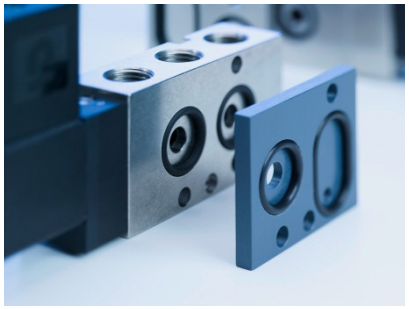
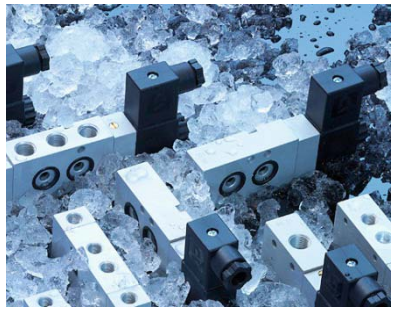
Accessories for smart valve-automation





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Fax +49 – 7154 – 17 85 89 28
info@hafner-pneumatik.de
www.hafner-pneumatik.de

HAFNER

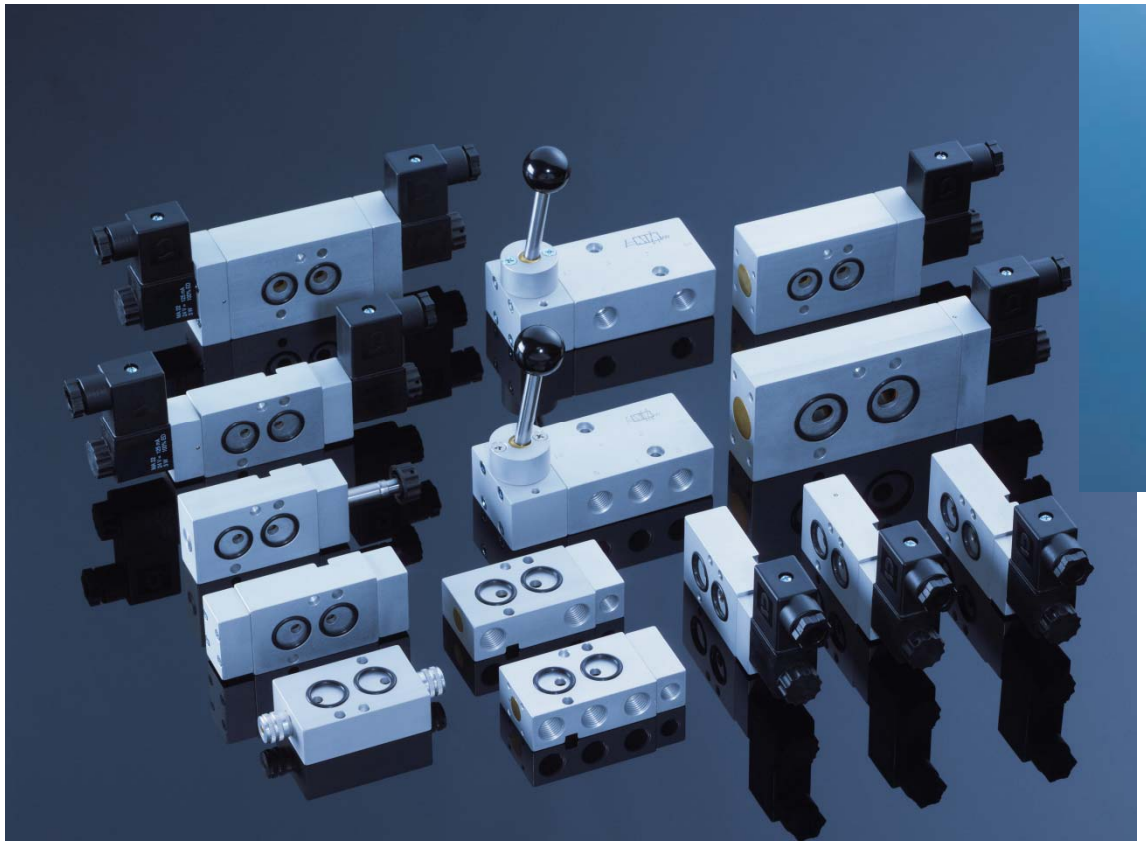
Index

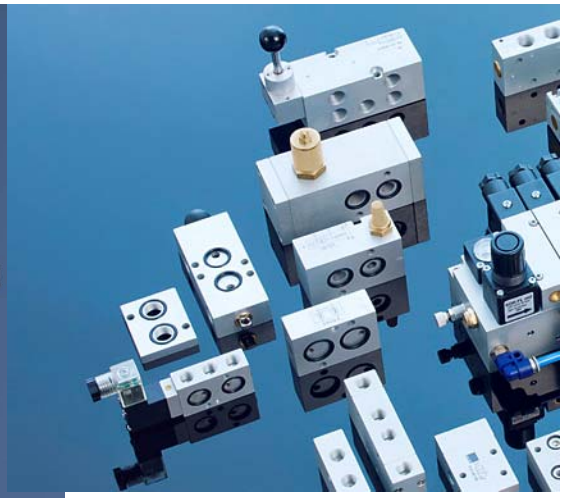
HAFNER

Hafner is offering a wide range of products for the process-industry.

Vast range of 3/2, 5/2 and 5/3-way Namur-Valves

Actuated by solenoid, hand-lever or pneumatically





For further information, please ask for our full Namur-Presentation or the full catalogue.

HAFNER

Besides the standard valves, a full range of ATEX-approved versions for explosion hazardous environment is available.

