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.
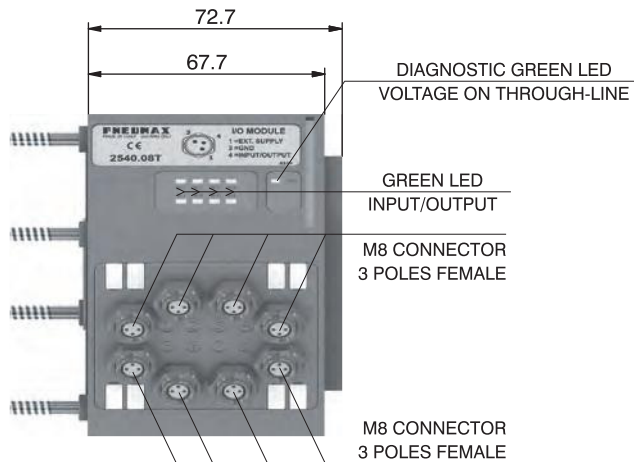The I/O modules can accept input or output signals, depending upon what is connected.

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.

Ordering code

2540.08T

Overall dimensions and I/O layout :

72.7
67.7

DIAGNOSTIC GREEN LED
VOLTAGE ON THROUGH-LINE

GREEN LED
INPUT/OUTPUT

M8 CONNECTOR
3 POLES FEMALE

M8 CONNECTOR
3 POLES FEMALE

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)
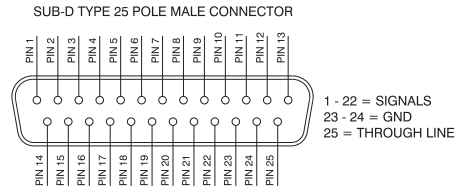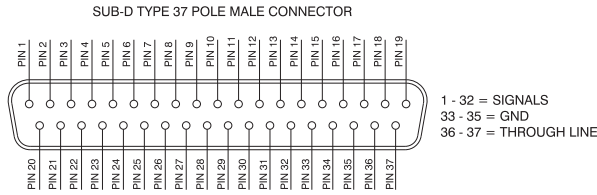
Output features:

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).

	Model	2540.08T
General Characteristics	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

CORRESPONDENCE BETWEEN MULTI-POLE SIGNAL AND CONNECTOR

SUB-D TYPE 37 POLE MALE CONNECTOR

PIN 1 PIN 2 PIN 3 PIN 4 PIN 5 PIN 6 PIN 7 PIN 8 PIN 9 PIN 10 PIN 11 PIN 12 PIN 13 PIN 14 PIN 15 PIN 16 PIN 17 PIN 18 PIN 19

PIN 20 PIN 21 PIN 22 PIN 23 PIN 24 PIN 25 PIN 26 PIN 27 PIN 28 PIN 29 PIN 30 PIN 31 PIN 32 PIN 33 PIN 34 PIN 35 PIN 36 PIN 37

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

SUB-D TYPE 25 POLE MALE CONNECTOR

PIN 1 PIN 2 PIN 3 PIN 4 PIN 5 PIN 6 PIN 7 PIN 8 PIN 9 PIN 10 PIN 11 PIN 12 PIN 13

PIN 14 PIN 15 PIN 16 PIN 17 PIN 18 PIN 19 PIN 20 PIN 21 PIN 22 PIN 23 PIN 24 PIN 25

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:

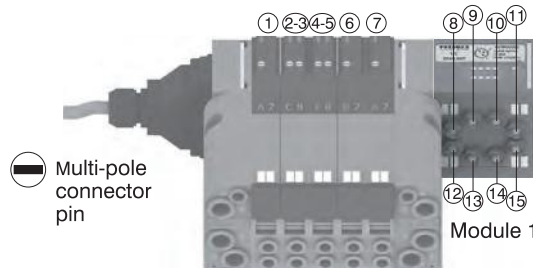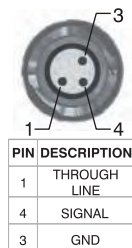**Attention:** Voltage applied to each connector is passed to multi-pole connector pin.
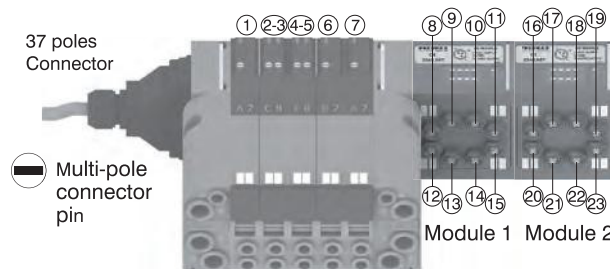
M8 connector used as Output:

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.
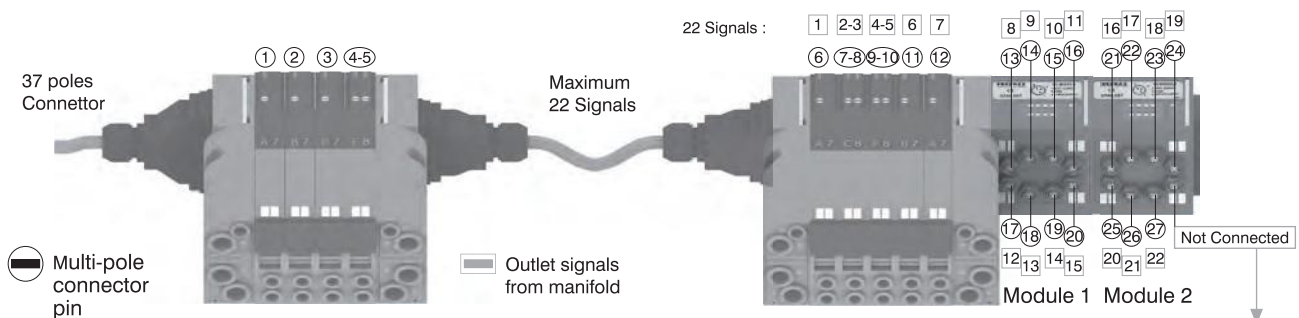
PIN	DESCRIPTION
1	THROUGH LINE
4	SIGNAL
3	GND

