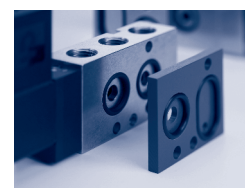


2.10

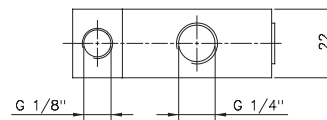
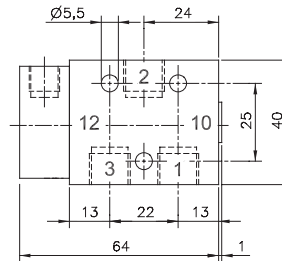
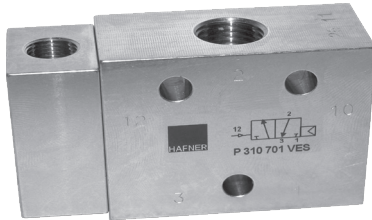
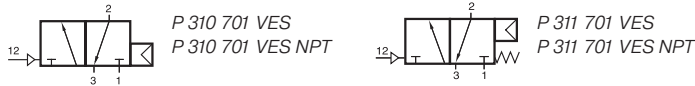
„Heavy Metal“ Stainless Steel Valves

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.

P 310 701 VES/P 311 701 VES



**P 310 701 VES/ P 311 701 VES
P 310 701 VES NPT/ P 311 701 VES NPT**

Pneumatically actuated 3/2-way spool valve.

Body parts are made from stainless steel 316L / 1.4404, rubber parts PUR and FKM.

Type P 310 701 VES with air-spring-return.
Operating pressure and actuating pressure should be at the same level.

Type P 311 701 VES with combined spring return.
Due to the specific design of the internal parts pressure has to be applied to port 1. For other versions (e.g. normally open) please contact the manufacturer.

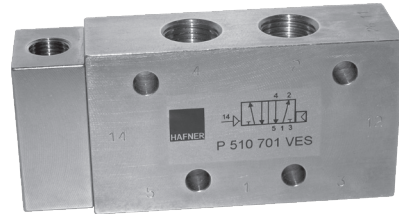
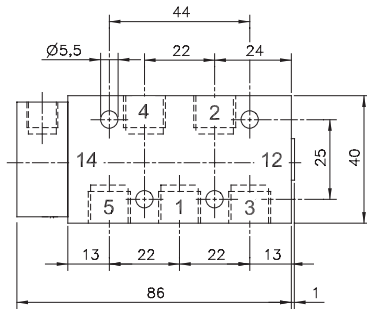
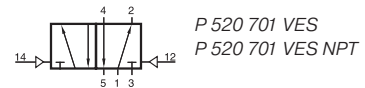
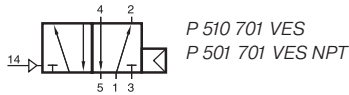
Double pilot valves are available on request.

Exhaust can be throttled.

Products displayed on this page are also available NPT threaded.

Type	Port size	Function	Air flow	Oper. press.	Act. press.	Weight
P 310 701 VES	G 1/4"	air-spring	1250 l/min	2 - 10 bar	the same	0,35 kg ❄️
P 311 701 VES	G 1/4"	mech. spring	1250 l/min	2 - 10 bar	3 - 10 bar	0,35 kg ❄️
P 310 701 VES NPT	1/4" NPT	air-spring	1250 l/min	2 - 10 bar	the same	0,35 kg ❄️
P 311 701 VES NPT	1/4" NPT	mech. spring	1250 l/min	2 - 10 bar	3 - 10 bar	0,35 kg ❄️

P 510 701 VES/P 511 701 VES P 520 701 VES



Pneumatically actuated 5/2-way spool valve.

Body parts are made from stainless steel 316L / 1.4404, rubber parts PUR and FKM.

Type P 510 701 VES single pilot with air-spring-return.

Operating pressure and actuating pressure should be at the same level.

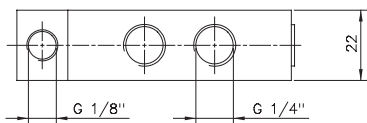
Type P 511 701 VES single pilot with combined spring return. Due to the specific design of the internal parts pressure has to be applied to port 1. For other versions please contact the manufacturer.

Type P 520 701 VES double pilot.

