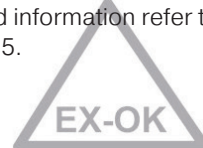




2.11

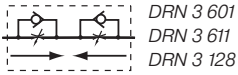
Accessories for Smart Valve Automation

Selected models can be used in explosion hazardous environment. For detailed information refer to chapter 2.15.



DRN 3 601/DRN 3 611/DRN 3 128

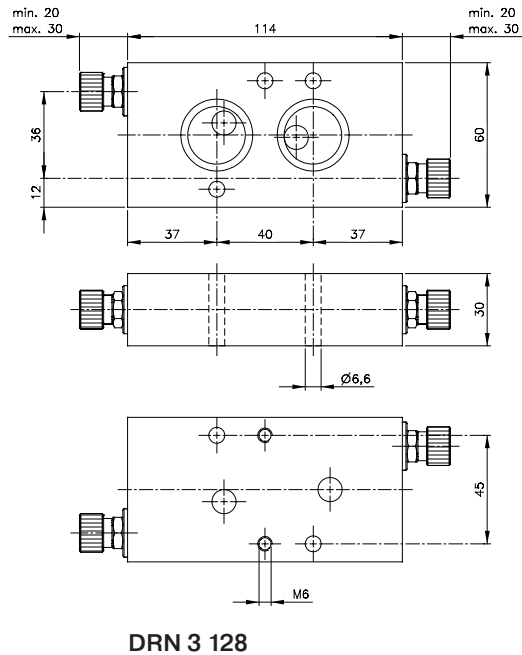
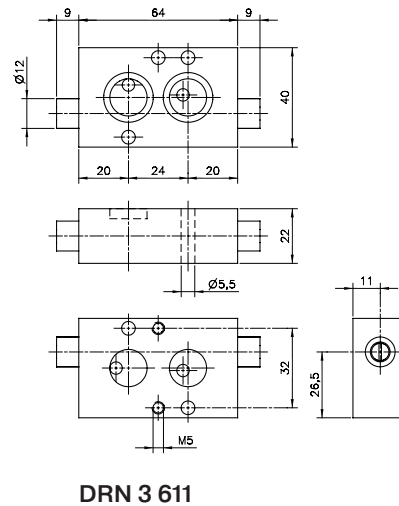
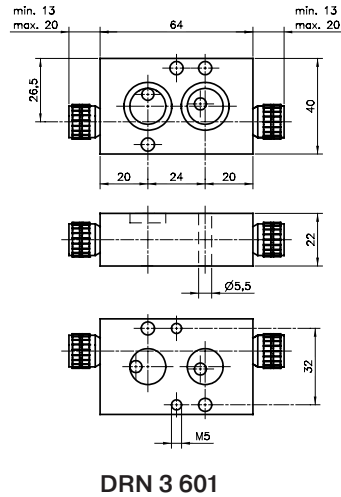
Flow regulator plate



Block form flow regulator as intermediate plate, interface according to NAMUR-standard, 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. DRN 3 601 and DRN 3 128 to be operated manually, DRN 3 611 with a screw-driver.

If flow regulator is required with G 1/4" ports, plate GPN 1/4 can be added. For details please refer to page 2.11.13. Delivery includes 1 pin, 2 screws, 2 O-rings.



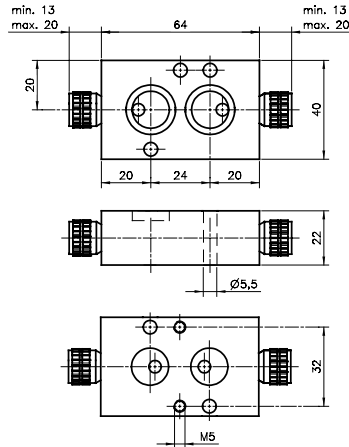
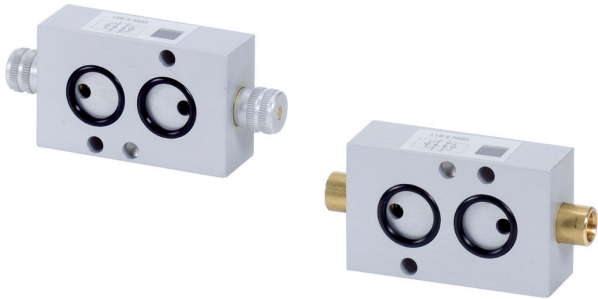
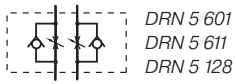
Type	Function	NAMUR	Port size	Max. air flow*	Operating pressure	Weight
DRN 3 601	3-way	1/4"	Ø 5 mm	650 l/min	0,5 - 10 bar	0,18 kg
DRN 3 611	3-way	1/4"	Ø 5 mm	650 l/min	0,5 - 10 bar	0,18 kg
DRN 3 128	3-way	1/2"	Ø 8 mm	1.500 l/min	0,5 - 10 bar	0,60 kg

* Values at 10 bar inlet pressure and without back pressure.



DRN 5 601/DRN 5 611/DRN 5 128

Flow regulator plate



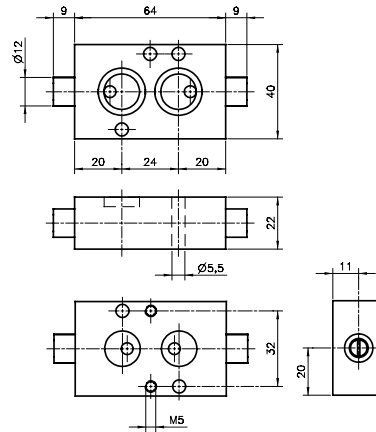
DRN 5 601

Block form flow regulator as intermediate plate, interface according to NAMUR-standard, for 5-way valves only.

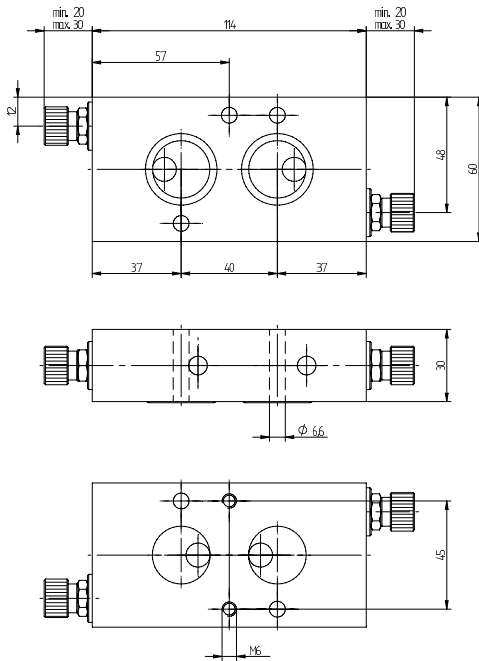
To regulate the forward- and backward-stroke of a double acting pneumatic actuator. DRN 5 601 and DRN 5 128 to be operated manually, DRN 5 611 with a screw-driver.

If flow regulator is required with G 1/4" ports, plate GPN 1/4 can be added. For details please refer to page 2.11.13.