Multi-pole connector pin

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

Module 1

37 poles Connector

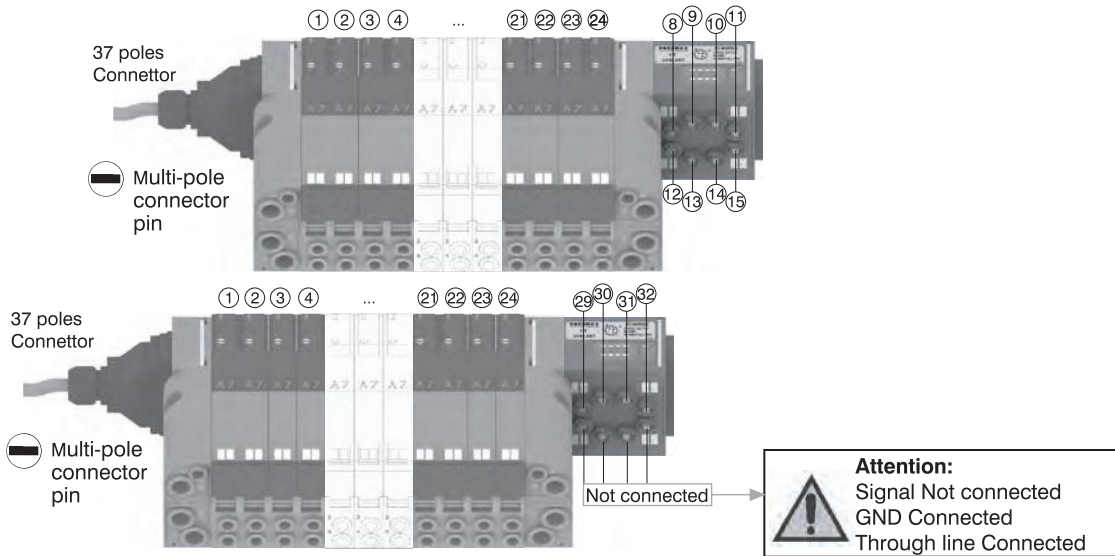Multi-pole connector pin

Attention:
No more additions
are possible

Module 1 Module 2

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.
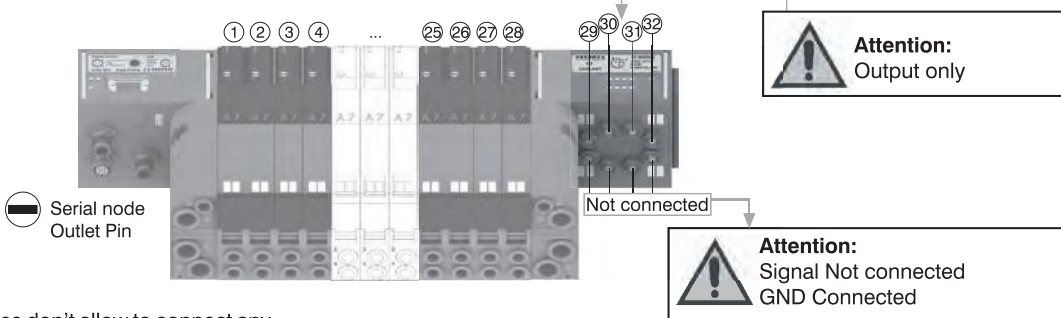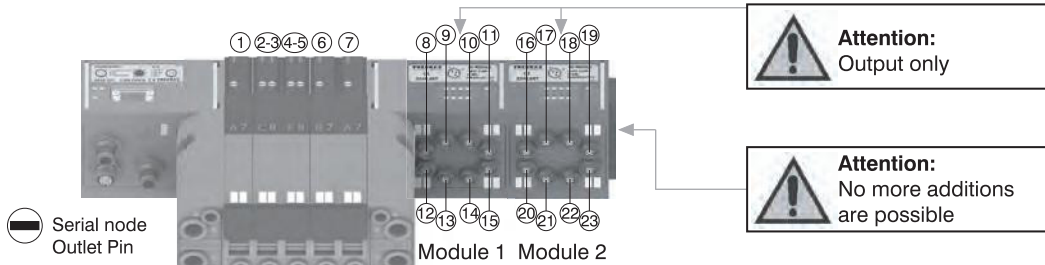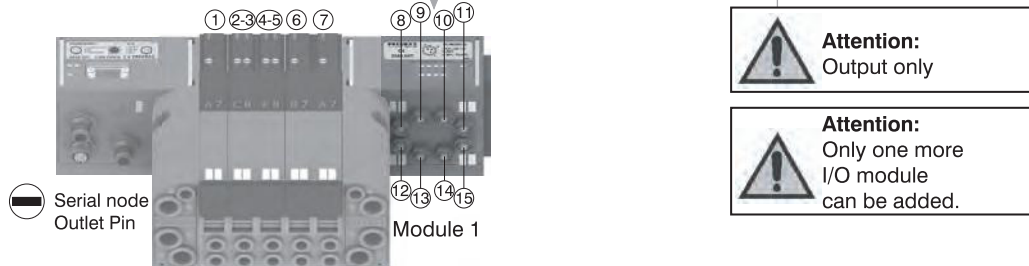
37 poles Connettor

Maximum 22 Signals

22 Signals :

Multi-pole connector pin

Outlet signals from manifold

Not Connected

Module 1 Module 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.

37 poles Connettor

Multi-pole connector pin

37 poles Connettor

Multi-pole connector pin

Not connected

Attention:
Signal Not connected
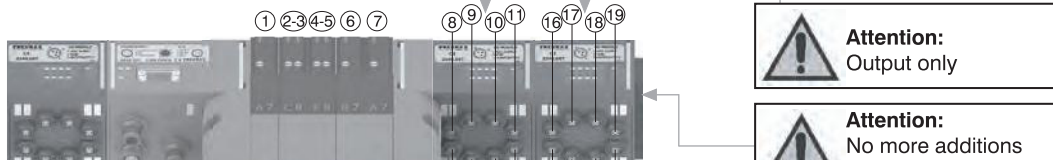GND Connected
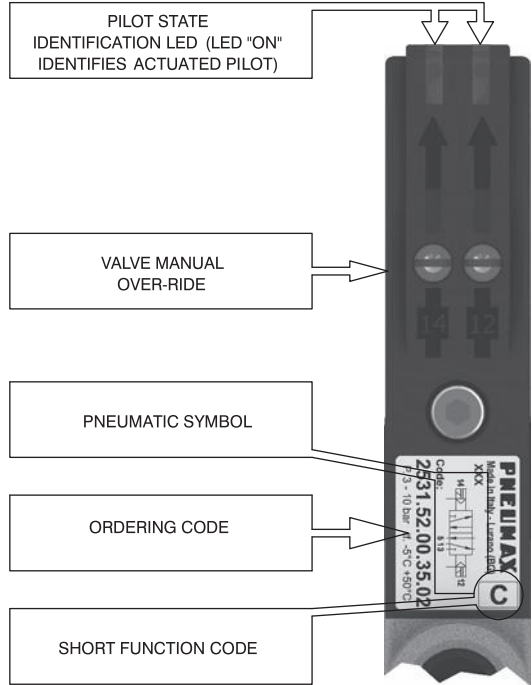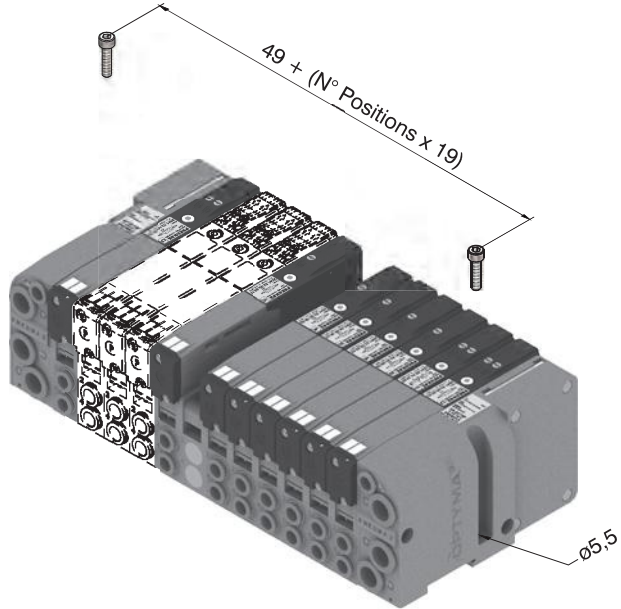Through line Connected

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

Serial node Outlet Pin

Module 1

Attention:
Output only

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

Serial node Outlet Pin

Module 1   Module 2

Attention:
Output only

Attention:
No more additions are possible

Serial node Outlet Pin

Not connected

Attention:
Output only

Attention:
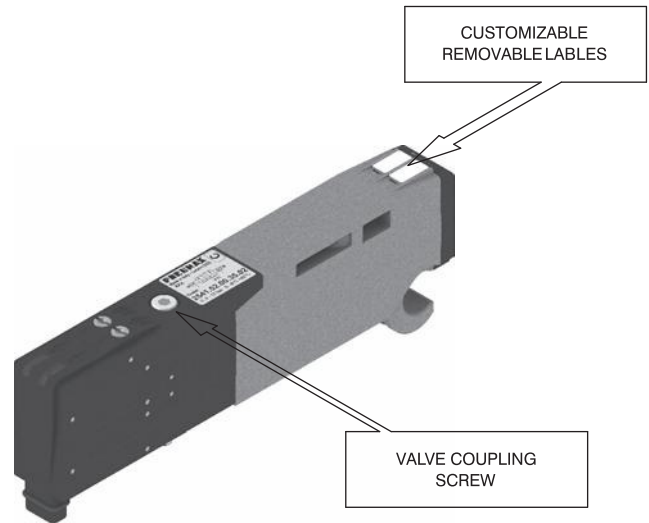Signal Not connected
GND Connected

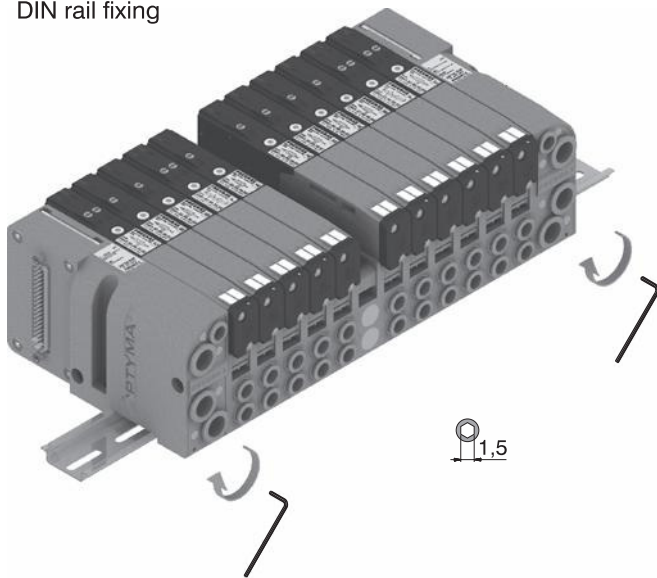**Please note:** I/O modules don't allow to connect any additional valves manifold after them.

Attention:
Output only

Attention:
No more additions

From the top

49 + (N° Positions x 19)

ø5,5

PILOT STATE
IDENTIFICATION LED (LED "ON"
IDENTIFIES ACTUATED PILOT)

VALVE MANUAL
OVER-RIDE

PNEUMATIC SYMBOL

ORDERING CODE

SHORT FUNCTION CODE

DIN rail fixing

1,5

CUSTOMIZABLE
REMOVABLE LABLES

VALVE COUPLING
SCREW

Maximum possible size according to valves seats

64 + (N° Positions x 19)

