUT
3	GND

M12 plug

Ordering code

5300.T12



Plugs

M8 plug

Ordering code

5300.T08



2