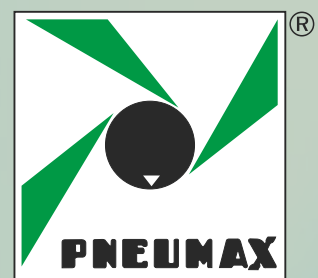


Components for Pneumatic Automation

Solenoid valves **ECO 22**



PNEUMAX GREEN LINE: TECHNOLOGY & INNOVATION



General

Competitively priced, good performance and versatility combined with a compact design are the main characteristics of this new series of valves. The aluminium valve body and spool/seal arrangement optimize both the flow rate and the valve switching time.

This new series of valves are available with G1/8" and G1/4" ports in 3/2, 5/2 and 5/3 versions. Monostable or bistable versions are available and include an integrated technopolymer solenoid operator with 9mm stem and built in manual override

The valves can be supplied with or without the solenoid coil, however, if the solenoid coil is required please refer to the following table:

Voltages		Coil Code	Voltage Code
Direct current DC	24V	MF5	F05
Alternating current AC 50 Hz	24V	MF56	F56
	110V	MF57	F57
	220V	MF58	F58

Connectors Ordering codes			
Voltages		Single connector	Kit 100 pieces
DC/AC	24V	305.11.01L	888.11.01L-K
Alternating current AC 50 - 60 Hz	110V	305.11.02L	888.11.02L-K
	220V	305.11.03L	888.11.03L-K

Construction characteristics

Body	Aluminium
Operators	Technopolymer
Spools	Aluminium for spring bottom plates
Seals	NBR
Pistons	Technopolymer
Springs	Spring steel

Use and maintenance

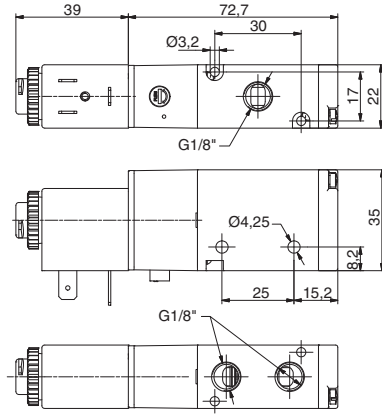
These valves have an average life of 15 million cycles depending on the application and air quality, filtered and lubricated air using specified lubricants will dramatically reduce the wear of the seals and ensures long and trouble free operation.

Please ensure that the valve is being used according with the manufacturers specification, such as air pressure and temperature and that exhaust ports 3 & 5 are protected against the possible ingress of dirt or debris.

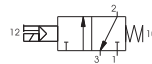
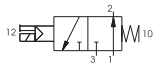
Repair kits including the spool complete with seals are available for overhauling the valves; however, although this is a simple operation it should be carried out by a competent person.

Solenoid - Spring - 3/2

Ordering code
8880.32.F.39.V Self-feeding
FUNCTION
F A=3/2 Normally Open
C=3/2 Normally Closed
00=5/2
VOLTAGE
F05=24 V DC
F56=24 V (50-60 Hz)
F57=110 V (50-60 Hz)
F58=220 V (50-60 Hz)
F00=Without coil



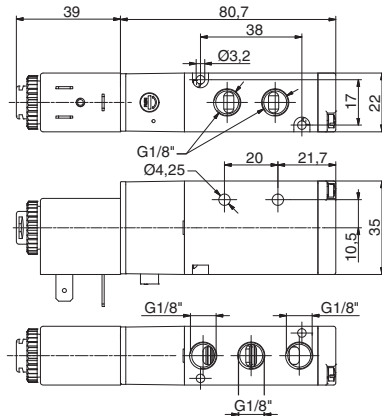
Weight gr. 210
Minimum working pressure 2 bar



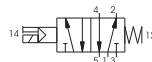
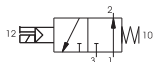
Operating Characteristics	Fluid	Max working pressure (bar)	Operating Temperature °C	Flow rate at 6 bar with Δp=1 (Nl/min)	Orifice size (mm)	Working port size
	Filtered and lubricated air	8	-5 ÷ +50	790	5,8	G 1/8"

Solenoid - Spring - 5/2

Ordering code
8880.52.F.39.V Self-feeding
FUNCTION
F A=3/2 Normally Open
C=3/2 Normally Closed
00=5/2
VOLTAGE
F05=24 V DC
F56=24 V (50-60 Hz)
F57=110 V (50-60 Hz)
F58=220 V (50-60 Hz)
F00=Without coil



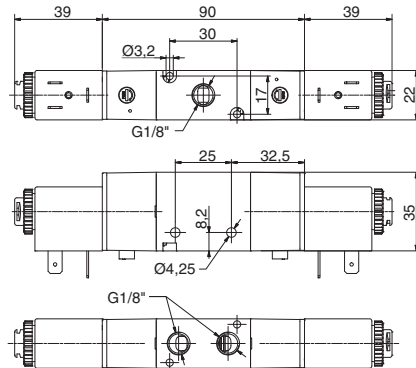
Weight gr. 220
Minimum working pressure 2 bar