Valve Body	Temperature	Ignition Protection Type					
ATEX		Ex na (non-sparking) 	Ex ia (intrinsically safe) 	Ex m (encapsulation with 3 m cable) 	Ex e mb (encapsulation with junction box) 	Ex dm (encapsulated flameproof) 	Ex d (flameproof) 
Aluminium	-10° C to +50° C	✓	✓	✓	✓	✓	✓
Stainless Steel 316	-10° C to +50° C	✓	✓	✓	✓	✓	✓
Aluminium	-40°/ (-50° C) to +50° C	n.a.	✓	n.a.	✓	✓	✓
Stainless Steel 316	-40°/ (-50° C) to +50° C	n.a.	✓	n.a.	✓	✓	✓
Zone		2 / 22	1, 21, 2, 22	1, 21, 2, 22	1, 21, 2, 22	1, 21, 2, 22	1, 21, 2, 22

For further information, please ask for our full Namur-Presentation or the full catalogue.

HAFNER

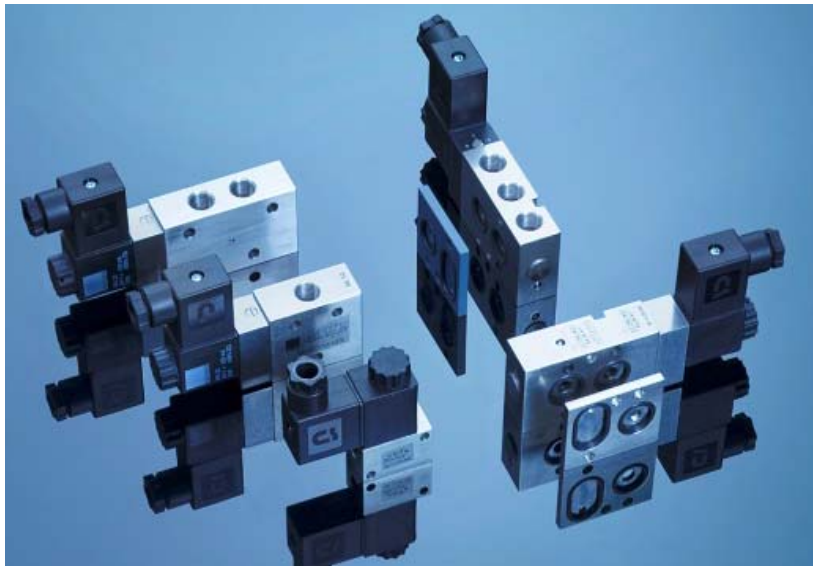
The valve series “Hafner on the Rocks” and “Hafner Heavy Metal” are made for challenging applications.

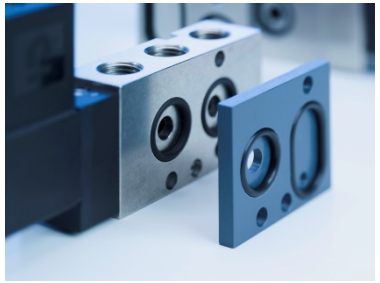
“Hafner on the Rocks”

Low Temperature Valves (-50°C)

“Hafner Heavy Metal”

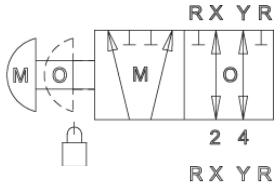
316L Stainless Steel Valves



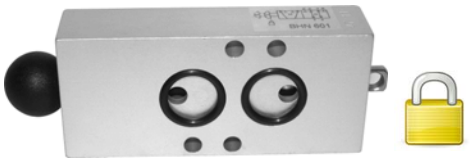


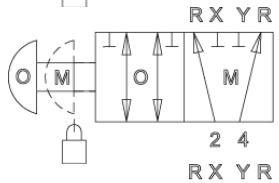
For further information, please ask for our full Namur-Presentation or the full catalogue.

Block and vent valve for on site servicing of the armature.