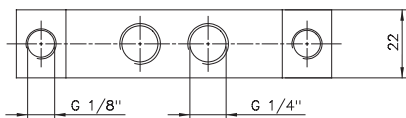
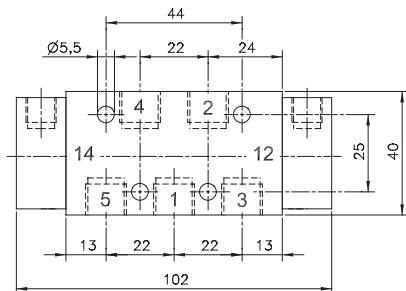
Operating pressure and actuating pressure should be at the same level.

Exhaust can be throttled.

Products displayed on this page are also available NPT threaded.



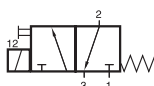
**P 510 701 VES/P 511 701 VES
P 510 701 VES NPT/P 511 701 VES NPT**



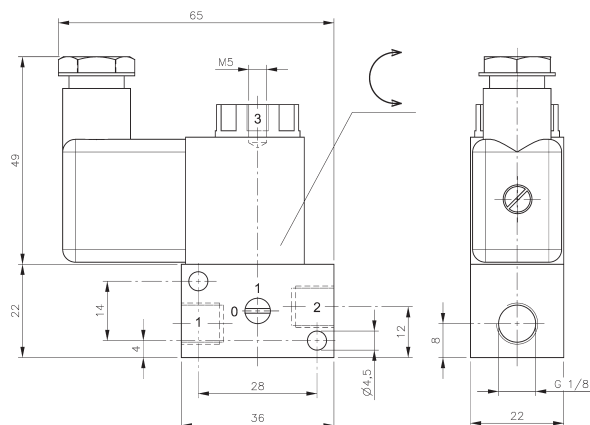
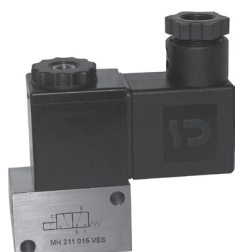
P 520 701 VES/ P 520 701 VES NPT

Type	Port size	Function	Air flow	Oper. press.	Act. press.	Weight
P 510 701 VES	G 1/4"	air-spring	1250 l/min	2 - 10 bar	the same	0,40 kg ❄️
P 511 701 VES	G 1/4"	mech. spring	1250 l/min	2 - 10 bar	3 - 10 bar	0,40 kg ❄️
P 520 701 VES	G 1/4"	double pilot	1250 l/min	1,5 - 10 bar	the same	0,50 kg ❄️
P 510 701 VES NPT	1/4" NPT	air-spring	1250 l/min	2 - 10 bar	the same	0,40 kg ❄️
P 511 701 VES NPT	1/4" NPT	mech. spring	1250 l/min	2 - 10 bar	3 - 10 bar	0,40 kg ❄️
P 520 701 VES NPT	1/4" NPT	double pilot	1250 l/min	1,5 - 10 bar	the same	0,50 kg ❄️

MH 311 015 VES



MH 311 015 VES



MH 311 015 VES

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

Valve body is made from stainless steel, material: 1.4404.
Plunger-seals are made of FKM.

Normally closed, port 1 and 2 in the valve, port 3 at the top of the solenoid.

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

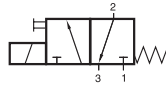
Available with solenoid operators:
230V/50Hz, 110V/50Hz, 24V/50Hz, 48V=, 24V=, 12V=.

Valves are generally equipped with manual override.

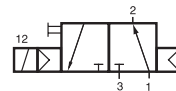
Connector as shown on the photo is included.

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

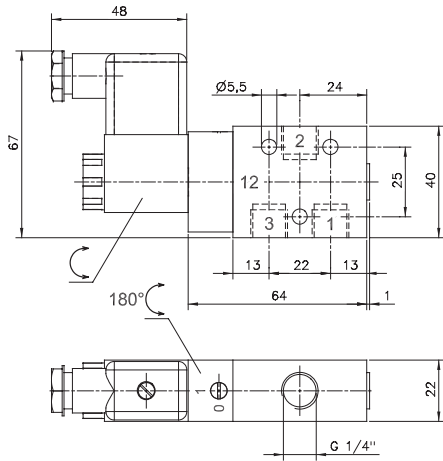
MH 310 701 VES/MH 310 701 KES MOH 310 701 VES/MOH 310 701 KES