Operating Characteristics	Fluid	Max working pressure (bar)	Operating Temperature °C	Flow rate at 6 bar with Δp=1 (Nl/min)	Orifice size (mm)	Working port size
	Filtered and lubricated air	8	-5 ÷ +50	790	5,8	G 1/8"

Solenoid - Solenoid - 3/2

Ordering code
8880.32.00.35.V
VOLTAGE
F05=24 V DC
F56=24 V (50-60 Hz)
F57=110 V (50-60 Hz)
F58=220 V (50-60 Hz)
F00=Without coil



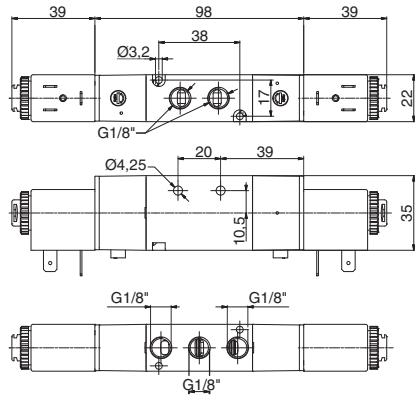
Weight gr. 310
Minimum working pressure 2 bar



Operating Characteristics	Fluid	Max working pressure (bar)	Operating Temperature °C	Flow rate at 6 bar with Δp=1 (Nl/min)	Orifice size (mm)	Working port size
	Filtered and lubricated air	8	-5 ÷ +50	790	5,8	G 1/8"

Solenoid - Solenoid - 5/2

Ordering code
8880.52.00.35.V
VOLTAGE
F05=24 V DC
V F56=24 V (50-60 Hz)
F57=110 V (50-60 Hz)
F58=220 V (50-60 Hz)
F00=Without coil



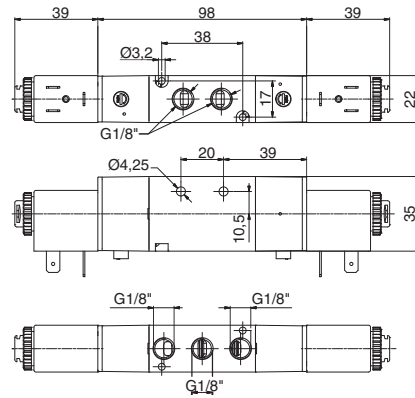
Weight gr. 320
Minimum working pressure 2 bar



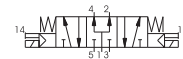
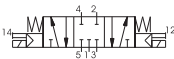
Operating Characteristics	Fluid	Max working pressure (bar)	Operating Temperature °C	Flow rate at 6 bar with Δp=1 (NI/min)	Orifice size (mm)	Working port size
		Filtered and lubricated air	8	-5 ÷ +50	790	5,8

Solenoid - Solenoid - 5/3

Ordering code
8880.53.F.35.V
FUNCTION
F 31=Closed centres
32=Open centres
33=Pressured centres
VOLTAGE
F05=24 V DC
V F56=24 V (50-60 Hz)
F57=110 V (50-60 Hz)
F58=220 V (50-60 Hz)
F00=Without coil



Weight gr. 330
Minimum working pressure 2,5 bar



Operating Characteristics	Fluid	Max working pressure (bar)	Operating Temperature °C	Flow rate at 6 bar with Δp=1 (NI/min)	Orifice size (mm)	Working port size
		Filtered and lubricated air	8	-5 ÷ +50	440	5,8

Solenoid - Spring - 3/2

Ordering code

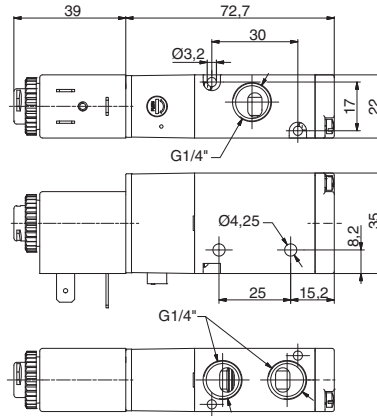
8884.32.F.39.V
Self-feeding

FUNCTION

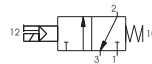
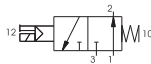
- F A=3/2 Normally Open
- C=3/2 Normally Closed
- 00=5/2

VOLTAGE

- F05=24 V DC
- V F56=24 V (50-60 Hz)
- F57=110 V (50-60 Hz)
- F58=220 V (50-60 Hz)
- F00=Without coil



Weight gr. 210
Minimum working pressure 2 bar



Operating Characteristics	Fluid	Max working pressure (bar)	Operating Temperature °C	Flow rate at 6 bar with Δp=1 (Nl/min)	Orifice size (mm)	Working port size
	Filtered and lubricated air	8	-5 ÷ +50	890	6,5	G 1/4"