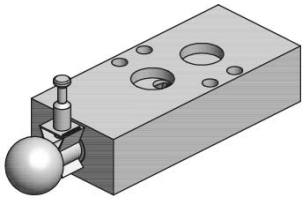


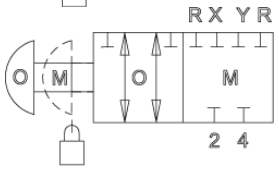
BHN 601



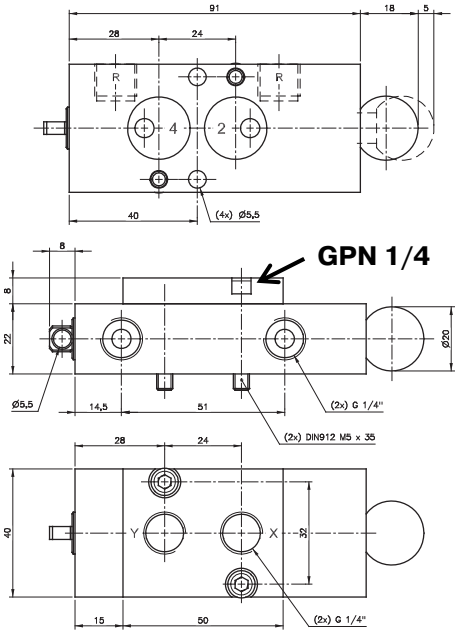


BHN 601 01

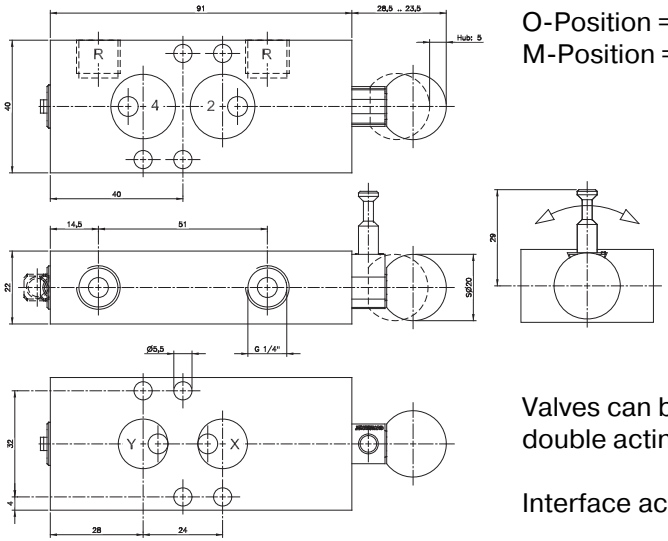




BHN 611 01



BHN 601



BHN 601 01 / BHN 611 01

The **BHN 601** is made for blocking the air supply from the pilot valve to the actuator and venting at the same time both actuator chambers.
The valve offers a locking function in the O-position.

The **BHN 601 01** has the same function as the BHN 601.
Locking function is in the M-position.
In addition the valve has a pin to fix the valve in the O-position.

The **BHN 611 01** is made for blocking the air supply from the pilot valve to the actuator and holding the actuator in the current position.
The valve offers a locking function in the M-position.
In addition the valve has a pin to fix the valve in the O-position.

O-Position = Normal Operation
M-Position = Maintenance

These valves are mainly being used where on site servicing of the armature is required and during service, the actuator needs to be isolated from the control system.

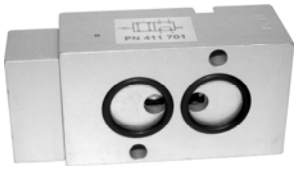
Typical application for BHN 611 01:
Valves for filling tanks to protect people cleaning the tank.

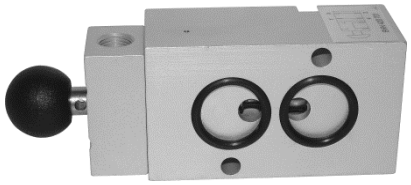
Valves can be used on single acting and double acting actuators.

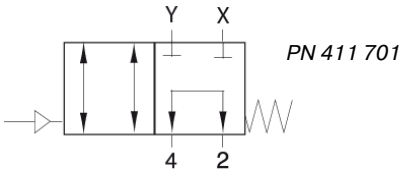
Interface according to 1/4” Namur-Standard.

A special plate with G 1/4” BSP threads for remote piloting can be supplied on request, type GPN 1/4.
Lock is not part of the delivery content.

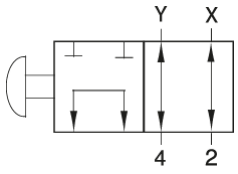
Short circuit valves to ensure an easy closing by hand-wheel.



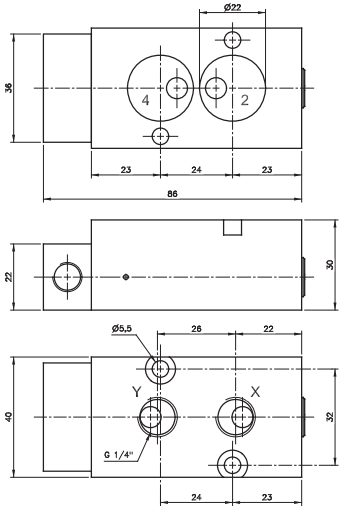


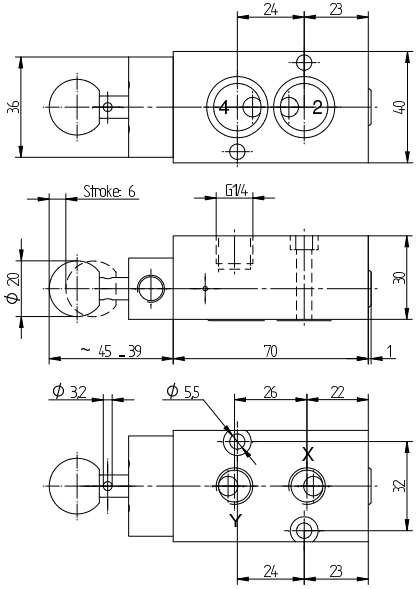


PN 411 701



BHN 420 701





The **PN 411 701** and **BHN 420 701** is made for direct assemblage to an actuator with 1/4" Namur interface. It offers a 1/4" Namurinterface towards the pilot-valve (use as sandwich plate) as well as G 1/4" ports (piped application).

Function PN 411 701:
As long as a pneumatic signal is applied, the valve forwards the signals applied to 2 an 4 through to X and Y. When no pneumatic signal is applied the ports 2 and 4 are shortcut.

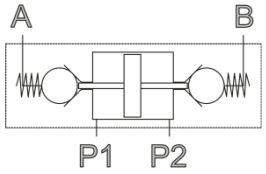
Function BHN 420 701:
When the button is pulled, the valve forwards the signals applied to 2 and 4 through to X and Y. When the button is pushed, the ports 2 and 4 are shortcut.

Typical application:
Automated process-valve equipped with a gear-box for manual actuation. In case of a failure, the valve ensures, that the user doesn't have to close the process valve against the force of the air, which is usually trapped in the actuator.