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



DRN 5 611



DRN 5 128

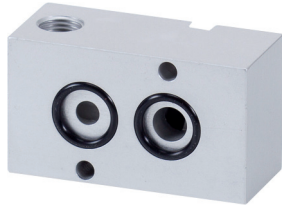
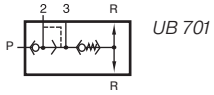
Type	Function	NAMUR	Port size	Max. air flow*	Operating pressure	Weight
DRN 5 601	5-way	1/4"	Ø 5 mm	650 l/min	0,5 - 10 bar	0,18 kg
DRN 5 611	5-way	1/4"	Ø 5 mm	650 l/min	0,5 - 10 bar	0,18 kg
DRN 5 128	5-way	1/2"	Ø 8 mm	1.500 l/min	0,5 - 10 bar	0,60 kg

* Values at 10 bar inlet pressure and without back pressure.



UB 701

Air-recirculation block for single acting actuators



The air-recirculation block guarantees, that only exhausting air from the actuation chamber is going into the spring chamber, no ambient atmosphere is sucked-in.

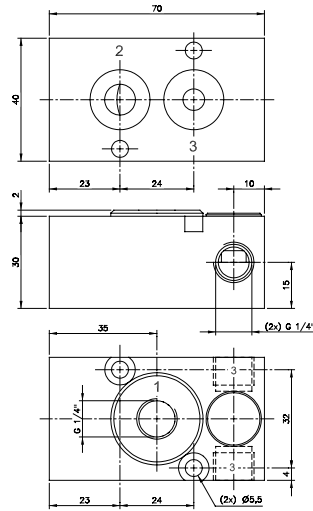
Valve is designed for spring return pneumatic actuators with 1/4" NAMUR-interface to be controlled by a remote piloted 3/2-way valve.

Standard with G 1/4" pilot port. Materials being used:

- Body: aluminum
- Diaphragm: NBR
- Other inner parts: brass

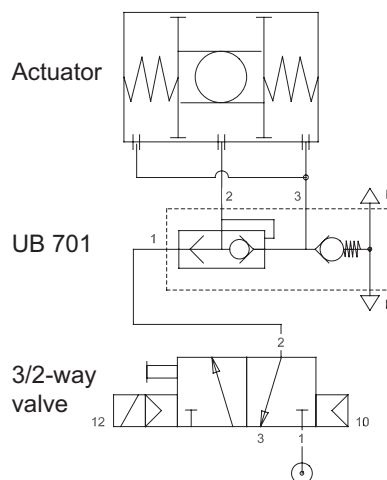
One of the two exhaust ports 3 to be closed by a plug.

Delivery includes 2 screws, 2 O-rings, 1/4" plug for port 3.



UB 701

Function:

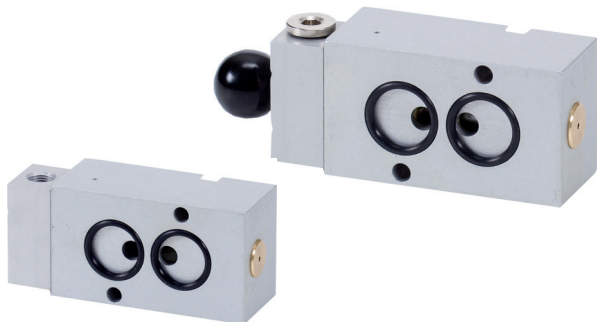
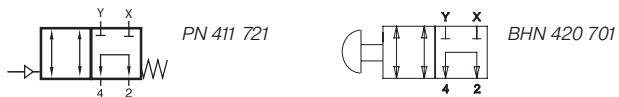


Type	NAMUR	Port size	Air flow	Operating pressure	Weight
UB 701	1/4"	G 1/4"	1250 l/min	1 - 10 bar	0,22 kg



PN 411 721/BHN 420 701

Short-cut valve when using manual gearbox



Intermediate valve for assemblage onto the actuator with 1/4" NAMUR-interface. Blocks signals from pilot-valve and short-cuts both actuator chambers. It offers a 1/4" NAMUR-interface towards the pilot-valve (use as sandwich plate) as well as ports G 1/4" for piped application.

Delivery includes 2 screws, 2 O-rings.

Function PN 411 721

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.

On request:

Valve that is normally blocked, type PN 411 711.

Function BHN 420 701

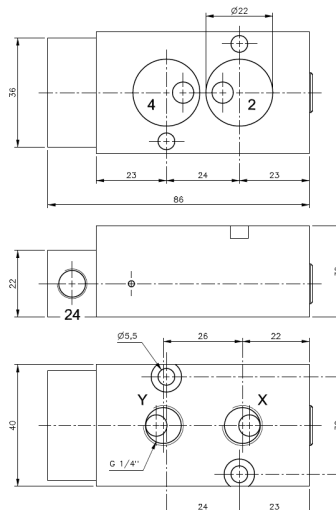
As long as the knob is pulled, the valve forwards the signals applied to 2 an 4 through to X and Y. When knob is pushed the ports 2 and 4 are shortcut.

Typical application

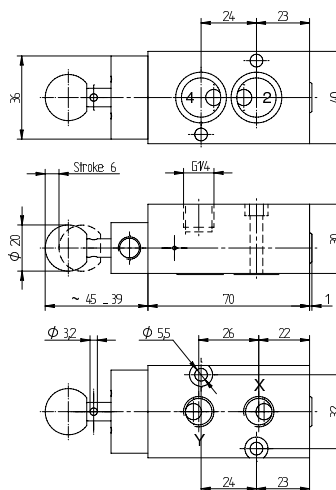
On automated process-valve equipped with a gear-box for manual actuation in case of emergency.

When failure occurs, compressed air might get trapped in the actuator. Manual operation might damage the actuator. Valve assures, that the user doesn't have to close the process valve against the force of the air.

Version with 1/2" NAMUR-interface available on request.



PN 411 721

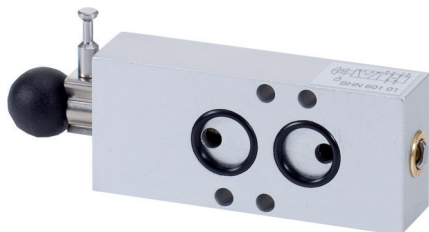
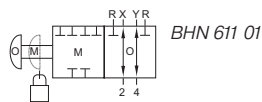
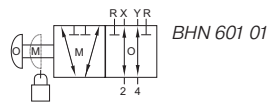
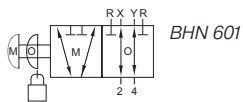


BHN 420 701

Type	Port size	Air flow	Operating press.	Actuating press.	Actuating Force	Weight
PN 411 721	G 1/4"-1/4" NAMUR	1250 l/min	1,5 - 10 bar	3 - 10 bar		0,20 kg
BHN 420 701	G 1/4"-1/4" NAMUR	1250 l/min	1 - 10 bar		18 N	0,22 kg

BHN 601/BHN 601 01/BHN 611 01

Manual actuated block and vent/block and block



Intermediate valve for assemblage onto the actuator with 1/4" NAMUR-interface. Blocks signals from pilot-valve.

BHN 601 exhausts actuator when knob is pulled. Lockable in standard operation mode (O-position).

BHN 601 01 exhausts actuator when knob is pushed. Lockable in manual mode (M-position). Protection against unintended use with pin.

