Series 300

General

The direct operated solenoid valve is the interface between pneumatic and electronic. In fact, it is actuated by an electrical signal and in turn gives a pneumatic signal directly available for small users or for actuating bigger pneumatic distributors.

A wide range of valves are needed for satisfying various applications. For this need we have available miniature components with very low volume and electrical impute as well as solenoid valves with large flow rate and power for heavy duty operations. These solenoid valves are usually 3/2, normally closed or normally open, but there are available the 2/2, closed or open, for vacuum and others.

Note that the direct operated valves can only be used with bases, individual or multiple with M5 or G 1/8" thread or with connections.

Some PNEUMAX solenoid valves are c UL us homologated valid for USA and Canada (file n. VAIU2.E206325, VAIU8.E206325). For more details, refer to the coding, in the following pages.

The 10mm and 15mm solenoid valves are certified by UL in compliance with both Canadian and USA safety requirements as recognized component and included in the **UL file E206325** and bear the “UL Recognized Component” marking.

The 10mm and 15mm solenoid valves, since they are devices for “class 2 circuits”, according with UL standard UL 429/CSA C22.2 N°139, are not considered dangerous for electric shock or fire and thus a
UL certification is not required for cables and connectors.

Some solenoid valves, since they are devices for “class 2 circuits”, according with UL standard UL 429/CSA C22.2 N°139, are not considered dangerous for electric shock or fire and thus a **UL certification is not required for cables and connectors.**

Use and maintenance

Maintenance is normally not required for these components therefore the spare parts list is not provided.

Their construction complexity and low cost do not make repair economically viable. It's easier and more economic to replace the complete valve in case of malfunction.
For proper lubrication use only hydraulic oil class H such as Castrol type MAGNA GC 32.

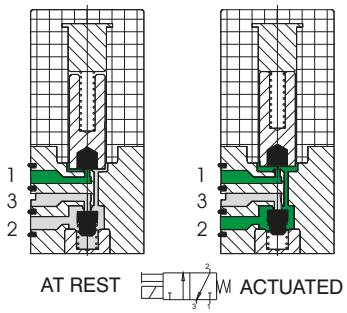
General

This series of directly operated vales is characterized by its reduced dimensions. They are designed to be mounted individually or on manifold. The high operating speed and high flow rate in consideration of the reduced dimensions, in combination with the high compatibility of the material used to manufacture them ensure a high variety of possible application fields.
All valves have manual override as standard and are available in 3/2 configuration N.O. and N.C. as well as 2/2 N.C. both 12 or 24 V DC or AC. Electrical connection can be via co moulded cables or via connector, in this configuration a LED indicates the coil status. Ensure that the fixing screws are tightened with 0.15Nm maximum.
The 10mm Speed-up version are built in accordance to the ISO 15218-2003 standard with a flow rate of 24Nl/min. The coil integrates a dedicated circuit board which enables to contain the power consumption to 0.35W in case of the high flow rate version and to 0.1W in case of the standard flow rate version.

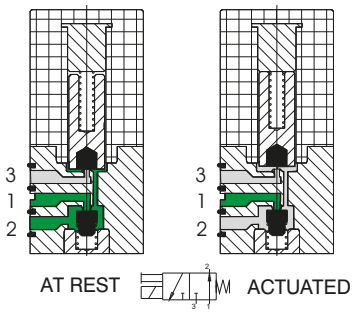
Functional schematics for standard version

1 = SUPPLY PORT
2 = OUTLET PORT
3 = EXHAUST PORT

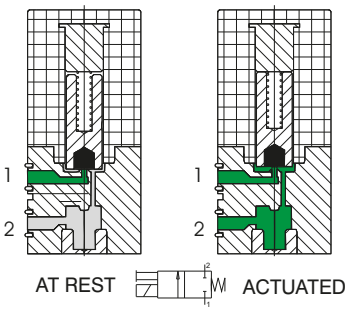
Normally Closed (N.C.) 3/2



Normaly Open (N.O.) 3/2



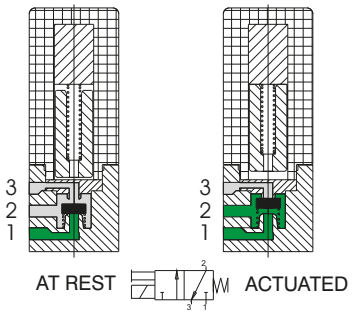
Normally Closed (N.C.) 2/2



Functional schematics for Speed-up version

1 = SUPPLY PORT
2 = OUTLET PORT
3 = EXHAUST PORT

Normally Closed
(N.C.) 3/2



Construction characteristics:

Electrical part:
Miniature solenoid consisting of a coil made of copper wire of different diameters depending on voltage,isolated according to "F" class standard, with injection-moulded nylon-glass application. All parts forming the cladding, the electrical connections and the pole pieces are protected against corrosion.

Mechanical part:
Stainless steel 430F armatures FPM poppets body in thermoplastic material and manual override and plug in nickel plated brass. Valves must be mounted on single or multiple manifold to be used.

Technical characteristics

		Standard Version	Speed-Up Version
Pneumatic:	Working pressure	0 - 7 bar	
	Nominal diameter	0,7 mm	1,1 mm
	Temperature	-5° - +50°C	
	Maximun flow rate at 6 bar with Δp 1 bar	14 Nl/min	24 Nl/min
	Exhaust flow	22 Nl/min	29 Nl/min
	Max number of cycles per minute	2.700	
	Life	50 million	
Electric:	Voltages	12 - 24 Volt D.C.	
	Power	1,3 Watt	0,35 Watt (1)
	Voltage tollerance	-5% - +10%	
	Response time when energized *	8 ms	
	Response time when de-energized *	10 ms	
	Copper wire isolation class	F (155°C)	
	Protection degree	IP65 (with cables) IP40 (with connectors) IP00 (with Faston)	

(*) "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"

(1) = consumption wrapping in opening phase 3, 5W (10 ms), consumption wrapping in maintenance phase 0.35 W.

10 mm Standard miniature solenoid ordering codes

N3 ___ . ___

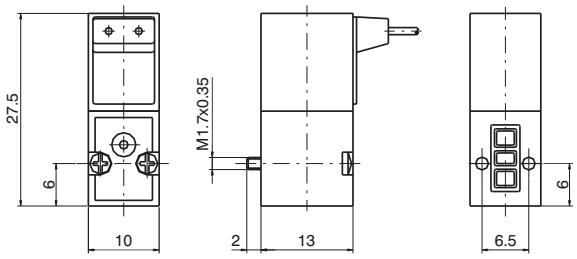
- **6** = 2/2 N.C.
- **7** = 3/2 N.C.
- **8** = 3/2 N.O.