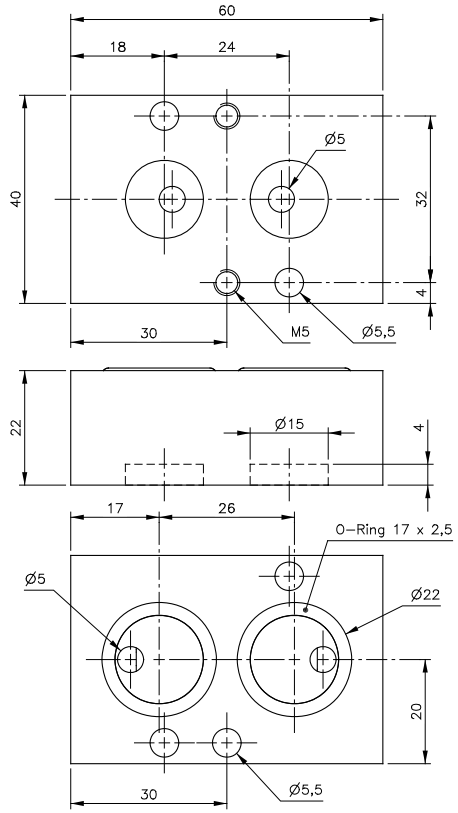
G 1/2" threaded high-flow version available on request.

HAFNER

Pressure applied safety valve with Namur-Interface.



DSVN-5



The DSVN-5 is a pressure applied safety valve to hold a double acting actuator at the current position in case of cut-off of pressure supply.

The valve is consisting of two non-return valves are unlocked by pressurising port P1 or P2.

Installation between pilot valve and actuator.

Interface according to 1/4” Namur-Standard.

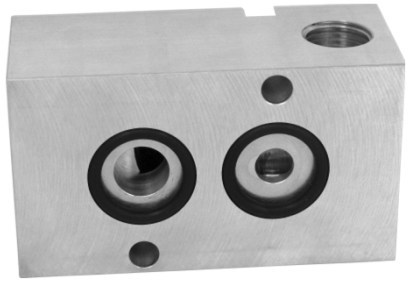
A special plate with G 1/4” BSP threads for remote piloting can be supplied on request, type GPN 1/4.

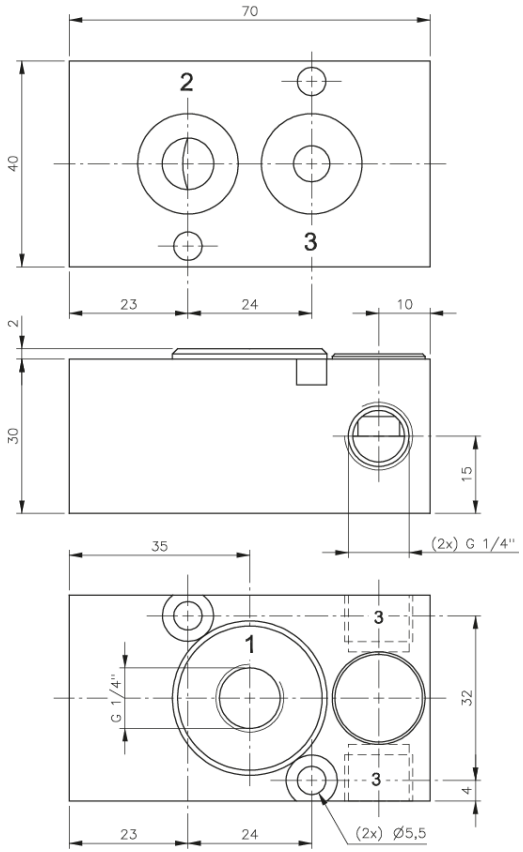
Inner parts are made from brass and POM, seals are made from NBR.

Temperature range: -10° C to +70° C.

HAFNER

Air-recirculation block with Namur-Interface to ensure, that no ambient atmosphere sucks into a spring-return actuator.





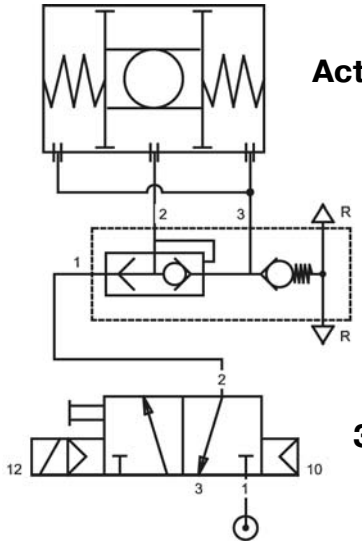
The Hafner Namur Air-recirculation Block absolutely guarantees, that only exhausting air from the actuation-side is going into the spring chamber and for sure no ambient atmosphere is sucked into the actuator.
Normally been used for remote piloting (e.g. a valve which is assembled in a control cabinet).

Typical application:
Valve is designed for spring return pneumatic actuators with an 1/4" Namur-Interface. Standard with a G1/4" pilot port.

Stainless steel version is available on request.

Temperature range: -10°C to +70°C

Function:

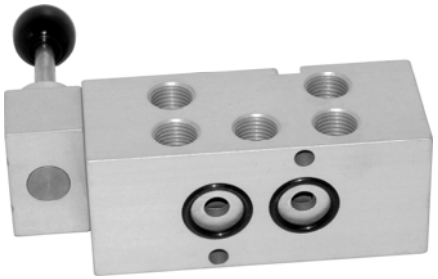


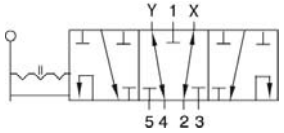
Actuator

Air-recirculation block

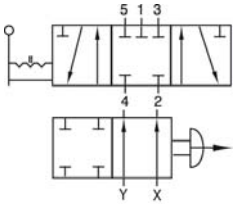
3/2-way valve

Hand-lever valves with safety function when a positioner is used.

