

2.5

Solenoid Valves

Selected models are available for explosion hazardous environment. They are ATEX-Ex certified. For detailed information refer to chapter 2.12.

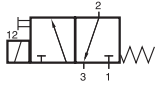


Selected models are available for low temperature application. Temperature-range: - 50° C to + 50° C. For detailed information refer to chapter 2.9.



Selected models are available in stainless steel. For detailed information refer to chapter 2.10.

MD 311 010



MD 311 010



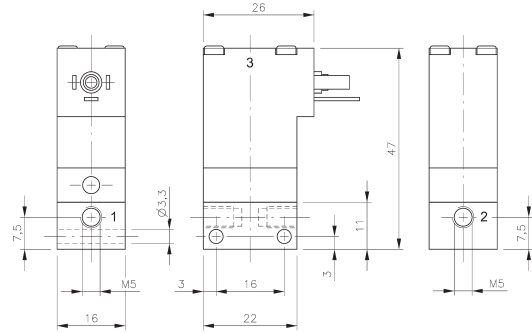
Direct acting 3/2-way solenoid, valve normally closed (n.c.), equipped with mechanical spring return.

By closing port 3 valve can be converted into a 2/2-way valve.

Available with solenoid operators:
230/50Hz, 110V/50Hz, 24V50Hz, 24V=,
12V=, 6V= either for connector form C ISO 15217 or
with flying leads, standard cable length 500 mm.

For details about solenoid system, please refer to
page 2.11.1.

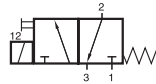
Valves are generally equipped with manual
override to push.



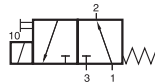
MD 311 010

Type	Funktion	Port size	Air flow	Operating press.	Power consumption	Weight
MD 311 010	n.c.	M5	30 l/min	0 - 10 bar	1,8 W = / 3 VA ~	0,05 kg

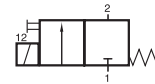
MH 311 012/MH 311 015/MH 211 012 MOH 311 012/MOH 311 015/MH 211 015



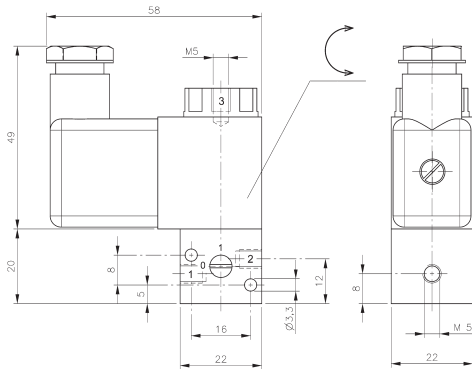
MH 311 012
MH 311 015



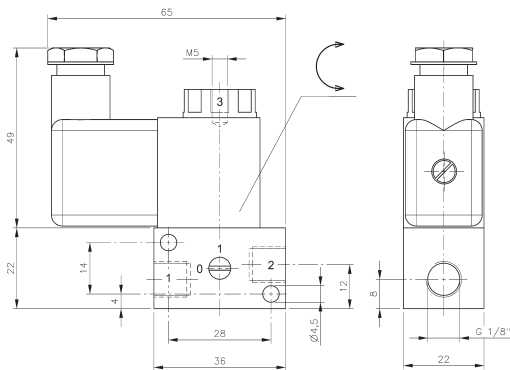
MOH 311 012
MOH 311 015



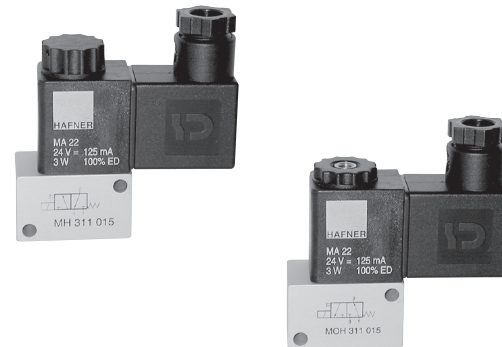
MH 211 012
MH 211 015



MH 311 012/MOH 311 012/MH 211 012



MH 311 015/MOH 311 015/MH 211 015



Direct acting 3/2-way and 2/2-way solenoid valve equipped with mechanical spring return.

Type MH 311 ___
Normally closed, port 1 and 2 in the valve, port 3 at the top of the solenoid

Type MOH 311 ___
Normally open, port 2 and 3 in the valve, port 1 at the top of the solenoid

Type MH 211 ___
2/2-way valve n.c.

By closing port 3 3/2-way valves can be converted into 2/2-way version.

Please notice:
Drawings are for MH 311 ___-valves. At MOH-valves ports 1 and 3 are swapped, at MH 211 port 3 is not existing. MOH 311 and MH 211-valves are equipped with a flat plastic nut.

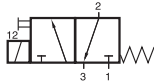
Available with solenoid operators:
230V/50Hz, 110V/50Hz, 24V/50Hz, 48V=, 24V=, 12V=.

Valves are generally equipped with manual override.

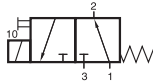
Connector as shown on the photo is included.

Type	Ways	Function	Port size			Air flow	Operating pressure	Power consumption	Weight
			1	2	3				
MH 311 012	3/2	n.c.	M5	M5	M5	40 l/min	0 - 10 bar	3 W = / 5 VA ~	0,12 kg
MH 311 015	3/2	n.c.	G 1/8"	G 1/8"	M5	50 l/min	0 - 10 bar	3 W = / 5 VA ~	0,14 kg
MOH 311 012	3/2	n.o.	M5	M5	M5	40 l/min	0 - 10 bar	3 W = / 5 VA ~	0,12 kg
MOH 311 015	3/2	n.o.	M5	G 1/8"	G 1/8"	50 l/min	0 - 10 bar	3 W = / 5 VA ~	0,14 kg
MH 211 012	2/2	n.c.	M5	M5		40 l/min	0 - 10 bar	3 W = / 5 VA ~	0,12 kg
MH 211 015	2/2	n.c.	G 1/8"	G 1/8"		50 l/min	0 - 10 bar	3 W = / 5 VA ~	0,14 kg

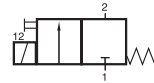
MH 311 305/MH 311 309/MOH 311 305 MOH 311 309/MH 211 305/MH 211 309



MH 311 305
MH 311 309



MOH 311 305
MOH 311 309



MH 211 305
MH 211 309



Direct acting 3/2-way and 2/2-way solenoid valve equipped with mechanical spring return.
Orifice size: 3 mm, max. pressure: 7 bar.

Type MH 311 ___
Normally closed, port 1 and 2 in the valve, port 3 at the top of the solenoid

Type MOH 311 ___
Normally open, port 2 and 3 in the valve, port 1 at the top of the solenoid

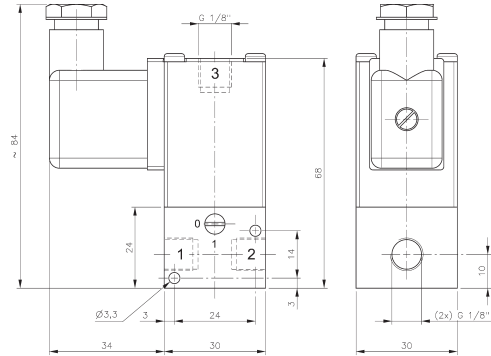
Type MH 211 ___
2/2-way valve n.c.

Please notice:
Drawings are for MH 311 ___-valves. At MOH-valves ports 1 and 3 are swapped, at MH 211 port 3 is not existing.

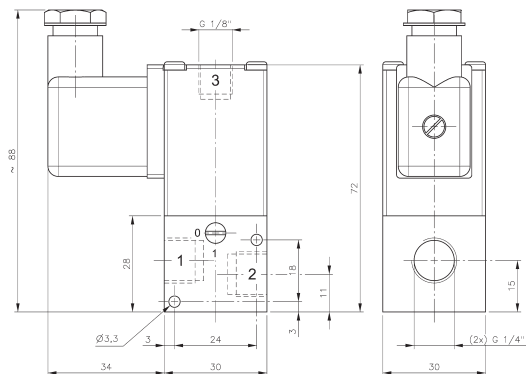
Available with solenoid operators:
230VAC, 24DC.

Valves are generally equipped with manual override.

Connector Industry B (22 mm) as shown on the photo is included.

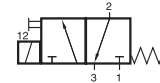


MH 311 305/MOH 311 305/MH 211 305

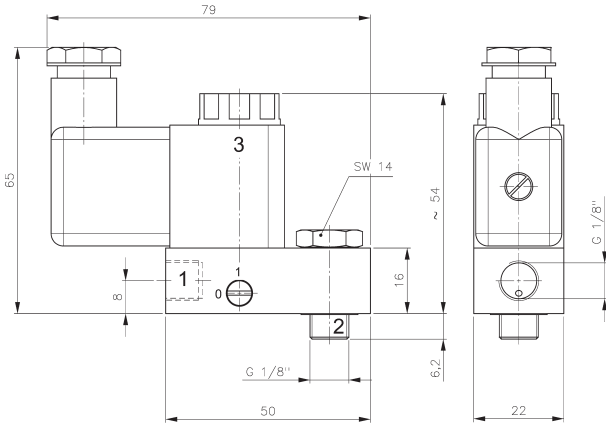


MH 311 309/MOH 311 309/MH 211 309

Type	Ways	Function	Port size			Air flow	Operating Power		Weight
			1	2	3		pressure	consumption	
MH 311 305	3/2	n.c.	G 1/8"	G 1/8"	G 1/8"	300 l/min	0 - 7 bar	8 W = /13,5 VA ~ 0,17 kg	
MH 311 309	3/2	n.c.	G 1/4"	G 1/4"	G 1/8"	300 l/min	0 - 7 bar	8 W = /13,5 VA ~ 0,18 kg	
MOH 311 305	3/2	n.o.	G 1/8"	G 1/8"	G 1/8"	300 l/min	0 - 7 bar	8 W = /13,5 VA ~ 0,17 kg	
MOH 311 309	3/2	n.o.	G 1/4"	G 1/4"	G 1/8"	300 l/min	0 - 7 bar	8 W = /13,5 VA ~ 0,18 kg	
MH 211 305	2/2	n.c.	G 1/8"	G 1/8"		300 l/min	0 - 7 bar	8 W = /13,5 VA ~ 0,17 kg	
MH 211 309	2/2	n.c.	G 1/4"	G 1/4"		300 l/min	0 - 7 bar	8 W = /13,5 VA ~ 0,18 kg	



MH 311 013
MH 311 017



MH 311 013



Direct acting 3/2-way solenoid valve equipped with mechanical spring return, normally closed.

Port 2 is a banjo that can be directly screwed into the actuator that is to be controlled.

Products with port 1 in NPT on request.

Products normally open on request.

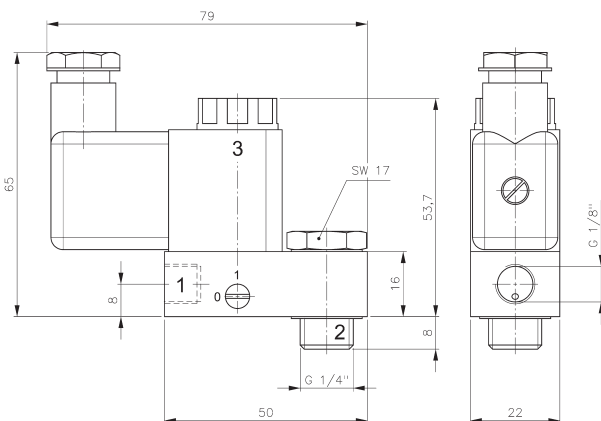
2/2-way version on request.

Available with solenoid operators:

230V/50Hz, 110V/50Hz, 24V/50Hz, 48V=, 24V=, 12V=.

Valves are generally equipped with manual override.

Connector as shown on the photo is included.



MH 311 017



MH 311 013 and MH 311 017 are designed for piloting angle seat valves or small spring-return actuators.

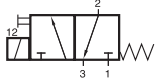
When assembling this type of valve to a spring-return actuator, please take into consideration that there is no exhaust air recirculation ("purge").

Instead of the standard banjo-screw, the valve can also be equipped with a flow-regulating banjo-screw.

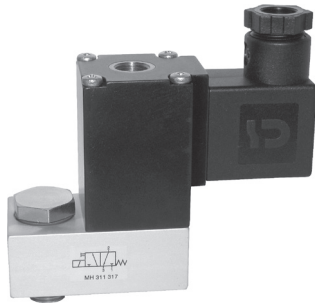
Three different versions are available on request: Banjo-screw to regulate the opening speed, the closing speed as well as the opening and closing speed (not independent).

Type	Function	Port size			Air flow	Operating pressure	Power consumption	Weight
		1	2	3				
MH 311 013	n.c.	G 1/8"	G 1/8"	M5	50 l/min 0 - 10 bar	3 W = / 5 VA ~	0,14 kg	❄
MH 311 017	n.c.	G 1/8"	G 1/4"	M5	50 l/min 0 - 10 bar	3 W = / 5 VA ~	0,16 kg	❄

MH 311 313/MH 311 317



MH 311 313
MH 311 317



Direct acting 3/2-way solenoid valve equipped with mechanical spring return, normally closed. Orifice size: 3 mm, max. pressure: 7 bar.

Port 2 is a banjo that can be directly screwed into the actuator that is to be controlled.

Products with port 1 in NPT on request.
Products normally open on request.
2/2-way version on request.

Available with solenoid operators:
230VAC, 24DC.

Valves are generally equipped with manual override.

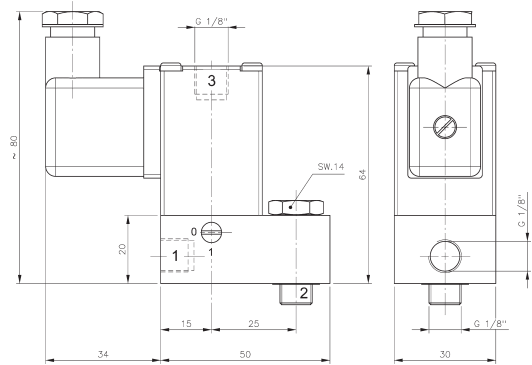
Connector Industry B (22 mm) as shown on the photo is included.

MH 311 313 and MH 311 317 are designed for piloting angle seat valves or small spring-return actuators.

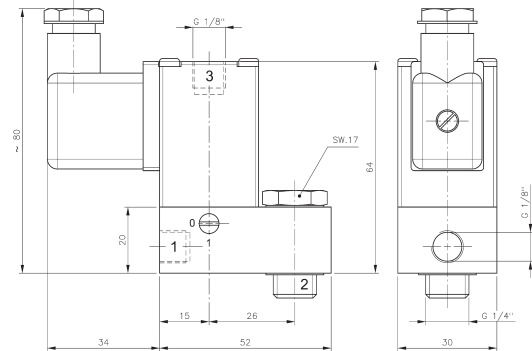
When assembling this type of valve to a spring-return actuator, please take into consideration that there is no exhaust air recirculation ("purge").

Instead of the standard banjo-screw, the valve can also be equipped with a flow-regulating banjo-screw.

Three different versions are available on request: Banjo-screw to regulate the opening speed, the closing speed as well as the opening and closing speed (not independent).



MH 311 313

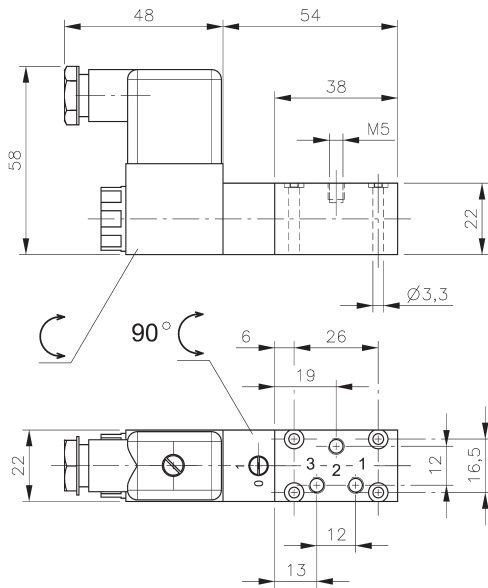
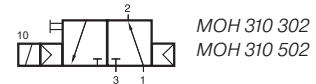
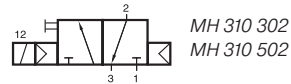


MH 311 317

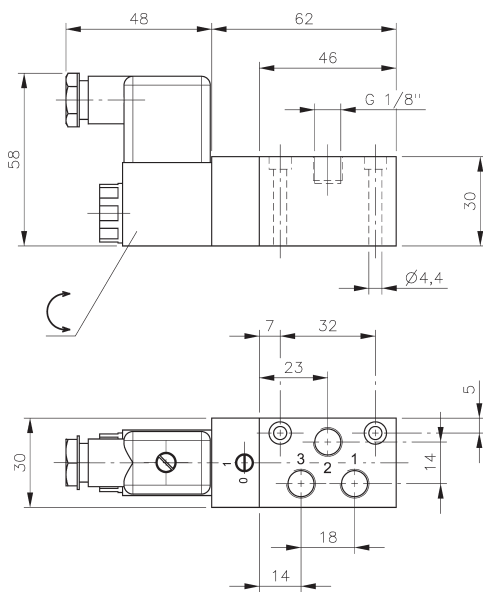


Type	Function	Port size			Air flow	Operating pressure	Power consumption	Weight
		1	2	3				
MH 311 313	n.c.	G 1/8"	G 1/8"	G 1/8"	300 l/min	0 - 7 bar	8 W = /13,5 VA ~	0,21 kg
MH 311 317	n.c.	G 1/8"	G 1/4"	G 1/8"	300 l/min	0 - 7 bar	8 W = /13,5 VA ~	0,22 kg

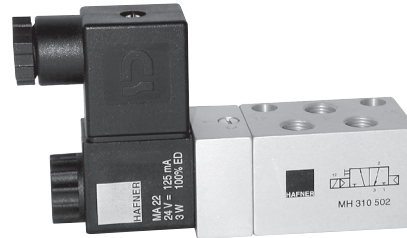
MH 310 302/MH 310 502 MOH 310 302/MOH 310 502



MH 310 302/MOH 310 302



MH 310 502/MOH 310 502



3/2-way solenoid valve normally closed (MH) or normally open (MOH) actuated by permanent signal and equipped with air spring return.

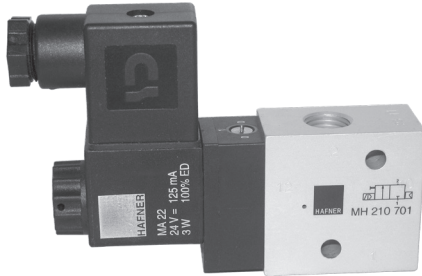
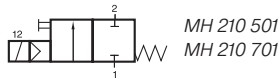
Available with solenoid operators:
230V/50Hz, 110V/50Hz, 24V/50Hz, 48V=,
24V=, 12V=.

Valves are generally equipped with manual override.
If requested without manual override please order
M 310 ___ / MO 310 ___.

Connector as shown on the photo is included.

Type	Function	Port size 1 and 2	Air flow	Operating pressure	Power consumption	Weight
MH 310 302	n.c.	M5	180 l/min	2 - 10 bar	3 W = / 5 VA ~	0,18 kg
MH 310 502	n.c.	G 1/8"	650 l/min	2 - 10 bar	3 W = / 5 VA ~	0,25 kg
MOH 310 302	n.o.	M5	180 l/min	2 - 10 bar	3 W = / 5 VA ~	0,18 kg
MOH 310 502	n.o.	G 1/8"	650 l/min	2 - 10 bar	3 W = / 5 VA ~	0,25 kg

MH 210 501/MH 201 701



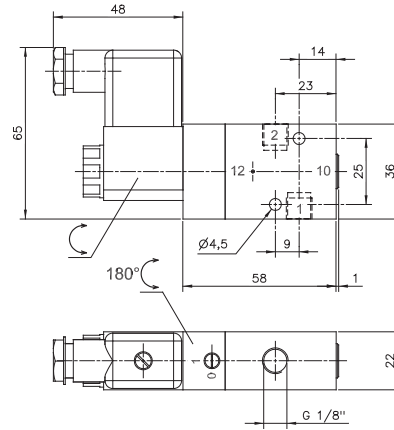
2/2-way solenoid valve, normally closed, actuated by permanent signal and equipped with air spring return.

Available with solenoid operators:
230V/50Hz, 110V/50Hz, 24V/50Hz, 48V=,
24V=, 12V=.

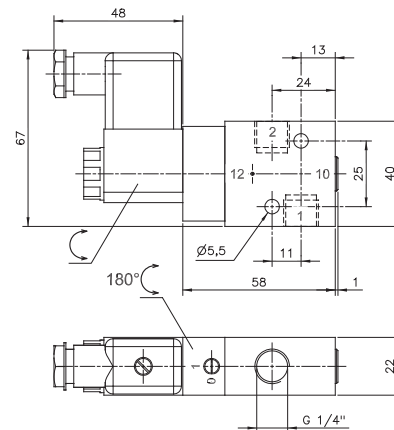
Valves are generally equipped with manual override.

Normally open version (MOH) on request.

Connector as shown on the photo is included.