- **1** = 24 V D.C.
- **2** = 12 V D.C.
- **4** = 6 V D.C.*

- **1** = 90° Connector with Led
- **2** = Cable 300 mm. - IP65 (embedded cable)*
- **3** = Line Connector with Led
- **4** = 90° Connector without Led
- **5** = Line Connector without Led

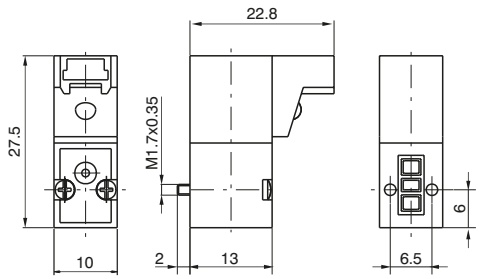
* = The cULus Directive does not apply to these versions

Miniature solenoid valve with cable



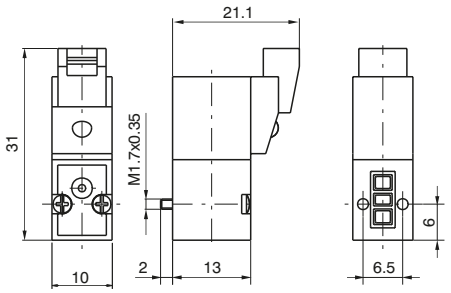
Weight 12 gr.

Miniature solenoid valve with 90° connector



Weight 12 gr.

Miniature solenoid valve with line connector



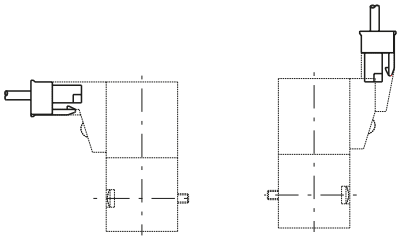
Weight 12 gr.

Connector

Ordering codes

371 . ___

- **300 :** Cable L = 300 mm
- **600 :** Cable L = 600 mm
- **1000 :** Cable L = 1000 mm

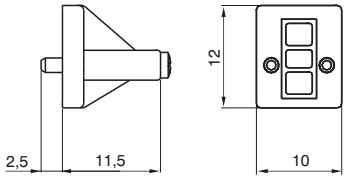


Weight 3 gr.

Closing plate

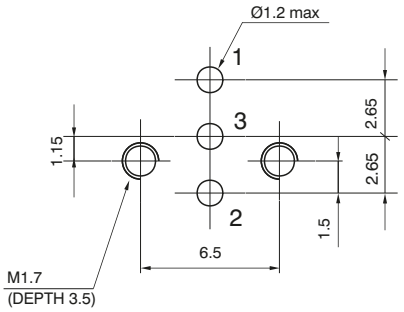
Ordering codes

395.00



Weight 5 gr.

Interfaces dimensions



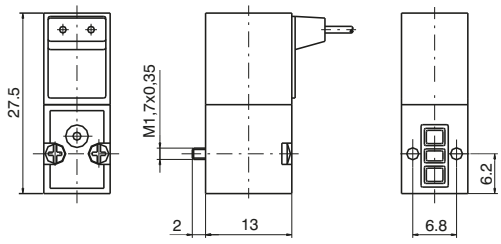
10 mm - ISO 15218-2003 miniature solenoid ordering codes

The versions are not contemplated by the c UL us Directive

P3 _ _ . _

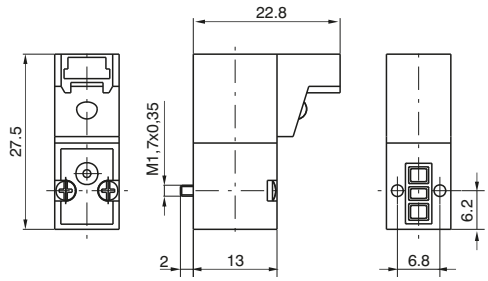
- _ _ : **6** = 2/2 N.C.; **7** = 3/2 N.C.
- _ _ : **1** = 24 V D.C.; **2** = 12 V D.C.; **4** = 6 V D.C.
- . _ : **1** = 90° Connector with Led; **2** = Cable 300 mm. - IP65 (embedded cable); **3** = Line Connector with Led; **4** = 90° Connector without Led; **5** = Line Connector without Led

Miniature solenoid valve with cable



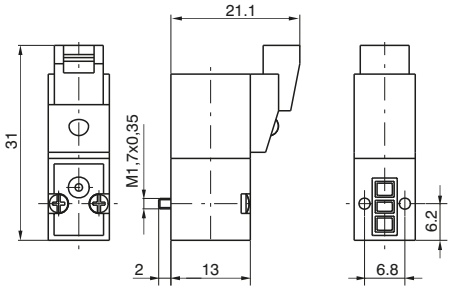
Weight 12 gr.

Miniature solenoid valve with 90° connector



Weight 12 gr.

Miniature solenoid valve with line connector



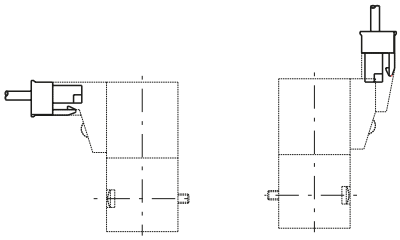
Weight 12 gr.

Connector

Ordering codes

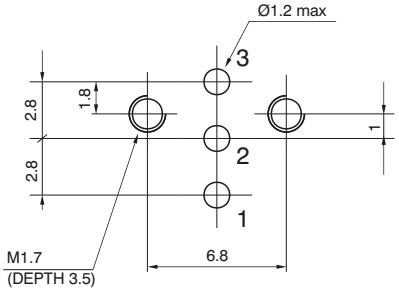
371 . _

- **300 :** Cable L = 300 mm
- **600 :** Cable L = 600 mm
- **1000 :** Cable L = 1000 mm



Weight 3 gr.

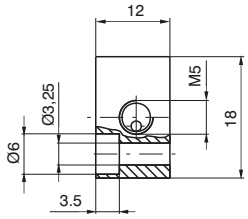
Interfaces dimensions 10 mm - ISO 15218

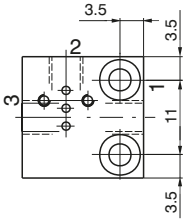


Standard version
Individual base

Ordering code

395.01





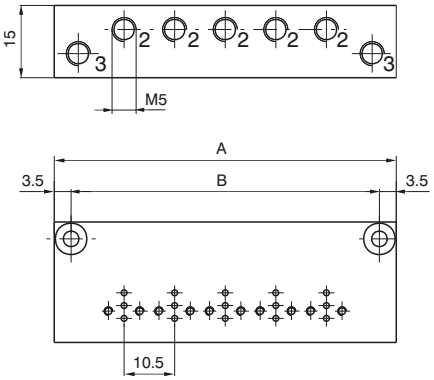
Weight 10 gr.