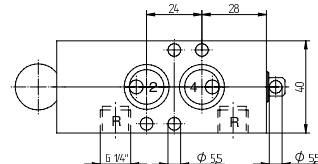
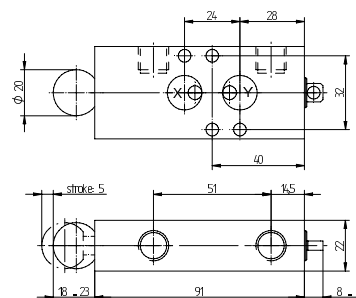
Typical application: to avoid injuries of maintenance personal when working on installed process equipment.

BHN 611 01 blocks actuator when knob is pushed. Lockable in manual mode (M-position). Protection against unintended use with pin.

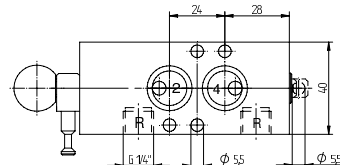
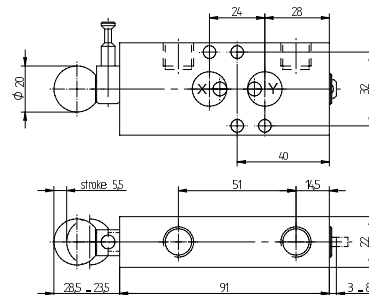
Typical application: For process valves on tanks where maintenance people have to go into the tank.

If the valve is required with G 1/4" ports, plate GPN 1/4 can be added. For details please refer to page 2.11.13.




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



BHN 601

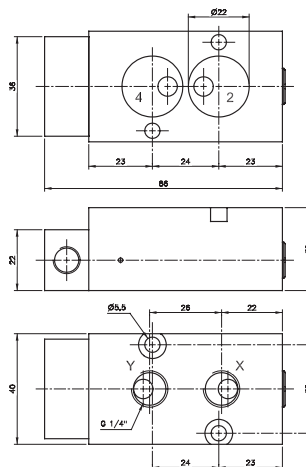
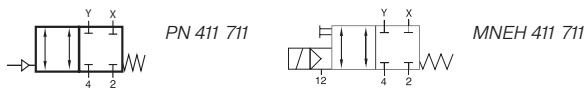


BHN 601 01/ BHN 611 01

Type	Function	lockable	Air flow	Operating press.	Actuation force	Weight
BHN 601	vents actuator	O-position	900 l/min	1 - 10 bar	18 N	0,23 kg 
BHN 601 01	vents actuator	M-position	900 l/min	1 - 10 bar	18 N	0,24 kg 
BHN 611 01	blocks actuator	M-position	900 l/min	1 - 10 bar	18 N	0,24 kg 

PN 411 711/MNEH 411 711

Pneumatically and electrically actuated block and block valve



PN 411 711

Valve blocks signals from pilot valve and offers a so-called „stay-put“ or „fail-in-place“ function.

Intermediate valve for assemblage onto the actuator with 1/4" NAMUR-interface. It offers a 1/4" NAMUR-interface towards the pilot-valve (use as sandwich) as well as G 1/4" ports (piped application).

Function:

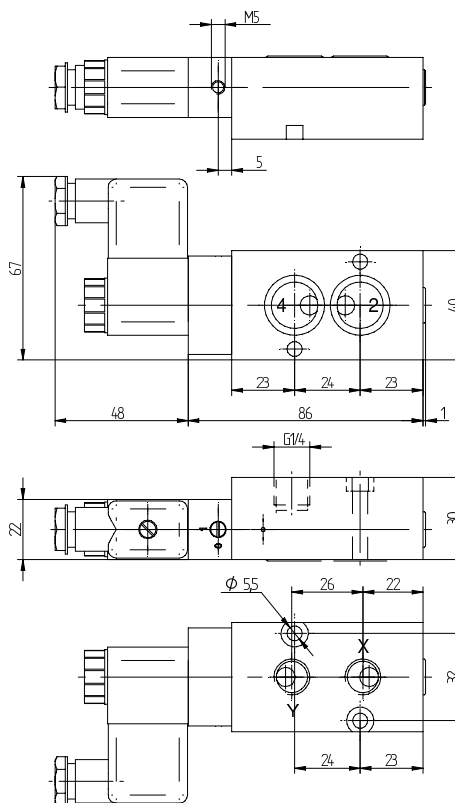
As long as the valve is actuated, it forwards the signals from the pilot valve which are applied to port X and Y through to 2 and 4. As soon as the actuating signal is taken away or cuts off all ports will be blocked.

Valves can be also used in combination with a positioner.

- PN 411 711 operated by air.
- MNEH 411 711 operated by solenoid and additional external pilot air supply. Equipped with manual override to turn.

MNEH 411 711 available with solenoid operators: 230V/50Hz, 110V/Hz, 24V/50 Hz, 48V=, 24V=, 12V=.

Delivery includes 2 screws, 2 O-rings.

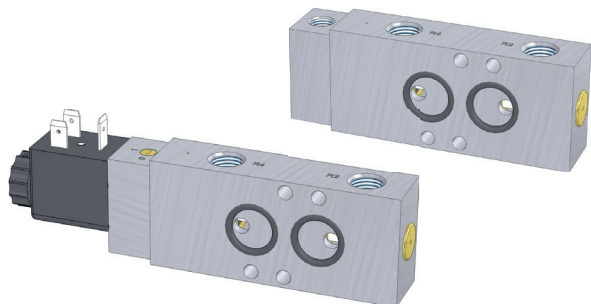
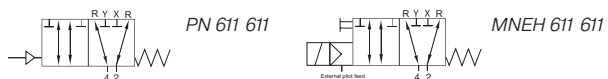


MNEH 411 711

Type	Port size	Air flow	Operating press.	Actuation press.	Power cons.	Weight
PN 411 711	G 1/4" - 1/4" NAMUR	1250 l/min	1 - 10 bar	3 - 10 bar		0,27 kg
MNEH 411 711	G 1/4" - 1/4" NAMUR	1250 l/min	1 - 10 bar	3 - 10 bar (port 12)	3 W = / 5 VA ~	0,35 kg

PN 611 611/MNEH 611 611

Pneumatically and electrically actuated block and vent valve



Valve blocks signals from pilot valve and exhausts the actuator. Intermediate valve for assemblage onto the actuator with 1/4" NAMUR-interface. It offers a 1/4" NAMUR-interface towards the pilot-valve (use as sandwich).

Function:

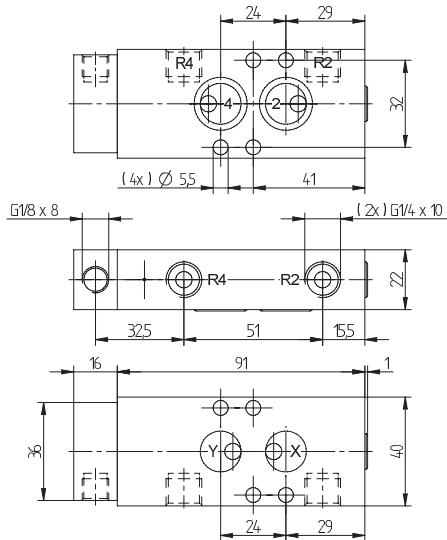
As long as the valve is actuated, it forwards the signals from the pilot valve which are applied to port X and Y through to 2 and 4. As soon as the actuating signal is taken away or cuts off ports X and Y will be blocked and ports 2 and 4 can exhaust through the R ports.