VALVE SUPPLY PORTS - CONNECTIONS 1 - T12

PILOT SUPPLY PORT
CONNECTION 12/14 - T8

PILOT EXHAUST PORTS
CONNECTION 82/84 - T8

PNEUMAX

PNEUMAX

2

2
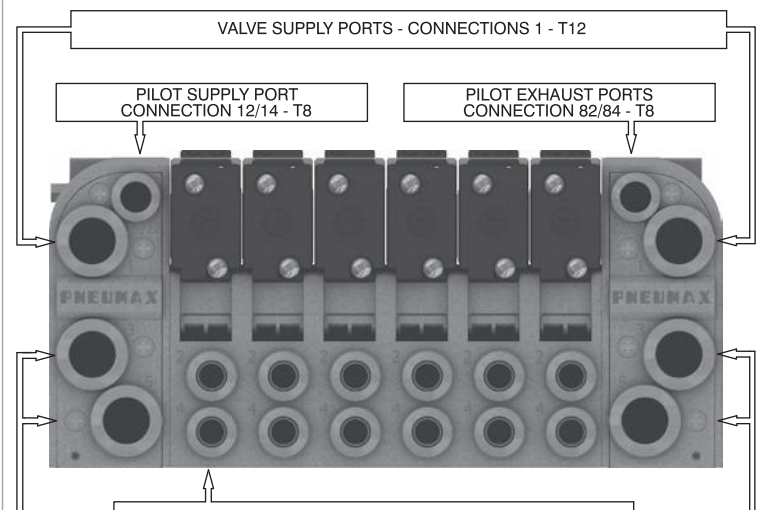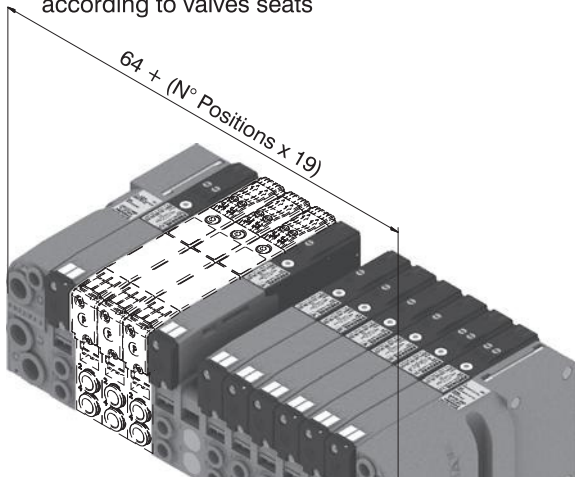
Manual override actuation
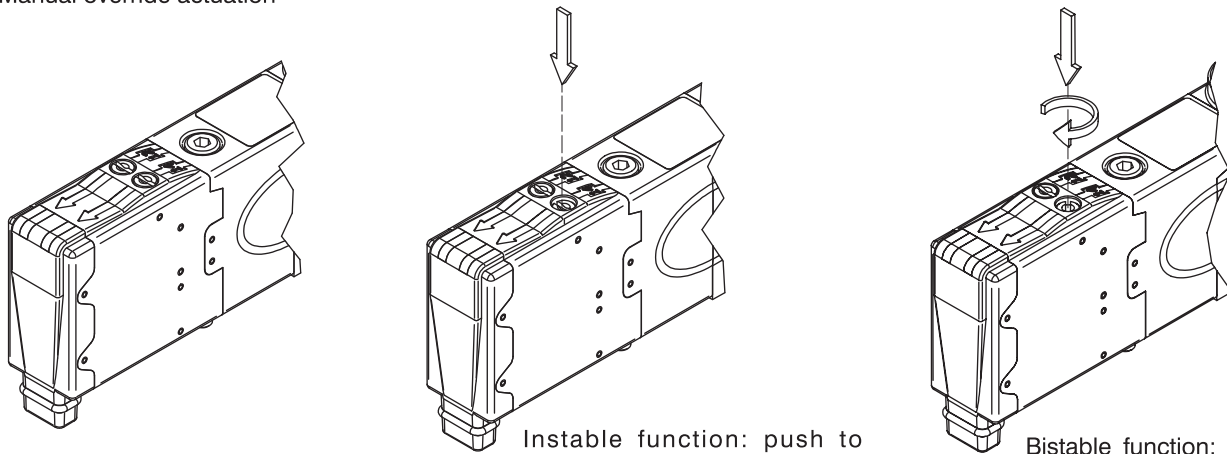
Instable function: push to actuate (when released it moves back to the original position).
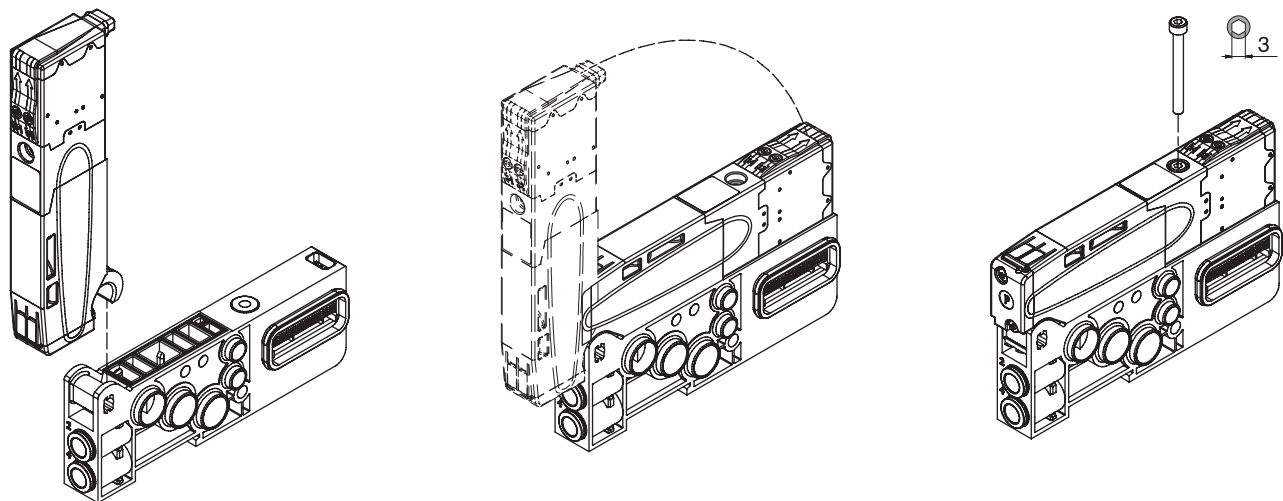
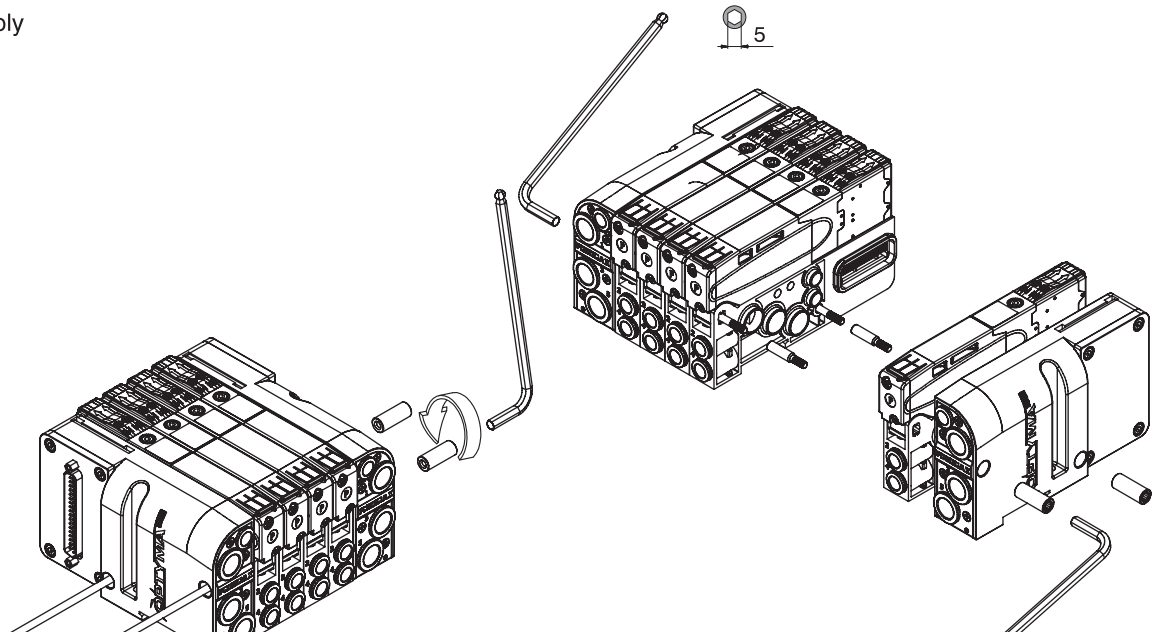Bistable function: push and turn to get the bistable function

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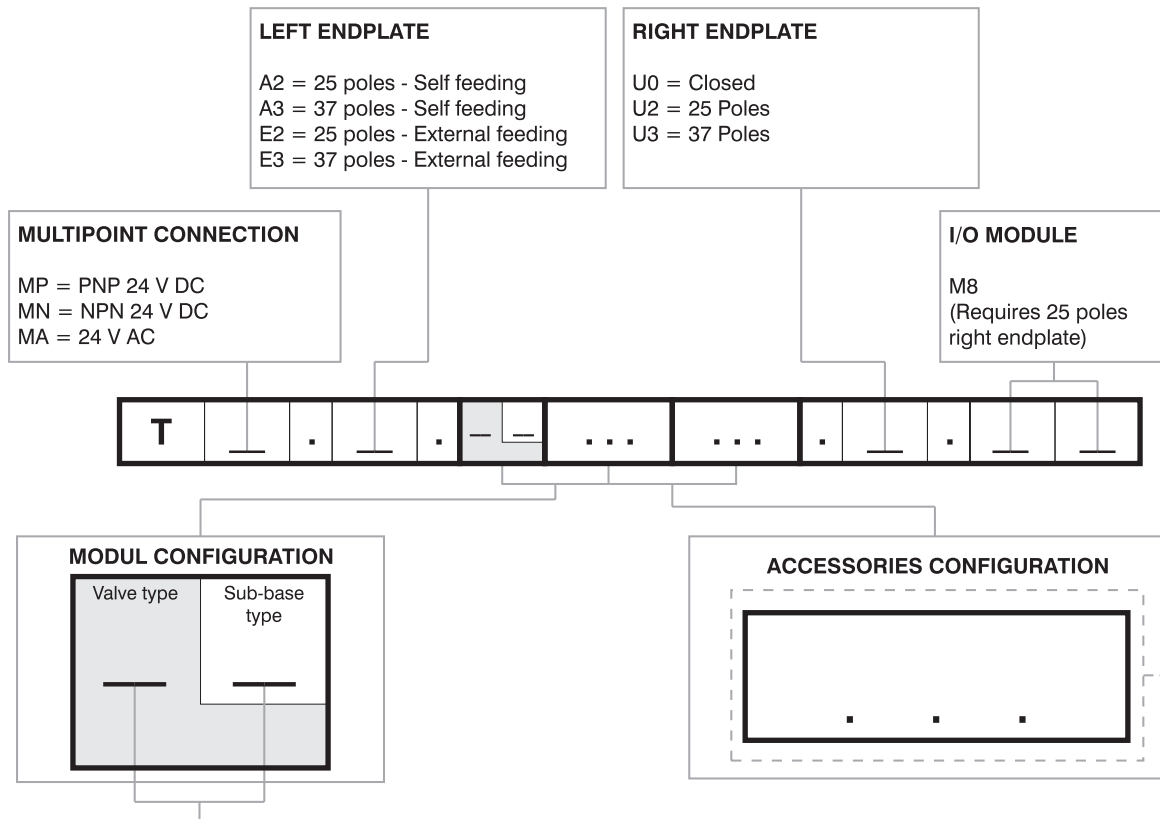
Valve Installation