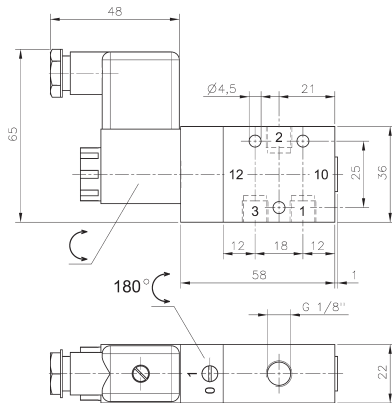
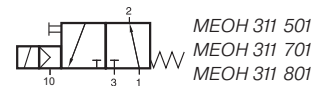
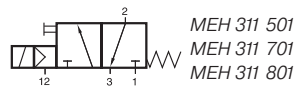
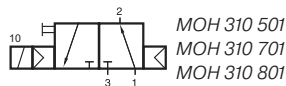
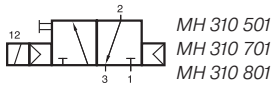
MH 210 501



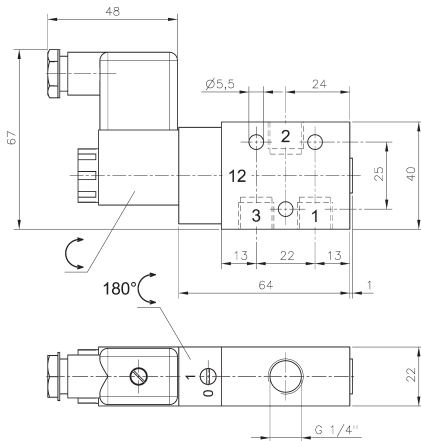
MH 210 701

Type	Port size	Air flow	Operating press.	Power consumption	Weight
MH 210 501	G 1/8"	650 l/min	2 - 10 bar	3 W = / 5 VA ~	0,19 kg
MH 210 701	G 1/4"	1250 l/min	2 - 10 bar	3 W = / 5 VA ~	0,19 kg

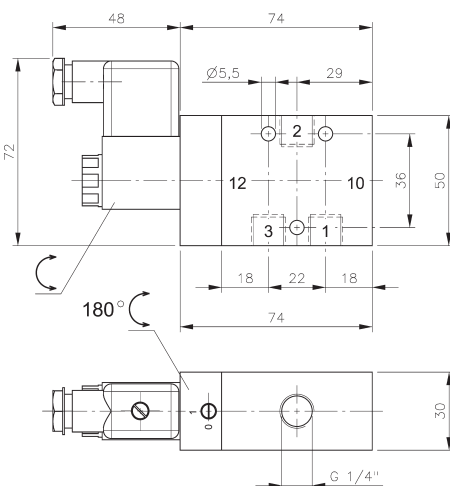
MH 310 501/MH 310 701/MH 310 801 MOH 310 501/MOH 310 701/MOH 310 801



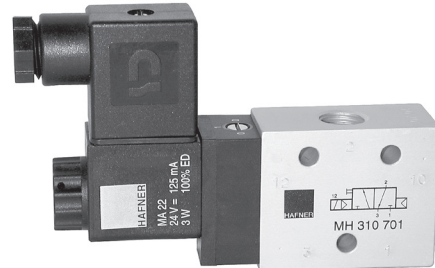
MH 310 501/MOH 310 501



MH 310 701/MOH 310 701



MH 310 801/MOH 310 801



3/2-way solenoid valve normally closed (MH) or normally open (MOH) actuated by permanent signal and equipped with air spring return.

Available with solenoid operators:
230V/50Hz, 110V/50Hz, 24V/50Hz, 48V=,
24V-, 12V=.

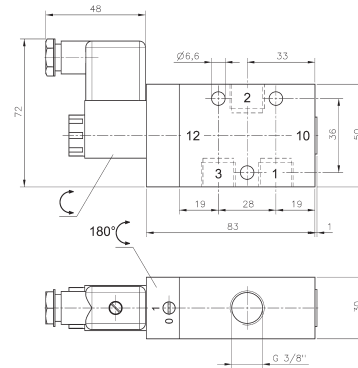
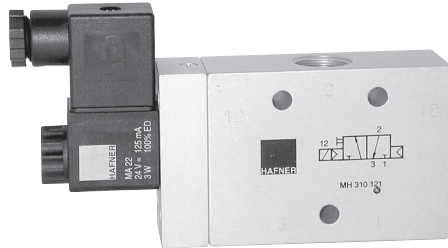
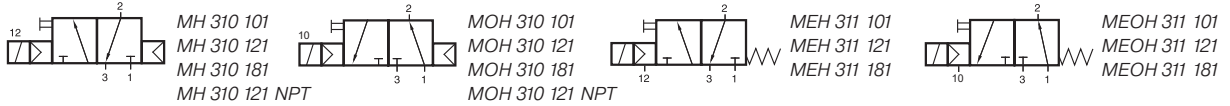
Valves are generally equipped with manual override.
If requested without manual override please order
M 310 ___ / MO 310 ___

Valves are also available with external pilot feed.
Type: MEH 311 ___ (n.c.) or MEOH 311 ___ (n.o.).
Port 12 series 501 and 701 M5, series 801 G 1/8".
Minimum actuation pressure: 3 bar.
Version for vacuum on request.

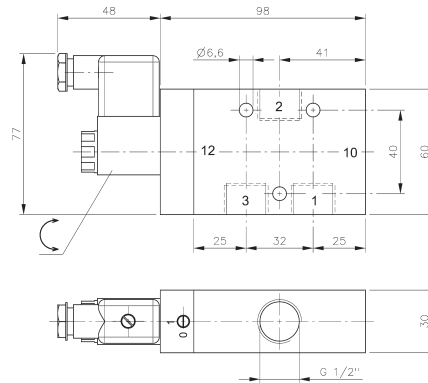
Connector as shown on the photo is included.

Type	Function	Port size	Air flow	Operating press.	Power consumption	Weight
MH 310 501	n.c.	G 1/8"	650 l/min	2 - 10 bar	3 W = / 5 VA ~	0,19 kg
MH 310 701	n.c.	G 1/4"	1250 l/min	2 - 10 bar	3 W = / 5 VA ~	0,21 kg
MH 310 801	n.c.	G 1/4"	1450 l/min	1,5 - 10 bar	3 W = / 5 VA ~	0,39 kg
MOH 310 501	n.o.	G 1/8"	650 l/min	2 - 10 bar	3 W = / 5 VA ~	0,19 kg
MOH 310 701	n.o.	G 1/4"	1250 l/min	2 - 10 bar	3 W = / 5 VA ~	0,21 kg
MOH 310 801	n.o.	G 1/4"	1450 l/min	1,5 - 10 bar	3 W = / 5 VA ~	0,39 kg

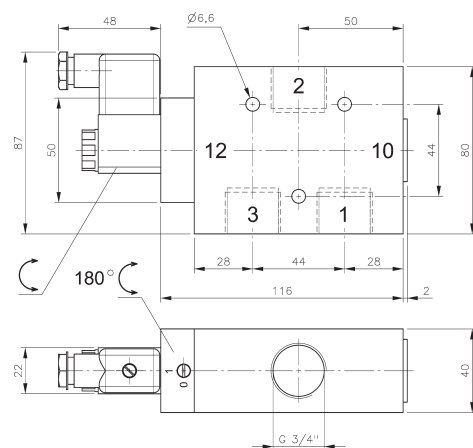
MH 310 101/MH 310 121/MH 310 181 MOH 310 101/MOH 310 121/MOH 310 181



MH 310 101/MOH 310 101



**MH 310 121/MOH 310 121
MH 310 121 NPT/MOH 310 121 NPT**



MH 310 181/MOH 310 181

3/2-way solenoid valve normally closed (MH) or normally open (MOH) actuated by permanent signal and equipped with air spring return.

Available with solenoid operators:
230V/50Hz, 110V/50Hz, 24V/50Hz, 48V=
24V=, 12V=.

Valves are generally equipped with manual override. If requested without manual override please order M 310 ___ / MO 310 ___.

Valves are also available with external pilot feed.
Type: MEH 311 ___ (n.c.) or MEOH 311 ___ (n.o.).
Port 12: G 1/8".

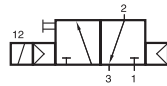
Minimum actuation pressure: 3 bar.
Version for vacuum on request.

Connector as shown on the photo is included.

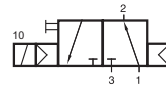
Selected products displayed on this page are also available NPT threaded.

Type	Function	Port size	Air flow	Operating press.	Power cons.	Weight
MH 310 101	n.c.	G 3/8"	2250 l/min	1,5 - 10 bar	3 W = / 5 VA ~	0,41 kg
MH 310 121	n.c.	G 1/2"	3000 l/min	1 - 10 bar	3 W = / 5 VA ~	0,53 kg
MH 310 181	n.c.	G 3/4"	6000 l/min	1 - 10 bar	3 W = / 5 VA ~	0,88 kg
MOH 310 101	n.o.	G 3/8"	2250 l/min	1,5 - 10 bar	3 W = / 5 VA ~	0,41 kg
MOH 310 121	n.o.	G 1/2"	3000 l/min	1 - 10 bar	3 W = / 5 VA ~	0,53 kg
MOH 310 181	n.o.	G 3/4"	6000 l/min	1 - 10 bar	3 W = / 5 VA ~	0,88 kg
MH 310 121 NPT	n.o.	1/2" NPT	3000 l/min	1 - 10 bar	3 W = / 5 VA ~	0,53 kg
MOH 310 121 NPT	n.o.	1/2" NPT	3000 l/min	1 - 10 bar	3 W = / 5 VA ~	0,53 kg

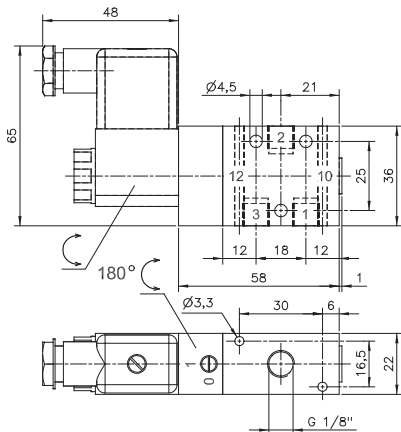
MH 310 501 G/MH 310 701 G MOH 310 501 G/MOH 310 701 G



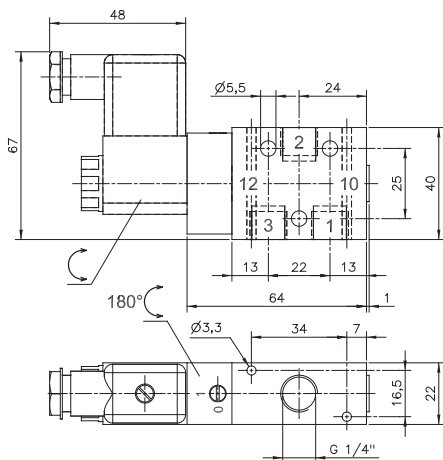
MH 310 501 G
MH 310 701 G
MH 310 701 G NPT



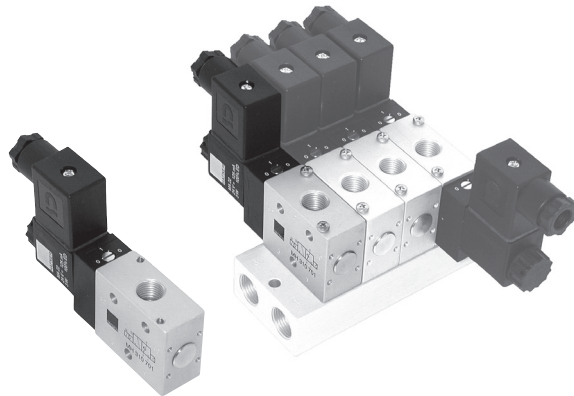
MOH 310 501 G
MOH 310 701 G
MOH 310 701 G NPT



MH 310 501 G/MOH 310 501 G



MH 310 701 G/MOH 310 701 G
MH 310 701 G NPT/MOH 310 701 G NPT



3/2-way solenoid valve normally closed (MH) or normally open (MOH) actuated by permanent signal and equipped with air spring return.

Valves can either be used in-line or to be assembled onto a manifold plate. Manifolds for valves type 501 G are displayed on page 2.6.1.4, manifolds for valves type 701 G are displayed on page 2.6.1.5.

Normally open and normally closed products can be mixed on one plate.

Available with solenoid operators:
230V/50Hz, 110V/50Hz, 24V/50Hz, 48V=,
24V=, 12V=.

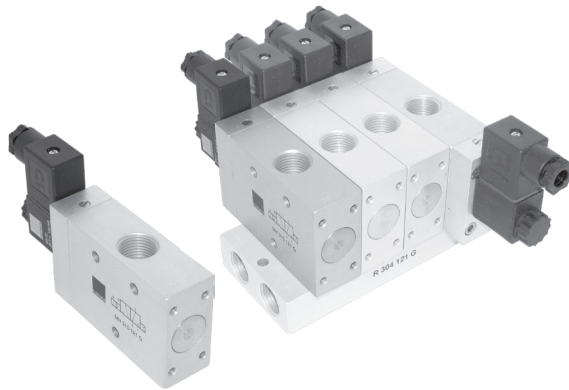
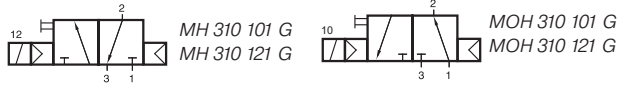
Valves are generally equipped with manual override. If requested without manual override please order M 310 ___ / MO 310 ___.

Connector as shown on the photo is included.

Selected products displayed on this page are also available NPT threaded.

Type	Function	Port size	Air flow	Operating press.	Power cons.	Weight
MH 310 501 G	n.c.	G 1/8"	650 l/min	2 - 10 bar	3 W = / 5 VA ~	0,20 kg
MH 310 701 G	n.c.	G 1/4"	1250 l/min	2 - 10 bar	3 W = / 5 VA ~	0,21 kg MK
MOH 310 501 G	n.o.	G 1/8"	650 l/min	2 - 10 bar	3 W = / 5 VA ~	0,20 kg
MOH 310 701 G	n.o.	G 1/4"	1250 l/min	2 - 10 bar	3 W = / 5 VA ~	0,21 kg MK
MH 310 701 G NPT	n.c.	1/4" NPT	1250 l/min	2 - 10 bar	3 W = / 5 VA ~	0,21 kg
MOH 310 701 G NPT	n.o.	1/4" NPT	1250 l/min	2 - 10 bar	3 W = / 5 VA ~	0,21 kg

MH 310 101 G/MH 310 121 G MOH 310 101 G/MOH 310 121 G



3/2-way solenoid valve normally closed (MH) or normally open (MOH) actuated by permanent signal and equipped with air spring return.

Valves can either be used in-line or to be assembled onto a manifold plate. Manifolds for valves type 101 G are displayed on page 2.6.1.4, manifolds for valves type 121 G are displayed on page 2.6.1.5.

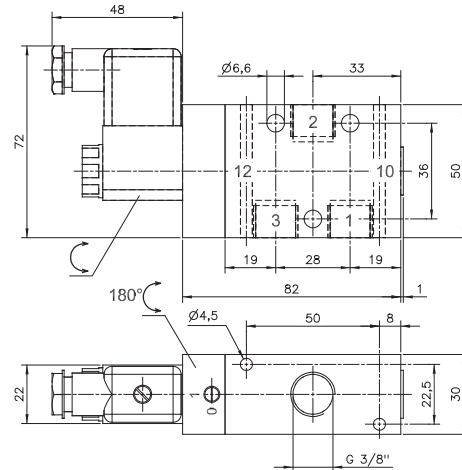
Normally open and normally closed products can be mixed on one plate.

Valves G1/2" have to be assembled onto the plate by fixing screws from the bottom through the plate into the valve.

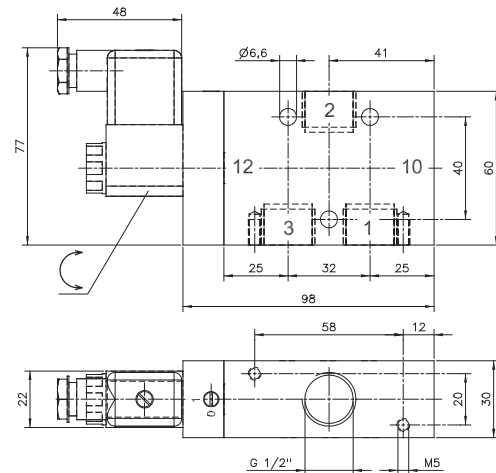
Available with solenoid operators:
230V/50Hz, 110V/50Hz, 24V/50Hz, 48V=,
24V=, 12V=.

Valves are generally equipped with manual override.
If requested without manual override please order
M 310 ___ / MO 310 ___.

Connector as shown on the photo is included.



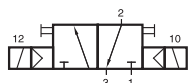
MH 310 101 G/MOH 310 101 G



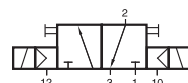
MH 310 121 G/MOH 310 121 G

Type	Function	Port size	Air flow	Operating press.	Power consumption	Weight
MH 310 101 G	n.c.	G 3/8"	2250 l/min	1,5 - 10 bar	3 W = / 5 VA ~	0,41 kg
MH 310 121 G	n.c.	G 1/2"	3000 l/min	1 - 10 bar	3 W = / 5 VA ~	0,53 kg
MOH 310 101 G	n.o.	G 3/8"	2250 l/min	1,5 - 10 bar	3 W = / 5 VA ~	0,41 kg
MOH 310 121 G	n.o.	G 1/2"	3000 l/min	1 - 10 bar	3 W = / 5 VA ~	0,53 kg

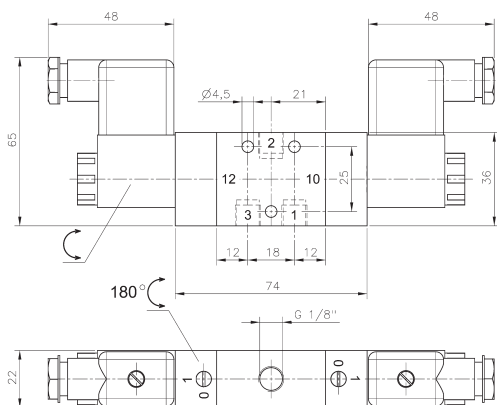
MH 320 501/MH 320 701/MH 320 801



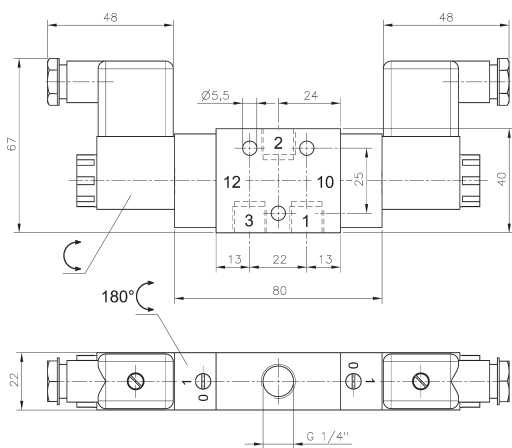
MH 320 501
MH 320 701
MH 320 801



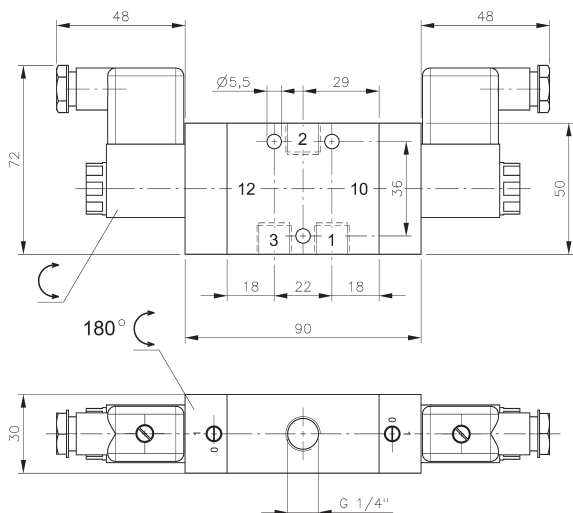
MEH 320 501
MEH 320 701
MEH 320 801



MH 320 501



MH 320 701



MH 320 801



3/2-way double solenoid valve actuated by impulse. Position is kept until an electrical signal is applied to the opposite side even when not attached to an electrical source.

Available with solenoid operators:
230V/50Hz, 110V/50Hz, 24V/50Hz, 48V=,
24V-, 12V=.

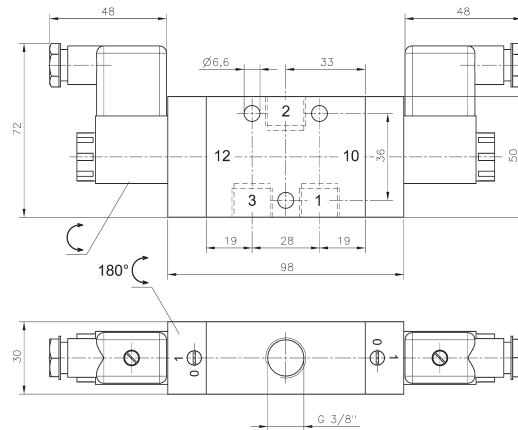
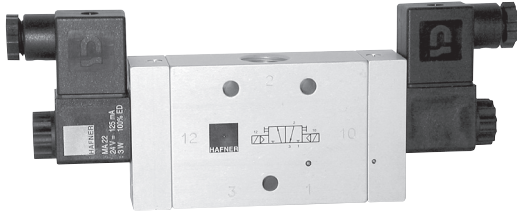
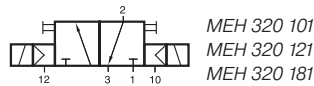
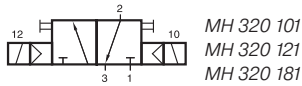
Valves are generally equipped with manual override. If requested without manual override please order type no. M 320 ____.