- PN 611 611 operated by air.
- MNEH 611 611 operated by solenoid and additional external pilot air supply. Equipped with manual override to turn.

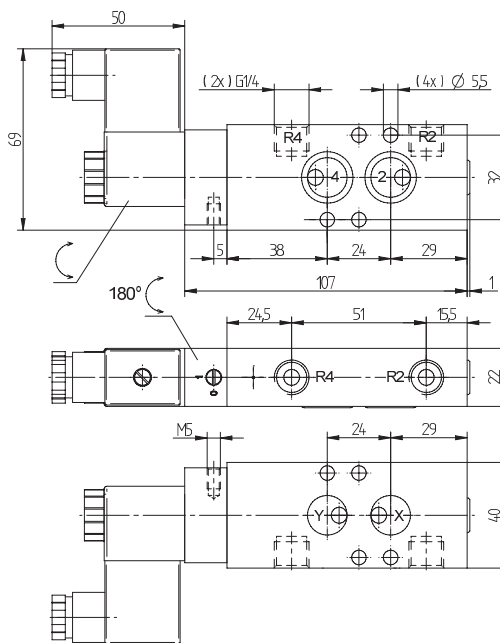
MNEH 611 611 available with solenoid operators: 230V/50Hz, 110V/Hz, 24V/50 Hz, 48V=, 24V=, 12V=.

If valve is required with G 1/4" ports, plate GPN 1/4 can be added. For details please refer to page 2.11.13.

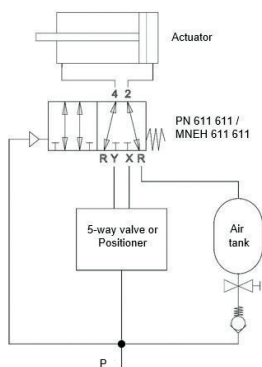
Delivery includes 1 pin, 2 screws, 2 O-rings.



PN 611 611



MNEH 611 611

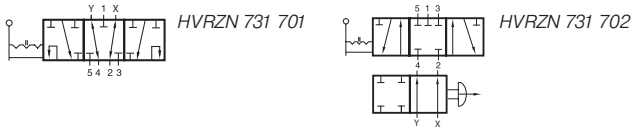


Valves can be also used to realize a failsafe function on double acting actuators. For this purpose an external air tank can be connected to any of the two R ports like in the exemplary circuit below.

Type	Port size	Air flow	Operating press.	Actuation press.	Power cons.	Weight
PN 611 611	G 1/4" NAMUR	900 l/min	1 - 10 bar	3 - 10 bar		0,26 kg
MNEH 611 611	G 1/4" NAMUR	900 l/min	1 - 10 bar	3 - 10 bar (port 12)	3 W = / 5 VA ~	0,34 kg

HVRZN 731 701/HVRZN 731 702

Pneumo-manual override valve for positioners



Lever valve for direct assemblage to an actuator with 1/4" NAMUR-interface.

Valves offer the possibility to override a positioner.

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 actuator. In case of electric / electronic problems the actuator can be opened or closed manually.

Advantages of version 701 :

Only one lever to manipulate (no second actuation elements). Overrides in manual mode the positioner, manual mode and automatic mode truly independent.

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 valve is in manual mode.

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.

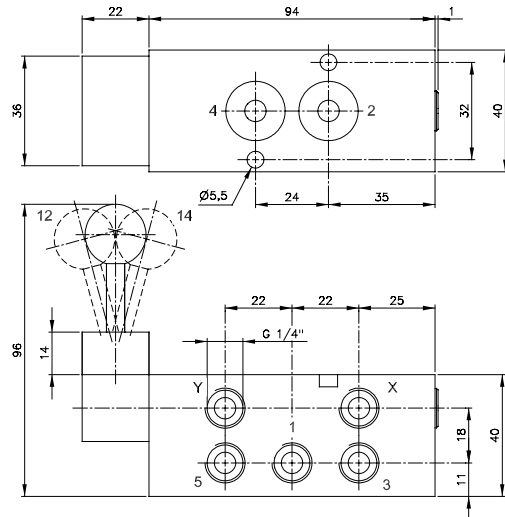
Advantage of version 702:

Offers in manual mode a centre closed 5/3-way-valve. Version 701 is in manual mode a 5/2-way-valve.

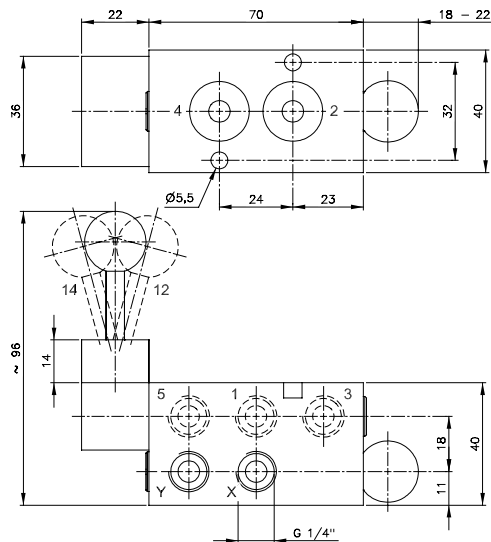
Safety lever:

In order to avoid unintended manual actuation the lever of both versions has to be pulled thoroughly for being manipulated out of central position.

Delivery includes 2 screws, 2 O-rings.



HVRZN 731 701

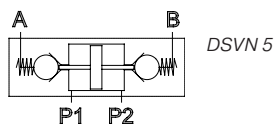


HVRZN 731 702

Type	Function	Port size	Air flow	Operating press.	Actuating force	Weight
HVRZN 731 701	5/2-way indexed	G 1/4"	1250 l/min	1 - 10 bar	~ 25 N	0,53 kg
HVRZN 731 702	5/3-way indexed	G 1/4"	1250 l/min	1 - 10 bar	~ 25 N	0,45 kg

DSVN 5

Pressure holding valve



Pressure holding 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 which will be unlocked by pressurising port P1 or P2.

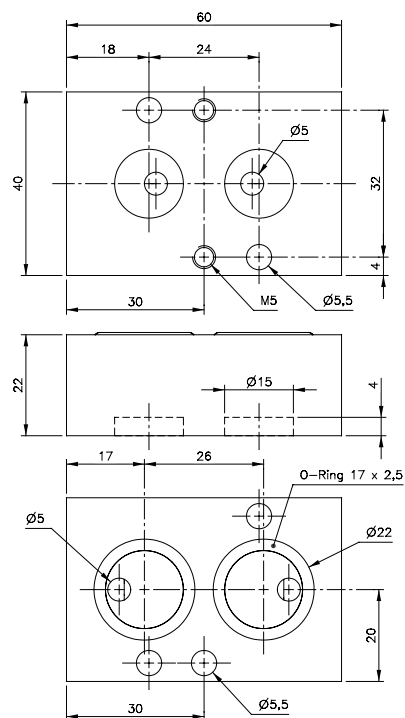
Installation between pilot valve and actuator.

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

If the valve is required with G 1/4" ports, plate GPN 1/4 can be added.

For details please refer to page 2.11.13.