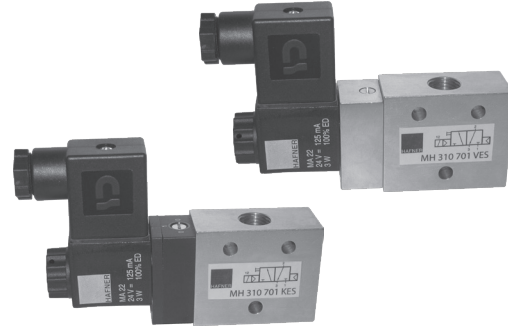
MH 310 701 VES
MH 310 701 KES
MH 310 701 VES NPT
MH 310 701 KES NPT



MOH 310 701 VES
MOH 310 701 KES
MOH 310 701 VES NPT
MOH 310 701 KES NPT



MH 310 701 VES/KES
MOH 310 701 VES/KES
MH 310 701 VES/KES NPT
MOH 310 701 VES/KES NPT



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

Body parts are made from stainless steel 316L / 1.4404. Customer has the choice between two versions VES and KES, for details refer to the table below.

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

Valves are equipped with manual override to be turned.

Connector as shown on the photo is included.

Products displayed on this page are available NPT threaded.

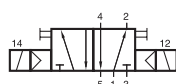
Type	Pilot head	Seals	Other rubber parts
VES	1.4404	PUR	FKM
KES	PA	PUR	FKM

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

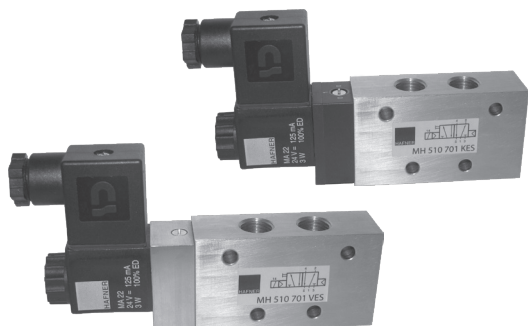
MH 510 701 VES/MH 510 701 KES MH 520 701 VES/MH 520 701 KES



MH 510 701 VES
MH 510 701 KES
MH 510 701 VES NPT
MH 510 701 KES NPT



MH 520 701 VES
MH 520 701 KES
MH 520 701 VES NPT
MH 520 701 KES NPT



5/2-way solenoid valve.

Type MH 510 __ __ single solenoid actuated by permanent signal and equipped with air spring return.

Type MH 520 __ __ double solenoid actuated by impulse. Position is kept until an electric signal is applied to the opposite side even when not attached to an electrical source.

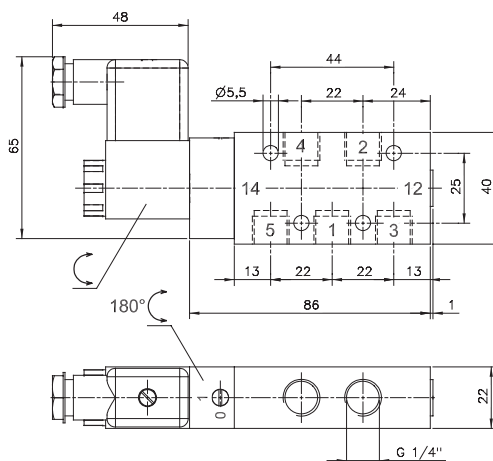
Body parts are made from stainless steel 316L / 1.4404. Customer has the choice between two versions VES and KES, for details refer to the table below.

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

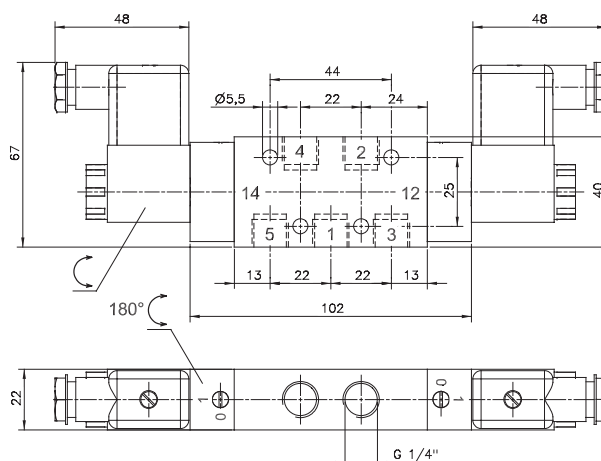
Valves are equipped with manual override to be turned.