Valves are also available with external pilot feed.
Type: MEH 320 ____.
Port 12 series 501 and 701 M5, series 801 G 1/8".
Minimum actuation pressure: 2,5 bar.
Version for vacuum on request.

Connectors as shown on the photo are included.

Type	Port size	Air flow	Operating press.	Power consumption	Weight
MH 320 501	G 1/8"	650 l/min	2 - 10 bar	3 W = / 5 VA ~	0,29 kg
MH 320 701	G 1/4"	1250 l/min	2 - 10 bar	3 W = / 5 VA ~	0,31 kg
MH 320 801	G 1/4"	1450 l/min	1,5 - 10 bar	3 W = / 5 VA ~	0,54 kg

MH 320 101/MH 320 121/MH 320 181



MH 320 101

3/2-way double solenoid valve actuated by impulse. Position is kept until an electrical signal is applied to the opposite side even when not attached to an electrical source.

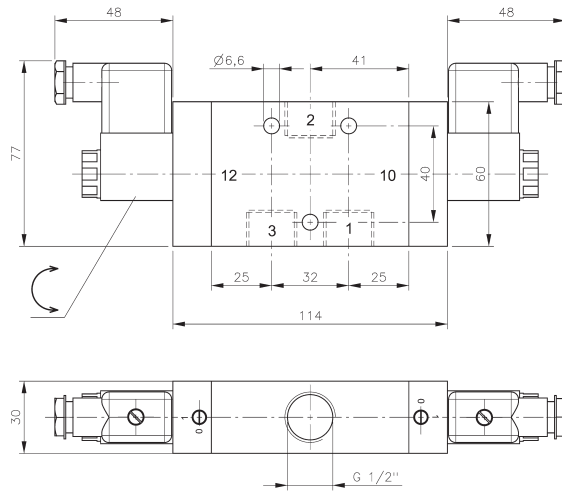
Available with solenoid operators:
230V/50Hz, 110V/50Hz, 24V/50Hz, 48V=,
24V=, 12V=.

Valves are generally equipped with manual override. If requested without manual override please order type no. M 320 ____.

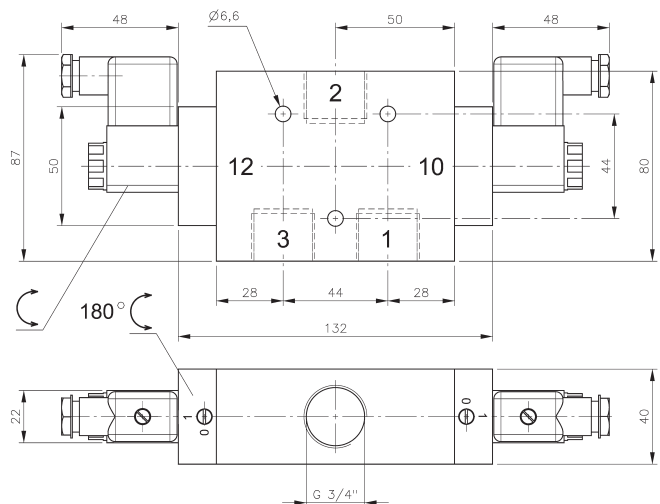
Valves are also available with external pilot feed.
Type: MEH 320 ____.

Port 12: G 1/8".
Minimum actuation pressure: 2,5 bar.
Version for vacuum on request.

Connectors as shown on the photo are included.



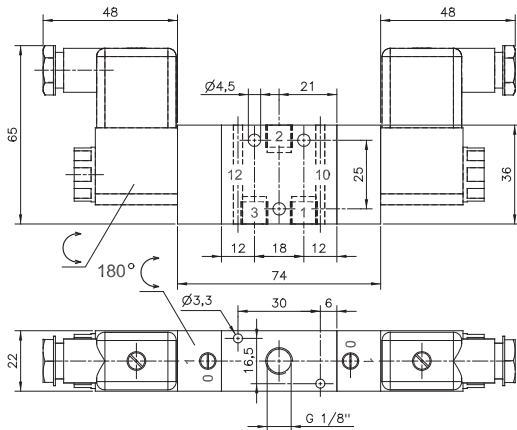
MH 320 121



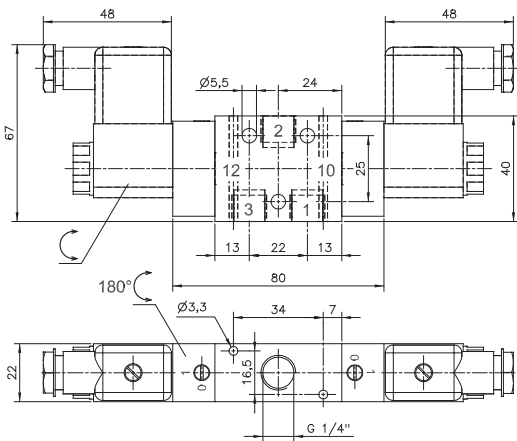
MH 320 181

Type	Port size	Air flow	Operating press.	Power consumption	Weight
MH 320 101	G 3/8"	2250 l/min	1,5 - 10 bar	3 W = / 5 VA ~	0,58 kg
MH 320 121	G 1/2"	3000 l/min	1 - 10 bar	3 W = / 5 VA ~	0,70 kg
MH 320 181	G 3/4"	6000 l/min	1 - 10 bar	3 W = / 5 VA ~	1,08 kg

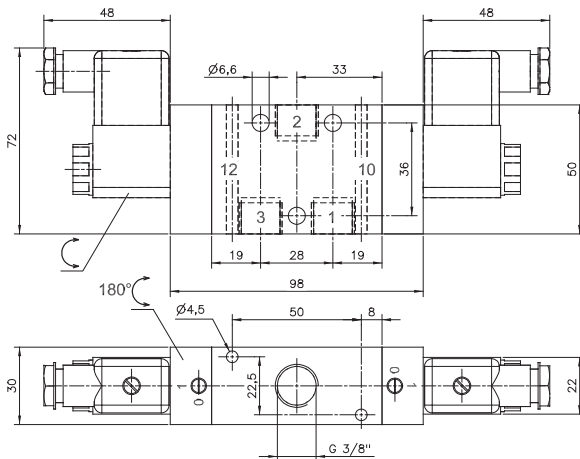
MH 320 501 G/MH 320 701 G MH 320 101 G/MH 320 121 G



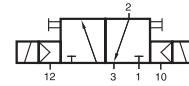
MH 320 501 G



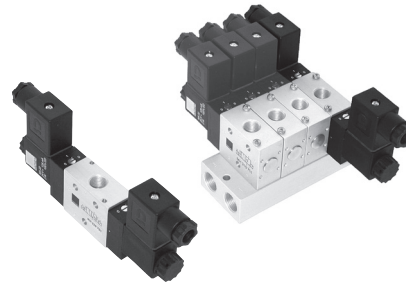
MH 320 701 G



MH 320 101 G



MH 320 501 G
MH 320 701 G
MH 320 101 G
MH 320 121 G



3/2-way double solenoid valve actuated by impulse. Position is kept until an electrical signal is applied to the opposite side even when not attached to an electrical source.

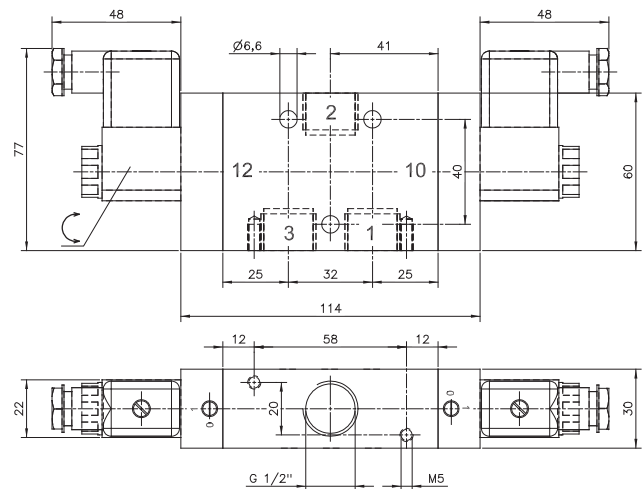
Valves can either be used in-line or to be assembled onto a manifold plate. Manifolds for valves type 501 G and 101 G are displayed on page 2.6.1.4, manifolds for valves type 701 G and 121 G are displayed on page 2.6.1.5.

Please notice: Valves G 1/2" have to be assembled onto the plate by fixing screws from the bottom through the plate into the valve.

Available with solenoid operators:
230V/50Hz, 110V/50Hz, 24V/50Hz, 48V=,
24V-, 12V=.

Valves are generally equipped with manual override. If requested without manual override please order M 310 ___ / MO 310 ___.

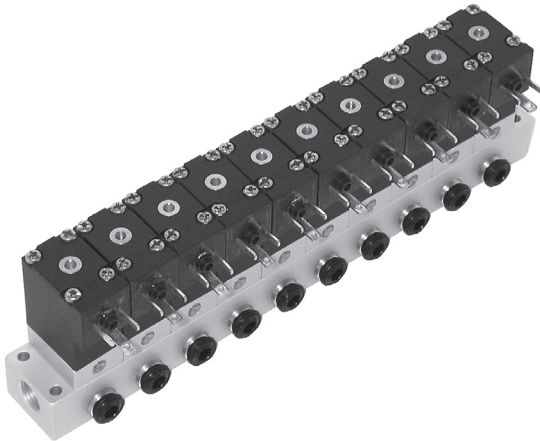
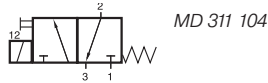
Connector as shown on the photo is included.



MH 320 121 G

Type	Port size	Air flow	Operating press.	Power consumption	Weight
MH 320 501 G	G 1/8"	650 l/min	2 - 10 bar	3 W = / 5 VA ~	0,29 kg
MH 320 701 G	G 1/4"	250 l/min	2 - 10 bar	3 W = / 5 VA ~	0,31 kg MK
MH 320 101 G	G 3/8"	2250 l/min	1,5 - 10 bar	3 W = / 5 VA ~	0,58 kg
MH 320 121 G	G 1/2"	3000 l/min	1 - 10 bar	3 W = / 5 VA ~	0,70 kg

MD 311 104/RD 3__ 104/RD 3__ 144



System consisting of direct acting 3/2-way solenoid valves, normally closed, actuated by permanent signal and manifold plates for common pressure supply (1). Port 2 is in the plate, either threaded M5 or with 4 mm push-in fitting, exhaust through the operator tube, thread M3.

Valves

Type MD 311 104:
with electrical connection C ISO 15217, pins are 8 mm apart
Type MD 311 104 L:
with flying leads standard length 500 mm

Available with solenoid operators:
230V/50Hz, 110V/50Hz, 24V/50Hz, 24V=,
12V=, 6V=.
For details about solenoid system, please refer to page 2.11.1.

Valves are generally equipped with manual override to push.

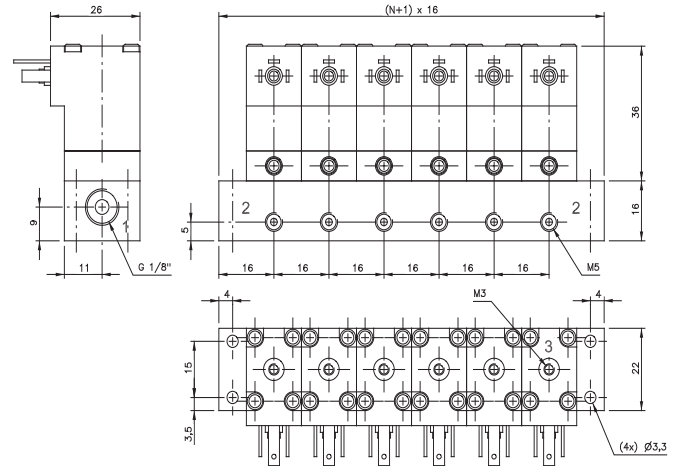
Plates

RD 3__ 104:
with M5 at port 2 (add 2 digits for number of positions required)
RD 3__ 144:
with pif 4 mm at port 2 (add 2 digits for number of positions required)

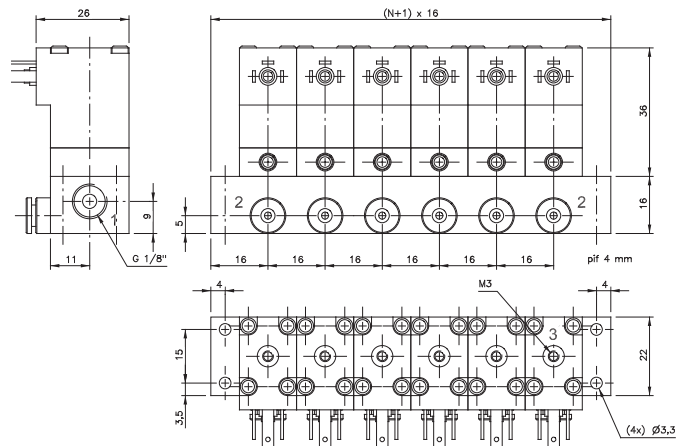
Plates are available with 2, 3, 4, 5, 6, 8, 10 and 12 positions, others on request.

Products are to be ordered individually but system will be delivered fully assembled.

Versions with common electrical connection (terminals) are displayed on page 2.7.2.1

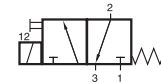


MD 311 104/RD 3__ 104

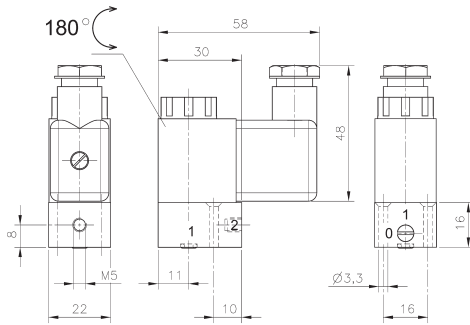


MD 311 104/RD 3__ 144

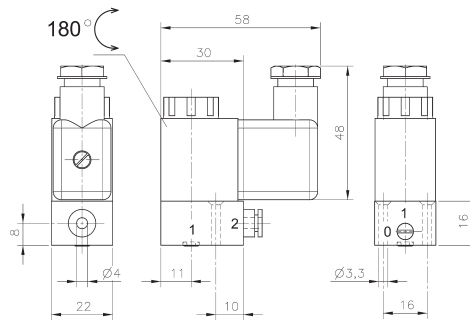
Type	Port size	Air flow	Operating press.	Power consumption	Weight
MD 311 104	form C, 8 mm pin	30 l/min	0 - 10 bar	1,8 W = / 3,0 VA ~	0,06 kg
MD 311 104 L	flying leads	30 l/min	0 - 10 bar	1,8 W = / 3,0 VA ~	0,07 kg



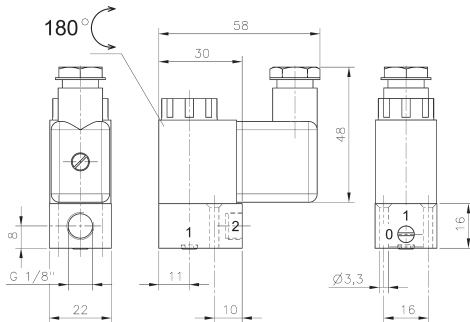
MH 312
MH 314
MH 315
MH 316



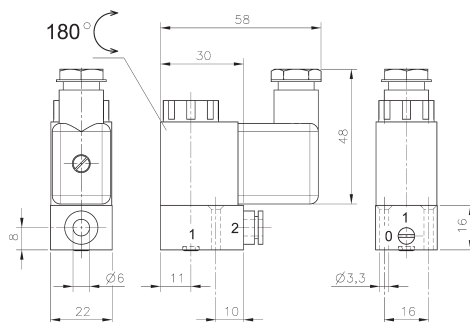
MH 312



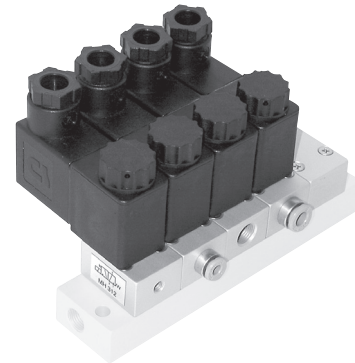
MH 314



MH 315



MH 316



System consisting of direct acting 3/2 way solenoid valves, normally closed, actuated by permanent signal and a manifold plate for common pressure supply (1). Exhaust through the operator tube, thread M5.

Valves are equipped with manual override to be turned.

Available with solenoid operators
230V/50 Hz, 110V/50 Hz, 24V/50 Hz, 48V=,
24V=, 12V=.

Different types of valves can be mixed on one plate.

Manifolds are displayed on page 2.6.1.1.

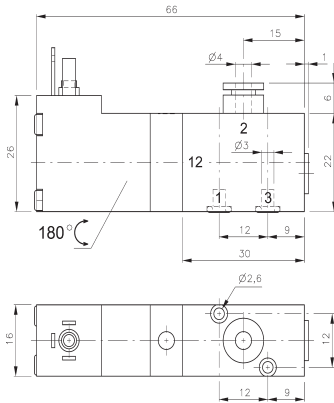
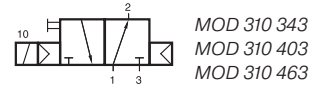
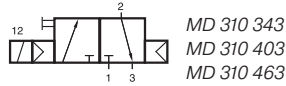
Blanking plates are also available type BP 3.

Common exhaust line to be assembled on the top using banjo joints is available on request.

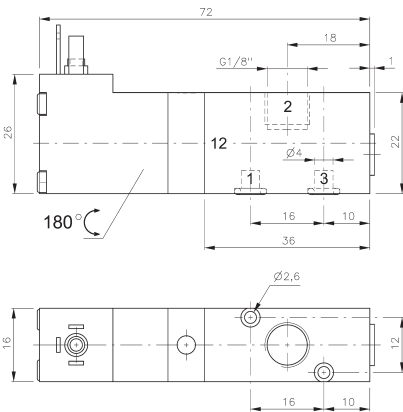
Mounting screws, seals and connector are included.

Type	Port size	Air flow	Operating press.	Power consumption	Weight
MH 312	M5	40 l/min	0 - 10 bar	3 W = / 5 VA ~	0,13 kg
MH 314	pif 4 mm	40 l/min	0 - 10 bar	3 W = / 5 VA ~	0,13 kg
MH 315	G 1/8"	50 l/min	0 - 10 bar	3 W = / 5 VA ~	0,13 kg
MH 316	pif 6 mm	50 l/min	0 - 10 bar	3 W = / 5 VA ~	0,13 kg

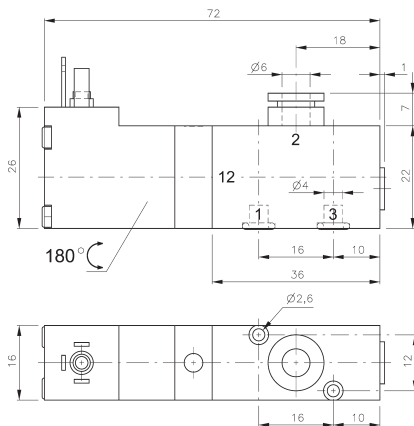
MD 310 343/MD 310 403/MD 310 463 MOD 310 343/MOD 310 403/MOD 310 463



MD 310 343/MOD 310 343



MD 310 403/MOD 310 403



MD 310 463/MOD 310 463



3/2-way solenoid valve normally closed (MD) or normally open (MOD) for assembling on a manifold plate. Port 2 in the valve.

Available with solenoid operators: 230V/50Hz, 110V/50Hz, 24V/50Hz, 24V=, 12V=, 6V= either for connector form C ISO 15217 or with flying leads, standard cable length 500 mm. For details about solenoid system, please refer to page 2.11.1.

Valves are generally equipped with manual override to push.

Manifolds are displayed on page 2.6.1.2.

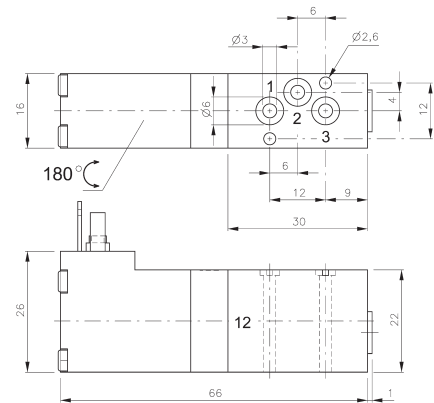
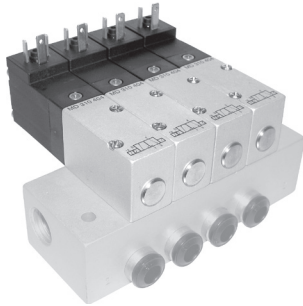
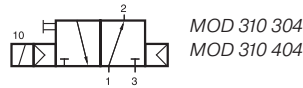
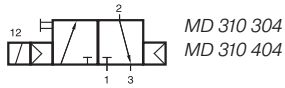
Valves normally open and normally closed can be mixed on one manifold plate!

Blanking plates are also available type BP 3 303 or BP 3 403.

Mounting screws and seals are included.