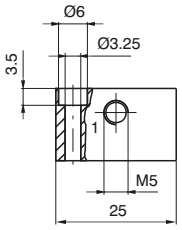
Standard version
multiple bases

Ordering code

395 . __

N° Places



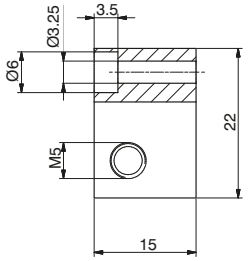


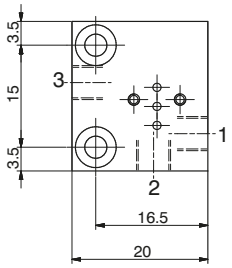
N° Places	02	03	04	05	06	07	08	09	10
A	39.5	50	60.5	71	81.5	92	102.5	113	123.5
B	32.5	43	53.5	64	74.5	85	95.5	106	116.5
Weight (gr.)	43	54	65	76	87	98	109	120	131

Individual base for
ISO 15218-2003 version

Ordering code

P395.01





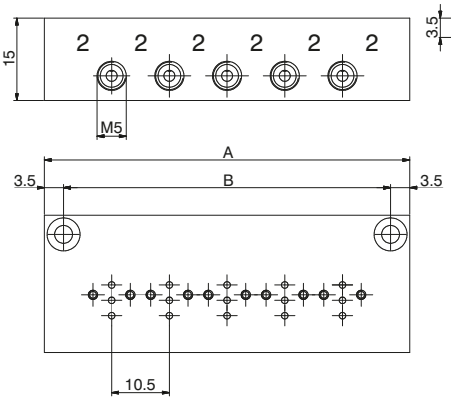
Weight 10 gr.

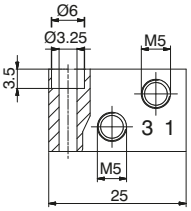
Multiple base for
ISO 15218-2003 version

Ordering code

P395 . __

N° Places





N° Places	02	03	04	05	06	07	08	09	10
A	35	45.5	56	66.5	77	87.5	98	108.5	119
B	28	38.5	49	59.5	70	80.5	91	101.5	112
Weight (gr.)	43	54	65	76	87	98	109	120	131

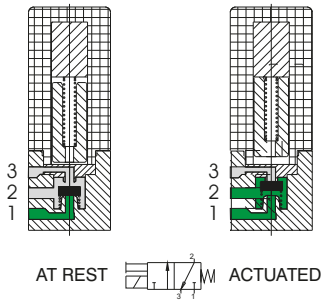
General

This direct operated solenoid valve has minimum overall dimensions (15 mm wide). Its construction method is same as 10 mm valve, of course.
It is suitable to be single or gang mounted or as electro-operator for larger air flow distributors.
Can be utilized with compressed air and other fluids compatible with material used to build the solenoid valve.
The available versions, all equipped with manual overide, are 3 ways, normally closed and normally open with DC and AC 50/60 Hz.
It's possible to install the N.O. valve on N.C. interface by using the registered reverse system included in the valve body.
The electrical connection is made with cables (300 mm.), FASTON or with connector.
This type of miniature solenoid valve is interchangeable with most of the same products available on the market.
Coil be can also positioned at 180° to get the electrical connection located on the opposite side than override.
Make sure that the fastening screews are tightened with maximum torque of 0,75 Nm.

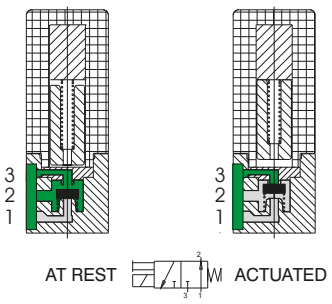
Functional schematics

1 = SUPPLY PORT
2 = OUTLET PORT
3 = EXHAUST PORT

Normally Closed (N.C.) 3/2



Normaly Open (N.O.) 3/2



Construction characteristics

Electrical part
Miniature solenoid consisting of a coil made of copper wire of different diameters depending on voltage,isolated according to "F" class standard, with injection-moulded nylon-glass application. All parts forming the cladding, the electrical connections and the pole pieces are protected against corrosion.
Mechanical part
AISI 430F cores, AISI 302 return springs, FPM poppets, thermoplastic polyester body.

Technical characteristics

Pneumatics			
Nominal diameter	0.8	1,1 mm	1,5 mm (only D.C.)
Maximun flow rate at 6 bar with Δp 1 bar	20 Nl/min	30 Nl/min	50 Nl/min
Working pressure for N.C.	0 - 10 bar		0 - 7 bar
Working pressure for N.O.	/	0 - 8 bar	0 - 5 bar
Temperature	-5° +50°C		
Life expectancy	50 million cycles (with standard working conditions)		

Electrical			
Voltage D.C.	24 V DC	12-24 V DC	
Voltage A.C.	/	24-110-230 Volt 50/60 Hz	/
Power consumption D.C.	1 Watt	2,3 Watt	
Power consumption A.C.	/	2,8 VA (at starting) 2,5 VA (at speed)	/
Voltage tollerance	-5% - +10%		
Response time *	10-12 ms		
Isolating class	F (155°C)		
Protection degree	IP65 (with cables) IP40 (with connectors) IP00 (with faston)		

(*) "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"

15 mm miniature solenoid ordering codes

N3 ___ . ___

- **3** = 3/2 N.C.
- **4** = 3/2 N.O.
  (only Ø1,1 and Ø1,5)

- **1** = 24 V DC
- **2** = 12 V DC
- **5** = 24 V 50-60 Hz
- **6** = 110 V 50-60 Hz
- **7** = 230 V 50-60 Hz
- **8** = 24V D.C. 1 W**
  (only Ø0,8)
- **9** = Faston ground

- **A** = Ø1,1
- **B** = Ø1,5
- **E** = Ø0,8

- **0** = Faston
- **1** = Faston EN17301-803 (Ex DIN 43650)
- **2** = Cables* (300 mm)**

- = Straight (no addittional letter required)
- **R** = Downward

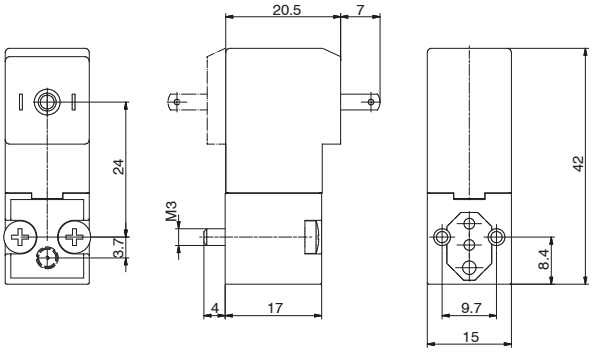
- = PUSH (Standard Version)
- **2** = Without Manual override
- **8** = Manual override 2 positions

** = The cULus Directive does not apply to these versions

* = On request and for large quantity only *(only 24 V D.C., 2.3 W)*

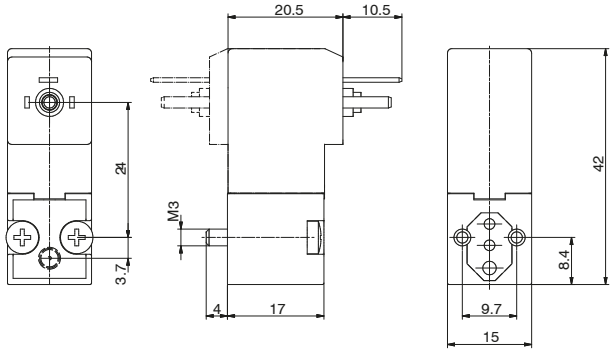
See previous page for available versions

With Faston



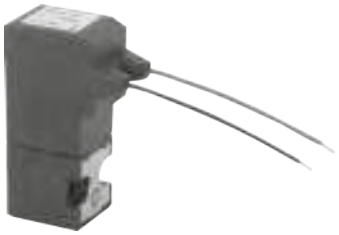
Weight 36 gr.