Connector as shown on the photo is included.

Products displayed on this page are available NPT threaded.



**MH 510 701 VES/KES
MH 510 701 VES/KES NPT**

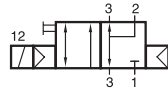


**MH 520 701 VES/KES
MH 520 701 VES/KES NPT**

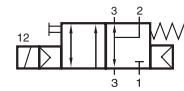
Type	Pilot head	Seals	Other rubber parts
VES	1.4404	PUR	FKM
KES	PA	PUR	FKM

Type	Function	Port size	Air flow	Oper. press.	Power cons.	Weight
MH 510 701 VES	single sol.	G 1/4"	1250 l/min	2 - 10 bar	3 W = / 5 VA ~	0,20 kg ❄️⊕
MH 510 701 KES	single sol.	G 1/4"	1250 l/min	2 - 10 bar	3 W = / 5 VA ~	0,21 kg
MH 520 701 VES	double sol.	G 1/4"	1250 l/min	2 - 10 bar	3 W = / 5 VA ~	0,21 kg ❄️⊕
MH 520 701 KES	double sol.	G 1/4"	1250 l/min	2 - 10 bar	3 W = / 5 VA ~	0,21 kg
MH 510 701 VES NPT	single sol.	1/4" NPT	1250 l/min	2 - 10 bar	3 W = / 5 VA ~	0,20 kg ❄️
MH 510 701 KES NPT	single sol.	1/4" NPT	1250 l/min	2 - 10 bar	3 W = / 5 VA ~	0,21 kg
MH 520 701 VES NPT	double sol.	1/4" NPT	1250 l/min	2 - 10 bar	3 W = / 5 VA ~	0,21 kg ❄️
MH 520 701 KES NPT	double sol.	1/4" NPT	1250 l/min	2 - 10 bar	3 W = / 5 VA ~	0,21 kg

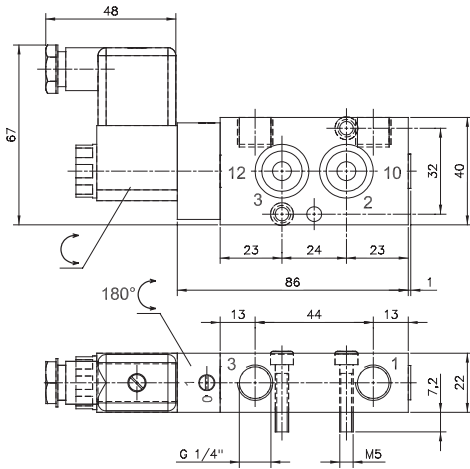
MNH 310 701 VES/MNH 310 701 KES MNH 311 701 VES/MNH 311 701 KES



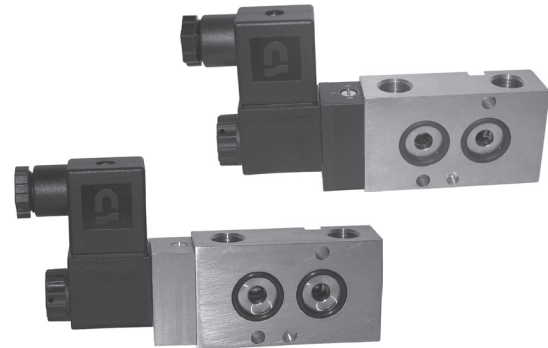
MNH 310 701 VES
MNH 310 701 KES
MNH 310 701 VES NPT
MNH 310 701 KES NPT



MNH 311 701 VES
MNH 311 701 KES
MNH 310 701 VES NPT
MNH 310 701 KES NPT



MNH 310 701 VES/KES
MNH 311 701 VES/KES
MNH 310 701 VES/KES NPT
MNH 311 701 VES/KES NPT



3/2-way solenoid valve, actuated by permanent signal. Interface according to 1/4" Namur standard, with exhaust air recirculation (purge).

Type MNH 310 701 with pneumatic spring return. Type MNH 311 701 with combined spring assuring a fail-safe function in case of cut-off of pressure supply.