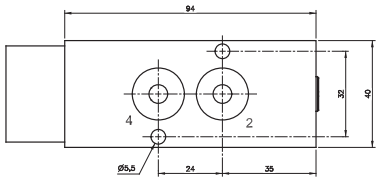


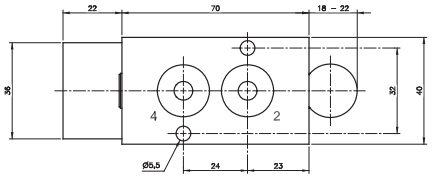


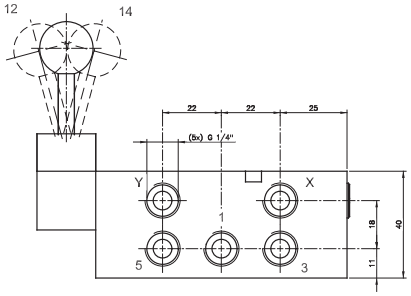
HVRZN 731 701

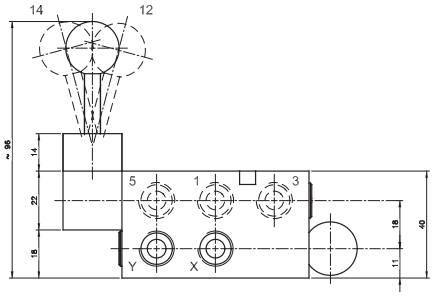


HVRZN 731 702









In order to avoid unintended manual actuation the lever of both versions has to be pulled thoroughly for being manipulated!

Hand-lever valve for direct assemblage to an actuator with 1/4" Namur-Interface.

Offers safety function when a positioner is used.

Version 731 701:
Normally the lever is in the middle position and the actuator is piloted by the positioner. In this position the valve just feeds the signals from the positioner through to the Namur-ports.
In case of electric / electronic problems the actuator can be opened or closed pneumatically with manual command.

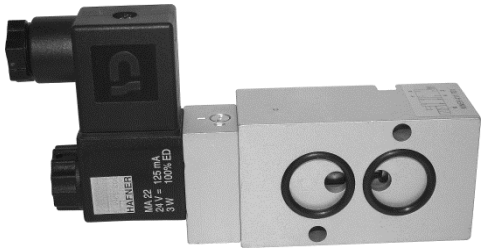
Version 731 702:
If the knob is pushed, air flows from the positioner from Y to 4 and from X to 2.
If the knob is pulled the positioner is cut-off.
The lever valve is to be used as a centre closed 5/3-way valve, actuator can be fully opened, fully closed or put into intermediate position.

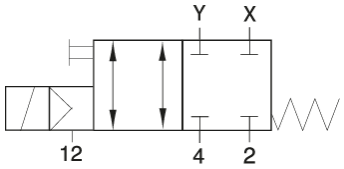
Difference of version 701 and 702:
While the 701 offers the option to fully open and close the actuator, the 702 includes a real 5/3-way valve.

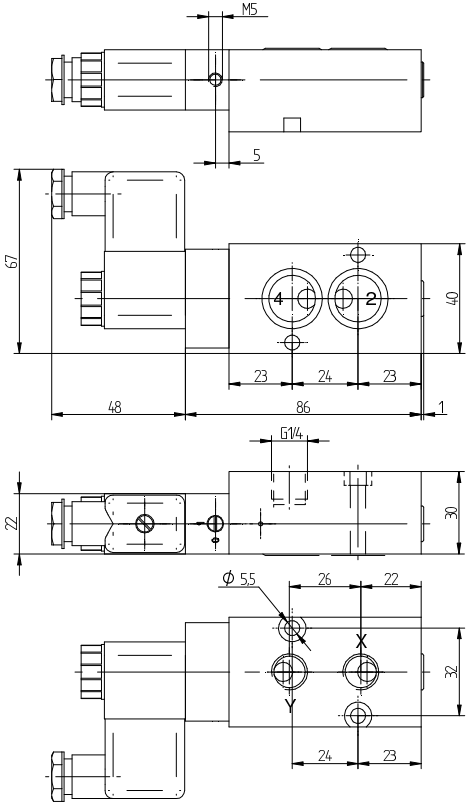
Temperature range: -10°C to +70°C

HAFNER

The MNEH 411 701 is made for blocking the actuator if electric power or pressure-supply is lost.







The MNEH 411 701 is made for blocking the air supply from the pilot valve to the actuator and holding the actuator in the current position.

It offers a so-called “stay-put” or also called “fail-in-place” function.

It is designed for direct assemblage to an actuator with 1/4” Namur interface.
It offers a 1/4” Namur interface towards the pilot-valve (use as sandwich plate) as well as G 1/4” ports (piped application).

Valve can also be used as a safety valve in combination with a positioner.

Function :
As long as an electric signal is applied to the solenoid as well as air pressure is applied to the external pilot port, the valve forwards the signals from the pilot valve which are applied to 2 and 4 through to X and Y.