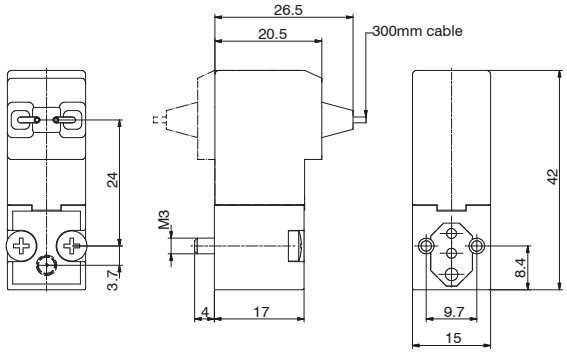
With Faston EN17301-803 (Ex DIN 43650



Weight 36 gr.

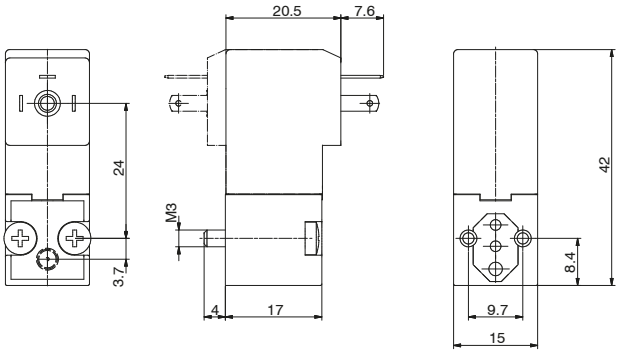
With Cables (300 mm)





Weight 38 gr.

With Faston ground

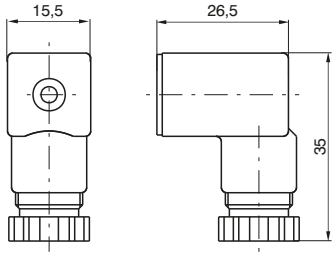


Weight 38 gr.

Connector

Ordering code	
315.11.00	Standard
315.12.00	for faston EN17301-803 (Ex DIN 43650)
315.11.0_L	Led
	1 = 24 V D.C. / A.C.
	2 = 110 V 50/60 Hz
	3 = 230 V 50/60 Hz
315.12.0_L	for faston EN17301-803 (Ex DIN 43650) with Led
	1 = 24 V D.C. / A.C.
	2 = 110 V 50/60 Hz
	3 = 230 V 50/60 Hz

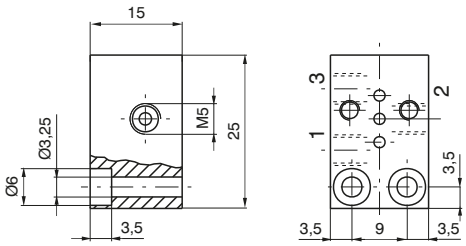
Weight 13 gr.



Single use base

Ordering code
355.01

Weight 18 gr.



Multiple bases

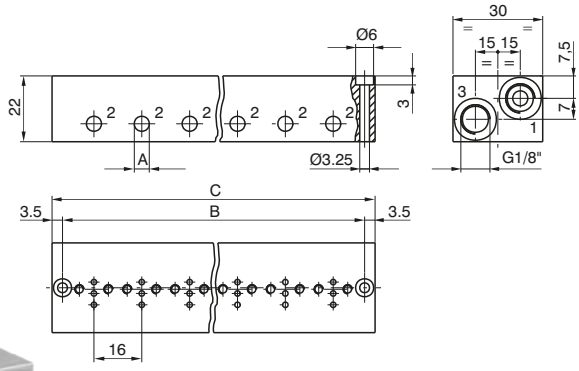
Ordering code

A = Orifice M5

355 . — N° PLACES

A = Pipe fitting Ø4

354 . — N° PLACES

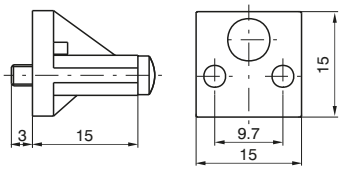


N° places	02	03	04	05	06	07	08	09	10
B	37	53	69	85	101	117	133	149	165
C	44	60	76	92	108	124	140	156	172
Weight (gr.)	66	92	116	141	165	190	216	242	266

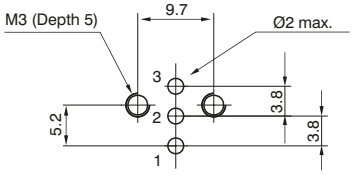
Closing plate

Ordering code
355.00

Weight 6 gr.