Body parts are made from stainless steel 316L / 1.4404. Customer has the choice between two versions VES and KES, for details refer to the table below.

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

Valves are equipped with manual override to be turned.

Delivery of valve includes 1 pin, 2 screws, 2 O-rings and 1 connector.

Products displayed on this page are available NPT threaded.

Type	Pilot head	Seals	Other rubber parts
VES	1.4404	PUR	FKM
KES	PA	PUR	FKM

Type	Function	Port size	Air flow	Oper. press.	Power cons.	Weight
MNH 310 701 VES	air-spring	G 1/4"	1250 l/min	1,5 - 10 bar	3 W = / 5 VA ~	0,57 kg ❄️⊕
MNH 310 701 KES	air-spring	G 1/4"	1250 l/min	1,5 - 10 bar	3 W = / 5 VA ~	0,49 kg
MNH 311 701 VES	comb. spring	G 1/4"	1250 l/min	2,5 - 10 bar	3 W = / 5 VA ~	0,57 kg ❄️
MNH 311 701 KES	comb. spring	G 1/4"	1250 l/min	2,5 - 10 bar	3 W = / 5 VA ~	0,49 kg
MNH 310 701 VES NPT	air-spring	1/4" NPT	1250 l/min	1,5 - 10 bar	3 W = / 5 VA ~	0,57 kg ❄️
MNH 310 701 KES NPT	air-spring	1/4" NPT	1250 l/min	1,5 - 10 bar	3 W = / 5 VA ~	0,49 kg
MNH 311 701 VES NPT	comb. spring	1/4" NPT	1250 l/min	2,5 - 10 bar	3 W = / 5 VA ~	0,57 kg ❄️
MNH 311 701 KES NPT	comb. spring	1/4" NPT	1250 l/min	2,5 - 10 bar	3 W = / 5 VA ~	0,49 kg

MNH 510 701 VES/MNH 510 701 KES MNH 511 701 VES/MNH 511 701 KES MNH 520 701 VES/MNH 520 701 KES



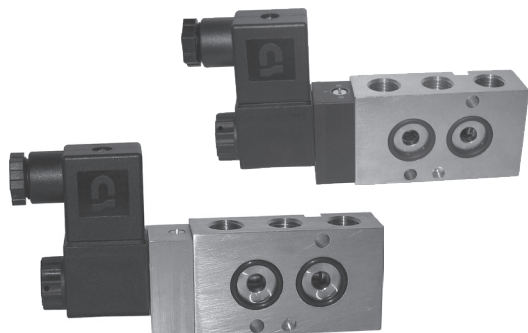
MNH 510 701 VES
MNH 510 701 KES
MNH 510 701 VES NPT
MNH 510 701 KES NPT



MNH 511 701 VES
MNH 511 701 KES
MNH 511 701 VES NPT
MNH 511 701 KES NPT



MNH 520 701 VES
MNH 520 701 KES
MNH 520 701 VES NPT
MNH 520 701 KES NPT



5/2-way solenoid valve.

Type MH 510 ___ single solenoid actuated by permanent signal and equipped with air spring return.

Type MH 520 ___ double solenoid actuated by impulse. Position is kept until an electric signal is applied to the opposite side even when not attached to an electrical source.

Body parts are made from stainless steel 316L / 1.4404. Customer has the choice between two versions VES and KES, for details refer to the table below.

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

Valves are equipped with manual override to be turned.

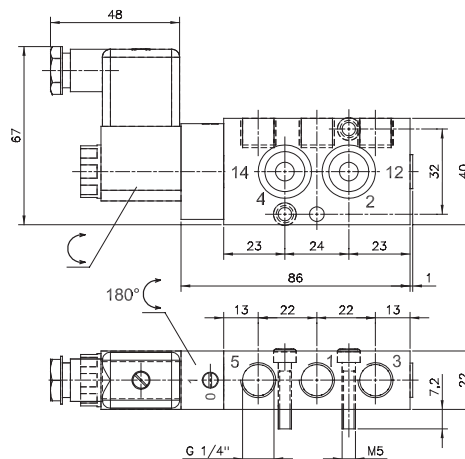
Connector as shown on the photo is included.

Products displayed on this page are available NPT threaded.