3

NOTE: Torque moment 1 Nm

Manifold assembly

5

Manifold Layout configuration

LEFT ENDPLATE

A2 = 25 poles - Self feeding
A3 = 37 poles - Self feeding
E2 = 25 poles - External feeding
E3 = 37 poles - External feeding

RIGHT ENDPLATE

U0 = Closed
U2 = 25 Poles
U3 = 37 Poles

MULTIPOINT CONNECTION

MP = PNP 24 V DC
MN = NPN 24 V DC
MA = 24 V AC

I/O MODULE

M8
(Requires 25 poles
right endplate)

| T | ⎽ | . | ⎽ | . | ⎽ ⎽ | ... | ... | . | ⎽ | . | ⎽ | ⎽ |

MODUL CONFIGURATION

Valve type	Sub-base type
⎽	⎽

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).

ACCESSORIES

U2 = Power supply
         2 positions module
U4 = Power supply
         4 positions module
W = Intermediate supply
         & exhaust module
X = Diaphragm plug
         on pipe 1

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

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 or a max number of 4 Input modules 5225.12T.
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.
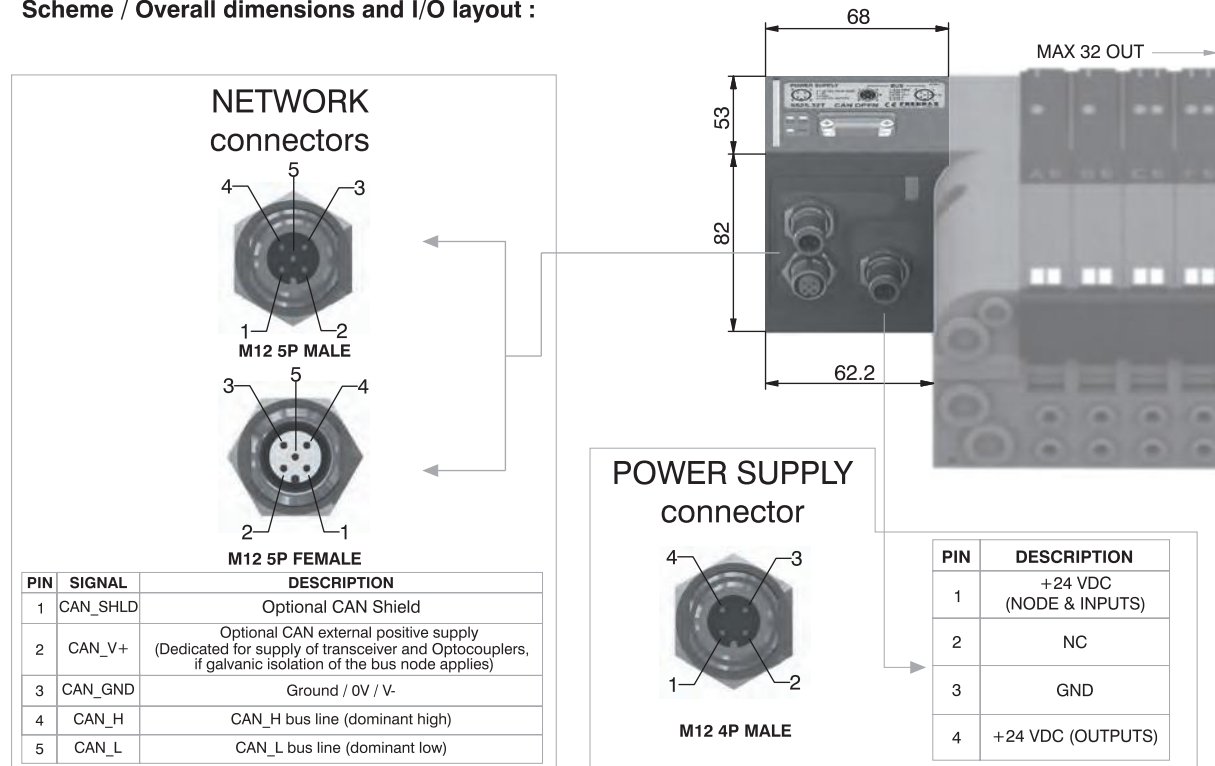
Ordering code

5525.32T

Scheme / Overall dimensions and I/O layout :

NETWORK connectors

M12 5P MALE

M12 5P FEMALE

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)

68

53

82

62.2

MAX 32 OUT

POWER SUPPLY connector

M12 4P MALE

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

Technical characteristics

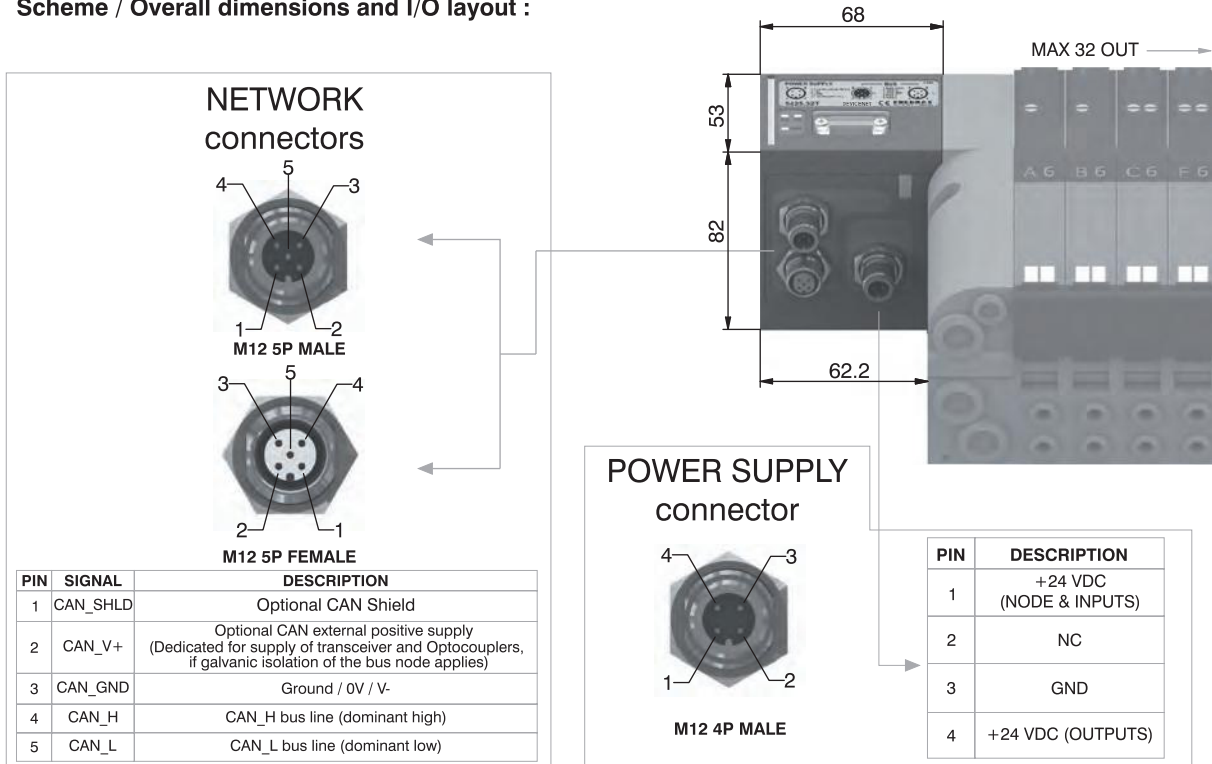|		
	Model	5525.32T
	Specifications	CiA Draft Standard Proposal 301 V 4.10 (15 August 2006)
	Case	Reinforced technopolymer
Power supply	Power supply connection	M12 4P male connector (IEC 60947-5-2)
	Power supply voltage	+24 VDC +/- 10%
	Node consumption (without inputs)	30 mA
	Power supply diagnosis	Green LED PWR
Outputs	PNP equivalent outputs	+24 VDC +/- 10%
	Maximum current for each output	100 mA
	Maximum output number	32
	Max output simultaneously actuated	32
Network	Network connectors	2 M12 5P connectors male-female Type A (IEC 60947-5-2)
	Baud rate	10 - 20 - 50 - 125 - 250 - 500 - 800 - 1000 Kbit/s
	Addresses, possible numbers	From 1 to 63
	Max nodes in net	64 (slave + master)
	Bus maximum recommended length	100 m at 500 Kbit/s

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 or a max number of 4 Input modules 5225.12T.
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

Scheme / Overall dimensions and I/O layout :