Type	Function	Port size	Air flow	Operating press.	Power consumption	Weight
MD 310 343	n.c.	pif 4 mm	280 l/min	3 - 10 bar	1,8 W = / 3,0 VA ~	0,08 kg
MD 310 403	n.c.	G 1/8"	450 l/min	3 - 10 bar	1,8 W = / 3,0 VA ~	0,09 kg
MD 310 463	n.c.	pif 6 mm	450 l/min	3 - 10 bar	1,8 W = / 3,0 VA ~	0,09 kg
MOD 310 343	n.o.	pif 4 mm	280 l/min	3 - 10 bar	1,8 W = / 3,0 VA ~	0,08 kg
MOD 310 403	n.o.	G 1/8"	450 l/min	3 - 10 bar	1,8 W = / 3,0 VA ~	0,09 kg
MOD 310 463	n.o.	pif 6 mm	450 l/min	3 - 10 bar	1,8 W = / 3,0 VA ~	0,09 kg

MD 310 304/MD 310 404 MOD 310 304/MOD 310 404



3/2-way solenoid valve normally closed (MD) or normally open (MOD) for assembling on a manifold plate. All the ports are in the plate.

Available with solenoid operators: 230V/50Hz, 110V/50Hz, 24V/50Hz, 24V=, 6V= either for connector form C ISO 15217 or with flying leads, standard cable length 500 mm. For details about solenoid system, please refer to page 2.11.1.

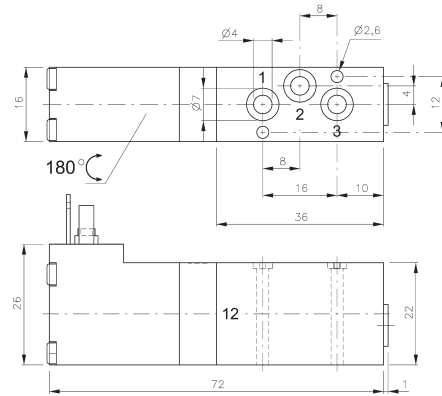
Valves are generally equipped with manual override to push.

Manifolds are displayed on page 2.6.1.3.

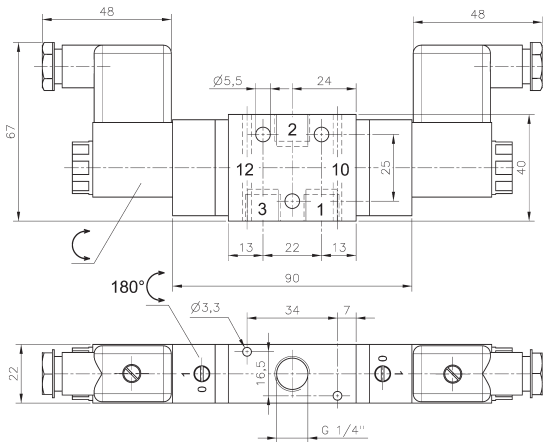
Valves normally open and normally closed can be mixed on one manifold plate!

Blanking plates are also available type BP 3 304 or BP 3 404.

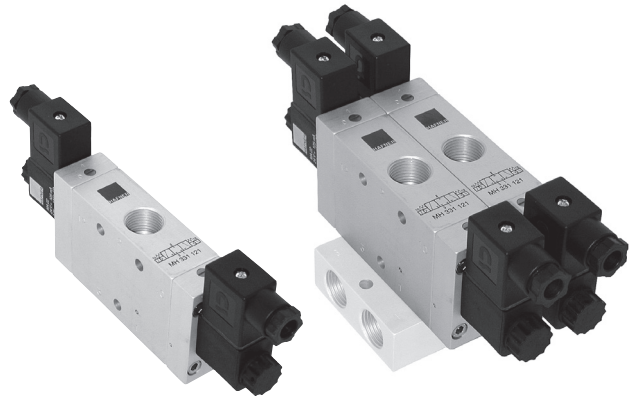
Mounting screws and seals are included.



Type	Function	Air flow	Operating press.	Power consumption	Weight
MD 310 304	n.c.	280 l/min	3 - 10 bar	1,8 W = / 3,0 VA ~	0,08 kg
MD 310 404	n.c.	450 l/min	3 - 10 bar	1,8 W = / 3,0 VA ~	0,09 kg
MOD 310 304	n.o.	280 l/min	3 - 10 bar	1,8 W = / 3,0 VA ~	0,08 kg
MOD 310 404	n.o.	450 l/min	3 - 10 bar	1,8 W = / 3,0 VA ~	0,09 kg



MH 331 701 G



3/3-way solenoid valve with spring return to middle position, actuated by permanent signal. Valve is to be used when a single acting cylinder or any other single acting actuator such as a lifting bag or car-suspension needs to be held in an intermediate position.

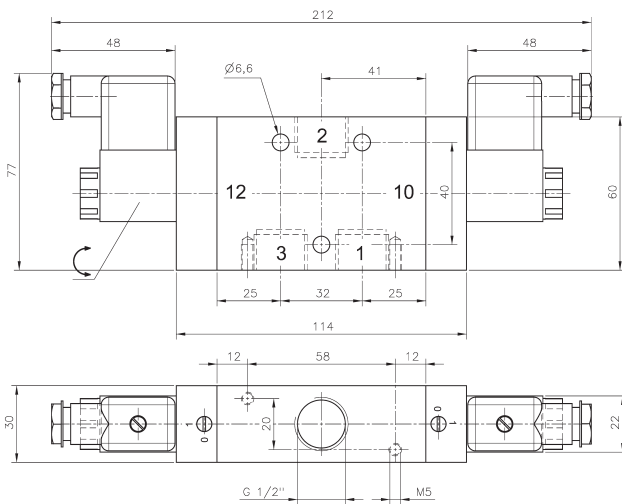
Available with solenoid operators:
230V/50Hz, 110V/50Hz, 24V/50Hz, 48V=
24V=, 12V=.

Valves can be used in-line or on manifold plate, plates are displayed on page 2.6.1.5.

Please notice:
Valves G 1/2" have to be assembled onto the plate by fixing screws from the bottom through the plate into the valve.

Valves are generally equipped with manual override to turn.

Connectors as shown on the photo are included.



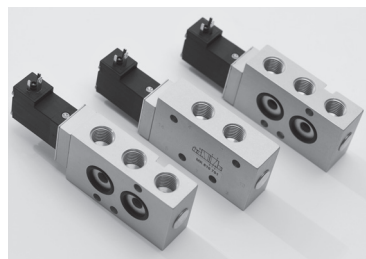
MH 331 121 G

Type	Port size	Air flow	Operating press.	Power consumption	Weight
MH 331 701 G	G 1/4"	1250 l/min	3 - 10 bar	3 W = / 5 VA ~	0,32 kg
MH 331 121 G	G 1/2"	3000 l/min	3 - 10 bar	3 W = / 5 VA ~	0,72 kg

Introduction of MK-Series

MK

The MK- series is a combination of the 1.8 Watt / 3.0 VA solenoid-system MA 16 (detailed information on page 2.11.1) and the G 1/4" valves of the 700-series with a flow of 1.250 NL/min. The following valves are available:

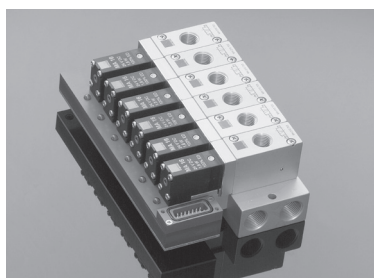


MK 310 701	3/2-way single solenoid, n.c.	in-line	description on page 2.5.1.10
MOK 310 701	3/2-way single solenoid, n.o.	in-line	page 2.5.1.10
MK 310 701 G	3/2-way single solenoid, n.c.	dual use	page 2.5.1.12
MOK 310 701 G	3/2-way single solenoid, n.o.	dual use	page 2.5.1.12
MK 320 701	3/2-way single solenoid	in-line	page 2.5.1.14
MK 320 701 G	3/2-way single solenoid	dual use	page 2.5.1.16
MK 510 701	5/2-way single solenoid	in-line	page 2.5.2.1.3
MK 520 701	5/2-way double solenoid	in-line	page 2.5.2.1.9
MK 531 701	5/3-way centre closed	in-line	page 2.5.3.1.2
MK 532 701	5/3-way centre exhausted	in-line	page 2.5.3.1.2
MK 533 701	5/3-way centre pressurized	in-line	page 2.5.3.1.2
MK 510 701 G	5/2-way single solenoid	dual use	page 2.5.2.1.5
MK 520 701 G	5/2-way double solenoid	dual use	page 2.5.2.1.11
MK 531 701 G	5/3-way centre closed	dual use	page 2.5.3.1.4
MK 532 701 G	5/3-way centre exhausted	dual use	page 2.5.3.1.4
MK 533 701 G	5/3-way centre pressurized	dual use	page 2.5.3.1.4
MK 510 703	5/2-way single solenoid	manifold	page 2.5.2.2.2
MK 520 703	5/2-way double solenoid	manifold	page 2.5.2.2.6
MK 531 703	5/3-way centre closed	manifold	page 2.5.3.2.2
MK 532 703	5/3-way centre exhausted	manifold	page 2.5.3.2.2
MK 533 703	5/3-way centre pressurized	manifold	page 2.5.3.2.2
MK 510 704	5/2-way single solenoid	manifold	page 2.5.2.2.4
MK 520 704	5/2-way double solenoid	manifold	page 2.5.2.2.8
MK 531 704	5/3-way centre closed	manifold	page 2.5.3.2.4
MK 532 704	5/3-way centre exhausted	manifold	page 2.5.3.2.4
MK 533 704	5/3-way centre pressurized	manifold	page 2.5.3.2.4

as well as valves with Namur interface, please refer to chapter 2.8.

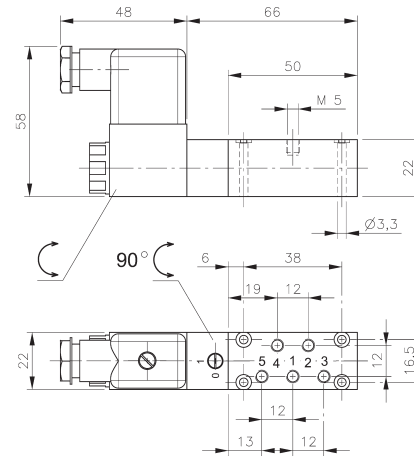
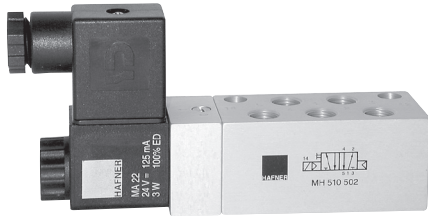
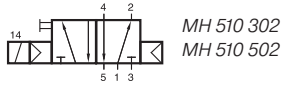


- ## Advantages
- High flow
 - Compact design
 - Low power consumption

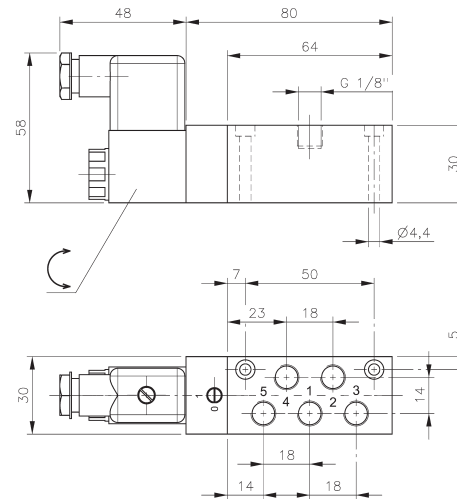


The valves are also used for the **22 mm terminals**, described in chapter 2.7.

MH 510 302/MH 510 502



MH 510 302



MH 510 502

5/2-way solenoid valve actuated by permanent signal and equipped with air spring return.

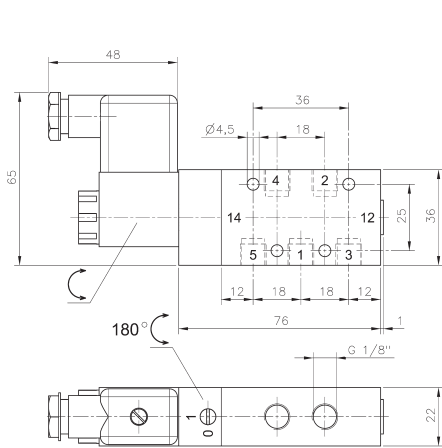
Available with solenoid operators:
230V/50Hz, 110V/50Hz, 24V/50Hz, 48V=,
24V=, 12V=.

Valves are generally equipped with manual override.
If requested without manual override please order
M 510 ____.

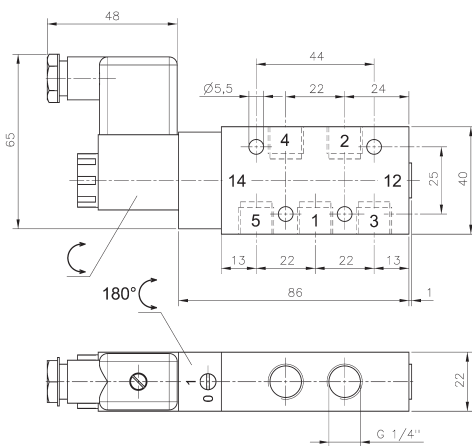
Connector as shown on the photo is included.

Type	Port size	Air flow	Operating press.	Power consumption	Weight
MH 510 302	M5	180 l/min	2 - 10 bar	3 W = / 5 VA ~	0,19 kg
MH 510 502	G 1/8"	650 l/min	2 - 10 bar	3 W = / 5 VA ~	0,30 kg

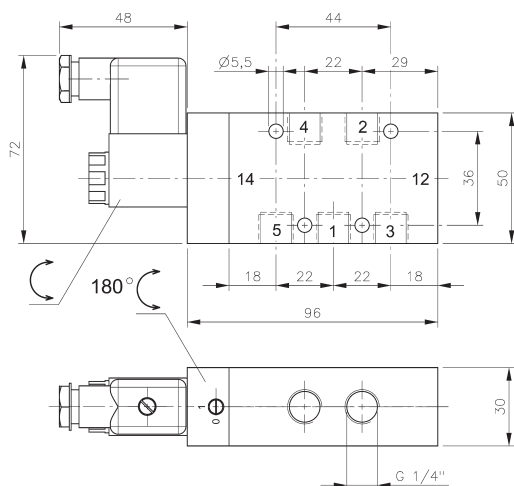
MH 510 501/MH 510 701/MH 510 801



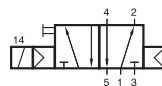
MH 510 501



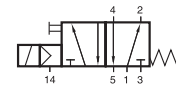
MH 510 701



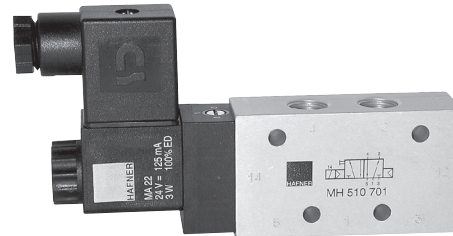
MH 510 801



MH 510 501
MH 510 701
MH 510 801



MEH 511 501
MEH 511 701
MEH 511 801



5/2-way solenoid valve actuated by permanent signal and equipped with air spring return.

Available with solenoid operators:
230V/50Hz, 110V/50Hz, 24V/50Hz, 48V=
24V=, 12V=.

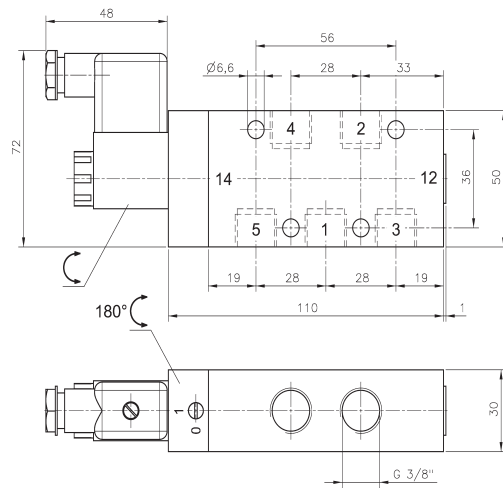
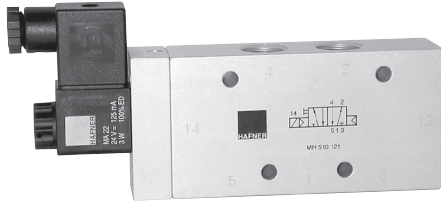
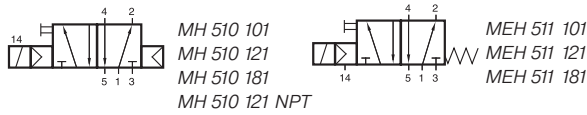
Valves are generally equipped with manual override.
If requested without manual override please order
M 510 ____.

Valves are also available with external pilot feed.
Type: MEH 511 ____.
Port 14 series 501 and 701 M5, series 801 G 1/8".
Minimum actuation pressure: 3 bar.
Version for vacuum on request.

Connector as shown on the photo is included.

Type	Port size	Air flow	Operating press.	Power consumption	Weight
MH 510 501	G 1/8"	650 l/min	2 - 10 bar	3 W = / 5 VA ~	0,23 kg
MH 510 701	G 1/4"	1250 l/min	2 - 10 bar	3 W = / 5 VA ~	0,25 kg MK
MH 510 801	G 1/4"	1450 l/min	1,5 - 10 bar	3 W = / 5 VA ~	0,48 kg

MH 510 101/MH 510 121/MH 510 181



MH 510 101

5/2-way solenoid valve actuated by permanent signal and equipped with air spring return.

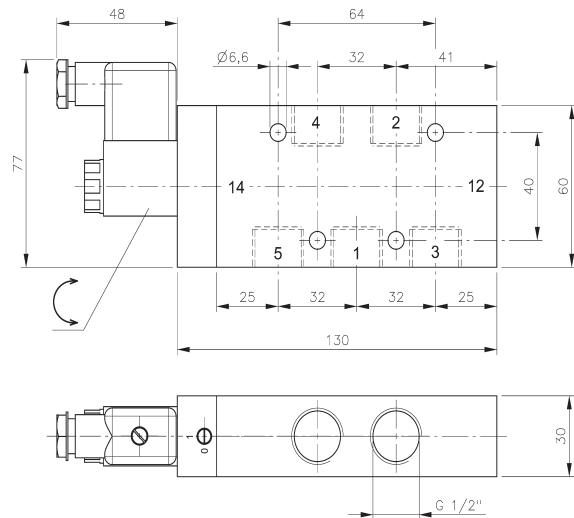
Available with solenoid operators:
230V/50Hz, 110V/50Hz, 24V/50Hz, 48V=, 24V=, 12V=.

Valves are generally equipped with manual override. If requested without manual override please order M 510 ____.

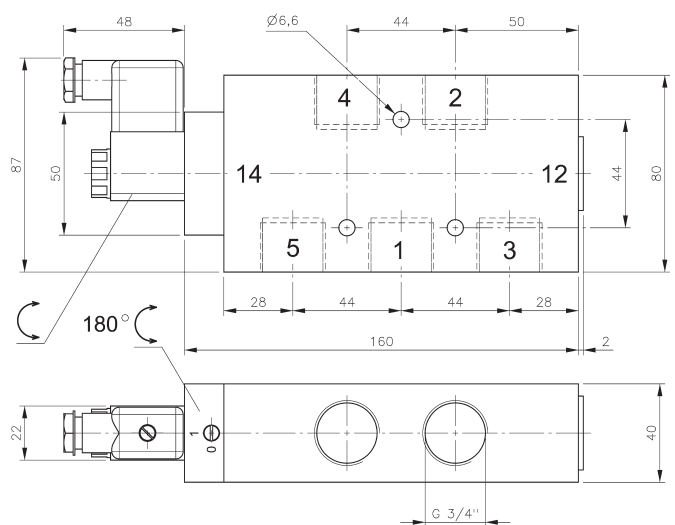
Valves are also available with external pilot feed.
Type: MEH 511 ____.
Port 14: G 1/8".
Minimum actuation pressure: 3 bar.
Version for vacuum on request.

Connector as shown on the photo is included.

Selected products displayed on this page are also available NPT threaded.