Type Pilot head Seals Other rubber parts

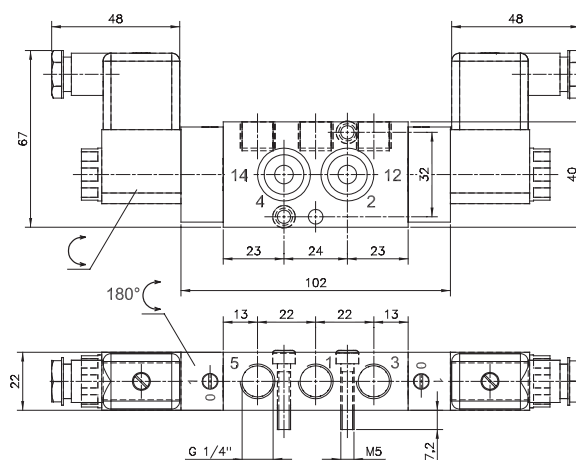
VES 1.4404 PUR FKM

KES PA PUR FKM



MNH 510 701 VES/KES
MNH 511 701 VES/KES

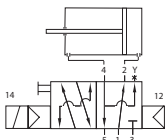
MNH 510 701 VES/KES NPT
MNH 511 701 VES/KES NPT



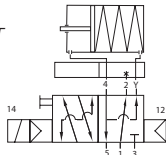
MNH 520 701 VES/KES
MNH 520 701 VES/KES NPT

Type	Function	Port size	Air flow	Oper. press.	Power cons.	Weight
MNH 510 701 VES	air-spring	G 1/4"	1250 l/min	1,5 - 10 bar	3 W = / 5 VA ~	0,57 kg
MNH 510 701 KES	air-spring	G 1/4"	1250 l/min	1,5 - 10 bar	3 W = / 5 VA ~	0,49 kg
MNH 511 701 VES	comb. spring	G 1/4"	1250 l/min	2,5 - 10 bar	3 W = / 5 VA ~	0,57 kg
MNH 511 701 KES	comb. spring	G 1/4"	1250 l/min	2,5 - 10 bar	3 W = / 5 VA ~	0,49 kg
MNH 520 701 VES	double sol.	G 1/4"	1250 l/min	2 - 10 bar	3 W = / 5 VA ~	0,67 kg
MNH 520 701 KES	double sol.	G 1/4"	1250 l/min	2 - 10 bar	3 W = / 5 VA ~	0,58 kg
MNH 510 701 VES NPT	air-spring	1/4" NPT	1250 l/min	1,5 - 10 bar	3 W = / 5 VA ~	0,57 kg
MNH 510 701 KES NPT	air-spring	1/4" NPT	1250 l/min	1,5 - 10 bar	3 W = / 5 VA ~	0,49 kg
MNH 511 701 VES NPT	comb. spring	1/4" NPT	1250 l/min	2,5 - 10 bar	3 W = / 5 VA ~	0,57 kg
MNH 511 701 KES NPT	comb. spring	1/4" NPT	1250 l/min	2,5 - 10 bar	3 W = / 5 VA ~	0,49 kg
MNH 520 701 VES NPT	double sol.	1/4" NPT	1250 l/min	2 - 10 bar	3 W = / 5 VA ~	0,67 kg
MNH 520 701 KES NPT	double sol.	1/4" NPT	1250 l/min	2 - 10 bar	3 W = / 5 VA ~	0,58 kg

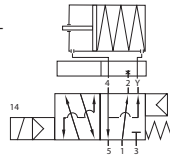
MNH 350 701 VES/MNH 350 701 KES MNH 351 701 VES/MNH 351 701 KES



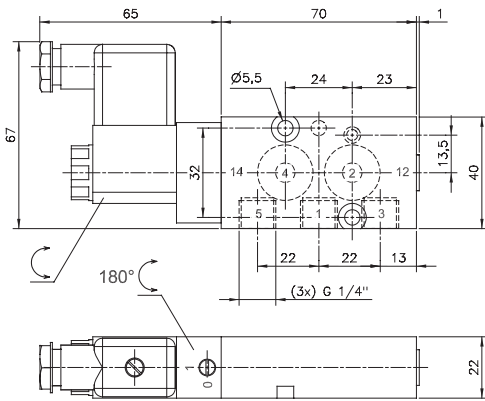
MNH 350 701 VES/KES
MNH 350 701 VES/KES NPT
on double acting act.