NETWORK connectors

M12 5P MALE

M12 5P FEMALE

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)

68

53

82

62.2

MAX 32 OUT

POWER SUPPLY connector

M12 4P MALE

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

	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 each output	100 mA
	Maximum output number	32
	Max output simultaneously actuated	32
Network	Network connectors	2 M12 5P connectors male-female Type A (IEC 60947-5-2)
	Baud rate	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

Technical characteristics

2

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 5225.08T or a max number of 8 Input modules 5225.12T.
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.
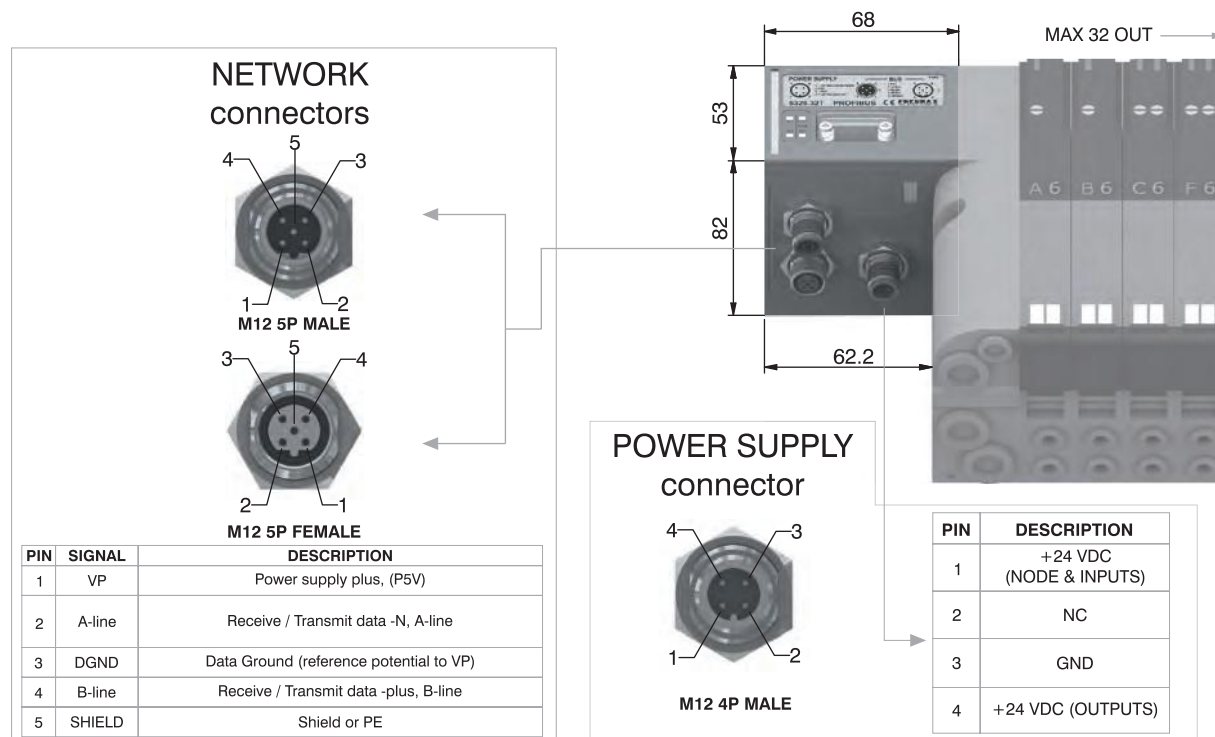The module includes an internal terminating resistance that can be activated by 2 dip-switches.

Ordering code

5325.32T

Scheme / Overall dimensions and I/O layout :

NETWORK connectors

M12 5P MALE

M12 5P FEMALE

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

POWER SUPPLY connector

M12 4P MALE

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

68

53

82

62.2

MAX 32 OUT

A 6   B 6   C 6   F 6

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 each output	100 mA
	Maximum output number	32
	Max output simultaneously actuated	32
Network	Network connectors	2 M12 5P male-female connectors Type B
	Baud rate	9,6 - 19,2 - 93,75 - 187,5 - 500 - 1500 - 3000 - 6000 - 12000 Kbit/s
	Addresses, possible numbers	From 1 to 99
	Max nodes in net	100 (slave + master)
	Bus maximum recommended length	100 m at 12 Mbit/s - 1200 m at 9,6 Kbit/s

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 or a max number of 4 Input modules 5225.12T.
The EtherCAT® module, regardless the number of Input module connected, reports to have connected 4 Input modules.
Regardless of the number of Input modules connected, the managable solenoid valves are 32.
Node power supply is made by a M12 4P male circular connector.
The separation between node 24 VDC Power supply and outputs 24 VDC allows to switch off the outputs maintaining powered the node and inputs, if present.
Connection to Bus EtherCAT® is possible via 2 M12 4P type D female circular connectors. These two connectors lead the signal to two different communication ports, so they are not connected in parallel.
The node address is assigned during configuration.
Note: 5700 series has a different configuration file from series 5600.

Ordering code

5725.32T.EC

Scheme / Overall dimensions and I/O layout :