Interface dimensions



15mm Solenoid valves Manifold with electric multipoint connection

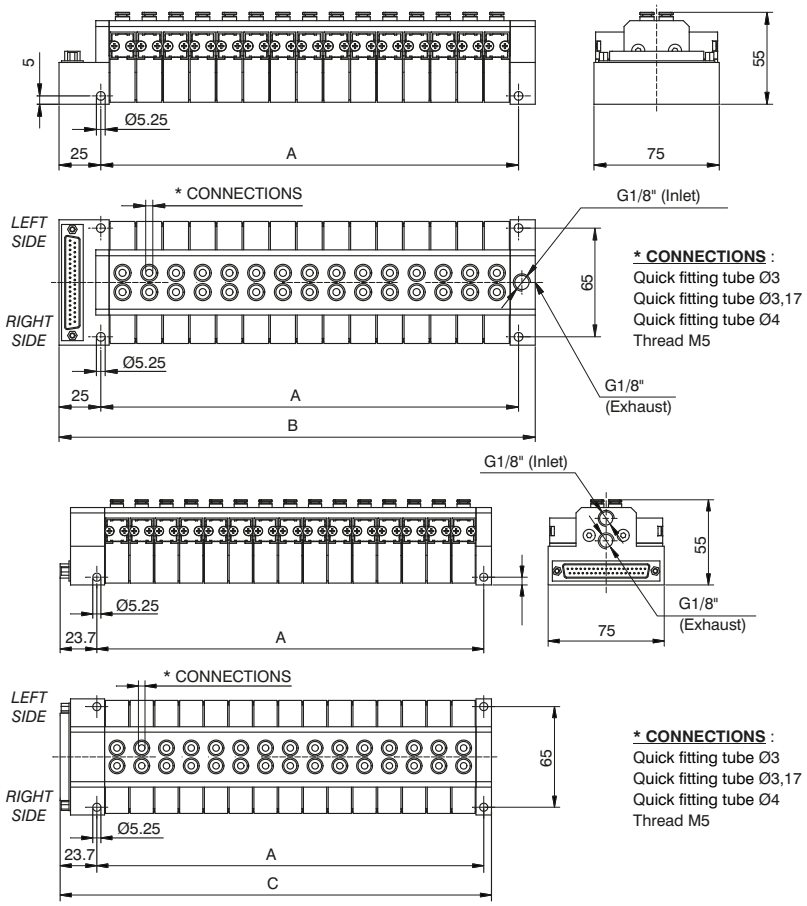
General

Also for this 15mm solenoid valves series we have realized the possibility of the assembling on the base with multipoint connection, this for making faster the connection and the harness of them.
Realized from a shaped outline, it results compact because it uses a relevant multipoint connection available only with a 37 poles connector from 10 to 32 solenoid valves (with steps of 2), available in line or at 90° and IP40 protection. On the base it is possible to put some threaded cartridges with push-in fittings for Ø3 – Ø3,17 Ø4 tube or M5 threaded.
The application field of these new configurations is the standard of 3/2 valves, where it is needed to realize groups or Manifolds provided with integrated electric connection to make easier and faster the connection and the harness of them (control of single acting cylinders with small dimensions, pilot system of valves with bigger dimensions etc..).

Constructive characteristics:

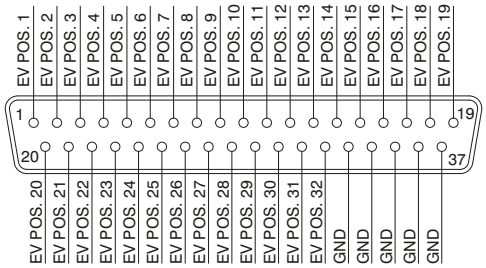
Constructive principle:
From 10 up to 32 solenoid valves (with steps of 2)
Extremely compact solution
IP40 protection (without visualisation led)
Possibility of having different working connections (Ø3, Ø3,17, Ø4 tubes, M5)
The new coding key requires the use of the same type of solenoid valves (there aren't codes for groups with a mixed configuration).

Overall dimensions

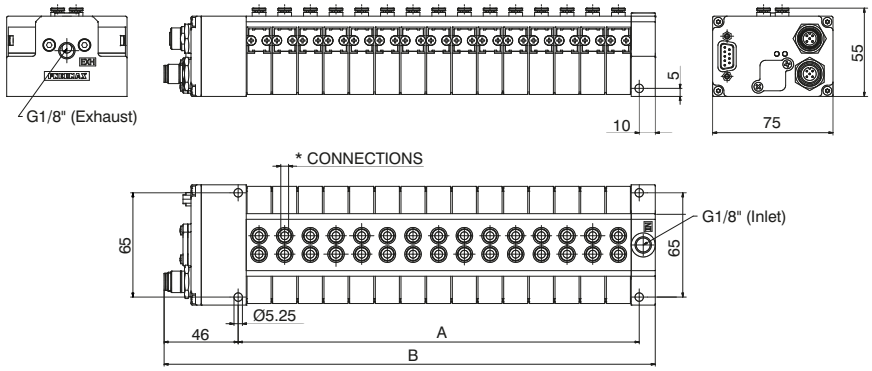


N° places	A	B	C
10	90	125	118,7
12	106	141	134,7
14	122	157	150,7
16	138	173	166,7
18	154	189	182,7
20	170	205	198,7
22	186	221	214,7
24	202	237	230,7
26	218	253	246,7
28	234	269	262,7
30	250	285	278,7
32	266	301	294.7

SUB-D 37 POLES CONNECTORS



Overall dimensions
Manifold with CANopen® node



N° positions	A	B
10	90	146
12	106	162
14	122	178
16	138	194
18	154	210
20	170	226
22	186	242
24	202	258
26	218	274
28	234	290
30	250	306
32	266	322

Manifold layout configuration

Connector type
0 = in line connector
9 = 90° connector
C = with CANopen® node

Connections size and type
3 = quick fitting tube Ø3
C = quick fitting tube Ø3.17
4 = quick fitting tube Ø4
A = M5 thread

35M . NW . _ _ . 0 _ . _ _ _

N° positions
A = 10 positions
B = 12 positions
C = 14 positions
D = 16 positions
E = 18 positions
F = 20 positions
G = 22 positions
H = 24 positions
L = 26 positions
M = 28 positions
N = 30 positions
P = 32 positions

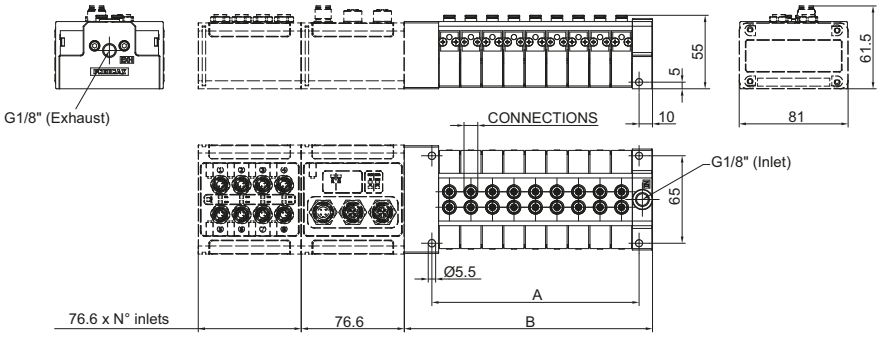
N° positions
plugged side left
0 = 00 positions
1 = 01 positions
2 = 02 positions
3 = 03 positions
4 = 04 positions
5 = 05 positions
6 = 06 positions
7 = 07 positions
8 = 08 positions
9 = 09 positions
A = 10 positions
B = 11 positions
C = 12 positions
D = 13 positions
E = 14 positions
F = 15 positions
G = 16 positions

N° positions
plugged side right
0 = 00 positions
1 = 01 positions
2 = 02 positions
3 = 03 positions
4 = 04 positions
5 = 05 positions
6 = 06 positions
7 = 07 positions
8 = 08 positions
9 = 09 positions
A = 10 positions
B = 11 positions
C = 12 positions
D = 13 positions
E = 14 positions
F = 15 positions
G = 16 positions

Valve type
A = N331.R0A (EV. 3/2 NC 24VDC d.1,1)
B = N331.R0B (EV. 3/2 NC 24VDC d.1,5)
C = N338.R0E (EV. 3/2 NC 24VDC 1W d.0,8)
D = N341.R0A (EV. 3/2 NO 24VDC d.1,1)
E = N341.R0B (EV. 3/2 NO 24VDC d.1,5)
F = N335.R0A (EV. 3/2 NC 24VAC d.1,1)

NOTE:
The "R" letter indicates that the coil is mounted upside-down (faces down). For prices and technical features of these valves please refer to the correspondent standard version (not R) included in the price list and catalogue.