Solenoid - Spring - 5/2

Ordering code

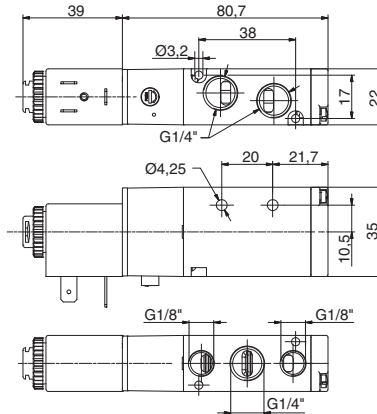
8884.52.F.39.V
Self-feeding

FUNCTION

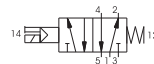
- F A=3/2 Normally Open
- C=3/2 Normally Closed
- 00=5/2

VOLTAGE

- F05=24 V DC
- V F56=24 V (50-60 Hz)
- F57=110 V (50-60 Hz)
- F58=220 V (50-60 Hz)
- F00=Without coil



Weight gr. 220
Minimum working pressure 2 bar



Operating Characteristics	Fluid	Max working pressure (bar)	Operating Temperature °C	Flow rate at 6 bar with Δp=1 (Nl/min)	Orifice size (mm)	Working port size
	Filtered and lubricated air	8	-5 ÷ +50	890	6,5	G 1/4"

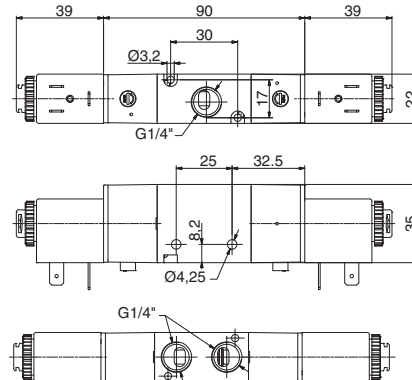
Solenoid - Solenoid - 3/2

Ordering code

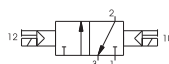
8884.32.00.35.V

VOLTAGE

- F05=24 V DC
- V F56=24 V (50-60 Hz)
- F57=110 V (50-60 Hz)
- F58=220 V (50-60 Hz)
- F00=Without coil



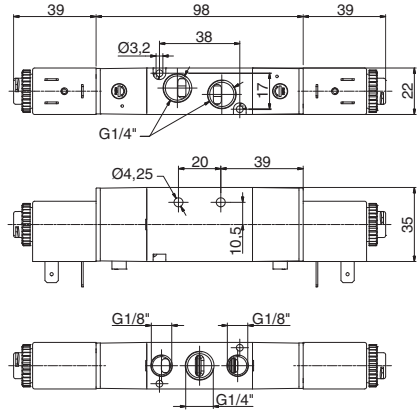
Weight gr. 310
Minimum working pressure 2 bar



Operating Characteristics	Fluid	Max working pressure (bar)	Operating Temperature °C	Flow rate at 6 bar with Δp=1 (Nl/min)	Orifice size (mm)	Working port size
	Filtered and lubricated air	8	-5 ÷ +50	890	6,5	G 1/4"

Solenoid - Solenoid - 5/2

Ordering code
8884.52.00.35.V
VOLTAGE
F05=24 V DC
V F56=24 V (50-60 Hz)
F57=110 V (50-60 Hz)
F58=220 V (50-60 Hz)
F00=Without coil



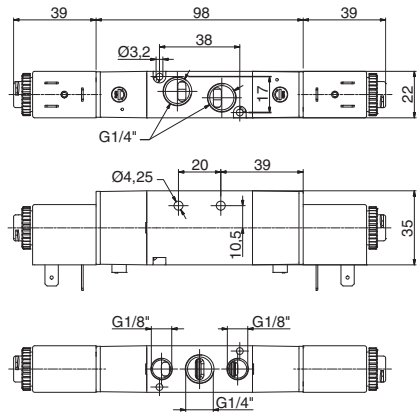
Weight gr. 320
Minimum working pressure 2 bar



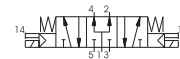
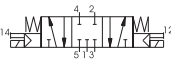
Operating Characteristics	Fluid	Max working pressure (bar)	Operating Temperature °C	Flow rate at 6 bar with Δp=1 (NI/min)	Orifice size (mm)	Working port size
	Filtered and lubricated air	8	-5 ÷ +50	890	6,5	G 1/4"

Solenoid - Solenoid - 5/3

Ordering code
8884.53.F.35.V
FUNCTION
F 31=Closed centres
32=Open centres
33=Pressured centres
VOLTAGE
F05=24 V DC
V F56=24 V (50-60 Hz)
F57=110 V (50-60 Hz)
F58=220 V (50-60 Hz)
F00=Without coil