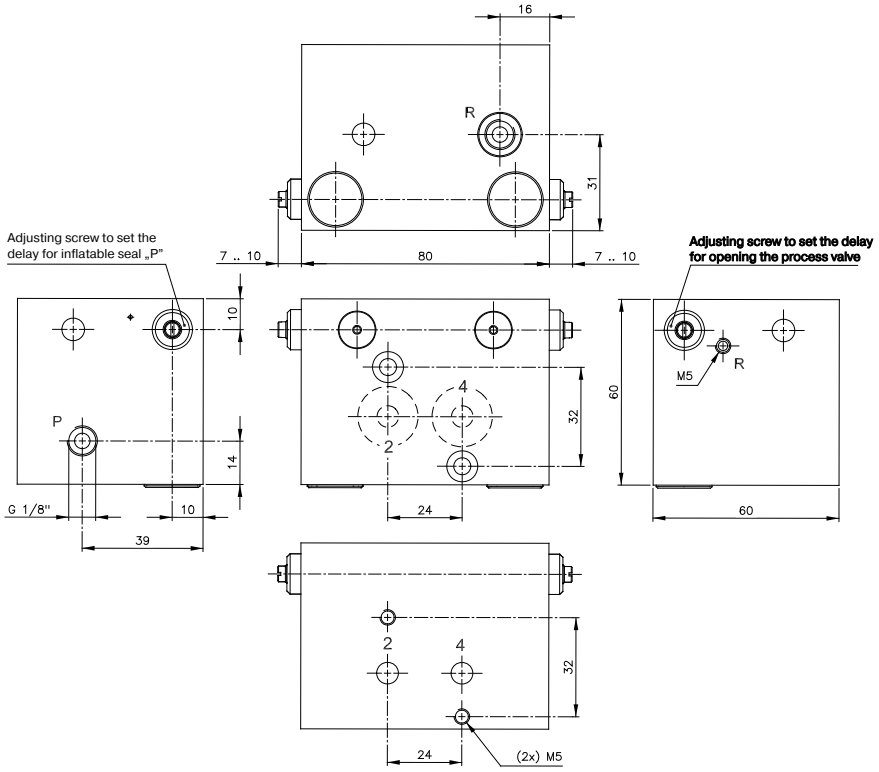
All ports are blocked when the electric signal or air pressure at the external pilot port cut off.

Available with solenoid operators:
230V/50Hz, 100V/50Hz, 24V/50Hz, 48V=. 24V=, 12V=.

Valve is quipped with a manual override.

Please notice:
external pilot feed is required!

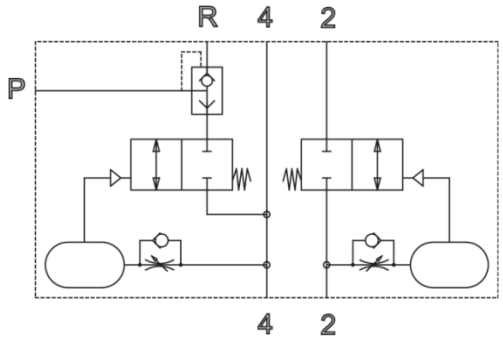
The Controlblock CBN 700 for process-valves with inflateable seal controls the actuator as well as the in- / deflation of the seal.



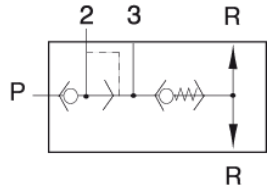
Controlblock for double acting actuators with 1/4“ Namur-Interface to be used on process-valves with inflateable seal.

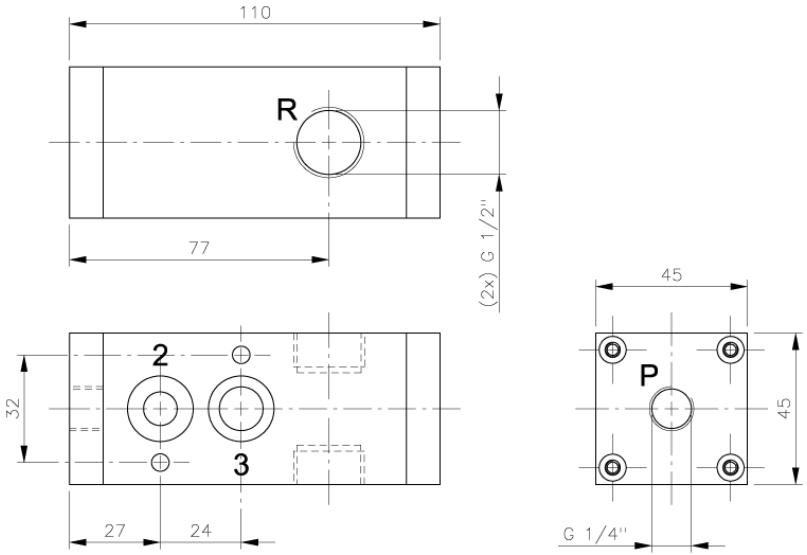
The control-block receives it‘s signals to open and close from a standard 5/2-way Namur-Valve.
The block is to be put between the actuator and the Namur-Valve (flange-version).
The closing-signal is fed through to the actuator, the seal is inflated with time-delay.
When the process-valves is to be closed first the seal is deflated, with time-delay the actuator opens the process-valve.
Opening- and closing-time-delay can be adjusted independently but they are related to the operating pressure.
At 6 bar time-delay can be adjusted between
0 and 2 seconds.

Temperature-range: -40°C to +50°C



A quick-exhaust block with Namur-Interface that allows big spring-return actuators to close at high speed.





The Hafner Namur Quick Exhaust Block contains a quick-exhaust valve that allows big spring-return actuators to close at high speed.