MH 510 121/MH 510 121 NPT



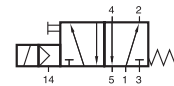
MH 510 181

Type	Port size	Air flow	Operating press.	Power consumption	Weight
MH 510 101	G 3/8"	2250 l/min	1,5 - 10 bar	3 W = / 5 VA ~	0,50 kg
MH 510 121	G 1/2"	3000 l/min	1 - 10 bar	3 W = / 5 VA ~	0,67 kg
MH 510 181	G 3/4"	6000 l/min	1 - 10 bar	3 W = / 5 VA ~	1,29 kg
MH 510 121 NPT	1/2" NPT	3000 l/min	1 - 10 bar	3 W = / 5 VA ~	0,67 kg

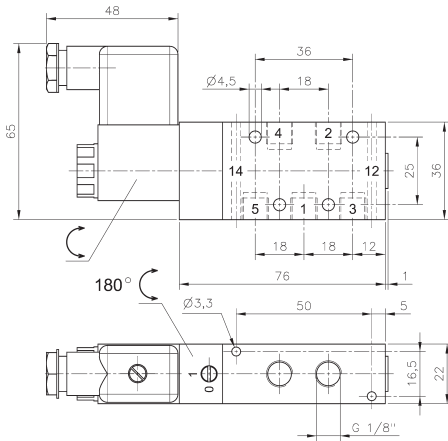
MH 510 501 G/MH 510 701 G



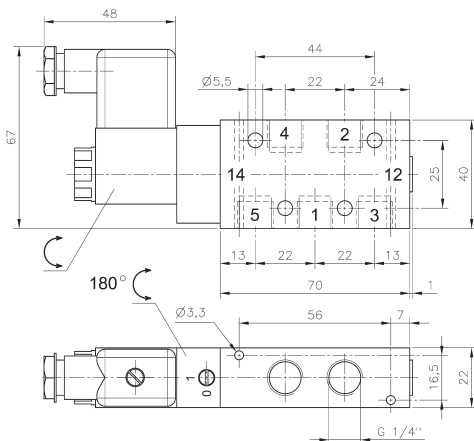
MH 510 501 G
MH 510 701 G
MH 510 701 G NPT



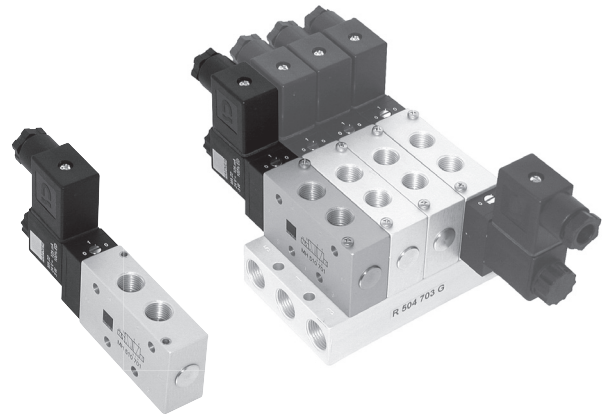
MEH 511 501 G
MEH 511 701 G



MH 510 501 G



MH 510 701 G/MH 510 701 G NPT



5/2-way solenoid valve actuated by permanent signal and equipped with air spring return.

Valves can either be used in-line or on a manifold plate. Manifolds for valves type 501 G are displayed on page 2.6.2.2, manifolds for valves type 701 G are displayed on page 2.6.2.3.

Available with solenoid operators:
230V/50Hz, 110V/50Hz, 24V/50Hz, 48V=,
24V=, 12V=.

Valves are generally equipped with manual override. If requested without manual override please order M 510 ____.

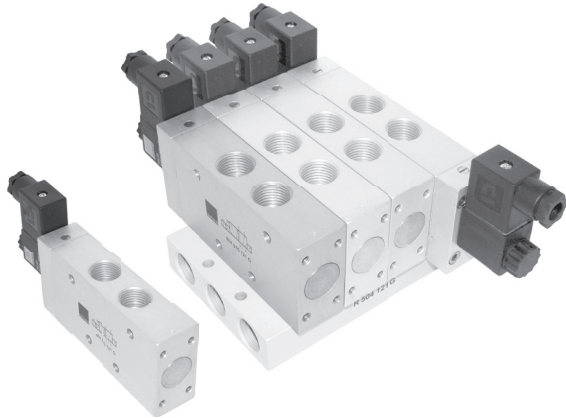
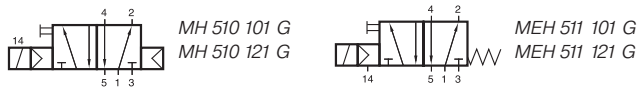
Valves are also available with external pilot feed.
Type: MEH 511 ____ G.
Port 14: M5.
Minimum actuation pressure: 3 bar.
Version for vacuum on request.

Connector as shown on the photo is included.

Selected products displayed on this page are also available NPT threaded.

Type	Port size	Air flow	Operating press.	Power cons.	Weight
MH 510 501 G	G 1/8"	650 l/min	2 - 10 bar	3 W = / 5 VA ~	0,23 kg ❄
MH 510 701 G	G 1/4"	1250 l/min	2 - 10 bar	3 W = / 5 VA ~	0,25 kg ❄MK
MH 510 701 G NPT	1/4" NPT	1250 l/min	2 - 10 ba	3 W = / 5 VA ~	0,25 kg

MH 510 101 G/MH 510 121 G



5/2-way solenoid valve actuated by permanent signal and equipped with air spring return.

Valves can either be used in-line or to be assembled onto a manifold plate. Manifolds for valves type 101 G are displayed on page 2.6.2.4, manifolds for valves type 121 G are displayed on page 2.6.2.5.

Please notice:

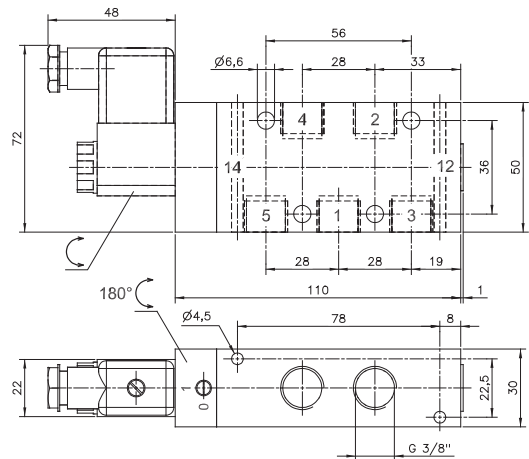
Valves G1/2" have to be assembled onto the plate by fixing screws from the bottom through the plate into the valve.

Available with solenoid operators:
230V/50Hz, 110V/50Hz, 24V/50Hz, 48V=,
24V=, 12V=.

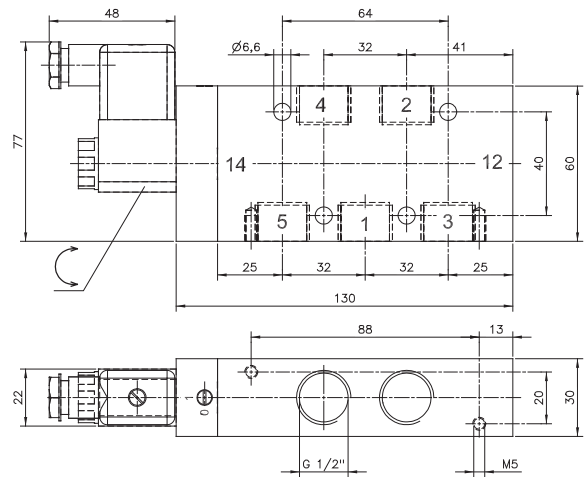
Valves are generally equipped with manual override.
If requested without manual override please order
M 510 ___ G

Valves are also available with external pilot feed.
Type: MEH 511 ___ G.
Port 14: G 1/8".
Minimum actuation pressure: 3 bar.
Version for vacuum on request.

Connector as shown on the photo is included.



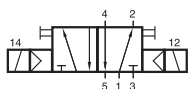
MH 510 101 G



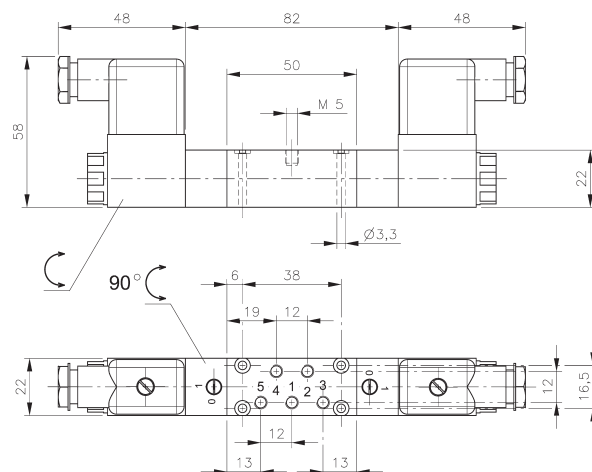
MH 510 121 G

Type	Port size	Air flow	Operating press.	Power consumption	Weight
MH 510 101 G	G 3/8"	2250 l/min	1,5 - 10 bar	3 W = / 5 VA ~	0,52 kg
MH 510 121 G	G 1/2"	3000 l/min	1 - 10 bar	3 W = / 5 VA ~	0,70 kg

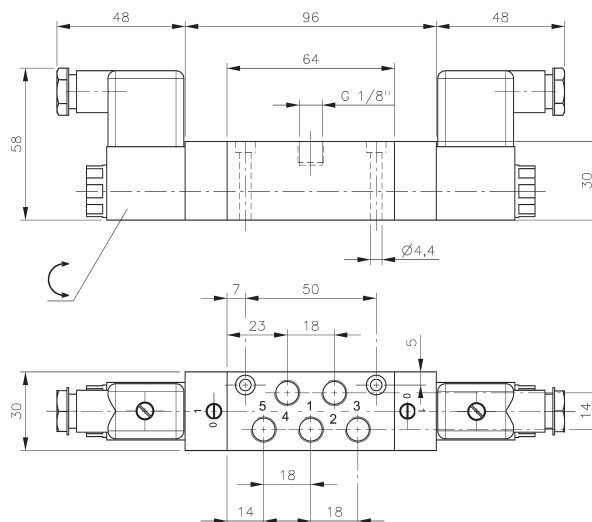
MH 520 302/MH 520 502



MH 520 302
MH 520 502



MH 520 302



MH 520 502

5/2-way double solenoid valve actuated by impulse. Position is kept until an electrical signal is applied to the opposite side even when not attached to electrical source.

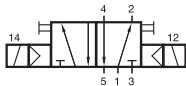
Available with solenoid operators:
230V/50Hz, 110V/50Hz, 24V/50Hz, 48V=
24V=, 12V=.

Valves are generally equipped with manual override. If requested without manual override please order M 520 _ _ _.

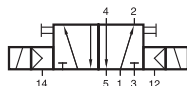
Connectors as shown on the photo are included.

Type	Port size	Air flow	Operating press.	Power consumption	Weight
MH 520 302	M5	180 l/min	2 - 10 bar	3 W = / 5 VA ~	0,30 kg
MH 520 502	G 1/8"	650 l/min	2 - 10 bar	3 W = / 5 VA ~	0,43 kg

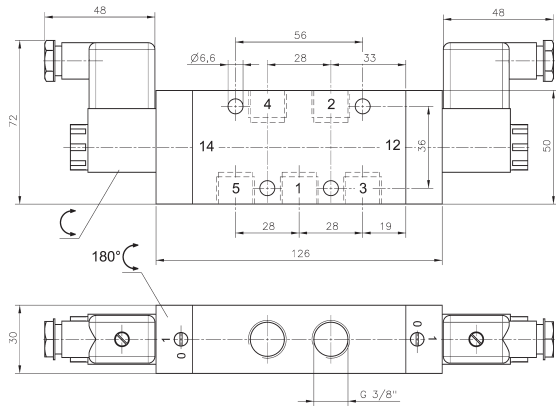
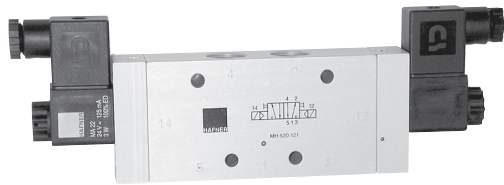
MH 520 101/MH 520 121/MH 520 181



MH 520 101
MH 520 121
MH 520 181
MH 520 121 NPT



MEH 520 101
MEH 520 121
MEH 520 181



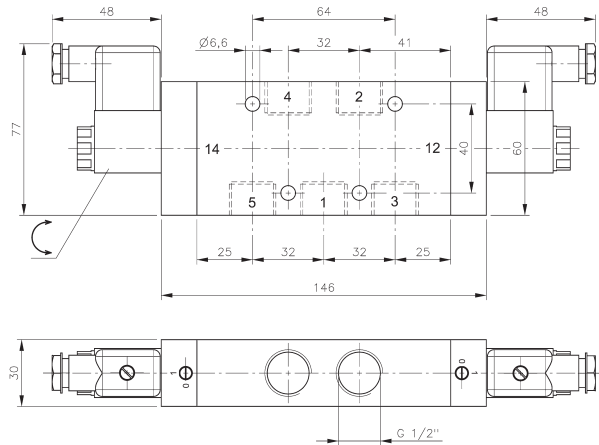
MH 520 101

5/2-way double solenoid valve actuated by impulse.
Position is kept until an electrical signal is applied to the opposite side even when not attached to electrical source.

Available with solenoid operators:
230V/50Hz, 110V/50Hz, 24V/50Hz, 48V=
24V=, 12V=.

Valves are generally equipped with manual override.
If requested without manual override please order M 520 _ _ _.

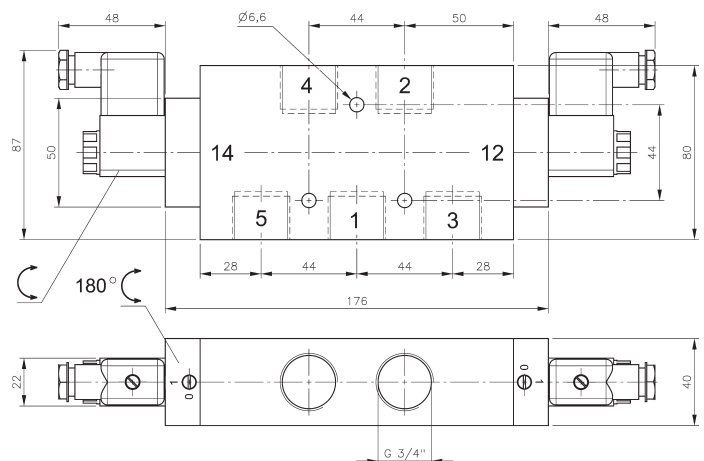
Valves are also available with external pilot feed.
Type: MEH 520 _ _ _.
Ports 12 and 14: G 1/8".
Minimum actuation pressure: 2,5 bar.
Version for vacuum on request.



MH 520 121/ MH 520 121 NPT

Connectors as shown on the photo are included.

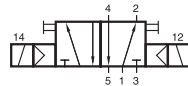
Selected products displayed on this page are also available NPT threaded.



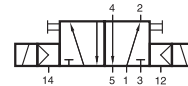
MH 520 181

Type	Port size	Air flow	Operating press.	Power consumption	Weight
MH 520 101	G 3/8"	2250 l/min	1,5 - 10 bar	3 W = / 5 VA ~	0,66 kg
MH 520 121	G 1/2"	3000 l/min	1 - 10 bar	3 W = / 5 VA ~	0,84 kg
MH 520 181	G 3/4"	6000 l/min	1 - 10 bar	3 W = / 5 VA ~	1,45 kg
MH 520 121 NPT	1/2" NPT	3000 l/min	1 - 10 bar	3 W = / 5 VA ~	0,84 kg

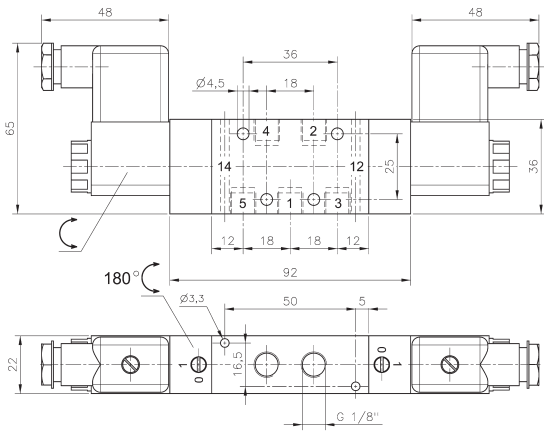
MH 520 501 G/MH 520 701 G



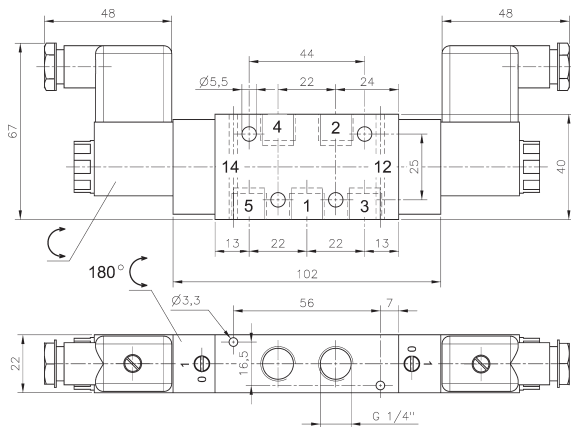
MH 520 501 G
MH 520 701 G



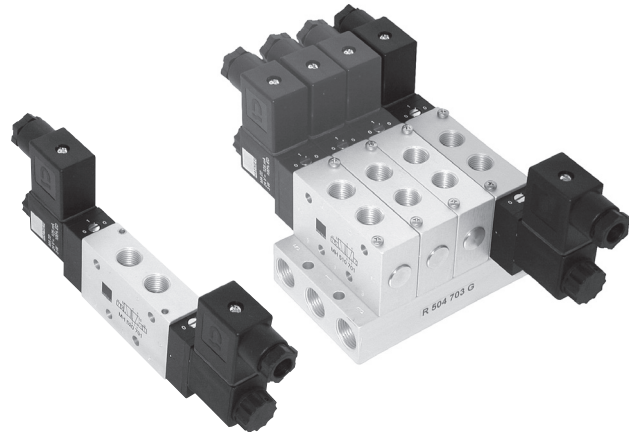
MEH 520 501 G
MEH 520 701 G



MH 520 501 G



MH 520 701 G/MH 520 701 G NPT



5/2-way double solenoid valve actuated by impulse. Position is kept until an electrical signal is applied to the opposite side even when not attached to electrical source.

Valves can either be used in-line or on a manifold plate. Manifolds for valves type 501 G are displayed on page 2.6.2.2, manifolds for valves type 701 G are displayed on page 2.6.2.3.

Available with solenoid operators:
230V/50Hz, 110V/50Hz, 24V/50Hz, 48V=
24V=, 12V=.

Valves are generally equipped with manual override. If requested without manual override please order M 520 ____.

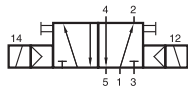
Valves are also available with external pilot feed.
Type: MEH 520 ____ G.
Ports 12 and 14: M5.
Minimum actuation pressure: 2,5 bar.
Version for vacuum on request.

Connectors as shown on the photo are included.

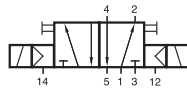
Selected products displayed on this page are also available NPT threaded.

Type	Port size	Air flow	Operating press.	Power consumption	Weight
MH 520 501 G	G 1/8"	650 l/min	2 - 10 bar	3 W = / 5 VA ~	0,33 kg ❄️
MH 520 701 G	G 1/4"	1250 l/min	2 - 10 bar	3 W = / 5 VA ~	0,35 kg ❄️MK
MH 520 701 G NPT	1/4" NPT	1250 l/min	2 - 10 bar	3 W = / 5 VA ~	0,35 kg

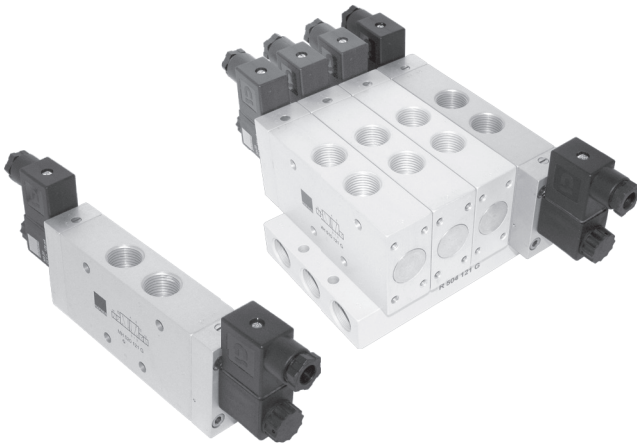
MH 520 101 G/MH 520 121 G



MH 520 101 G
MH 520 121 G



MEH 520 101 G
MEH 520 121 G



5/2-way double solenoid valve actuated by impulse. Position is kept until an electrical signal is applied to the opposite side even when not attached to electrical source.

Valves can either be used in-line or to be assembled onto a manifold plate. Manifolds for valves type 101 G are displayed on page 2.6.2.4, manifolds for valves type 121 G are displayed on page 2.6.2.5.

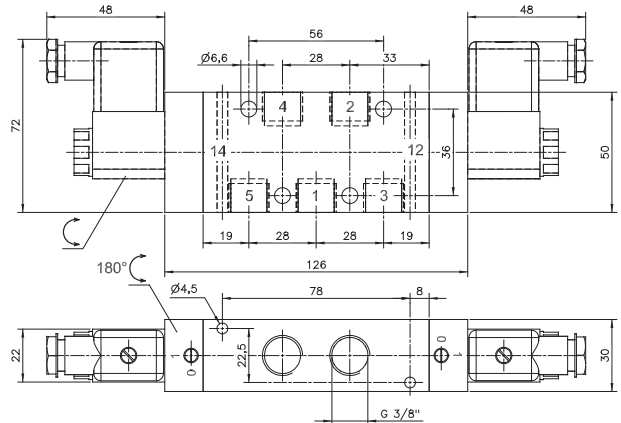
Please notice: Valves G1/2" have to be assembled onto the plate by fixing screws from the bottom through the plate into the valve.

Available with solenoid operators:
230V/50Hz, 110V/50Hz, 24V/50Hz, 48V=, 24V=, 12V=.