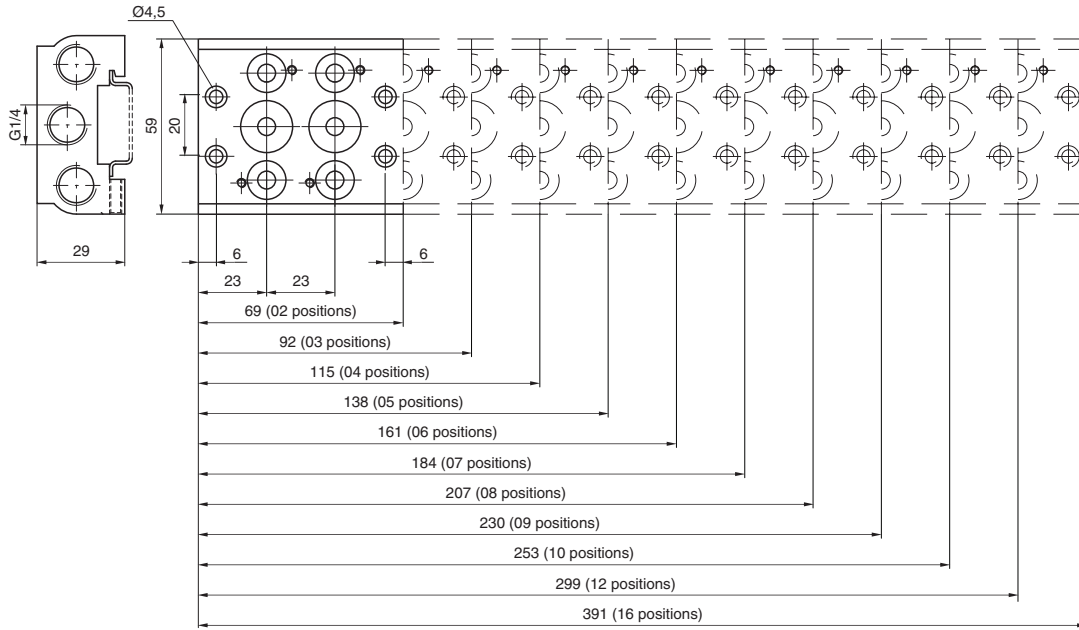


Weight gr. 330
Minimum working pressure 2,5 bar



Operating Characteristics	Fluid	Max working pressure (bar)	Operating Temperature °C	Flow rate at 6 bar with Δp=1 (NI/min)	Orifice size (mm)	Working port size
	Filtered and lubricated air	8	-5 ÷ +50	540	6,5	G 1/4"

Manifold (Valves 5/2 - 5/3)



Ordering code

888.P

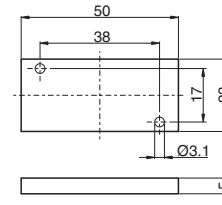
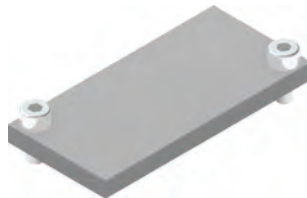
N. POSITIONS
02=nr. 2 pos. (270 gr)
03=nr. 3 pos. (335 gr)
04=nr. 4 pos. (400 gr)
05=nr. 5 pos. (465 gr)
06=nr. 6 pos. (530 gr)
07=nr. 7 pos. (595 gr)
08=nr. 8 pos. (660 gr)
09=nr. 9 pos. (725 gr)
10=nr. 10 pos. (790 gr)
12=nr. 12 pos. (920 gr)
16=nr. 16 pos. (1180 gr)

Manifold supplied complete with Seals, Valve fixing screws and DIN rail fixing pin

Closing plate

Ordering code

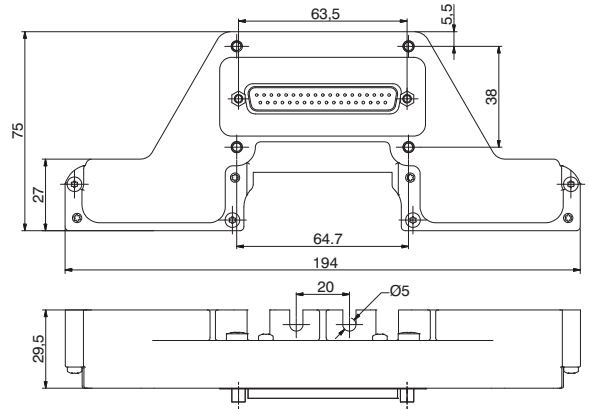
888.00



Weight gr. 18
Closing plate supplied complete with 2 fixing screws to the manifold and 2 fixing screws to the multi-polar base

Endplate, 37 Poles IP65

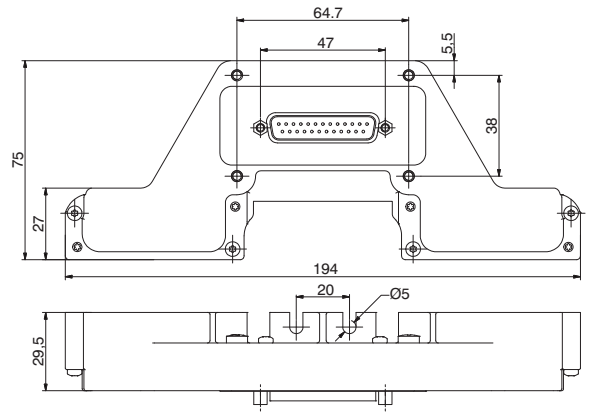
Ordering code
888M.37.10



Weight gr. 186
The IP65 protection is obtained by IP65 Pneumax cable
Code complete with assembled endplate and 4 manifold fixing screws, previously mounted on the Manifold.