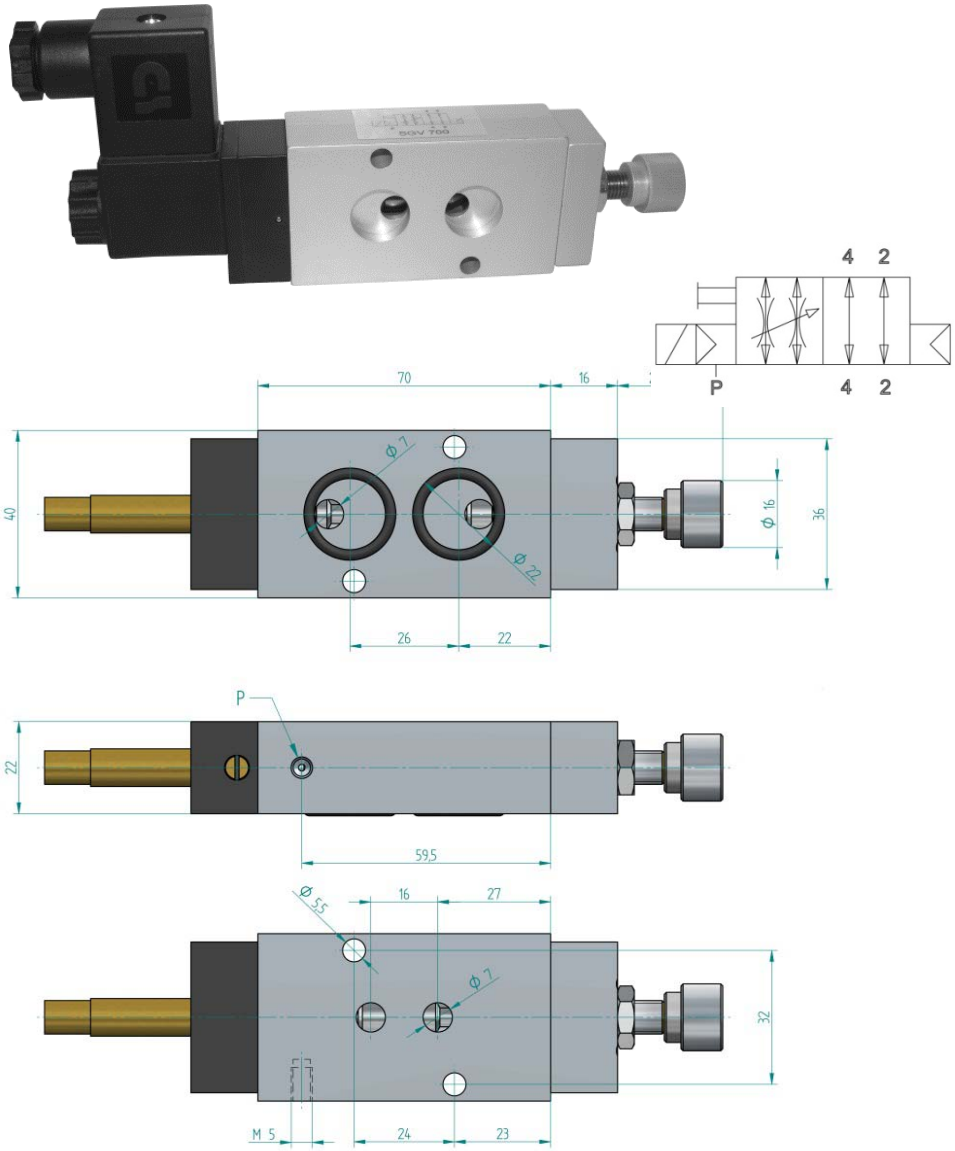
In addition the block contains a **non-return-valve** that absolutely guaranteed that only exhausting air from the actuation-side is going into the spring chamber and for sure no ambient atmosphere.

Valve is designed for spring return pneumatic actuators with an 1/4” Namur-Interface.

Standard with a G1/4“ pilot port. A version with a 1/4” Namur - Interface so the customer can use a 3/2-way Namur-Valve to pilot the block is available.

Low temperature version is available on request.

SGV 700: Valve for two speeds, speed of actuator can be reduced when process valve is moving into the seal.



Two-speed valve to operate a pneumatic actuator at two different speeds.
This ensures a smooth closing and, if requested, a smooth opening of the process valve.

Function:

When the valve is switched-off the air streams through the valve without any restriction.

When the actuator reaches a defined angle e.g. 5° the solenoids gets a signal from the switch-box (additional electric switch required) to actuate it.
This restricts the air-flow. The flow can be regulated by turning the spindle at the back of the valve.

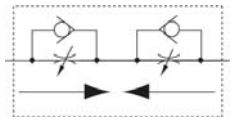
To open you have the choice whether to keep the restrictor active = solenoid energized until actuator reaches a certain angle (again) or if you want to open at full speed = switch-off the valve.

The valve is designed to go as a sandwich between actuator and Namur-pilot-valve. External piping is possible with our
GPN-1/4 threaded plate.

The valve needs an external air supply, port P (M5).

HAFNER

The Hafner block form flow regulators offer a very precise regulation.



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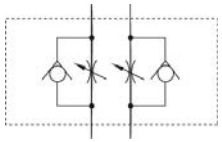
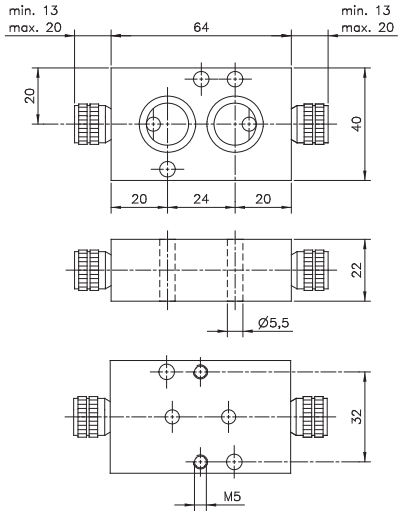
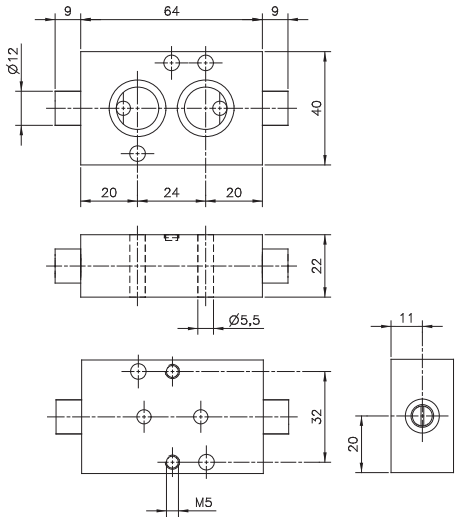