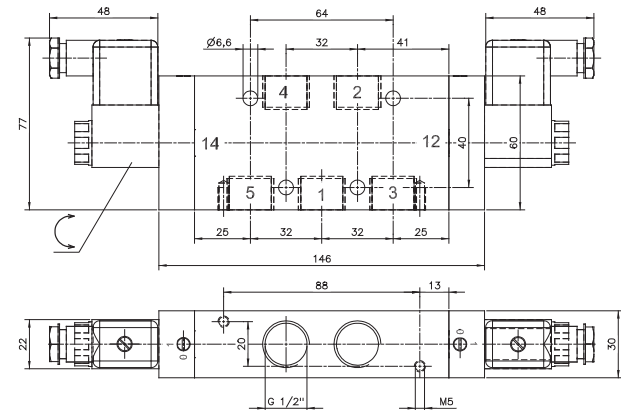
Valves are generally equipped with manual override. If requested without manual override please order M 520 ___ G

Valves are also available with external pilot feed.
Type: MEH 520 ___ G.
Ports 12 and 14: G 1/8".
Minimum actuation pressure: 2,5 bar.
Version for vacuum on request.

Connector as shown on the photo is included.



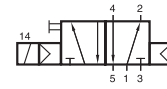
MH 520 101 G



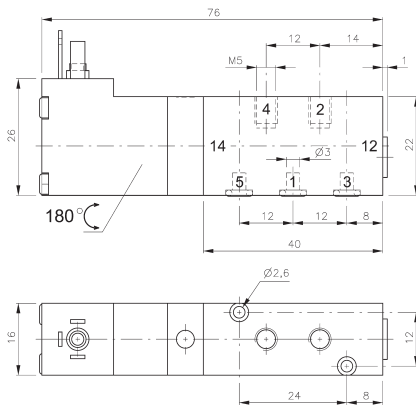
MH 520 121 G

Type	Port size	Air flow	Operating press.	Power consumption	Weight
MH 520 101 G	G 3/8"	2250 l/min	1,5 - 10 bar	3 W = / 5 VA ~	0,66 kg
MH 520 121 G	G 1/2"	3000 l/min	1 - 10 bar	3 W = / 5 VA ~	0,84 kg

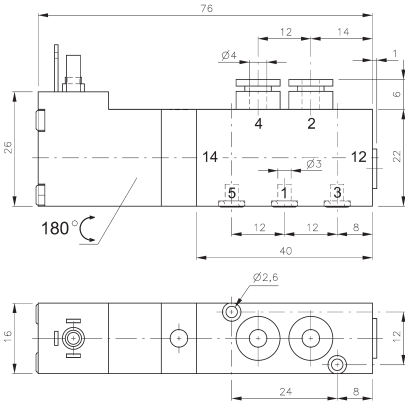
MD 510 303/MD 510 343 MD 510 403/MD 510 463



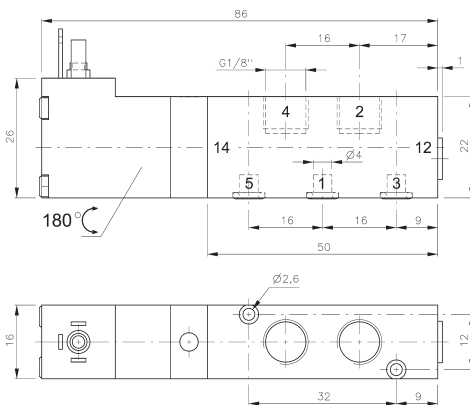
MD 510 303
MD 510 343
MD 510 403
MD 510 463



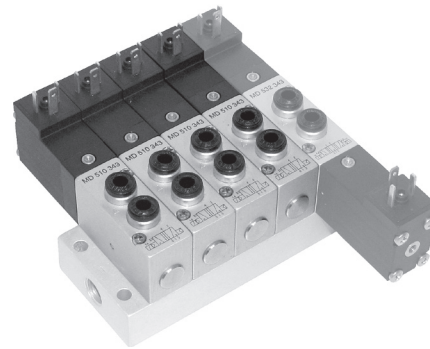
MD 510 303



MD 510 343



MD 510 403



5/2-way solenoid valve actuated by permanent signal and equipped with air spring return. Ports 2 and 4 are in the valve, ports 1, 3 and 5 in the manifold plate.

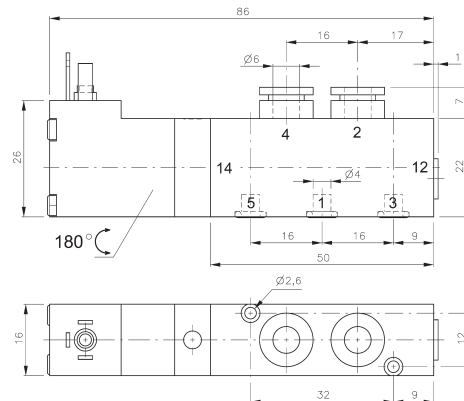
Available with solenoid operators:
230V/50Hz, 110V/50Hz, 24V/50Hz, 24V=,
12V=, 6V= either for connector form C ISO 15217
or with flying leads, standard cable length 500 mm.
For details about solenoid system, please refer to
page 2.11.1.

Valves are generally equipped with manual override
to push.

Manifolds are displayed on page 2.6.2.1.

Blanking plates are also available type BP 5 303
or BP 5 403.

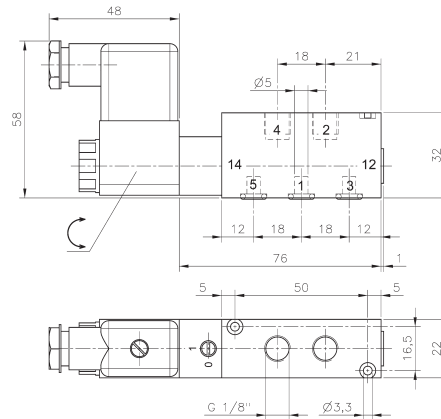
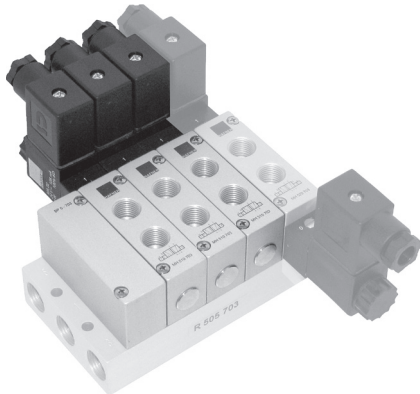
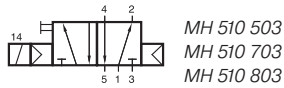
Mounting screws and seals are included.



MD 510 463

Type	Ports 1, 2, 4	Air flow	Operating press.	Powerconsumption	Weight
MD 510 303	M5	280 l/min	3 - 10 bar	1,8 W = / 3,0 VA ~	0,09 kg
MD 510 343	pif 4 mm	280 l/min	3 - 10 bar	1,8 W = / 3,0 VA ~	0,10 kg
MD 510 403	G 1/8"	450 l/min	3 - 10 bar	1,8 W = / 3,0 VA ~	0,10 kg
MD 510 463	pif 6 mm	450 l/min	3 - 10 bar	1,8 W = / 3,0 VA ~	0,12 kg

MH 510 503/MH 510 703/MH 510 803



MH 510 503

5/2-way solenoid valve actuated by permanent signal and equipped with air spring return. Ports 2 and 4 are in the valve, ports 1, 3 and 5 in the manifold plate.

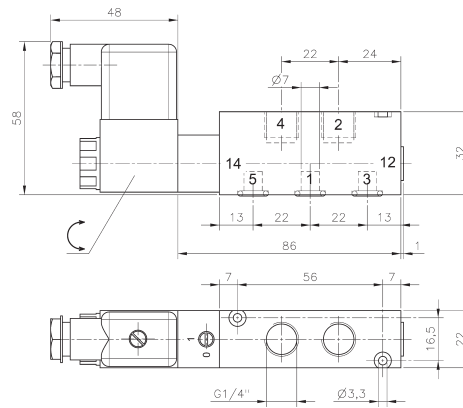
Available with solenoid operators:
230V/50Hz, 110V/50Hz, 24V/50Hz, 48V=
24V=, 12V=.

Valves are generally equipped with manual override. If requested without manual override please order M 510 _ _ _.

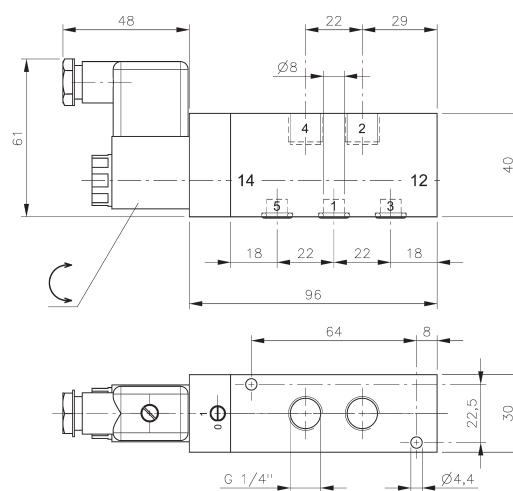
Manifolds for valves type 503 are displayed on page 2.6.2.2, manifolds for valves type 703 are displayed on page 2.6.2.3, manifolds for valves type 803 are displayed on page 2.6.2.5.

Blanking plates are also available type BP 5 503, BP 5 703 or BP 5 803.

Mounting screws, seals and connector as shown on the photo are included.

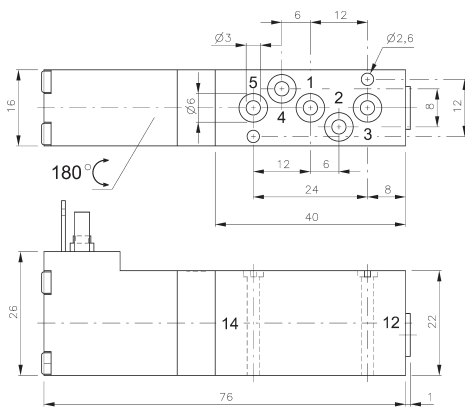
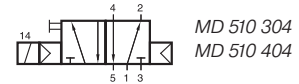


MH 510 703

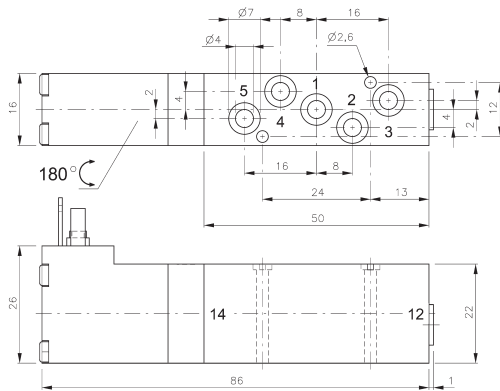


MH 510 803

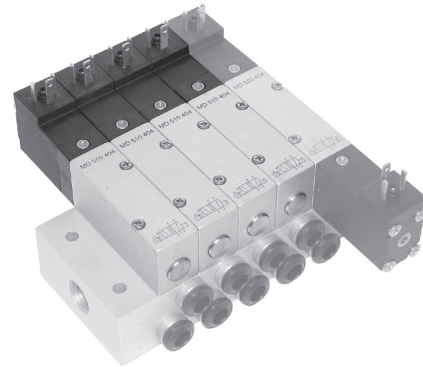
Type	Ports 2, 4	Air flow	Operating press.	Power consumption	Weight
MH 510 503	G 1/8"	650 l/min	2 - 10 bar	3 W = / 5 VA ~	0,22 kg MK
MH 510 703	G 1/4"	1250 l/min	2 - 10 bar	3 W = / 5 VA ~	0,23 kg MK
MH 510 803	G 1/4"	1450 l/min	1,5 - 10 bar	3 W = / 5 VA ~	0,42 kg



MD 510 304



MD 510 404



5/2-way solenoid valve actuated by permanent signal and equipped with air spring return. All the ports are in the plate.

Available with solenoid operators:
230V/50Hz, 110V/50Hz, 24V/50Hz, 24V=,
12V=, 6V= either for connector form C ISO 15217
or with flying leads, standard cable length 500 mm.
For details about solenoid system, please refer to
page 2.11.1.

Valves are generally equipped with manual override
to push.

Manifolds are displayed on page 2.6.2.6.

Blanking plates are also available type BP 5 344
or BP 5 464.

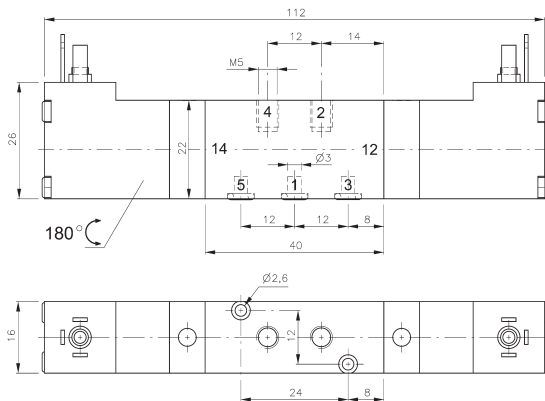
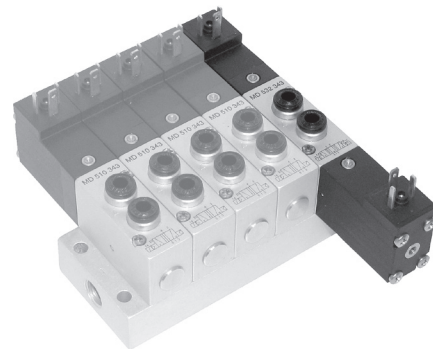
Mounting screws and seals are included.

Type	Port size	Air flow	Operating press.	Power consumption	Weight
MD 510 304	Ø 3 mm	280 l/min	3 - 10 bar	1,8 W = / 3,0 VA ~	0,09 kg
MD 510 404	Ø 4 mm	450 l/min	3 - 10 bar	1,8 W = / 3,0 VA ~	0,10 kg

MD 520 303/MD 520 343 MD 520 403/MD 520 463



MD 520 303
MD 520 343
MD 520 403
MD 520 463



MD 520 303

5/2-way double solenoid valve actuated by impulse. Position is kept until an electrical signal is applied to the opposite side even when not attached to electrical source. Ports 2 and 4 are in the valve, ports 1, 3 and 5 in the manifold plate.

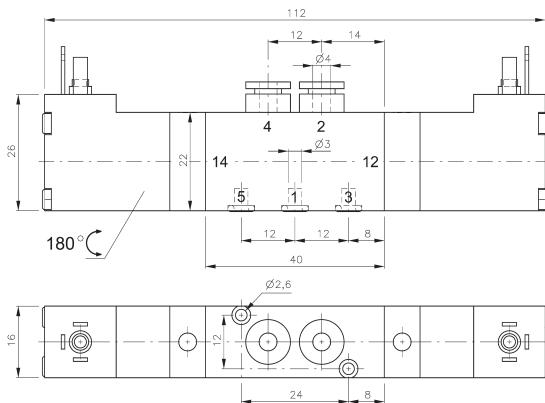
Available with solenoid operators: 230V/50Hz, 110V/50Hz, 24V/50Hz, 24V=, 12V=, 6V= either for connector form C ISO 15217 or with flying leads, standard cable length 500 mm. For details about solenoid system, please refer to page 2.11.1.

Valves are generally equipped with manual override to push.

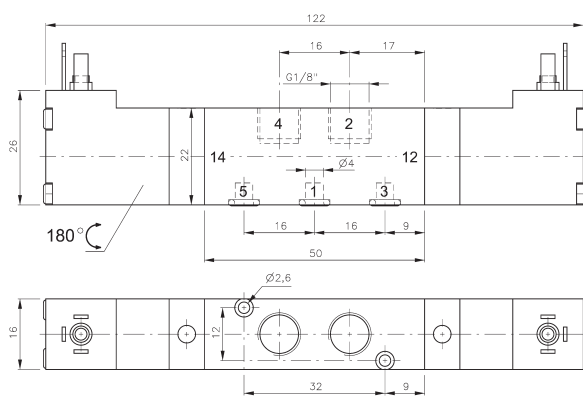
Manifolds are displayed on page 2.6.2.1.

Blanking plates are also available type BP 5 303 or BP 5 403.

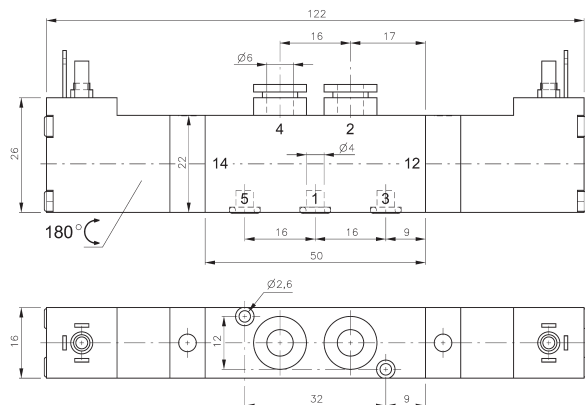
Mounting screws and seals are included.



MD 520 343



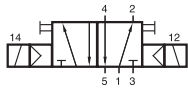
MD 520 403



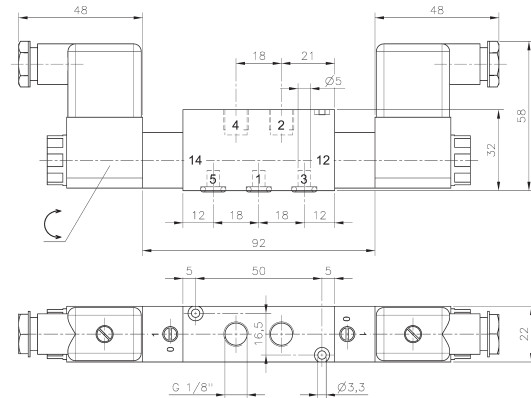
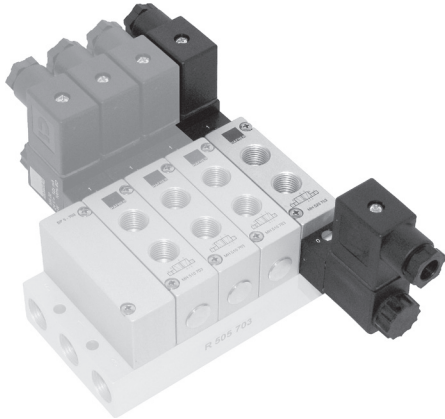
MD 520 463

Type	Ports 1, 2, 4	Air flow	Operating press.	Powerconsumption	Weight
MD 520 303	M5	280 l/min	3 - 10 bar	1,8 W = / 3,0 VA ~	0,13 kg
MD 520 343	pif 4 mm	280 l/min	3 - 10 bar	1,8 W = / 3,0 VA ~	0,14 kg
MD 520 403	G 1/8"	450 l/min	3 - 10 bar	1,8 W = / 3,0 VA ~	0,14 kg
MD 520 463	pif 6 mm	450 l/min	3 - 10 bar	1,8 W = / 3,0 VA ~	0,15 kg

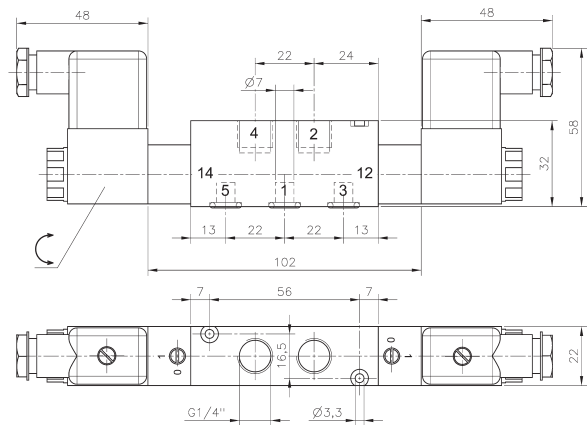
MH 520 503/MH 520 703/MH 520 803



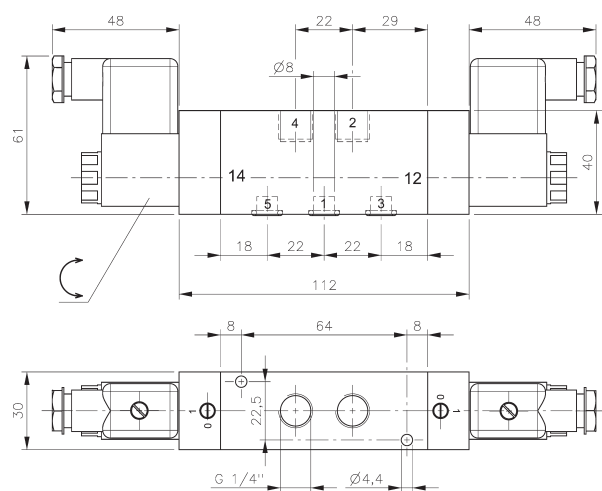
MH 520 503
MH 520 703
MH 520 803



MH 520 503



MH 520 703



MH 520 803

5/2-way double solenoid valve actuated by impulse. Position is kept until an electrical signal is applied to the opposite side even when not attached to electrical source. Ports 2 and 4 are in the valve, ports 1, 3 and 5 in the manifold plate.

Available with solenoid operators:
230V/50Hz, 110V/50Hz, 24V/50Hz, 48V=
24V=, 12V=.