Endplate, 25 Poles IP65

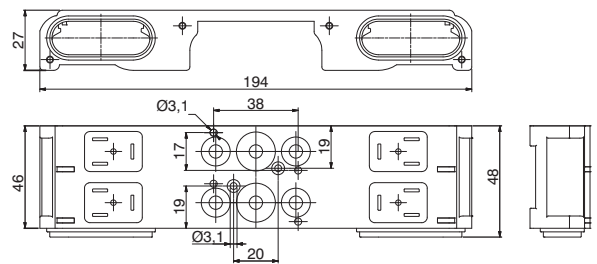
Ordering code
888M.25.10



Weight gr. 181
The IP65 protection is obtained by IP65 Pneumax cable
Code complete with assembled endplate and 4 manifold fixing screws, previously mounted on the Manifold.

Modular base, 2 positions IP65

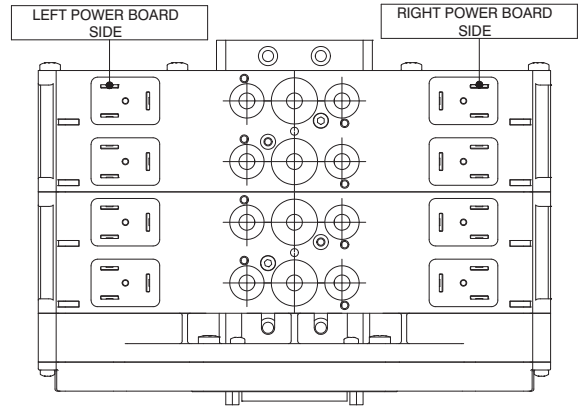
Ordering code
888M.02.BM



Weight gr. 220
Complete with seals and fixing screws
Usable only for 5/2 and 5/3 Distributors

Left and Right Power board PNP 24 VDC

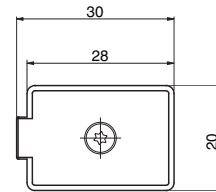
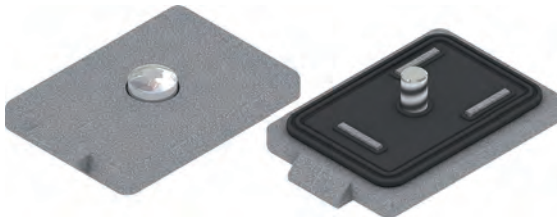
Ordering code
888M.P.T
N. POSITIONS
04=nr. 4 pos. (11,2 gr.)
08=nr. 8 pos. (22,4 gr.)
12=nr. 12 pos. (33,6 gr.)
16=nr. 16 pos. (44,8 gr.)
TYPE
00 = Left side
01 = Right side



The IP65 protection degree is guaranteed if assembled by Pneumax

Closing plate

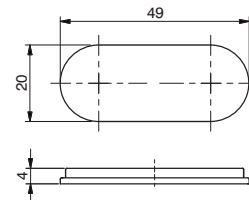
Ordering code
888M.22.PC



Weight gr. 3
Closing plate supplied complete with 1 Seal and fixing screw with O ring
Torque moment 0,35 Nm

Multipolar base plug

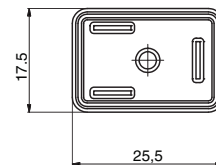
Ordering code
888M.T



Weight gr. 2,6
Complete with: Nr. 1 Plug, Nr. 2 Fixing screws

Seals

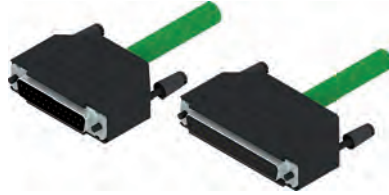
Ordering code
888M.22.G



Weight gr. 0,52

In line cable complete with connector IP40

Ordering code	
2400.T.L.00	
T	CONNECTORS
	25=25 poles 37=37 poles
L	CABLE LENGHT
	03=3 meters
	05=5 meters 10=10 meters



Cable complete with connector, 25 Poles IP65

Ordering code	
2300.25.L.C	
L	CABLE LENGHT
	03=3 meters
	05=5 meters 10=10 meters
C	CONNECTORS
	10=In line 90=90° Angle