NETWORK connectors

M12 4P FEMALE

M12 4P FEMALE

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

POWER SUPPLY connector

M12 4P MALE

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

MAX 32 OUT

68 / 53 / 82 / 62.2
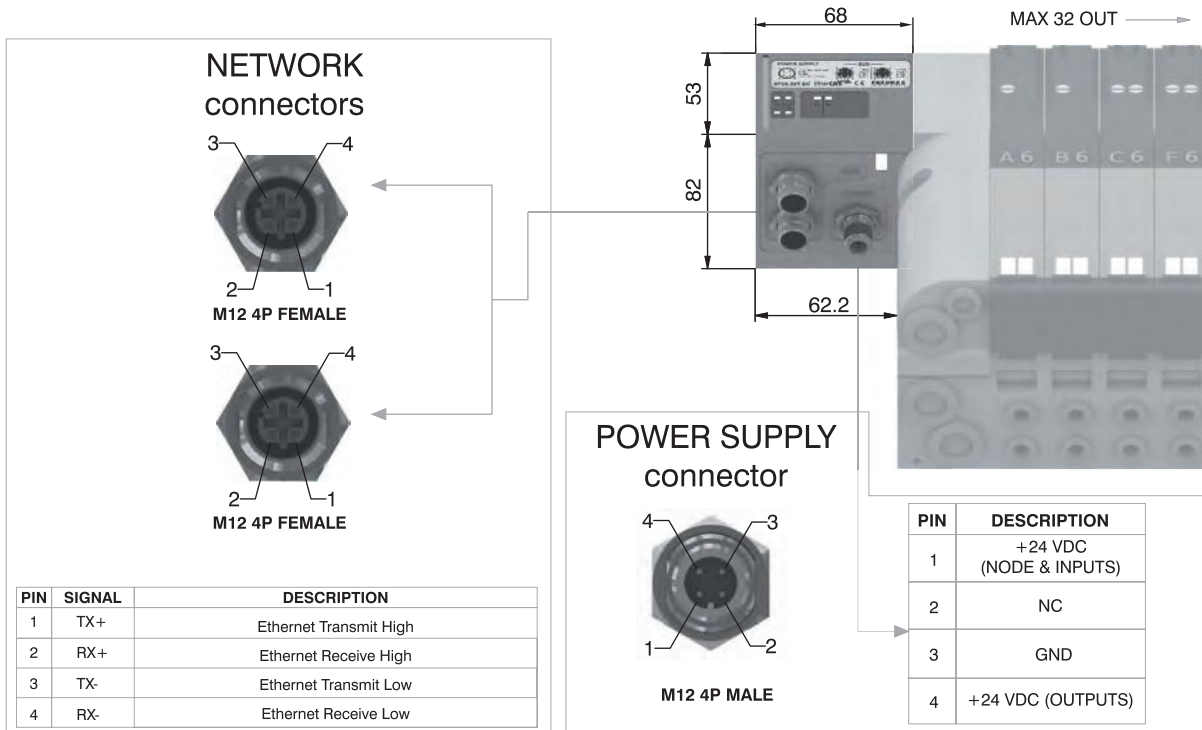
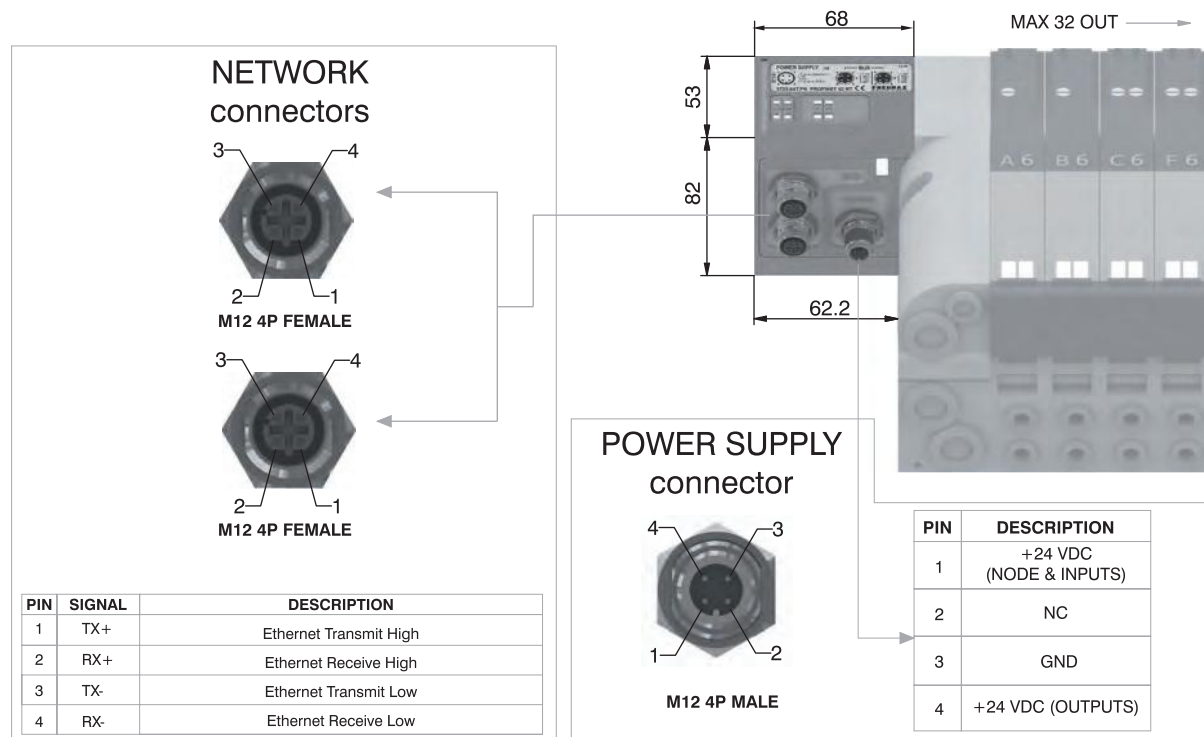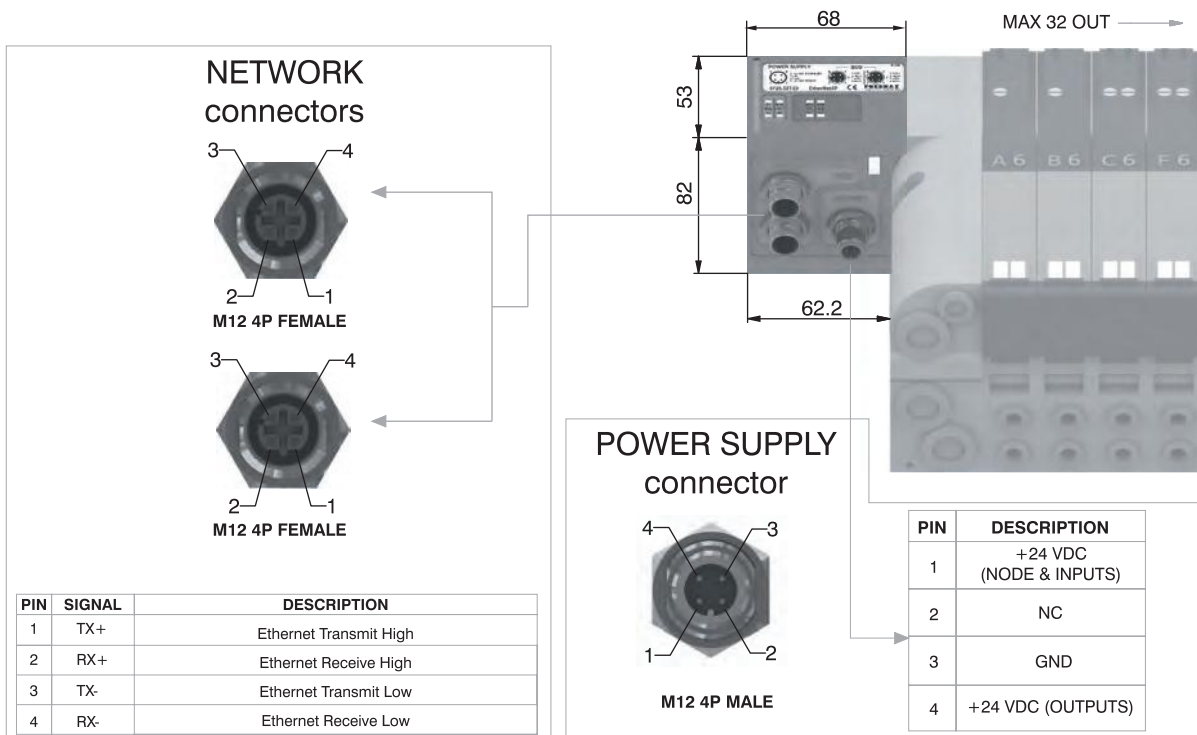|	Model	5725.32T.EC
	Specifications	EtherCAT® Specifications ETG.1000 series
	Case	Reinforced technopolymer
Power supply	Power supply connection	M12 4P male connector (IEC 60947-5-2)
	Power supply voltage	+24 VDC +/- 10%
	Node consumption (without inputs)	400 mA
	Power supply diagnosis	Green LEDPWR / Green LED OUT
Outputs	PNP equivalent outputs	+24 VDC +/- 10%
	Maximum current for each output	100 mA
	Maximum output number	32
	Max output simultaneously actuated	32
Network	Network connectors	2 M12 4P female connectors Type D (IEC 61076-2-101)
	Baud rate	100 Mbit/s
	Addresses, possible numbers	From 1 to 65535
	Max nodes in net	65536 (Master + Slave)
	Maximum distance between 2 nodes	100 m

Technical characteristics

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 5225.08T or a max number of 8 Input modules 5225.12T.
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 :

NETWORK connectors

M12 4P FEMALE

M12 4P FEMALE

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

68
53
82
62.2
MAX 32 OUT

POWER SUPPLY connector

M12 4P MALE

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

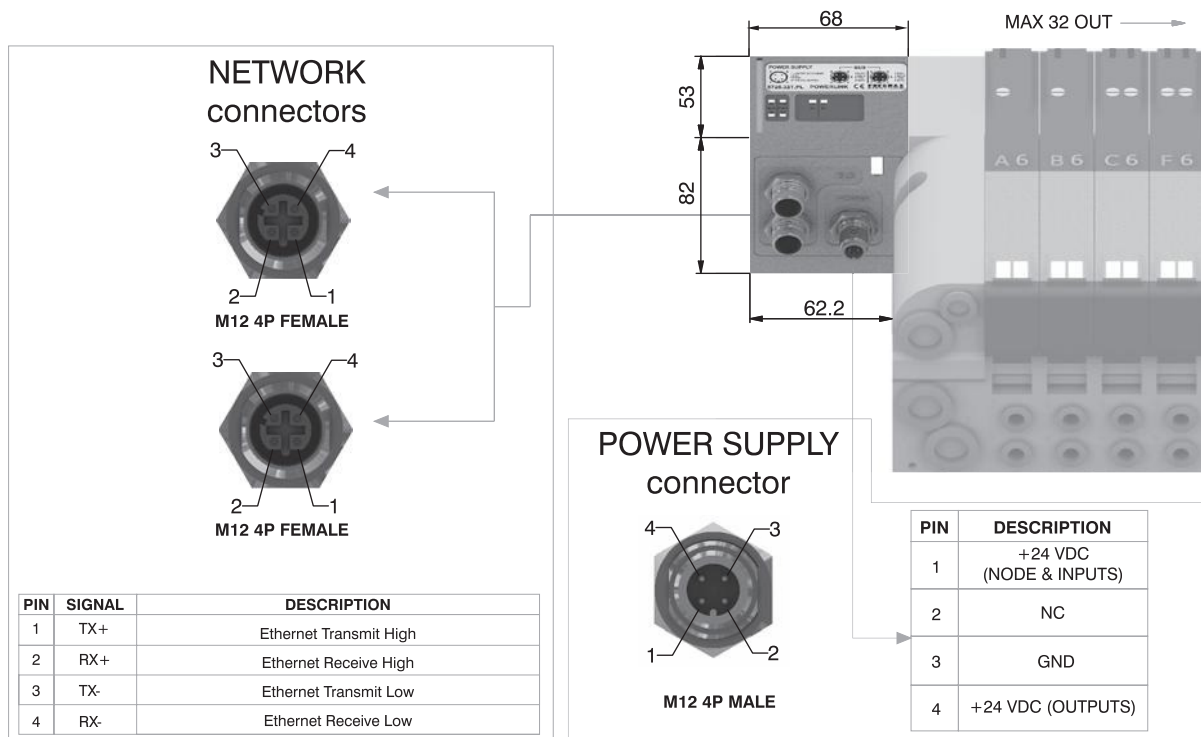|		
	Model	5725.32T.PN
	Specifications	PROFINET IO RT/IRT
	Case	Reinforced technopolymer
Power supply	Power supply connection	M12 4P male connector (IEC 60947-5-2)
	Power supply voltage	+24 VDC +/- 10%
	Node consumption (without inputs)	400 mA
	Power supply diagnosis	Green LED PWR / Green LED OUT
Outputs	PNP equivalent outputs	+24 VDC +/- 10%
	Maximum current for each output	100 mA
	Maximum output number	32
	Max output simultaneously actuated	32
Network	Network connectors	2 M12 4P female connectors Type D (IEC 61076-2-101)
	Baud rate	100 Mbit/s
	Addresses, possible numbers	As an IP address
	Max nodes in net	As an Ethernet Network
	Maximum distance between 2 nodes	100 m

Technical characteristics

2

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 5225.08T or a max number of 8 Input modules 5225.12T.
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 :

NETWORK connectors

M12 4P FEMALE

M12 4P FEMALE

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

POWER SUPPLY connector

M12 4P MALE

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

MAX 32 OUT

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 inputs)	400 mA
	Power supply diagnosis	Green LED PWR / Green LED OUT
Outputs	PNP equivalent outputs	+24 VDC +/- 10%
	Maximum current for each output	100 mA
	Maximum output number	32
	Max output simultaneously actuated	32
Network	Network connectors	2 M12 4P female connectors Type D (IEC 61076-2-101)
	Baud rate	100 Mbit/s
	Addresses, possible numbers	As an IP address
	Max nodes in net	As an Ethernet Network
	Maximum distance between 2 nodes	100 m

2

General :

Powerlink 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 5225.08T or a max number of 8 Input modules 5225.12T.
The Powerlink module, regardless the number of Input module connected, reports to have connected 8 Input modules.
Regardless of the number of Input modules connected, the 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 Powerlink is possible via 2 M12 4P type D female circular connectors. These two connectors lead the signal to two different communication ports, so they are not connected in parallel.
The node address is assigned during configuration.