Overall dimensions
Manifold with Optyma-F serial system (slave + input modules)



N° positions	A	B
10	90	120,50
12	106	136,50
14	122	152,50
16	138	168,50
18	154	184,50
20	170	200,50
22	186	216,50
24	202	232,50
26	218	248,50
28	234	264,50
30	250	280,50
32	266	296,50

Manifold layout configuration with Optyma-F serial system (slave + input modules)

32 OUT VERSION
C3=CANopen® 32OUT
D3=DeviceNet 32OUT
P3=PROFIBUS 32OUT
A3=EtherCAT® 32OUT (Serie 5700)
I3=EtherNet / IP 32OUT
N3=PROFINET IO RT 32OUT
L3= Powerlink 32OUT

INPUT MODULES
A = No module
D1= 8 M8 digital inputs modules
D3= 16IN digital inputs (SUB-D 25P) module
T1= 2 analogue inputs 0-5V module
T2= 2 analogue inputs 0-10V module
C1= 2 analogue inputs 0-20mA module
C2= 2 analogue inputs 4-20mA module

Connections size and type
3 = quick fitting tube Ø3
C = quick fitting tube Ø3.17
4 = quick fitting tube Ø4
A = M5 thread

35S	.			.			.	0		.		

N° positions
A = 10 positions
B = 12 positions
C = 14 positions
D = 16 positions
E = 18 positions
F = 20 positions
G = 22 positions
H = 24 positions
L = 26 positions
M = 28 positions
N = 30 positions
P = 32 positions

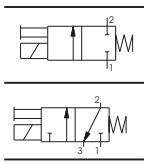
N° positions
plugged side left
0 = 00 positions
1 = 01 positions
2 = 02 positions
3 = 03 positions
4 = 04 positions
5 = 05 positions
6 = 06 positions
7 = 07 positions
8 = 08 positions
9 = 09 positions
A = 10 positions
B = 11 positions
C = 12 positions
D = 13 positions
E = 14 positions
F = 15 positions
G = 16 positions

N° positions
plugged side right
0 = 00 positions
1 = 01 positions
2 = 02 positions
3 = 03 positions
4 = 04 positions
5 = 05 positions
6 = 06 positions
7 = 07 positions
8 = 08 positions
9 = 09 positions
A = 10 positions
B = 11 positions
C = 12 positions
D = 13 positions
E = 14 positions
F = 15 positions
G = 16 positions

Valve type
A = N331.R0A (EV. 3/2 NC 24VDC d.1,1)
B = N331.R0B (EV. 3/2 NC 24VDC d.1,5)
C = N338.R0E (EV. 3/2 NC 24VDC 1W d.0,8)
D = N341.R0A (EV. 3/2 NO 24VDC d.1,1)
E = N341.R0B (EV. 3/2 NO 24VDC d.1,5)
G = N321.R0A (EV.2/2 NC 24VDC d.1,1)
H = N321.R0B (EV.2/2 NC 24VDC d.1,5)

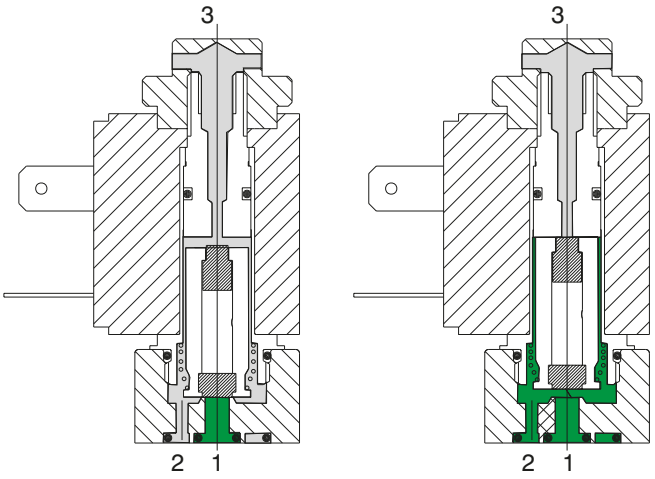
NOTE:
The “R”letter indicates that the coil is mounted upside-down (faces down). For prices and technical features of these valves please refer to the correspondent standard version (not R) included in the price list and catalogue.

Functional schematics

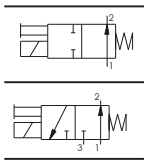


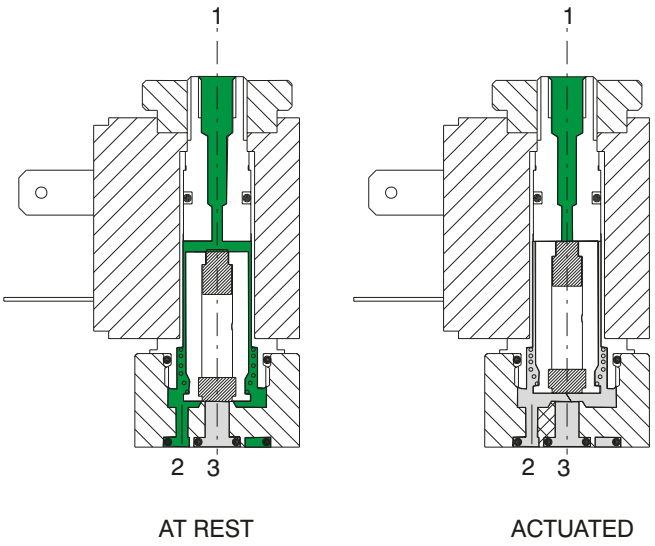
1 = INLET PORT
2 = OUTLET PORT
3 = EXHAUST PORT
(Plugged if 2/2)

Normally Closed (N.C.) 3/2 or 2/2



Normally Open (N.O.) 3/2 or 2/2





Construction characteristics

Electrical parts: Solenoids: the solenoid consist of coils having different diameter copper wire windings insulated according standards "H"; they are encased in a nylon-glass compound. All parts are corrosion resistant.

Mechanical parts: Nickel plated brass tube nitrile viton seals stainless steel plunger (AISI 430F), stainless steel adjusted springs, viton poppet seals, tropicalized zinc alloy interface plate, nickeled brass manual override, nickel steel coil lock nut, zinc steel mounting screw. To be usable, the solenoids and microsolenoids have to be attached either to a base or directly to the distributor's operators by means of connectors M5 or G 1/8". These solenoids are available in all voltages and frequences used in the world. The following are the technical characteristics of the solenoid.