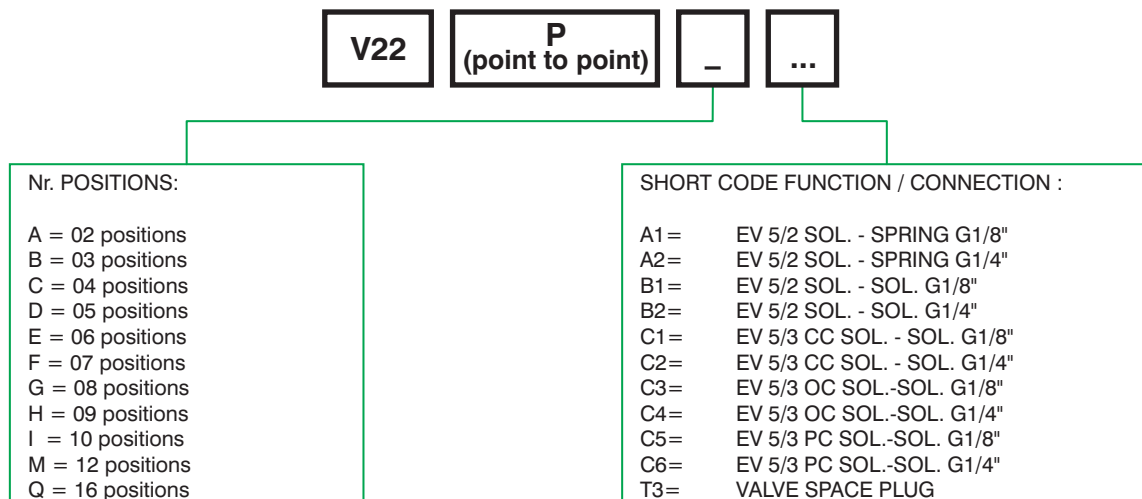


Cable complete with connector, 37 Poles IP65

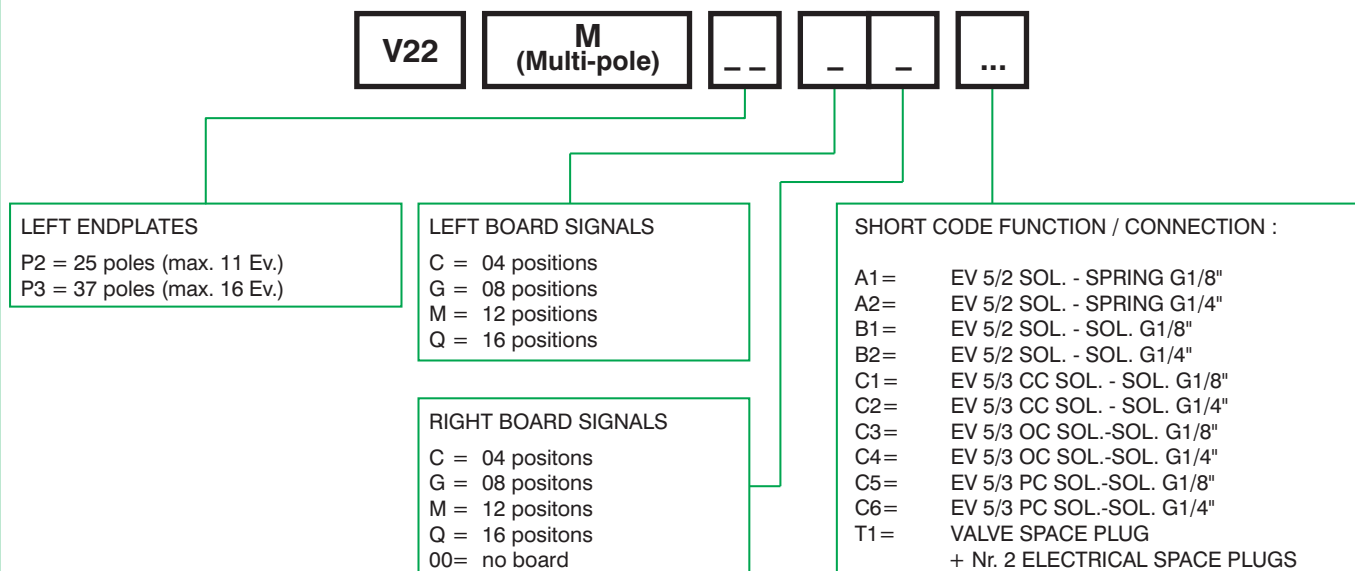
Ordering code	
2400.37.L.C	
L	CABLE LENGHT
	03=3 meters
	05=5 meters 10=10 meters
C	CONNECTORS
	10=In line 90=90° Angle