MNH 350 701 VES/KES
MNH 350 701 VES/KES NPT
and Flex-Pack
on single acting act.

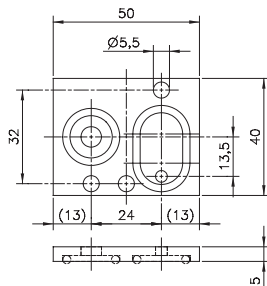


MNH 351 701 VES/KES
MNH 351 701 VES/KES NPT
and Flex-Pack
on single acting act.

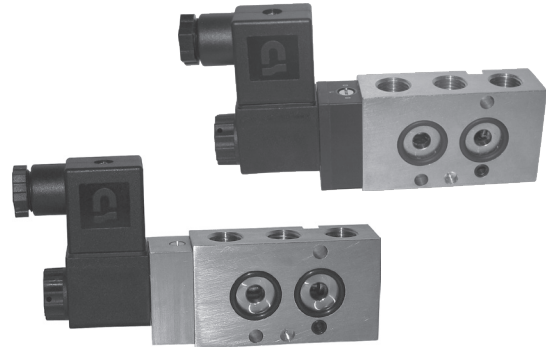


**MNH 350 701 VES/KES
MNH 351 701 VES/KES**

**MNH 350 701 VES/KES NPT
MNH 351 701 VES/KES NPT**



FP 701 K/FP 701 VES



5/2-way solenoid valve, actuated by permanent signal. Interface according to 1/4" Namur standard. Adding the „Flex-Pack“, converts the valve into a 3/2-way-Namur-valve with exhaust-air recirculation (“purge”).

MNH 350 701 with pneumatic spring return,
MNH 351 701 with combined spring.

Body parts are made from stainless steel 316L / 1.4404. Customer has the choice between two versions VES and KES, for details refer to the table below.

Valves are available with solenoid operators:
230V/50Hz, 110V/50Hz, 24V/50Hz, 48V=,
24V=, 12V=

Valves are generally equipped with manual override.

Delivery of valve includes 1 pin, 2 screws, 2 O-rings and 1 connector.

Products displayed on this page are available NPT threaded.

Instead of the Flex-Pack the „Flex-regulator“ Type DRF 601 converts the function of the valve and offers the possibility to control opening- and closing-speed of a spring-return actuator independently.

Delivery of FP 701 K includes longer screws, seals as well as a plug to close port 3 of the valve.

Delivery of FP 701 VES includes longer screws and seals.

Type	Pilot head	Seals	Other rubber parts
------	------------	-------	--------------------

VES	1.4404	PUR	FKM
-----	--------	-----	-----

KES	PA	PUR	FKM
-----	----	-----	-----

Type	Material	Orifice 4	Orifice 2-3	Weight
------	----------	-----------	-------------	--------

FP 701 K	PA	7 mm	4 mm	0,012 kg
----------	----	------	------	----------

FP 701 VES	1.44.04	7 mm	4 mm	0,025 kg
------------	---------	------	------	----------

Type	Function	Port size	Air flow	Oper. press.	Power Cons.	Weight
------	----------	-----------	----------	--------------	-------------	--------

MNH 350 701 VES	air-spring	G 1/4"	1250 l/min	1,5 - 10 bar	3 W = / 5 VA ~ 0,57 kg	❄️⊕
-----------------	------------	--------	------------	--------------	------------------------	-----

MNH 350 701 KES	air-spring	G 1/4"	1250 l/min	1,5 - 10 bar	3 W = / 5 VA ~ 0,49 kg	
-----------------	------------	--------	------------	--------------	------------------------	--

MNH 351 701 VES	comb. spring	G 1/4"	1250 l/min	2,5 - 10 bar	3 W = / 5 VA ~ 0,57 kg	❄️
-----------------	--------------	--------	------------	--------------	------------------------	----

MNH 351 701 KES	comb. spring	G 1/4"	1250 l/min	2,5 - 10 bar	3 W = / 5 VA ~ 0,49 kg	
-----------------	--------------	--------	------------	--------------	------------------------	--

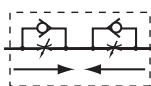
MNH 350 701 VES NPT	air-spring	1/4" NPT	1250 l/min	1,5 - 10 bar	3 W = / 5 VA ~ 0,57 kg	❄️
---------------------	------------	----------	------------	--------------	------------------------	----