Technical characteristics

Pneumatic	Working pressure	0 - 10 bar	
	Orifice size	1,3 mm	(0,9 mm for 2 W)
	Maximum fluid temperature	50°C	
	Maximum ambient temperature	50°C	
	Maximum flow rate at 6 bar with Δp 1 bar	53 Nl/min	(20Nl/min. for 2 W)
	Cycles/minute	700	
	Fluids	Air-vacuum-inert gases	
	Lubrication	non required	
	Life	45 to 50 million cycles	
Electrical	Power consumption holding - D.C	5 W	(2.5 W) low consumption
	Power consumption holding - A.C	9 VA	(6 VA) low consumption
	Operating voltage tolerance	±10%	
	Response time opening *	8 ms	
	Response time closing *	6 ms	
	Insulation of the copper wire	H	
	Insulation of the coil	F	
	Connector protection	IP 65	
	Cable protection	DIN 43650 INDUSTRIAL FORM	

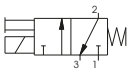
(*) "Shifting time of pneumatic directional control valves or moving parts, logic devices were measured in accordance to ISO 12238:2001, Pneumatic fluid power - Directional control valves - Measurement of shifting time"

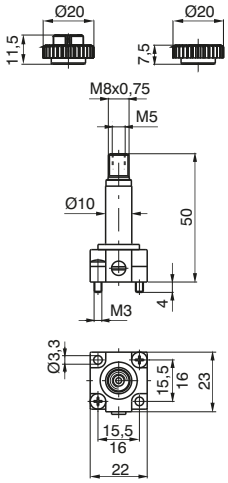
Maintenance and replacement parts

Maintenance practices for these valves are similar to those already detailed for other products-replacement of the plunger or poppet is not advisable since the new replacement would not provide the best fit with the rest of the already used valve. Special care should be taken that no dirt is accumulated between the working surface of fixed core and the plunger which would result in vibrations and overheating of the solenoid. In the case of microsolenoid it must be assured that the alternate current coil is not charged when the machanical part is not mounted to avoid destruction of the coil. The electrical connections have to be perfect, especially where low currents are used (12-24V). Oxidation of contacts between the connector and the coil can lead to intermittent malfunctions which are difficult to trace. Oxidation of contacts due to humidity or corrosive atmosphere are one of the most common causes of false alarms. Clean the contacts with appropriate spray.

Mechanical actuator for miniature solenoid valve

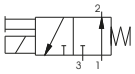
Ordering code	
M 2	Normally Closed (N.C.)
M 2P	Normally Closed (N.C.) treaded lock nut
M 2/9	Normally Closed (N.C.) 2 W 24 VDC

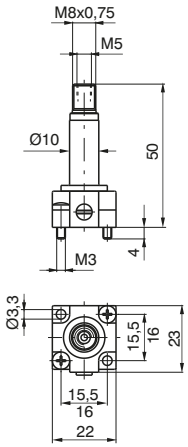




Weight 51 gr.

M 2/1 Normally Open (N.O.) air feeding through fix flunger

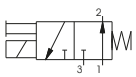




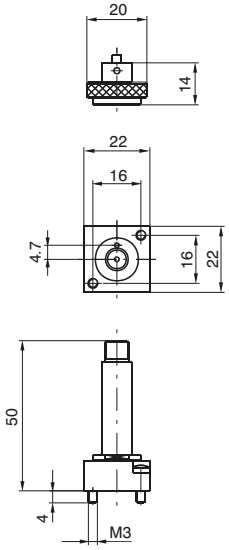
Weight 48 gr.

Normally Open (N.O.) air feeding through base

MM 7

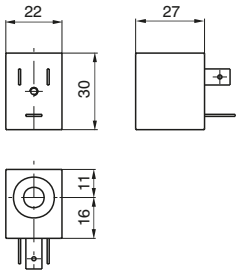


Weight 46 gr.



Ordering code N.O.	Available voltages Coil	
MB10/1	24 D.C. (8 Watt)	Direct current
MB17/1 **MB21/1** **MB22/1** **MB24/1**	24/50 48/50 110/50 230/50	Alternating current 50 Hz
MB37/1 **MB39/1** **MB41/1**	24/60 110/60 230/60	Alternating current 60 Hz
MB56/1 **MB57/1** **MB58/1**	24/50-60 110/50-60 230/50-60	Alternating current 50/60 Hz

Coil

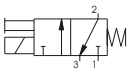


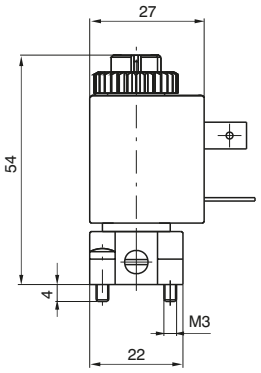
Weight 54 gr.

* Use only with M2/9

Ordering code	Available voltages Coils
MB 4 **MB 5** **MB 6**	12 D.C. 24 D.C. 48 D.C. — Direct current
MB 9*	24 D.C. (2 Watt) (Direct current, low consumption)
MB 17 **MB 21** **MB 22** **MB 24**	24/50 48/50 110/50 230/50 — Alternating current 50 Hz
MB 37 **MB 39** **MB 41**	24/60 110/60 230/60 — Alternating current 60 Hz
MB 56 **MB 57** **MB 58**	24/50-60 110/50-60 230/50-60 — Alternating current 50/60 Hz
MB 66 **MB 67** **MB 68**	24/50-60 110/50-60 230/50-60 — Alternating current (low consumption) 50/60 Hz

Miniature solenoid valve Normally Closed (N.C.)

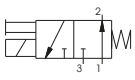


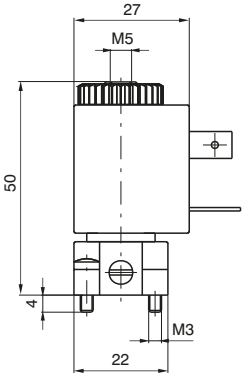


Weight 100 gr.

Ordering code	Available voltages Miniature solenoid valve N.C.
M 2.4 **M 2.5** **M 2.6** **M 2.9**	12 D.C. 24 D.C. 48 D.C. 24 D.C. (2 Watt) — Direct current
M 2.17 **M 2.21** **M 2.22** **M 2.24**	24/50 48/50 110/50 230/50 — Alternating current 50 Hz
M 2.37 **M 2.39** **M 2.41**	24/60 110/60 230/60 — Alternating current 60 Hz
M 2.56 **M 2.57** **M 2.58**	24/50-60 110/50-60 230/50-60 — Alternating current 50/60 Hz
M 2.66 **M 2.67** **M 2.68**	24/50-60 110/50-60 230/50-60 — Alternating current (low consumption) 50/60 Hz

Miniature solenoid valve Normally Open (N.O.)





Weight 103 gr.