Ordering code

5725.32T.PL

Scheme / Overall dimensions and I/O layout :

NETWORK connectors

M12 4P FEMALE

M12 4P FEMALE

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

MAX 32 OUT

68
53
82
62.2

A 6   B 6   C 6   F 6

POWER SUPPLY connector

M12 4P MALE

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

Technical characteristics

	Model	5725.32T.PL
	Specifications	Ethernet POWERLINK Communication Profile Specifications
	Case	Reinforced technopolymer
Power supply	Power supply connection	M12 4P male connector (IEC 60947-5-2)
	Power supply voltage	+24 VDC +/- 10%
	Node consumption (without inputs)	400 mA
	Power supply diagnosis	Green LED PWR / Green LED OUT
Outputs	PNP equivalent outputs	+24 VDC +/- 10%
	Maximum current for each output	100 mA
	Maximum output number	32
	Max output simultaneously actuated	32
Network	Network connectors	2 M12 4P female connectors Type D (IEC 61076-2-101)
	Baud rate	100 Mbit/s
	Addresses, possible numbers	239
	Max nodes in net	240
	Maximum distance between 2 nodes	100 m

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 300 mA.
Each module includes a 300 mA self-mending fuse. If a short circuit or a overcharge (overall current >300mA) occur the safety device acts cutting the 24 VDC power supply to all M8 connectors on the module and switching off the green led PWR. Any other Input module connected to the node will remain powered and will function correctly.
Once the cause of the fault disappears the green LED PWR lights up indicating the ON state and the node will re-start to operate.
The maximum number of Input modules supported is 4 for CANopen®, DeviceNet and EtherCAT®.
The maximum number of Input modules supported is 8 for PROFIBUS DP, PROFINET IO RT/IRT EtherNet/IP and Powerlink.

Ordering code

5225.08T

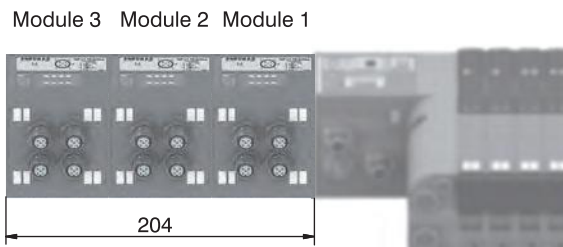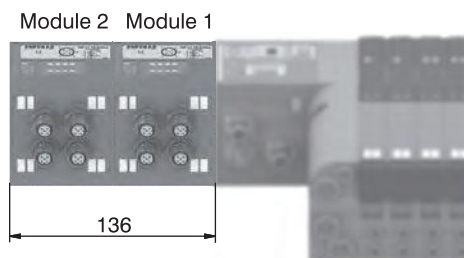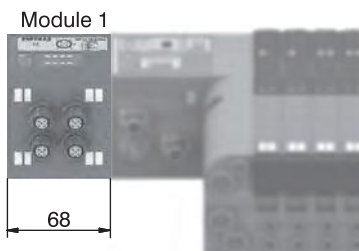## Scheme / Overall dimensions and I/O layout :

GREEN LED INPUTS

M8 3P FEMALE CONNECTOR

GREEN LED POWER

M8 3P FEMALE CONNECTOR

PIN	DESCRIPTION
1	+24 VDC
4	INPUT
3	GND

Module 1

68

Module 2   Module 1

136

Module 3   Module 2   Module 1

204

Module 8   ...   Module 4   Module 3   Module 2   Module 1

2
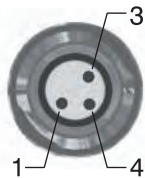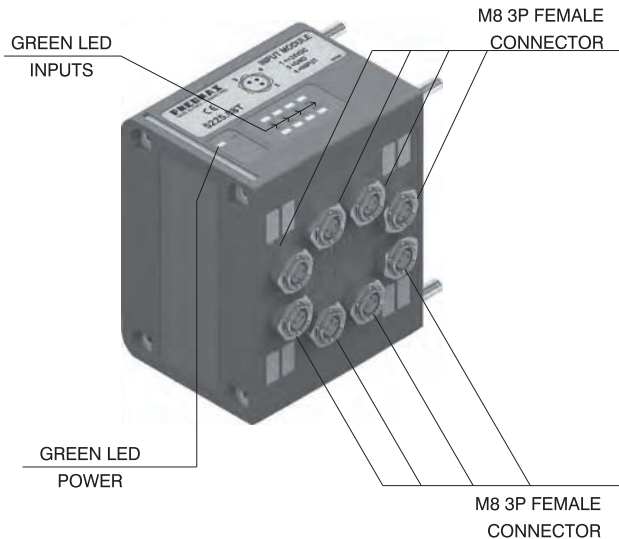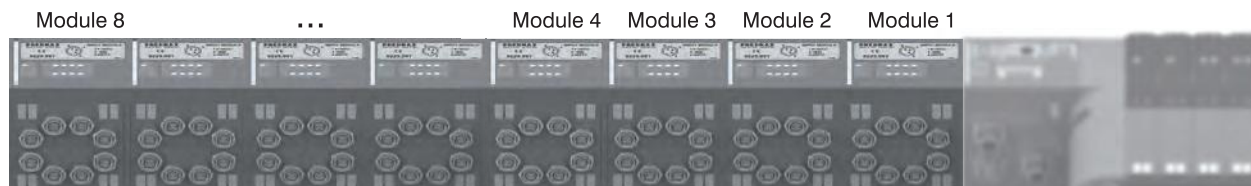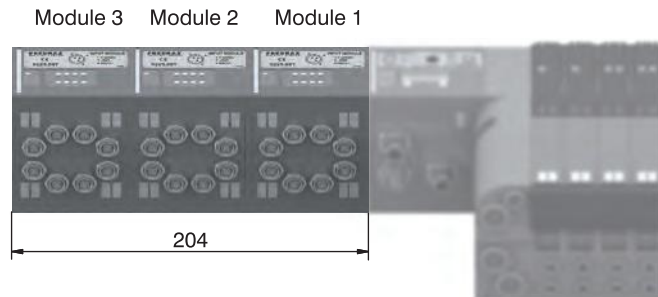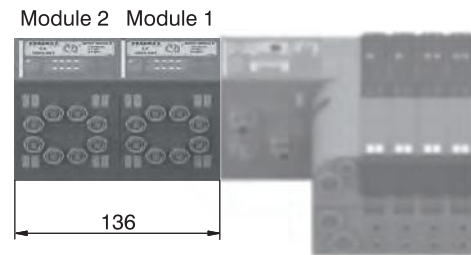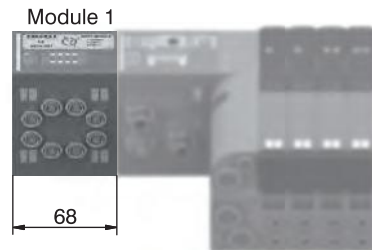
General :

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 300 mA.
Each module includes a 300 mA self-mending fuse. If a short circuit or a overcharge (overall current >300mA) occur the safety device acts cutting the 24 VDC power supply to all M8 connectors on the module and switching off the green led PWR. Any other Input module connected to the node will remain powered and will function correctly.
Once the cause of the fault disappears the green LED PWR lights up indicating the ON state and the node will re-start to operate.
The maximum number of Input modules supported is 4 for CANopen®, DeviceNet and EtherCAT®.
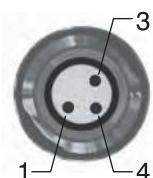The maximum number of Input modules supported is 8 for PROFIBUS DP, PROFINET IO RT/IRT EtherNet/IP and Powerlink.
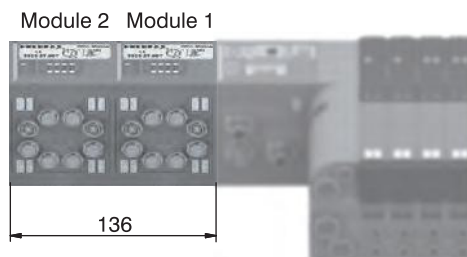
Ordering code

5225.12T

Scheme / Overall dimensions and I/O layout :
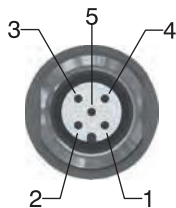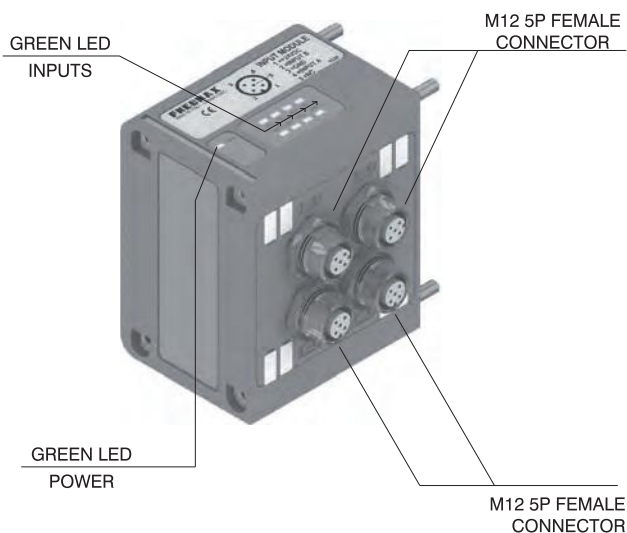
GREEN LED INPUTS

M12 5P FEMALE CONNECTOR

GREEN LED POWER

M12 5P FEMALE CONNECTOR

Module 1

68

Module 2 Module 1

136

Module 3 Module 2 Module 1

204

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

Module 8 ... Module 4 Module 3 Module 2 Module 1
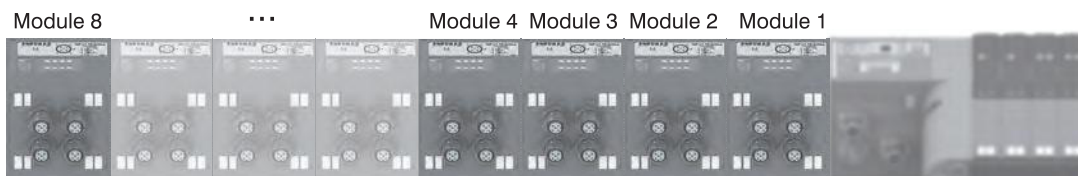
General :

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 Inputs modules.