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

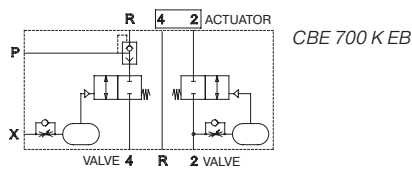
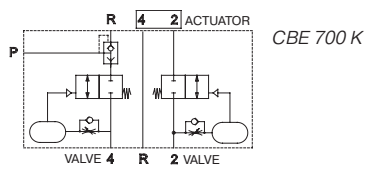


DSVN 5

Type	NAMUR	Air flow P to A/B	Air flow A/B to P	Operating pressure	Weight
DSVN 5	1/4"	230 l/min	360 l/min	1 - 10 bar	0,10 kg

CBE 700 K/CBE 700 K EB

Controlblock for single-acting actuators to control butterfly valves with inflatable valve-seat



Control block for single-acting actuators with interface according to 1/4" NAMUR-standard, to be used on process-valves with inflatable valve seat.

The control-block has to receive it's signals to open and close from a 5/2-way NAMUR-valve.

Please note that it does not work with a 3/2-way valve.

The block can only be used for spring-close applications.

Air is used to open the actuator; spring is closing it.

The spring-chamber won't be pressurised during the closing movement.

The block does not offer the exhaust-air recirculation (purge) of the spring-chamber.

The block also offers a fail-close function. If the electricity and/or air signal cuts-off the actuator will close by the force of the springs. However, in case the air is away the valve-seat won't be pressurised.

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.

Type **CBE 700 K EB** with additional port X: pressurizing of the inflatable seal does not start before a pneumatic signal is received.

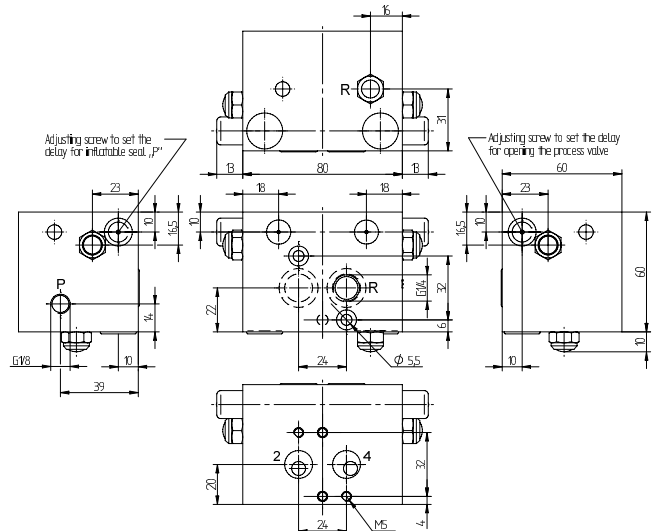
If the block is required with G 1/4" ports, plate GPN 1/4 can be added. For details please refer to page 2.11.13.

Delivery includes 2 screws, 2 O-rings, 2 protection caps.

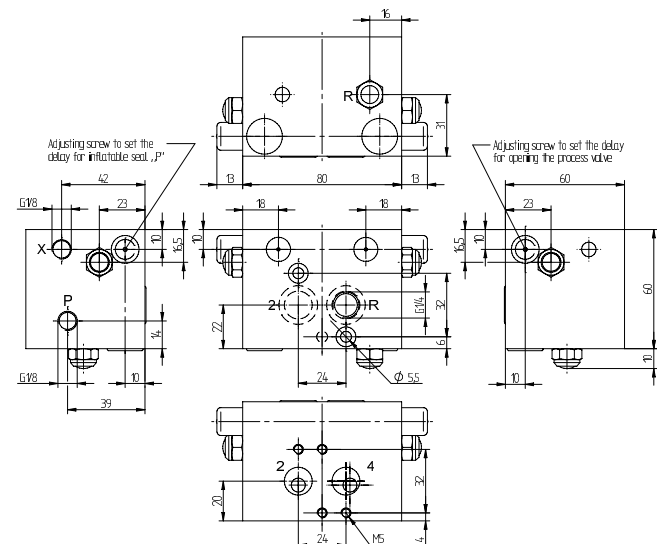
Please note:

If a pressure regulator is used between the CBE 700 (port P) and the inflatable seal, an additional quick exhaust valve is needed to exhaust the seal.

Temperature range: -25°C ... +50°C



CBE 700 K

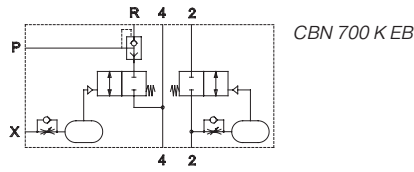
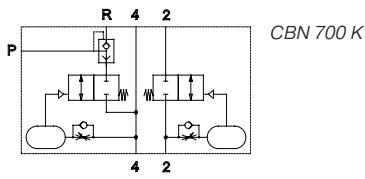


CBE 700 K EB

Type	NAMUR	Port P	Port X	Air flow act.	Operating press.	Air flow seal	Weight	
CBE 700 K	1/4"	G 1/8"		900 l/min	3 - 10 bar	400 l/min	0,80 kg	Ex
CBE 700 K EB	1/4"	G 1/8"	G 1/8"	900 l/min	3 - 10 bar	400 l/min	0,80 kg	Ex

CBN 700 K/CBN 700 K EB

Controlblock for double acting actuators to control butterfly valves with inflatable valve-seat



Control block for double acting actuators with interface according to 1/4" NAMUR-standard, to be used on process-valves with inflatable valve seat.

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 opened 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.

Type **CBN 700 K EB** with additional port X: pressurizing of the inflatable seal does not start before a pneumatic signal is received.

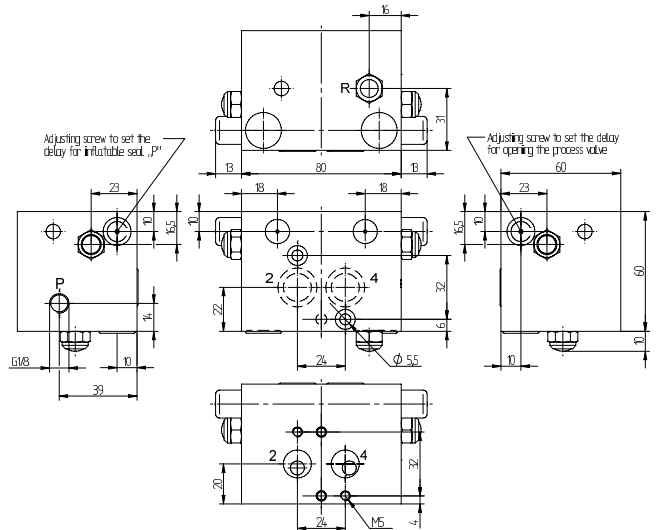
If the block is required with G 1/4" ports, plate GPN 1/4 can be added. For details please refer to page 2.11.13.

Delivery includes 2 screws, 2 O-rings, 2 protection caps.