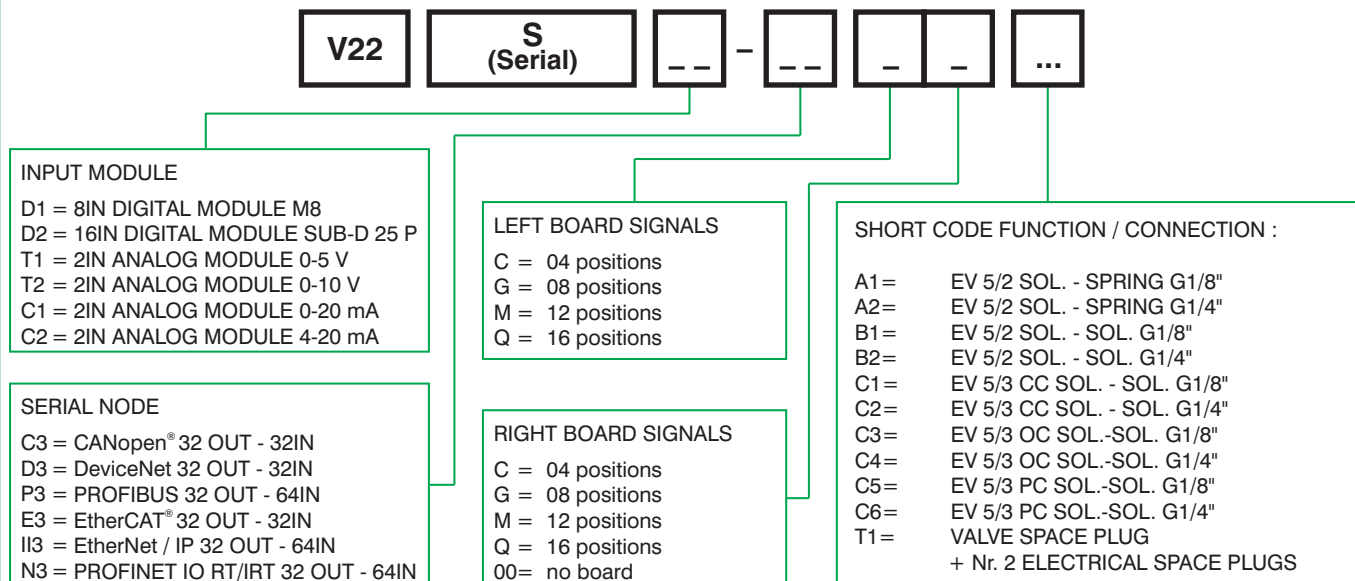
Manifold layout Configuration Point to Point



Manifold layout Configuration Multi-pole



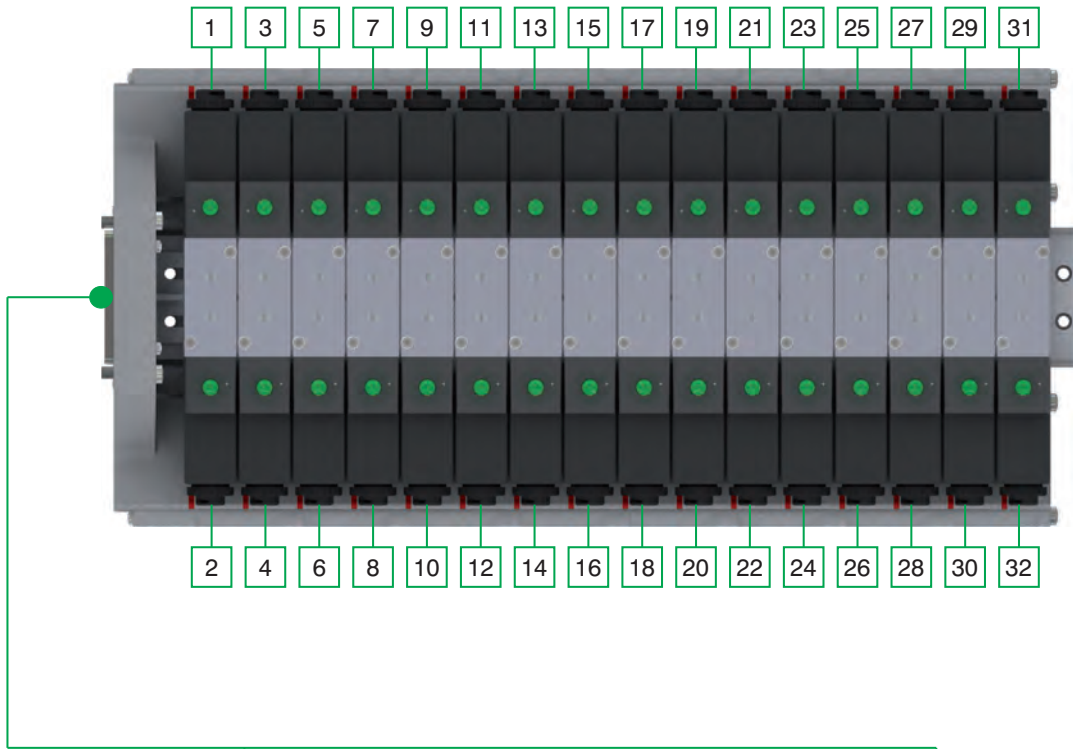
Serial manifold layout (for the serial system node, see the Optyma-F Series)



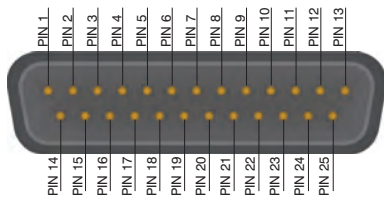
NOTE:

When constructing the configuration, please consider that the maximum number of valves that can be mounted on the manifold is 16, regardless of the valve type. Any valve position presents two electrical connections: in case of use of monostable valves (A1-A2) it will be necessary to assemble a plug to protect the unused electrical connection.