DRN 5 _ _ _



DRN _ 601
(manual manipulation)



DRN _ 611
(screw-driver manipulation)

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

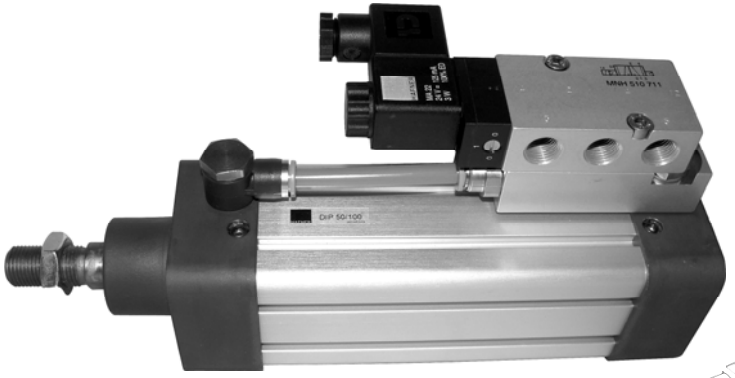
Advantages:

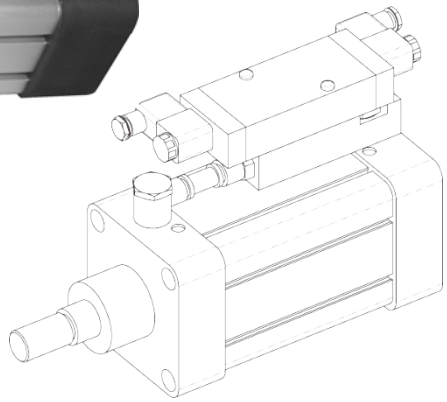
- ✓ Regulation for 5-way or 3-way valves
- ✓ For double acting or spring-return actuators
- ✓ Two kinds of manipulation, manual or with a screw-driver
- ✓ Very precise regulation
- ✓ Only possibility to regulate the forward- and backward-stroke of a spring-return actuator, that is controlled by a 3-way valve separately and precisely
- ✓ Also available with G 1/8“ threaded ports
- ✓ Stainless steel versions available
- ✓ Low temperature versions available

NEW: DRN 3 128

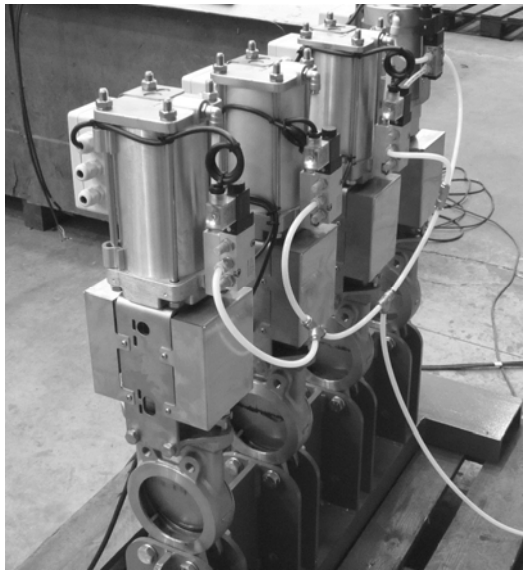
Regulator for 3-way valves with 1/2“ Namur-Interface

With the plates ZVP Hafner offers a product to easily assemble cylinder-valve-combinations with Namur-Valves.





Typical application:
Knife-gate-valves



Hafner offers **four types of plates**:

Ported **G 1/4“** with an orifice-size of **7 mm** optimized to be used with the valve series 700.

Ported **G 3/8“** with an orifice-size of **10 mm** optimized to be used with the valve series 100.

Ported **G 1/2“** with an orifce-size of **12 mm** optimized to be used with the valve series 121 (Namur 2).

With **G1/2“** banjo but for **interface Namur 1** (1/4“-standard).

Easy to be assembled:
Screw banjo (part of the delivery) into one port of the cylinder. Connect other port using a straight male fitting into the plate), a turnable elbow fitting and a piece of tube.

Accessories (fittings and tube) can be supplied by Hafner.

HAFNER

Direct-actuated 3/2-way pilot-valves with a banjo-screw can easily be attached to angle-seat-valves or any other small spring-return actuator.

22mm wide with 50 l flow

Low temperature & ATEX version available.

Port 1: G1/8“
Port 2: G1/8“ or G1/4“ as banjo
Port 3: M5

Valve using the standard 22 mm solenoid system available with coils12VDC, 24VDC, 48VDC, 24VAC, 110VAC, 230VAC.

Further technical information on page 69 & 177 of the valve-catalogue edition 2011.

30mm wide with 300 l flow

Port 1: G1/8“
Port 2: G1/8“ or G1/4“ as banjo
Port 3: G1/8“

Valve using the 30 mm integrated solenoid system currently available 24VDC, 24VAC and 230VAC.

Further technical information on page 70 of the valve-catalogue edition 2011.

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