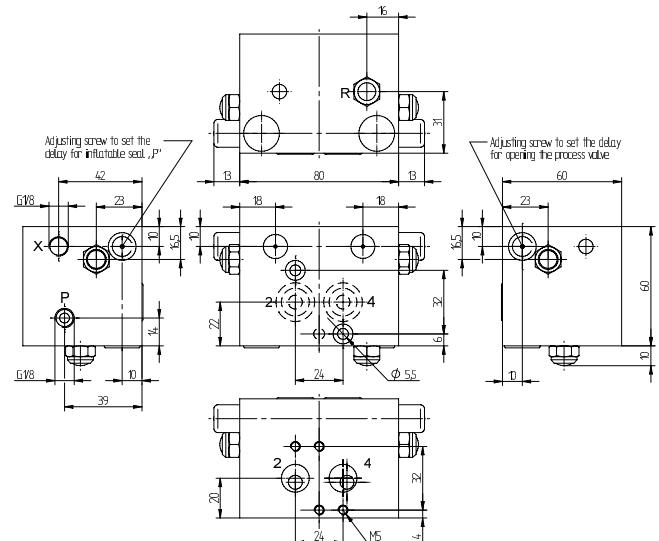
Please note:

If a pressure regulator is used between the CBN 700 (port P) and the inflatable seal, an additional quick exhaust valve is needed to exhaust the seal.

Temperature range: -25°C ... +50°C



CBN 700 K

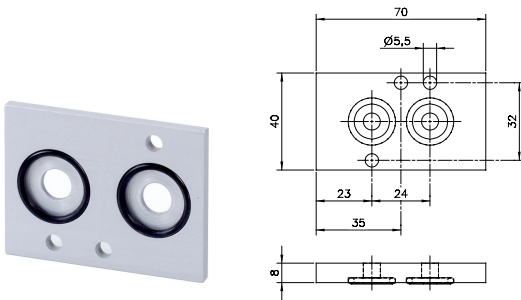


CBN 700 K EB

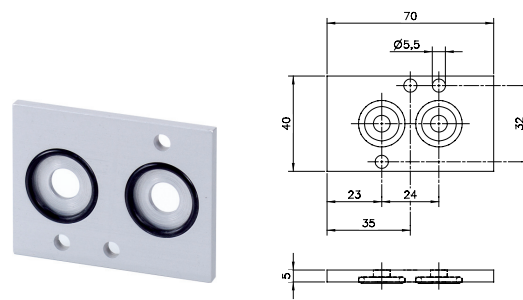
Type	NAMUR	Port P	Port X	Air flow act.	Operating press.	Air flow seal	Weight	
CBN 700 K	1/4"	G 1/8"		900 l/min	3 - 10 bar	400 l/min	0,80 kg	Ex
CBN 700 K EB	1/4"	G 1/8"	G 1/8"	900 l/min	3 - 10 bar	400 l/min	0,80 kg	Ex

Mounting Accessories

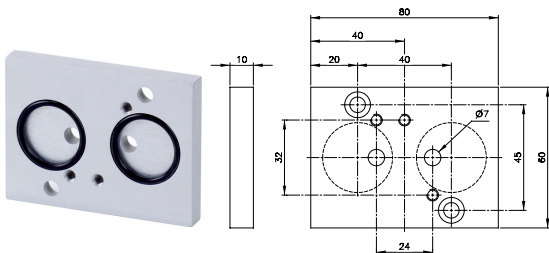
Mounting accessories for products with NAMUR-interface. O-Ring seals made from NBR 70° shore, fasteners such as screws and pins are made from stainless steel (A2) only.



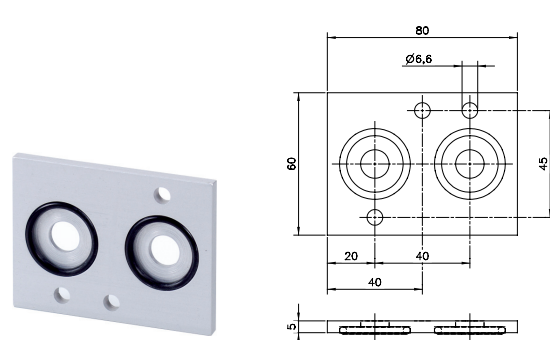
ZPN 8
Intermediate plate, made from anodized aluminum. To be used in case a 36 mm wide coil is to be assembled to a 22 mm wide 1/4" NAMUR-valve.



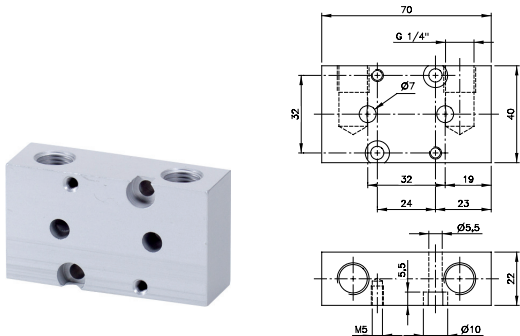
ZPN 5
Intermediate plate, made from anodized aluminum. To be used in case a 30 mm wide coil is to be assembled to a 22 mm wide 1/4" NAMUR-valve. Version ZPN 5 K made from Polyamide.



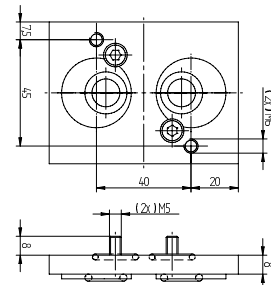
ZPN 6-10
Adapter plate to assemble a 1/4" NAMUR-valve to an actuator with 1/2" NAMUR-interface.



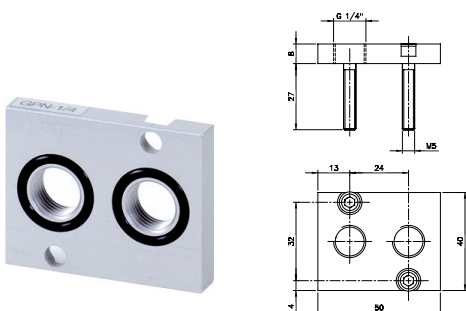
ZPN 6-5
Intermediate plate, made from anodized aluminum. To be used in case a 36 mm wide coil is to be assembled to a 30 mm wide 1/2" NAMUR-valve.



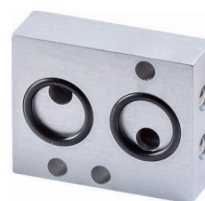
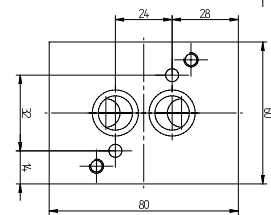
FPNW 22-1/4
Plate to convert a 5-way NAMUR-valve into an inline valve. The NAMUR ports 2 and 4 are transferred into the plate and offer G 1/4" BSP threads. Mounting plate can be assembled independently and the valve is attached later-on.



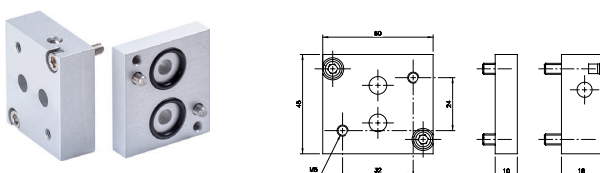
ZPN 1/4-1/2
Adapter plate to assemble a 1/2" NAMUR-valve to an actuator with 1/4" NAMUR-interface.