The Maximum number of 2 analogue Inputs modules supported is 1 for CANopen®, DeviceNet, PROFIBUS DP and EtherCAT®.
The Maximum number of 2 analogue Inputs modules supported is 2 for PROFINET IO RT/IRT, EtherNet/IP and Powerlink.
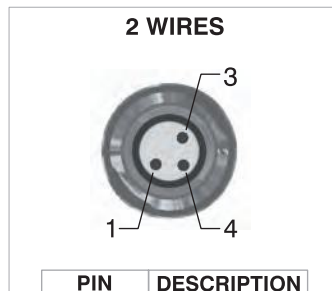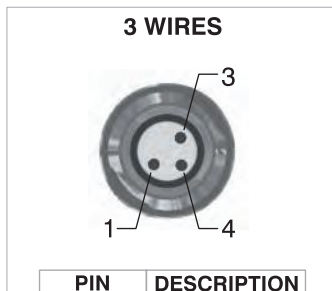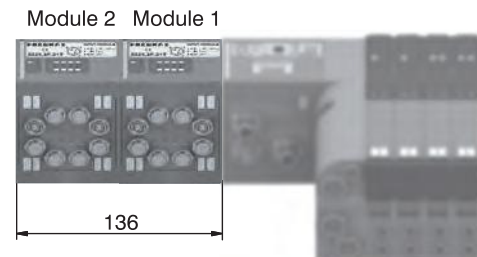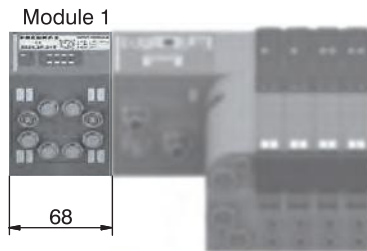
Ordering code

5225.2 _ . _T

Scheme / Overall dimensions and I/O layout :
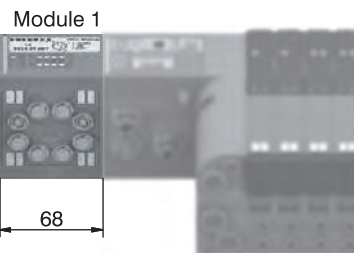
GREEN LED
INPUTS

GREEN LED
POWER

M8 3P FEMALE
CONNECTOR

Module 1

68

Module 2   Module 1

136

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 Inputs modules.

The Maximum number of 2 Pt100 Inputs modules supported is 1 for CANopen®, DeviceNet, PROFIBUS DP and EtherCAT®.
The Maximum number of 2 Pt100 Inputs modules supported is 2 for PROFINET IO RT/IRT, EtherNet/IP and Powerlink.

Ordering code

5225.2P . 0_T

Scheme / Overall dimensions and I/O layout :

GREEN LED
INPUTS

GREEN LED
POWER

M8 3P FEMALE
CONNECTOR

Module 1

68

Module 2   Module 1

136

3 WIRES

2 WIRES

PIN	DESCRIPTION

PIN	DESCRIPTION

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 points according to the formula

$$Temperature = \left(\frac{Points}{4095} \times 600 \right) - 200$$

The temperature range is -200 to +400°C, beyond which the green LED for probe presence doesn't light on.
The module returns a value correspondent to 400°C when the probe is not connected.

Available models:
5225.2P.10T (2-wires probes);
5225.2P.11T (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 Inputs modules.

The Maximum number of 2 Pt100 Inputs modules supported is 1 for CANopen®, DeviceNet, PROFIBUS DP and EtherCAT®.
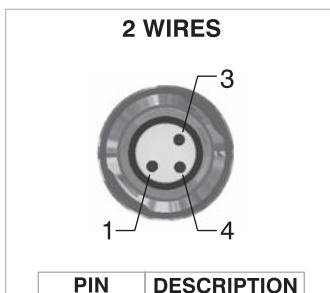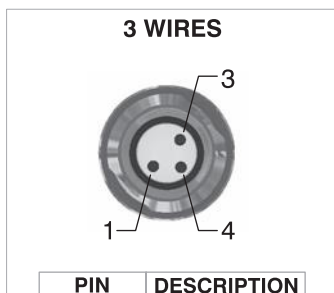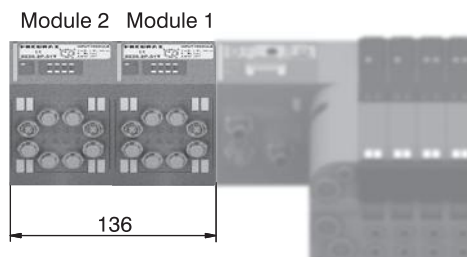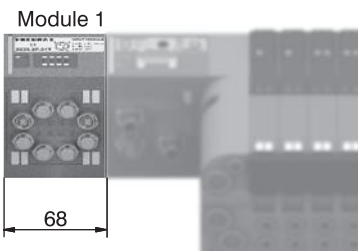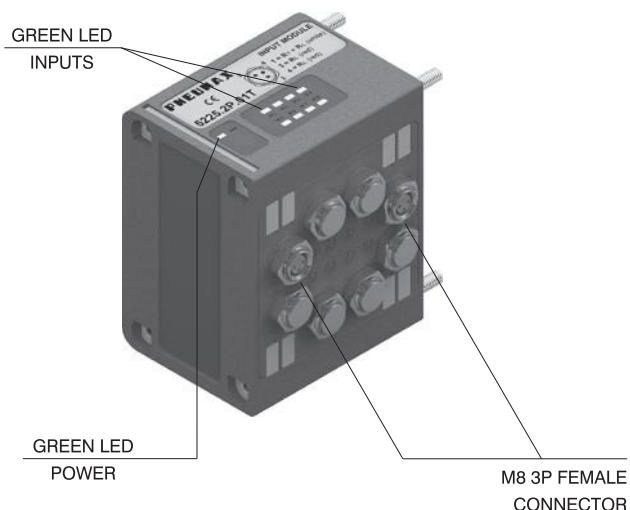The Maximum number of 2 Pt100 Inputs modules supported is 2 for PROFINET IO RT/IRT, EtherNet/IP and Powerlink.

Ordering code

5225.2P . 1_T

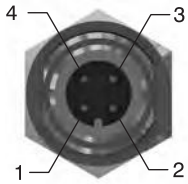## Scheme / Overall dimensions and I/O layout :

GREEN LED
INPUTS

GREEN LED
POWER

M8 3P FEMALE
CONNECTOR

Module 1

68

Module 2   Module 1

136

3 WIRES

3
1   4

PIN	DESCRIPTION

2 WIRES

3
1   4

PIN	DESCRIPTION

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
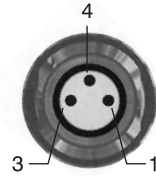
PIN	DESCRIPTION
1	+24 VDC
4	INPUT
3	GND

M12A 5P female Socket

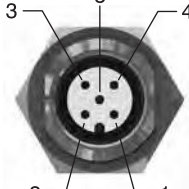### Ordering code

5312A.F05.00

Network straight connector: for Bus CANOpen®, DeviceNet.

Upper view Slave connector
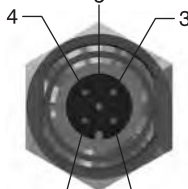
PIN	DESCRIPTION
1	(CAN_SHIELD)
2	(CAN_V+)
3	CAN_GND
4	CAN_H
5	CAN_L

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

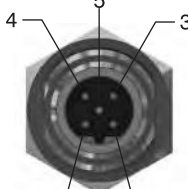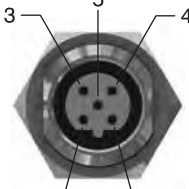### Ordering code

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

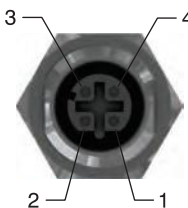| PIN	DESCRIPTION
1	Power Supply
2	A-line
3	DGND
4	B-line
5	SHIELD

M12D 4P male Plug

Ordering code

5312D.M04.00

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

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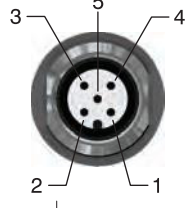
PIN	DESCRIPTION
1	+24 VDC
2	INPUT B
3	GND
4	INPUT A
5	NC

M12 Plug

Ordering code

M8 Plug

Ordering code