MNH 350 701 KES NPT	air-spring	1/4" NPT	1250 l/min	1,5 - 10 bar	3 W = / 5 VA ~ 0,49 kg	
---------------------	------------	----------	------------	--------------	------------------------	--

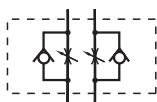
MNH 351 701 VES NPT	comb. spring	1/4" NPT	1250 l/min	2,5 - 10 bar	3 W = / 5 VA ~ 0,57 kg	❄️
---------------------	--------------	----------	------------	--------------	------------------------	----

MNH 351 701 KES NPT	comb. spring	1/4" NPT	1250 l/min	2,5 - 10 bar	3 W = / 5 VA ~ 0,49 kg	
---------------------	--------------	----------	------------	--------------	------------------------	--

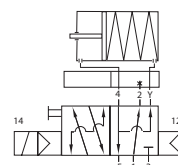
DRN 3 611 VES/DRN 5 611 VES DRF 3 611 VES



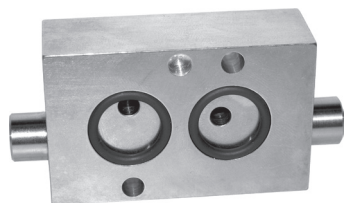
DRN 3 611 VES



DRN 5 611 VES



MNH 350 701
and Flex Regulator
DRF 3 611 VES



Block form flow regulator as intermediate plate, interface according to 1/4" Namur standard.

Type DRN 3 611 VES:

For 3/2-way valves with exhaust air recirculation. To regulate the forward stroke of a single acting pneumatic actuator and to regulate the exhaust air going into the spring return unit.

Type DRN 5 611 VES:

For 5/2 and 5/3 way valves only. To regulate the forward- and backward-stroke of a double acting pneumatic actuator.

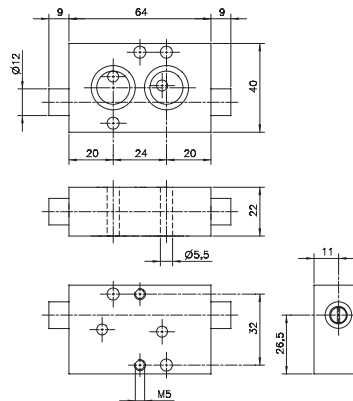
Type DRF 3 611 VES:

For the Hafner Namur-Flex valve. To regulate the forward stroke of a single acting actuator and to regulate the exhaust air going into the spring return unit.

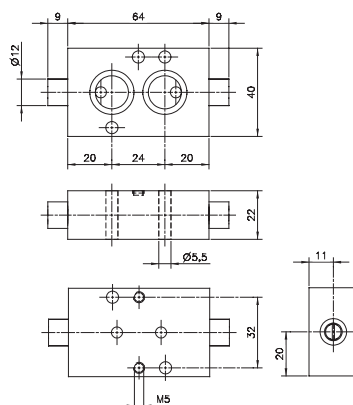
To be operated with a screw-driver.

Entirely made of **stainless steel 316L / 1.4404**.

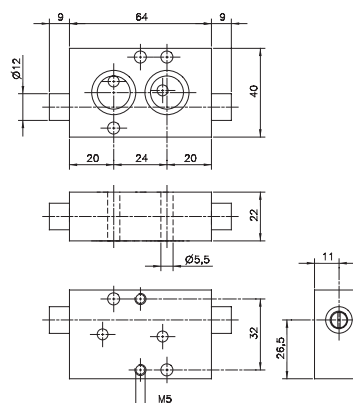
Delivery includes 1 pin, 2 screws, 2 O-Rings.



DRN 3 611 VES



DRN 5 611 VES



DRF 3 611 VES

Type	Function	Port size	Max. air flow	Operating press.	Weight
DRN 3 611 VES	3-way valves	Ø 5mm	650 l/min	0,5 - 10 bar	0,42 kg ❄️
DRN 5 611 VES	5-way valves	Ø 5mm	650 l/min	0,5 - 10 bar	0,42 kg ❄️
DRF 3 611 VES	3-way Namur Flex	Ø 5mm	650 l/min	0,5 - 10 bar	0,42 kg