GPN 1/4
Plate to convert a 1/4" NAMUR-interface into 2 x G 1/4" threaded ports for remote piloting. Also available for the 1/2" NAMUR-interface with 2 x G 1/2": type GPN-1/2.



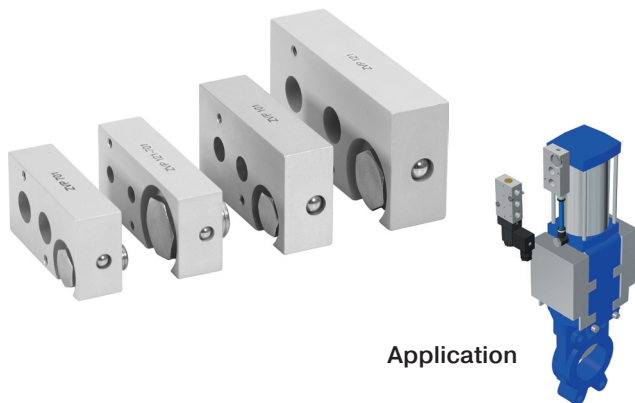
ZPNX 16
Plate to swap the working ports of a NAMUR-valve. Can be used in case pressure- and exhaust ports face into the wrong direction.



ZPN 701-90
Plate to turn a NAMUR-valve by 90° on the actuator.

ZVP 701/ZVP 101/ZVP 121/ZVP 121-701

Plates for cylinder-valve combinations – 1. for standard pneumatic cylinders



Application

Plates to combine NAMUR-valves with double acting cylinders / the actuation element of a knife gate valve.

The plates can be attached to different cylinders, independent on their stroke.

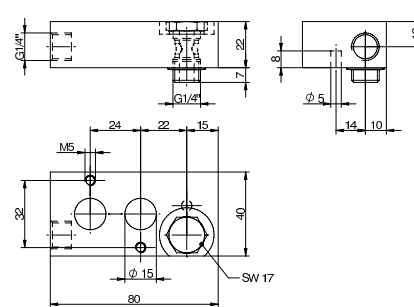
ZVP 701 to be assembled onto a cylinder with G 1/4" ports (diameter 32, 40, 50 mm according to ISO 6431/ISO 15552). Designed for an orifice size 7 mm in combination with e.g. MNH 510 711.

ZVP 101 to be assembled onto a cylinder with G 3/8" ports (diameter 63, 80 mm according to ISO 6431/ISO 15552). Designed for an orifice size 10 mm in combination with e.g. MNH 510 101.

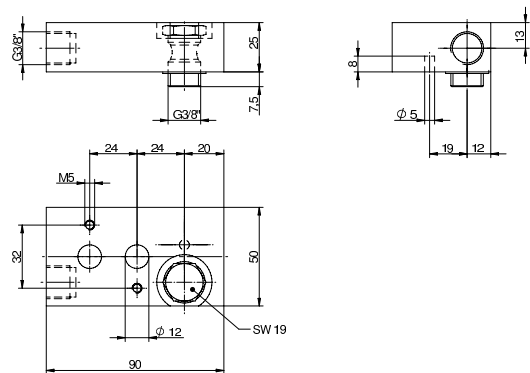
ZVP 121 to be assembled onto a cylinder with G 1/2" ports (diameter 100, 125 mm according to ISO 6431/ISO 15552). Designed for an orifice size 12 mm in combination with e.g. MNH 510 121.

ZVP 121-701 to be assembled onto a cylinder with G 1/2" ports and equipped with a NAMUR-valve of 1/4" standard.

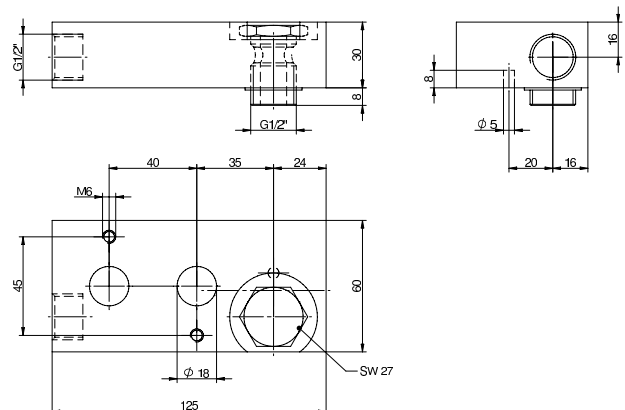
Delivery contains the plate and the banjo for one port. Straight male fittings and rotating elbow fittings to make the other connection can be supplied on request.



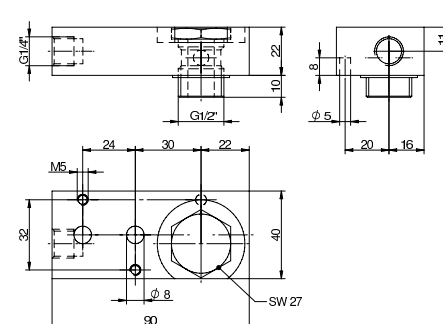
ZVP 701



ZVP 101



ZVP 121

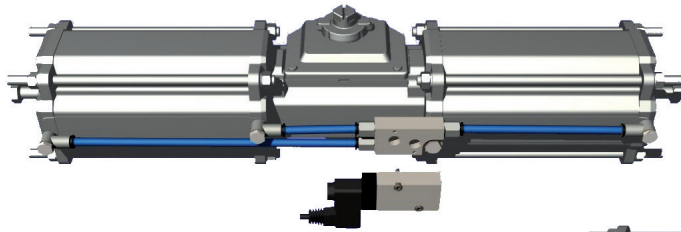


ZVP 121-701

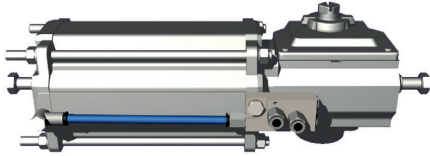
Type	Port A	Port B	NAMUR	Orifice	Weight
ZVP 701	Banjo G 1/4"	G 1/4"	1/4"	7 mm	0,35 kg
ZVP 101	Banjo G 3/8"	G 3/8"	1/4"	10 mm	0,40 kg
ZVP 121	Banjo G 1/2"	G 1/2"	1/2"	12 mm	0,45 kg
ZVP 121-701	Banjo G 1/2"	G 1/4"	1/4"	7 mm	0,35 kg

ZVPS 701/ZVPS 101/ZVPS 121

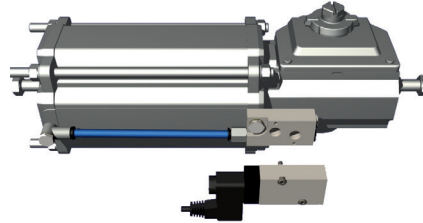
Plates for cylinder-valve combinations – 2. for scotch-yoke actuators



Double cylinder actuator



Single cylinder actuator, piped

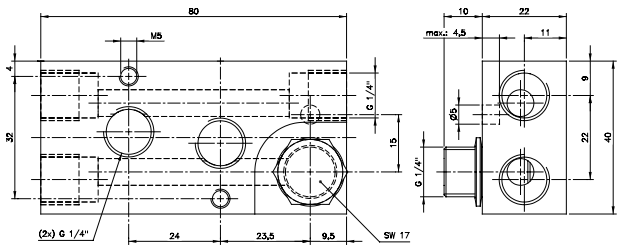


Single cylinder actuator, NAMUR

Plates to combine NAMUR-valves with scotch-yoke-actuators.