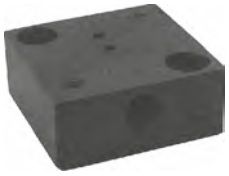
Ordering code	Available voltages Miniature solenoid valve N.O.
M 2/1.4 **M 2/1.5** **M 2/1.6** **M 2/1.9**	12 D.C. 24 D.C. 48 D.C. 24 D.C. (2 Watt) — Direct current
M 2/1.17 **M 2/1.21** **M 2/1.22** **M 2/1.24**	24/50 48/50 110/50 230/50 — Alternating current 50 Hz
M 2/1.37 **M 2/1.39** **M 2/1.41**	24/60 110/60 230/60 — Alternating current 60 Hz
M 2/1.56 **M 2/1.57** **M 2/1.58**	24/50-60 110/50-60 230/50-60 — Alternating current 50/60 Hz

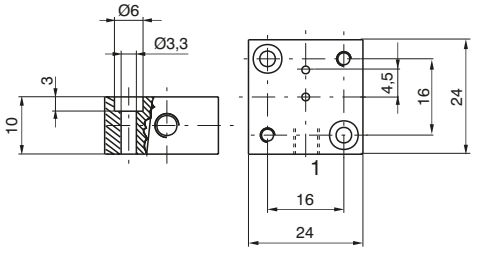
External feeding base

Use with solenoid valves for piloting pressure different from the using pressure

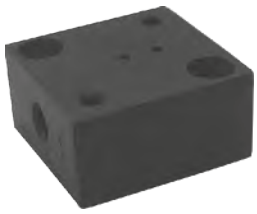
Ordering code
305.10.05

Weight 18 gr.





Individual base

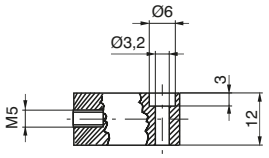


Ordering code

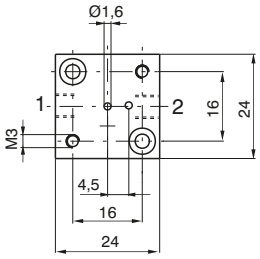
305.00.00

In line ports - thread M5

1 = INLET PORT (N.C.)
2 = OUTLET PORT



With a N.O. miniature solenoid valve
1 = EXHAUST
2 = OUTLET PORT



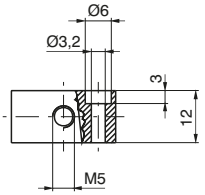
Weight 56 gr.

Ordering code

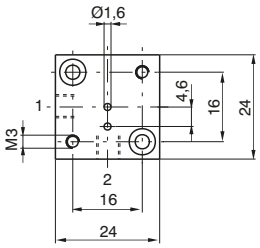
305.90.00

90° Port - thread M5

1 = INLET PORT (N.C.)
2 = OUTLET PORT (N.C)



With a N.O, miniature solenoid valve
1 = EXHAUST
2 = OUTLET PORT



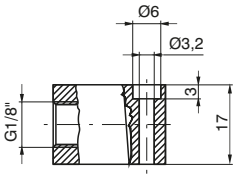
Weight 56 gr.

Ordering code

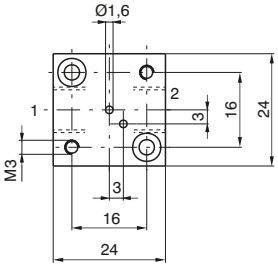
305.00.18

In line ports - thread G 1/8"

1 = INLET PORT (N.C.)
2 = OUTLET PORT (N.C)



With a N.O. miniature solenoid valve
1 = EXHAUST
2 = OUTLET PORT



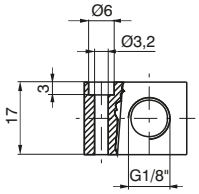
Weight 75 gr.

Ordering code

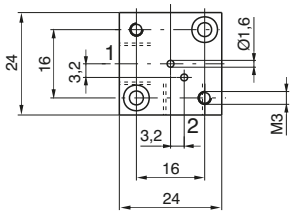
305.90.18

90° Port - thread G 1/8"

1 = INLET PORT (N.C.)
2 = OUTLET PORT (N.C.)

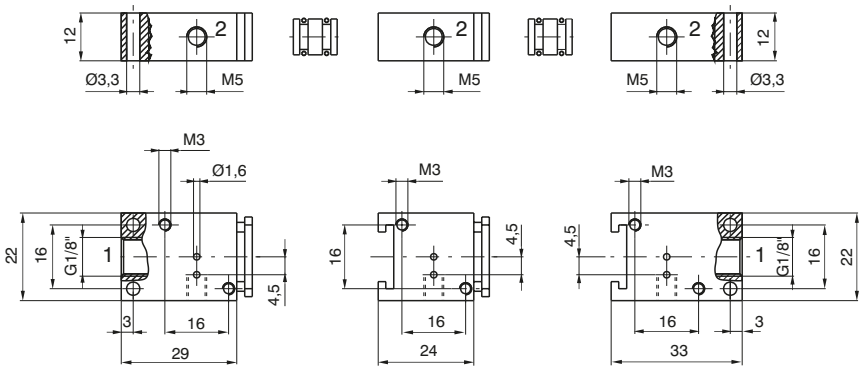


With a N.O. miniature solenoid valve
1 = EXHAUST
2 = OUTLET PORT



Weight 75 gr.

Modular bases for series mounting



Initial base *Intermediate base* *Last base*

Ordering code

Initial base
305.05.00
Weight 57 gr.

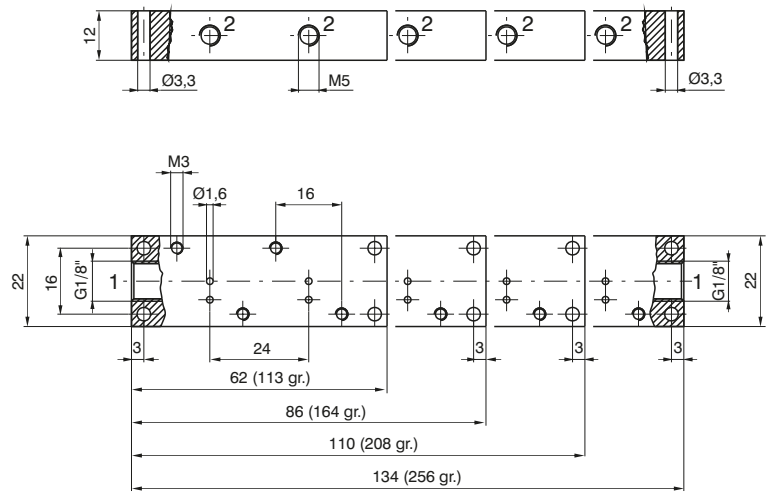
Intermediate base
305.06.00
Weight 44 gr.

Last base
305.07.00
Weight 53 gr.

Bored spacer
305.05.01
Weight 3 gr.

Solid spacer
305.05.02
Weight 4 gr.

Multiple integral bases for series mounting



Ordering code

305.08.02 **2** positions
305.08.03 **3** positions
305.08.04 **4** positions
305.08.05 **5** positions