The correspondence between the electrical signal and its location on the manifold is showed in the following diagrams.

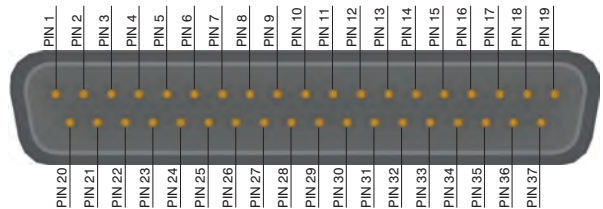


Connector 25 Poles from 1 to 11
Positions E.V. Bistable / Monostable

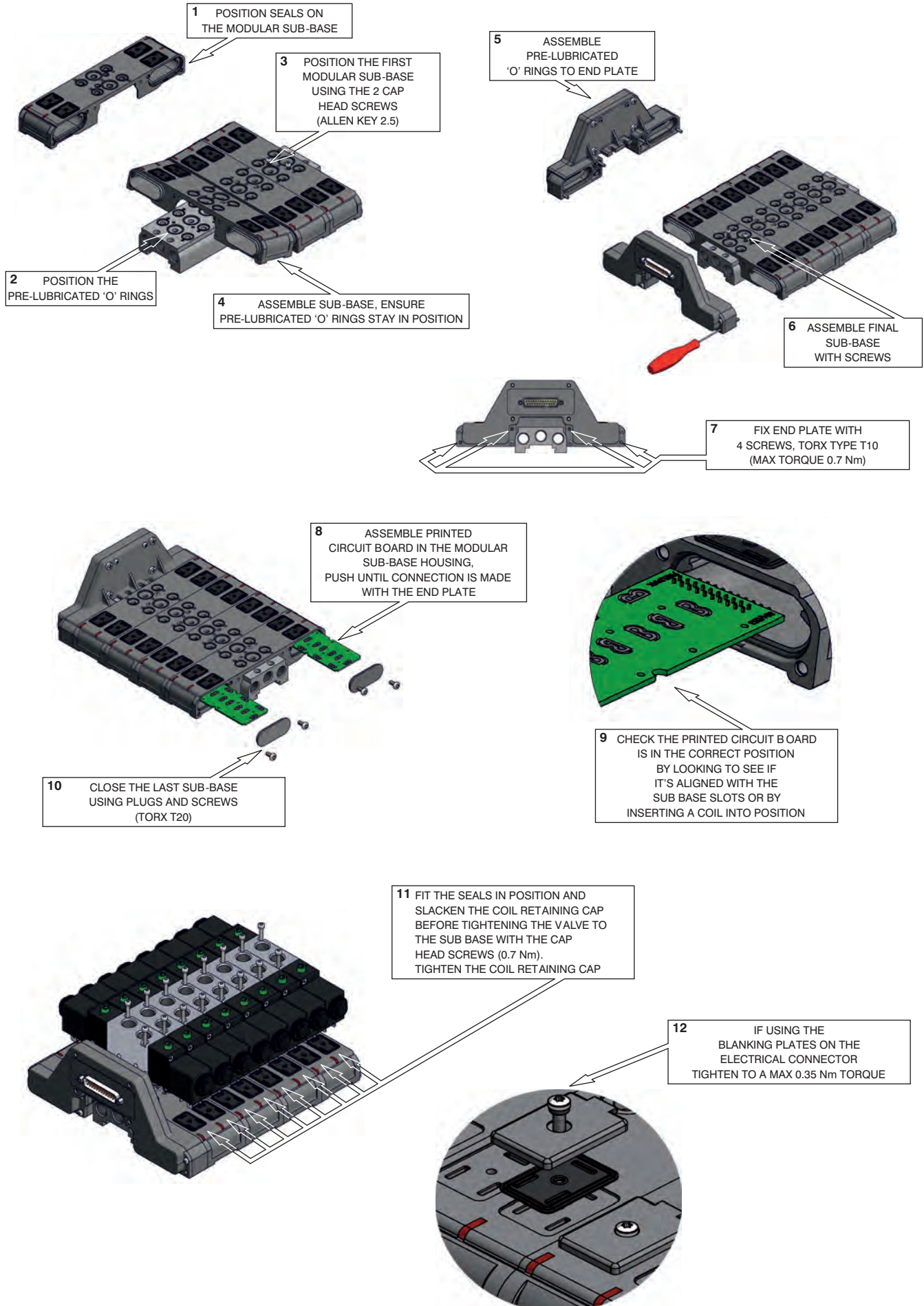


1 - 22 = SIGNALS
23 - 24 = GND
25 = NC

Connector 37 Poles from 1 to 16
Positions E.V. Bistable / Monostable



1 - 32 = SIGNALS
33 - 35 = GND
36 - 37 = NC

Assembly sequence

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