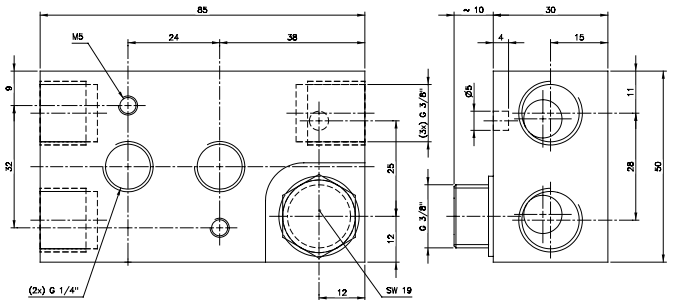
The plates can be attached to different actuators, independent on their stroke.

ZVPS 701 to be assembled onto an actuator with G 1/4" ports. Designed for an orifice size 7 mm in combination with e.g. MNH 510 711.



ZVPS 701

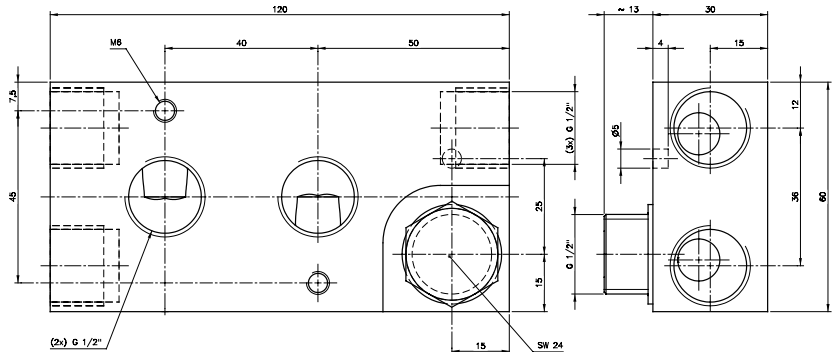
ZVPS 101 to be assembled onto an actuator with G 3/8" ports. Designed for an orifice size 10 mm in combination with e.g. MNH 510 101.



ZVPS 101

ZVPS 121 to be assembled onto an actuator with G 1/2" ports. Designed for an orifice size 12 mm in combination with e.g. MNH 510 121.

Delivery contains the plate and the banjo for one port. Straight male fittings and rotating elbow fittings to make the other connection can be supplied on request.

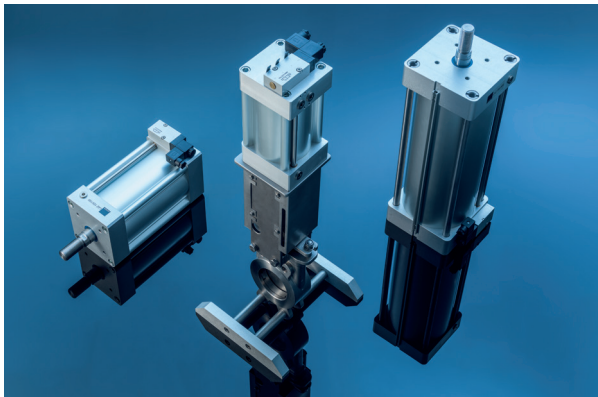


ZVPS 121

Type	Port A	Port B	Port C + O	NAMUR	Orifice	Weight
ZVPS 701	Banjo G 1/4"	G 1/4"	G 1/4"	1/4"	7 mm	0,35 kg
ZVPS 101	Banjo G 3/8"	G 3/8"	G 1/4"	1/4"	10 mm	0,40 kg
ZVPS 121	Banjo G 1/2"	G 1/2"	G 1/2"	1/2"	12 mm	0,45 kg

Cylinder Series LAZ

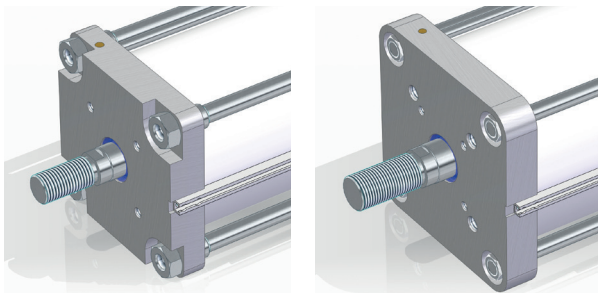
Linear Actuators with NAMUR-interface



Cylinder series with integrated NAMUR mounting port pattern. This allows to assemble NAMUR-valves and accessories directly to the cylinder.

Key features:

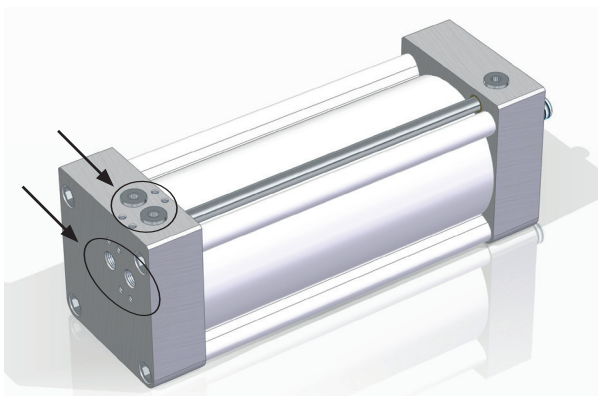
- Double acting
- Cylinder standard similar to ISO 15552
- Diameter: 80 ... 320 mm
 - 80 – 125 mm: Profile tube
 - 160 – 320 mm: with tie rods
- Stroke length: 25 ... 1000 mm (others on request)
- Actuators diameter 80 – 160 mm with interface to solenoid valve according to VDI/VDE 3845 (NAMUR 1 – 1/4"), 200 – 320 mm with NAMUR 2 – 1/2" interface.
- All cylinders with magnetic piston as a standard



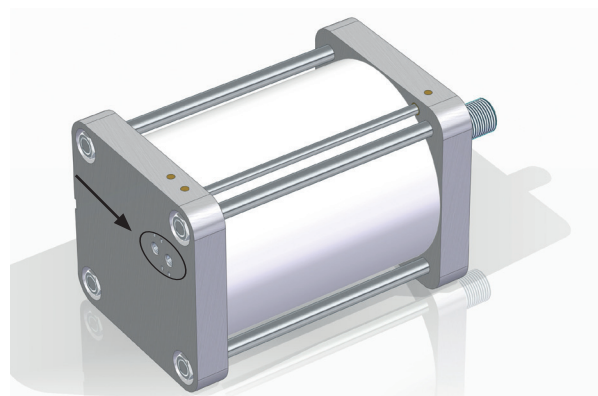
These kind of cylinders are mainly used for the automation of knife-gate-valves. Therefore the head of the cylinder has a mounting port pattern according to DIN 3358/ISO 5210 for direct mounting to knife-gate-valves.

Other interfaces on request.

Diameter up to 125 mm with NAMUR-interface at the bottom and long side of the cylinder for maximum flexibility. Unused ports to be plugged. Starting diameter 160 mm only with one NAMUR-interface at the bottom.



Diameter up to 125 mm



Diameter from 160 mm

For further information, please contact us.