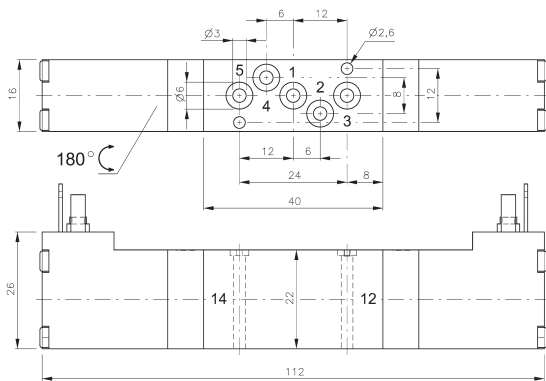
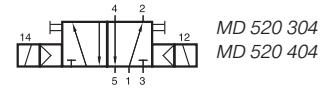
Valves are generally equipped with manual override. If requested without manual override please order M 520 _ _ _.

Manifolds for valves type 503 are displayed on page 2.6.2.2, manifolds for valves type 703 are displayed on page 2.6.2.3, manifolds for valves type 803 are displayed on page 2.6.2.5.

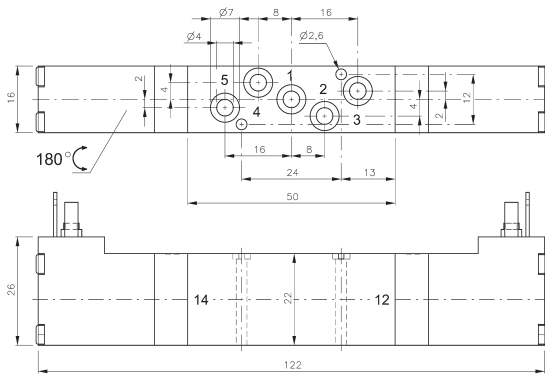
Blanking plates are also available type BP 5 503, BP 5 703 or BP 5 803.

Mounting screws, seals and connectors as shown on the photo are included.

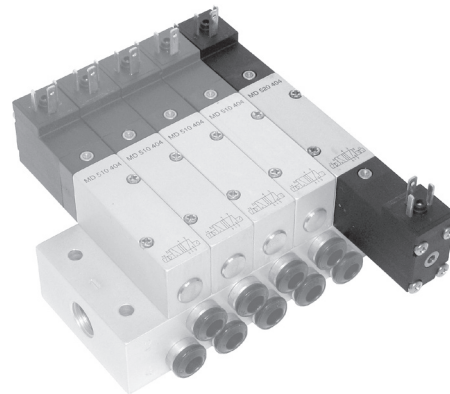
Type	Ports 2, 4	Air flow	Operating press.	Power consumption	Weight
MH 520 503	G 1/8"	650 l/min	2 - 10 bar	3 W = / 5 VA ~	0,31 kg MK
MH 520 703	G 1/4"	1250 l/min	2 - 10 bar	3 W = / 5 VA ~	0,33 kg MK
MH 520 803	G 1/4"	1450 l/min	1,5 - 10 bar	3 W = / 5 VA ~	0,56 kg



MD 520 304



MD 520 404



5/2-way double solenoid valve actuated by impulse. Position is kept until an electrical signal is applied to the opposite side even when not attached to electrical source. All the ports are in the plate.

Available with solenoid operators: 230V/50Hz, 110V/50Hz, 24V/50Hz, 24V=, 12V=, 6V= either for connector form C ISO 15217 or with flying leads, standard cable length 500 mm. For details about solenoid system, please refer to page 2.11.1.

Valves are generally equipped with manual override to push.

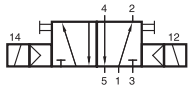
Manifolds are displayed on page 2.6.2.6.

Blanking plates are also available type BP 5 344 or BP 5 464.

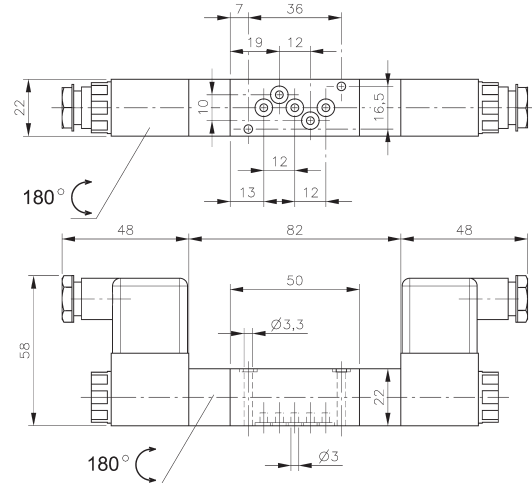
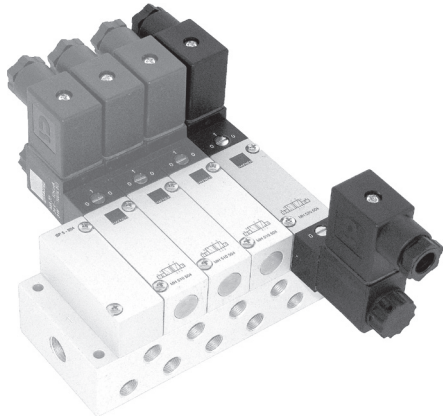
Mounting screws and seals are included.

Type	Port size	Air flow	Operating press.	Power consumption	Weight
MD 520 304	Ø 3 mm	280 l/min	3 - 10 bar	1,8 W = / 3,0 VA ~	0,13 kg
MD 520 404	Ø 4 mm	450 l/min	3 - 10 bar	1,8 W = / 3,0 VA ~	0,14 kg

MH 520 304/MH 520 504/MH 520 704



MH 520 304
MH 520 504
MH 520 704



MH 520 304

5/2-way double solenoid valve actuated by impulse. Position is kept until an electrical signal is applied to the opposite side even when not attached to electrical source. All the ports are in the plate.

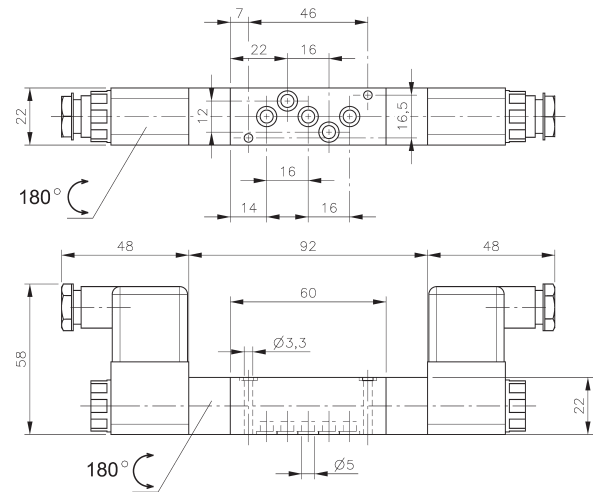
Available with solenoid operators:
230V/50Hz, 110V/50Hz, 24V/50Hz, 48V=,
24V=, 12V=.

Valves are generally equipped with manual override. If requested without manual override please order M 520 ____.

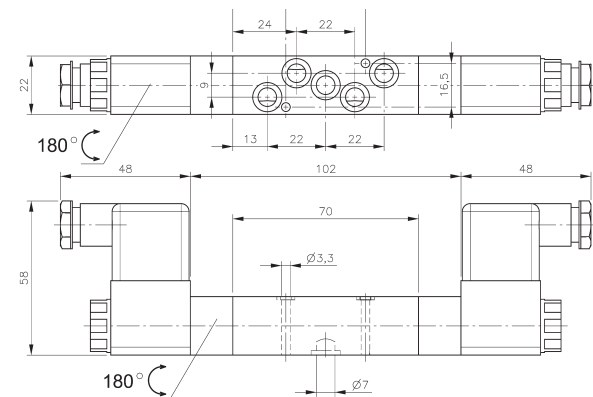
Manifolds are displayed on page 2.6.2.7.

Blanking plates are also available type BP 5 304, BP 5 504 or BP 5 704.

Mounting screws, seals and connectors as shown on the photo are included.



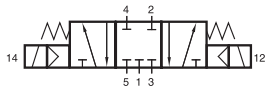
MH 520 504



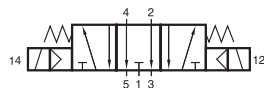
MH 520 704

Type	Port size	Air flow	Operating press.	Power consumption	Weight
MH 520 304	Ø 3 mm	220 l/min	2 - 10 bar	3 W = / 5 VA ~	0,25 kg ❄️
MH 520 504	Ø 5 mm	650 l/min	2 - 10 bar	3 W = / 5 VA ~	0,27 kg ❄️MK
MH 520 704	Ø 7 mm	1250 l/min	2 - 10 bar	3 W = / 5 VA ~	0,29 kg ❄️MK

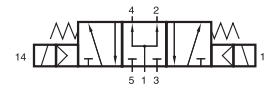
MH 53_ 501/MH 53_ 701/MH 53_ 801



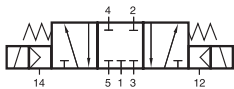
MH 531 501
MH 531 701
MH 531 801



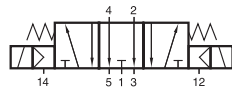
MH 532 501
MH 532 701
MH 532 801



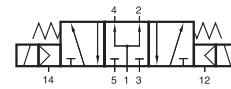
MH 533 501
MH 533 701
MH 533 801



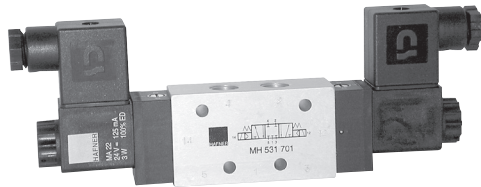
MEH 531 501
MEH 531 701
MEH 531 801



MEH 532 501
MEH 532 701
MEH 532 801



MEH 533 501
MEH 533 701
MEH 533 801



5/3-way solenoid valve with spring return to middle position, actuated by permanent signal.

- Type 531 centre closed
- Type 532 centre exhausted
- Type 533 centre pressurised

When ordering please complete the type number by 1, 2 or 3 according to the type required.

Available with solenoid operators:
230V/50Hz, 110V/50Hz, 24V/50Hz, 48V=
24V =, 12V=.

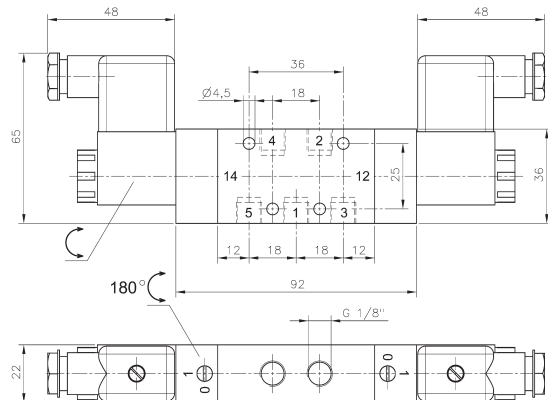
Valves are generally equipped with manual override.
If requested without manual override please order M 53_ _ _ _.

Valves are also available with external pilot feed.
Type: MEH 53_ _ _ _ (please add 1 digit for type and 3 digits for size).

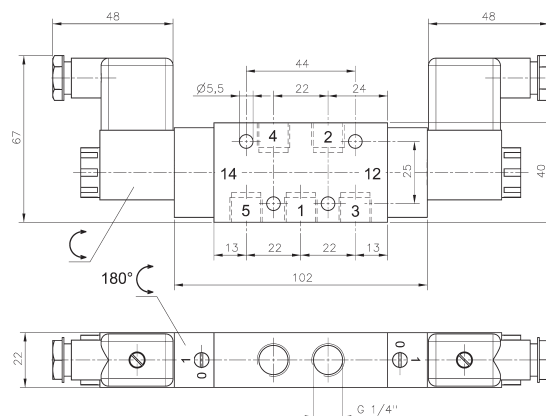
Ports 12 and 14 series 501 and 701: M5,
series 801: G 1/8".

Minimum actuation pressure: 3 bar.
Version for vacuum on request.

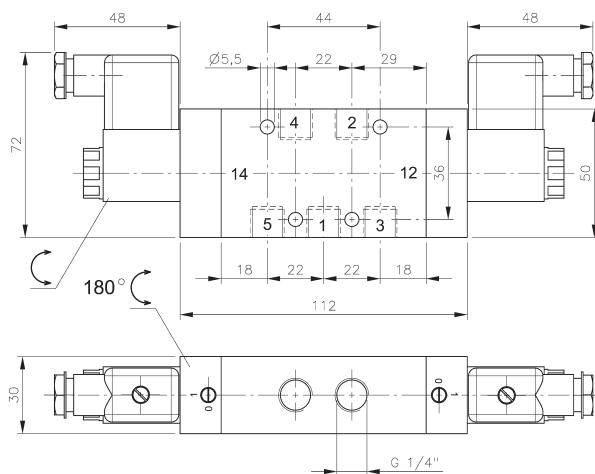
Connectors as shown on the photo are included.



MH 53_ 501

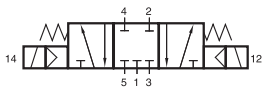


MH 53_ 701

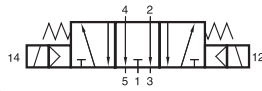


MH 53_ 801

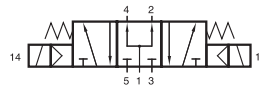
Type	Port size	Air flow	Operating press.	Power consumption	Weight
MH 53_ 501	G 1/8"	650 l/min	3 - 10 bar	3 W = / 5 VA ~	0,33 kg
MH 53_ 701	G 1/4"	1250 l/min	3 - 10 bar	3 W = / 5 VA ~	0,35 kg MK
MH 53_ 801	G 1/4"	1450 l/min	3 - 10 bar	3 W = / 5 VA ~	0,62 kg



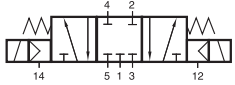
MH 531 101
MH 531 121
MH 531 181
MH 531 121 NPT



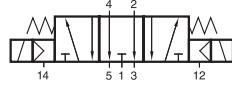
MH 532 101
MH 532 121
MH 532 181
MH 532 121 NPT



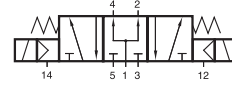
MH 533 101
MH 533 121
MH 533 181
MH 533 121 NPT



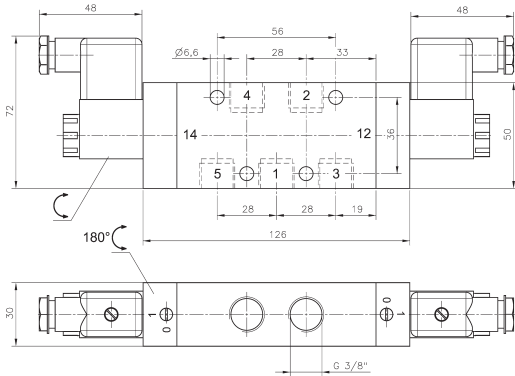
MEH 531 101
MEH 531 121
MEH 531 181



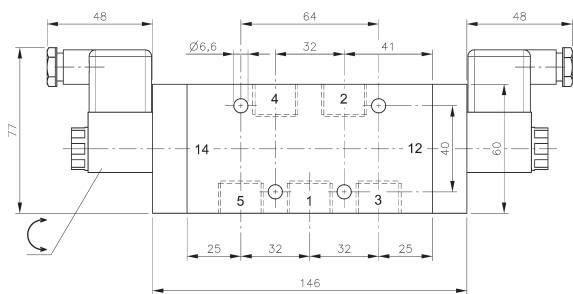
MEH 532 101
MEH 532 121
MEH 532 181



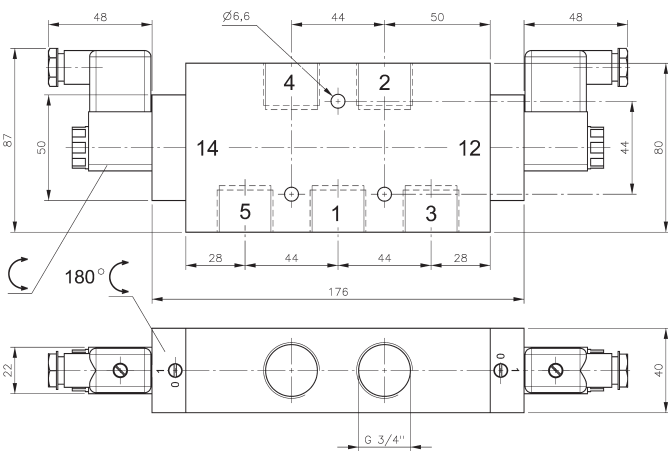
MEH 533 101
MEH 533 121
MEH 533 181



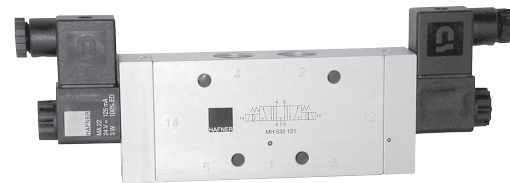
MH 53_101



MH 53_121/MH 53_121 NPT



MH 53_181



5/3-way solenoid valve with spring return to middle position, actuated by permanent signal.

- Type 531 centre closed
- Type 532 centre exhausted
- Type 533 centre pressurised

When ordering please complete the type number by 1, 2 or 3 according to the type required.

Available with solenoid operators:
230V/50Hz, 110V/50Hz, 24V/50Hz, 48V=,
24V =, 12V=.

Valves are generally equipped with manual override.
If requested without manual override please order
M 53_ _ _ _.

Valves are also available with external pilot feed.
Type: MEH 53_ _ _ _ (please add 1 digit for type
and 3 digits for size).

Ports 12 and 14: G 1/8".

Minimum actuation pressure: 3 bar.

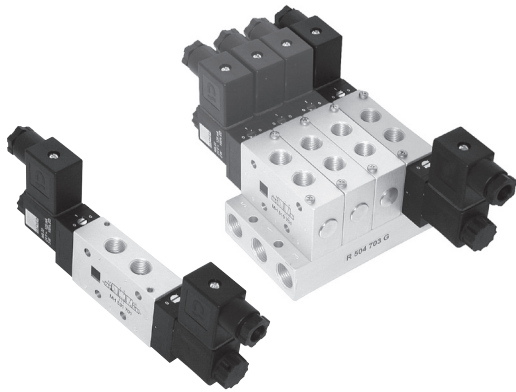
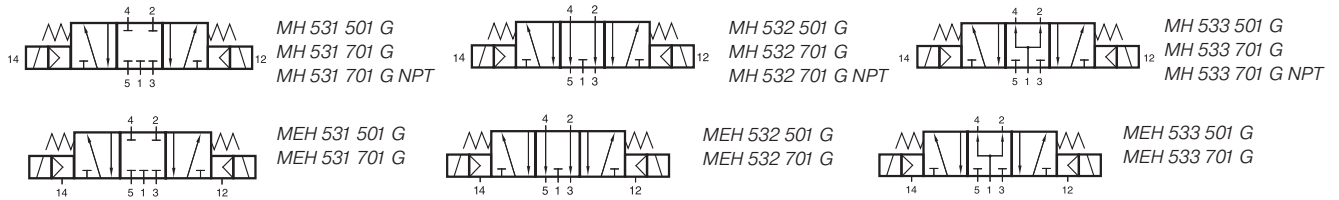
Version for vacuum on request.

Connectors as shown on the photo are included.

Selected products displayed on this page are also
available NPT threaded.

Type	Port size	Air flow	Operating press.	Power consumption	Weight
MH 53_ 101	G 3/8"	2250 l/min	1,5 - 10 bar	3 W = / 5 VA ~	0,66 kg
MH 53_ 121	G 1/2"	3000 l/min	1 - 10 bar	3 W = / 5 VA ~	0,84 kg
MH 53_ 181	G 3/4"	6000 l/min	1 - 10 bar	3 W = / 5 VA ~	1,45 kg
MH 53_ 121 NPT	1/2" NPT	3000 l/min	1 - 10 bar	3 W = / 5 VA ~	0,84 kg

MH 53_ 501 G/MH 53_ 701 G



5/3-way solenoid valve with spring return to middle position, actuated by permanent signal.

- Type 531 centre closed
- Type 532 centre exhausted
- Type 533 centre pressurised

When ordering please complete the type number by 1, 2 or 3 according to the type required.

Valves can either be used in-line or on a manifold plate. Manifolds for valves type 501 G are displayed on page 2.6.2.2, manifolds for valves type 701 G are displayed on page 2.6.2.3.

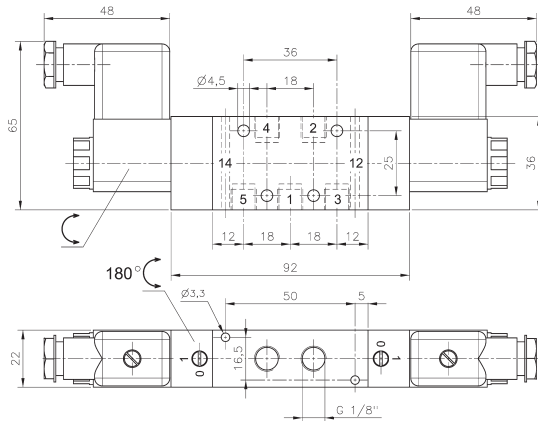
Available with solenoid operators:
230V/50Hz, 110V/50Hz, 24V/50Hz, 48V=
24V=, 12V=.

Valves are generally equipped with manual override. If requested without manual override please order M 53_ ___ G.

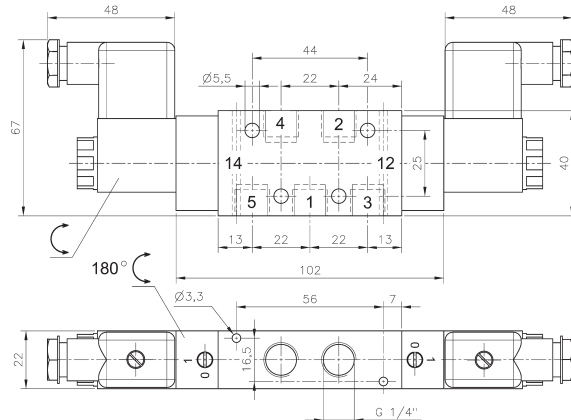
Valves are also available with external pilot feed.
Type: MEH 53 ___ G (please add 1 digit for type and 3 digits for size).
Ports 12 and 14: M5.
Minimum actuation pressure: 3 bar.
Version for vacuum on request.

Connectors as shown on the photo are included.

Selected products displayed on this page are also available NPT threaded.



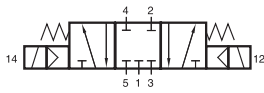
MH 53_ 501 G



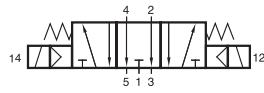
MH 53_ 701 G/MH 53_ 701 G NPT

Type	Port size	Air flow	Operating press.	Power consumption	Weight
MH 53_ 501 G	G 1/8"	650 l/min	3 - 10 bar	3 W = / 5 VA ~	0,33 kg ❄️
MH 53_ 701 G	G 1/4"	1250 l/min	3 - 10 bar	3 W = / 5 VA ~	0,35 kg ❄️MK
MH 53_ 701 G NPT	1/4" NPT	1250 l/min	3 - 10 bar	3 W = / 5 VA ~	0,35 kg

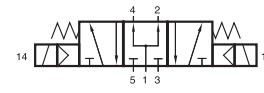
MD 53_303/MD 53_343 MD 53_403/MD 53_463



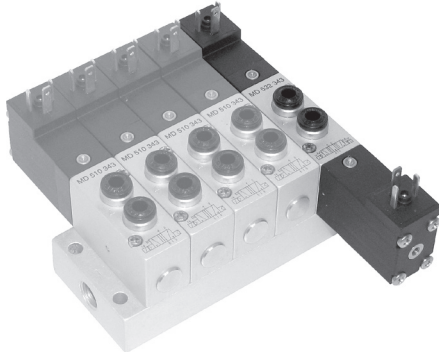
MD 531 303
MD 531 343
MD 531 403
MD 531 463



MD 532 303
MD 532 343
MD 532 403
MD 532 463



MD 533 303
MD 533 343
MD 533 403
MD 533 463



5/3-way solenoid valve with spring return to middle position, actuated by permanent signal. Ports 2 and 4 are in the valve, ports 1, 3 and 5 in the manifold plate.

- Type 531 centre closed
- Type 532 centre exhausted
- Type 533 centre pressurised

When ordering please complete the type number by 1, 2 or 3 according to the type required.

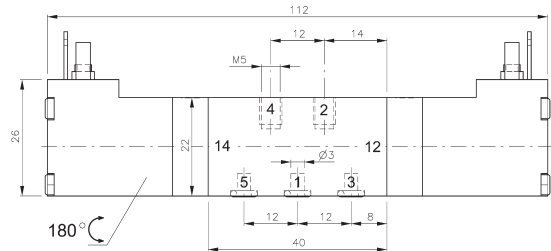
Available with solenoid operators:
230V/50Hz, 110V/50Hz, 24V/50Hz, 24V=,
12V=, 6V= either for connector form C ISO 15217
or with flying leads, standard cable length 500 mm.
For details about solenoid system, please refer to
page 2.11.1.

Valves are generally equipped with manual override to push.

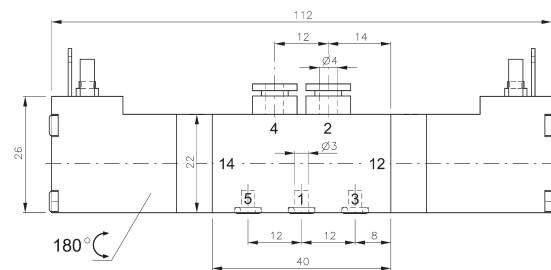
Manifolds are described on page 2.6.2.1.

Blanking plates are also available type BP 5 303
or BP 5 403.

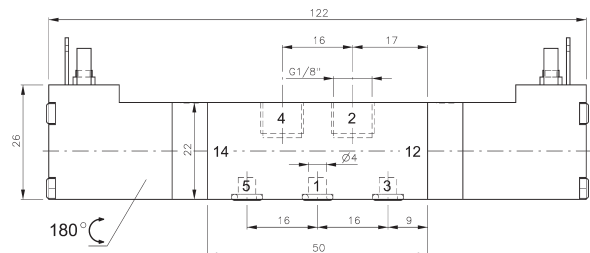
Mounting screws and seals are included.



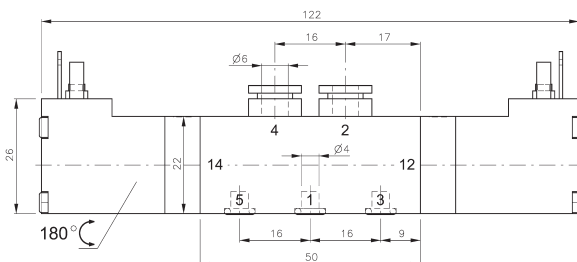
MD 53_303



MD 53_343

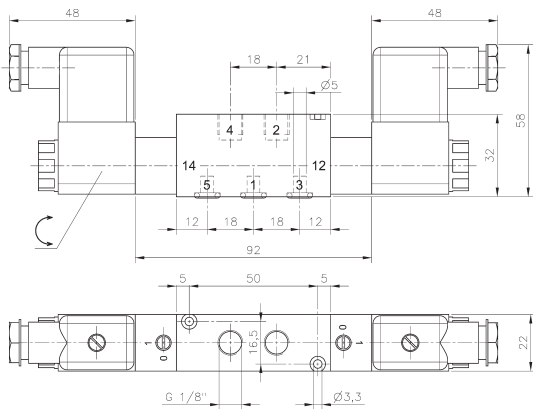
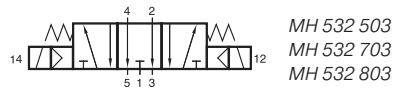
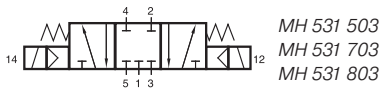


MD 53_403

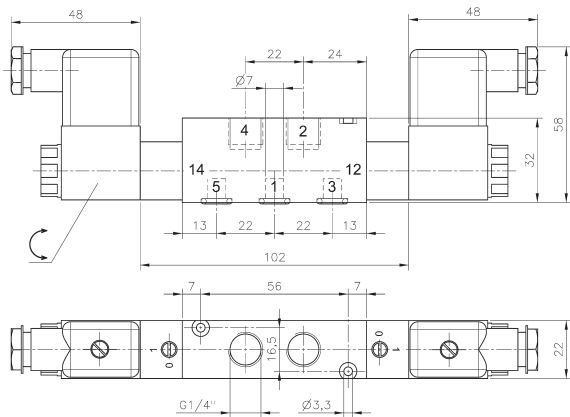


MD 53_463

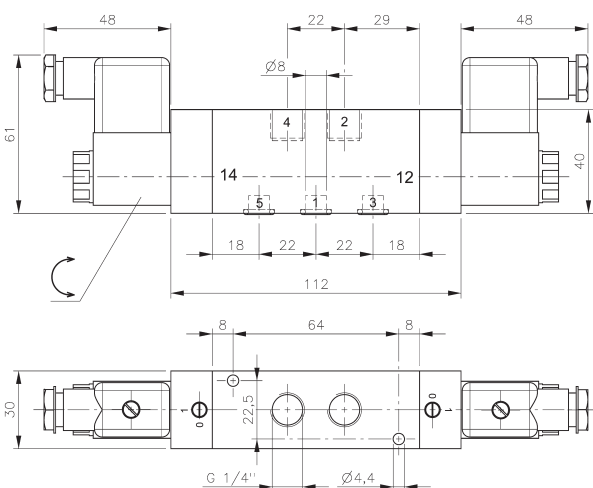
Type	Ports 1, 2, 4	Air flow	Operating press.	Power consumption	Weight
MD 53_303	M5	280 l/min	3 - 10 bar	1,8 W = / 3,0 VA ~	0,13 kg
MD 53_343	pif 4 mm	280 l/min	3 - 10 bar	1,8 W = / 3,0 VA ~	0,14 kg
MD 53_403	G 1/8"	450 l/min	3 - 10 bar	1,8 W = / 3,0 VA ~	0,14 kg
MD 53_463	pif 6 mm	450 l/min	3 - 10 bar	1,8 W = / 3,0 VA ~	0,15 kg



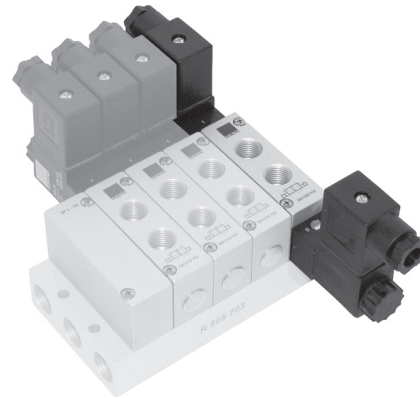
MH 53_503



MH 53_703



MH 53_803



5/3-way solenoid valve with spring return to middle position, actuated by permanent signal. Ports 2 and 4 are in the valve, ports 1, 3 and 5 in the manifold plate.

- Type 531 centre closed
- Type 532 centre exhausted
- Type 533 centre pressurised

When ordering please complete the type number by 1, 2 or 3 according to the type required.

Available with solenoid operators:
230V/50Hz, 110V/50Hz, 24V/50Hz, 48V=, 24V=, 12V=.

Valves are generally equipped with manual override. If requested without manual override please order M 53_ ___ (please add 1 digit for type and 3 for size).

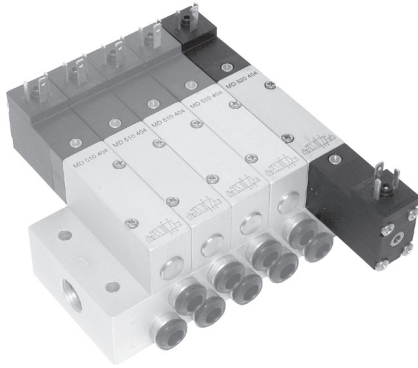
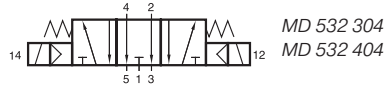
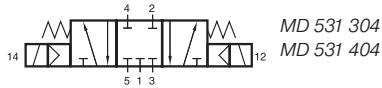
Manifolds for valves type 503 are displayed on page 2.6.2.2, manifolds for valves type 703 are displayed on page 2.6.2.3, manifolds for valves type 803 are displayed on page 2.6.2.5.

Blanking plates are also available type BP 5 503, BP 5 703 or BP 5 803.

Mounting screws, seals and connectors as shown on the photo are included.

Type	Ports 2, 4	Air flow	Operating press.	Power consumption	Weight
MH 53_ 503	G 1/8"	650 l/min	3 - 10 bar	3 W = / 5 VA ~	0,31 kg MK
MH 53_ 703	G 1/4"	1250 l/min	3 - 10 bar	3 W = / 5 VA ~	0,33 kg MK
MH 53_ 803	G 1/4"	1450 l/min	3 - 10 bar	3 W = / 5 VA ~	0,56 kg

MD 53_304/MD 53_404



5/3-way solenoid valve with spring return to middle position, actuated by permanent signal. All the ports are in the plate.

- Type 531 centre closed
- Type 532 centre exhausted
- Type 533 centre pressurised

When ordering please complete the type number by 1, 2 or 3 according to the type required.

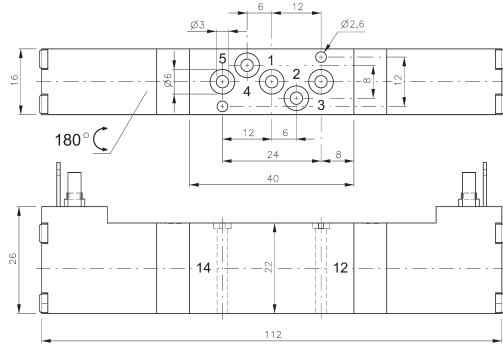
Available with solenoid operators:
230V/50Hz, 110V/50Hz, 24V/50Hz, 24V=, 12V=, 6V= either for connector form C ISO 15217 or with flying leads, standard cable length 500 mm. For details about solenoid system, please refer to page 2.11.1.

Valves are generally equipped with manual override to push.

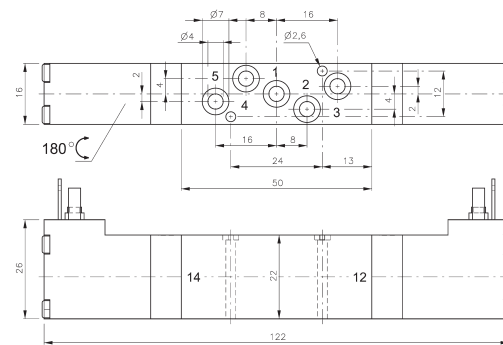
Manifolds are described on page 2.6.2.6.

Blanking plates are also available type BP 5 344 or BP 5 464.

Mounting screws and seals are included.

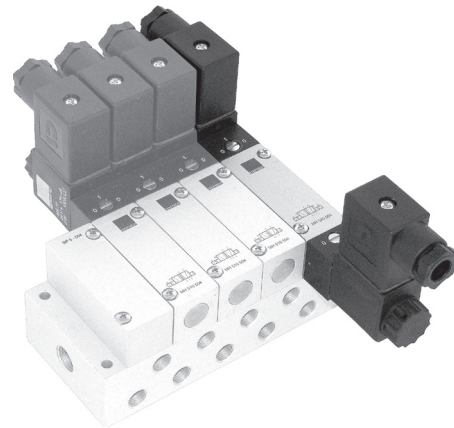
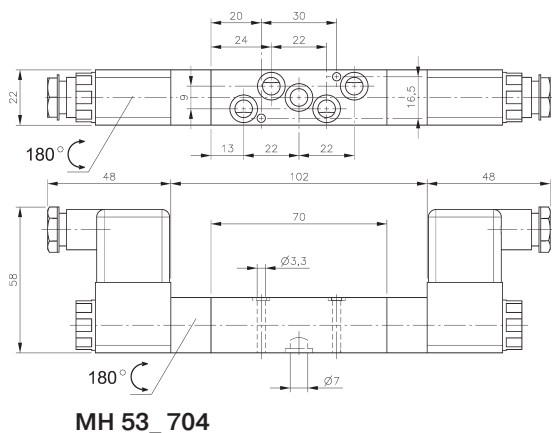
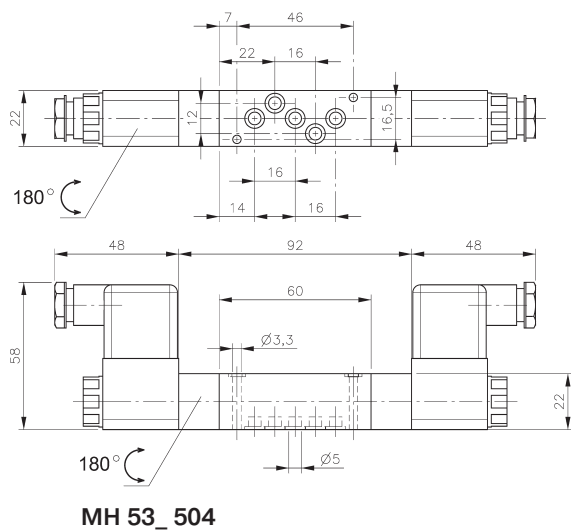
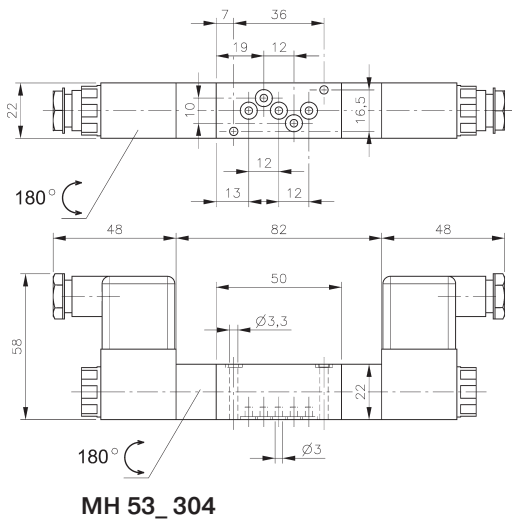
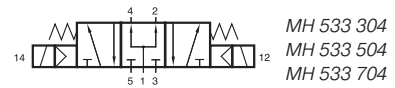
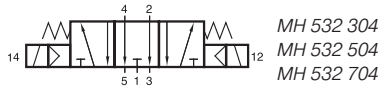
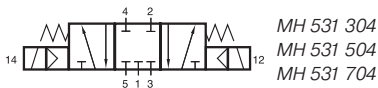


MD 53_304



MD 53_404

Type	Port size	Air flow	Operating press.	Power consumption	Weight
MD 53_304	Ø 3 mm	280 l/min	3 - 10 bar	1,8 W = / 3,0 VA ~	0,13 kg
MD 53_404	Ø 4 mm	450 l/min	3 - 10 bar	1,8 W = / 3,0 VA ~	0,14 kg



5/3-way solenoid valve with spring return to middle position, actuated by permanent signal. All the ports are in the plate.

- Type 531 centre closed
- Type 532 centre exhausted
- Type 533 centre pressurised

When ordering please complete the type number by 1, 2 or 3 according to the type required.

Available with solenoid operators:
230V/50Hz, 110V/50Hz, 24V/50Hz, 48V=,
24V=, 12V=.

Valves are generally equipped with manual override. If requested without manual override please order M 53_ ___ (please add 1 digit for type and 3 for size).

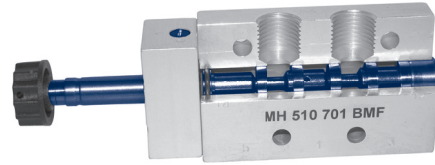
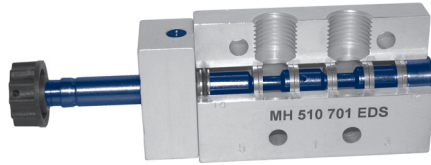
Manifolds are described on page 2.6.2.7.

Blanking plates are also available:
Type no. BP 5 304, BP 5 504 or BP 5 704.

Mounting screws, seals and connectors as shown on the photo are included.

Type	Port size	Air flow	Operating press.	Power consumption	Weight
MH 53_304	Ø 3 mm	220 l/min	3 - 10 bar	3 W = / 5 VA ~	0,25 kg ❄
MH 53_504	Ø 5 mm	650 l/min	3 - 10 bar	3 W = / 5 VA ~	0,27 kg ❄MK
MH 53_704	Ø 7 mm	1250 l/min	3 - 10 bar	3 W = / 5 VA ~	0,29 kg ❄MK

Examples for customer-specific products

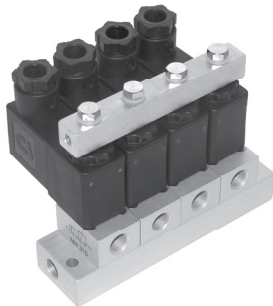


Version EDS and BMF

For applications where a valve with an aluminum body is appropriate but brass is not, we can deliver selected models either „brass-free to the outside“ (version EDS) or totally „brass-free“ (version BMF).

Materials used:

	EDS	BMF
	<i>Brass-free to the outside</i>	<i>Entirely brass-free</i>
Body and head	Aluminum	Aluminum
Manual override	1.4404	1.4404
Operator tube	Stainless steel	Stainless steel
Seat below plunger	Brass	1.4404
Sealing system	Brass / NBR	1.4404 / PUR
Spool	Stainless steel	Stainless steel
Piston	Brass / NBR	1.4404 / PUR
Rubber parts	FKM	FKM
Endcap	1.4404	1.4404
Screws	A2	A2



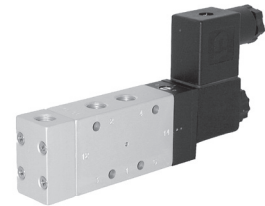
RS 4

Connection for operator of direct actuated 3-way-valves can be used to capture exhaust for n.c. valves as well as supply for n.o. valves. Standard: 2, 4, 6 stations, others on request.



MSV 311 030

Direct actuated 3/2-way valve for vacuum use, orifice size 3 mm.



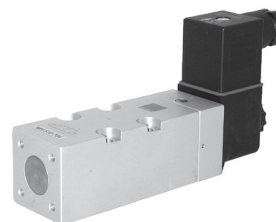
MHP 520 501

G 1/8" 2-position valve, actuated from one side pneumatically, from the other side with a solenoid. Also available with external pilot-feed and in other sizes.



MD 310 701 MDD

3/2-way valve with pneumatic spring return actuated by 2 solenoids. Valve offers a fail-safe-function in case one coil does not work.



MH 510 704 J

Range of 35 mm wide valves with an orifice size of 7 mm for the packaging industry. Range consists of single and double solenoid valves as well as of 5/3-way valves. Pilot actuated products are also available.