

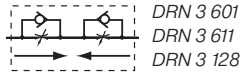


2.10

Accessories for Smart Valve Automation

DRN 3 601/DRN 3 611/DRN 3 128

Flow regulator plate

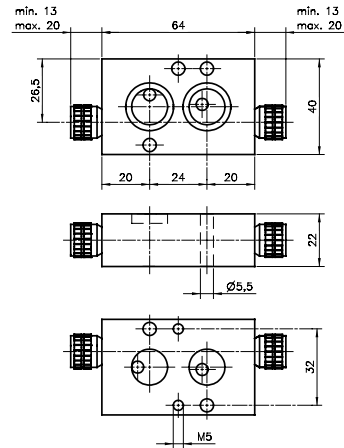


Block form flow regulator as intermediate plate, interface according to NAMUR-standard, for 3/2-way valves with exhaust air recirculation.

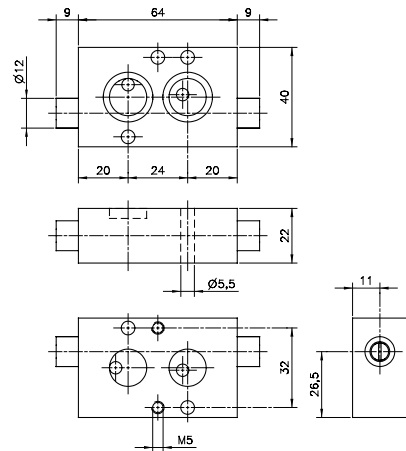
To regulate the forward stroke of a single acting pneumatic actuator and to regulate the exhaust air going into the spring return unit. DRN 3 601 and DRN 3 128 to be operated manually, DRN 3 611 with a screw-driver.

If flow regulator is required with G 1/4" ports, plate GPN 1/4 can be added. For details please refer to page 2.10.12.

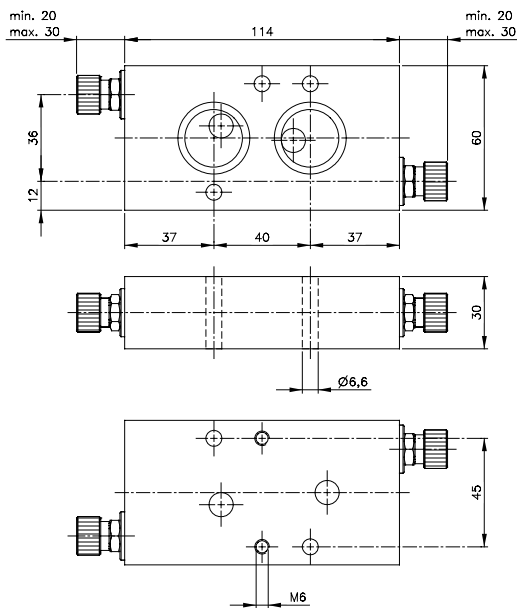
Delivery includes 1 pin, 2 screws, 2 O-rings.



DRN 3 601

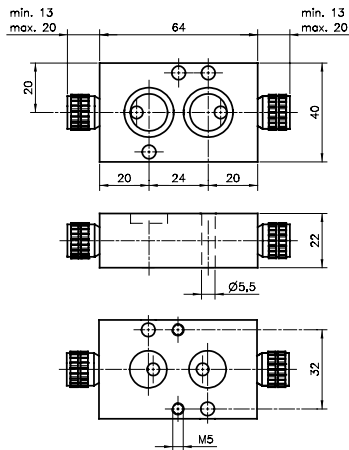
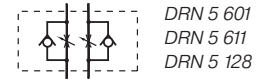


DRN 3 611

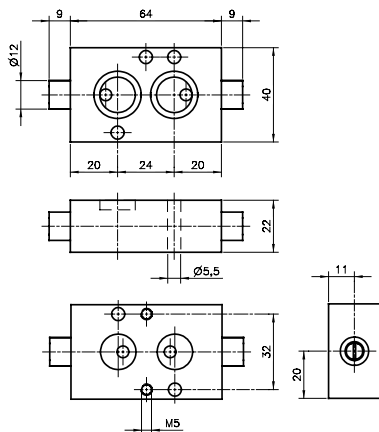


DRN 3 128

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



DRN 5 601



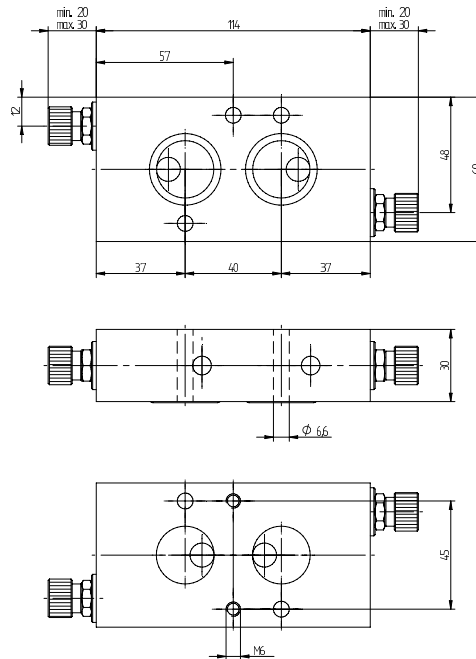
DRN 5 611

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 2.10.12.

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



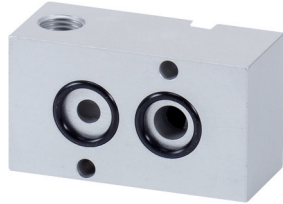
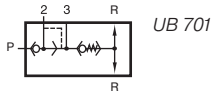
DRN 5 128

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



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.

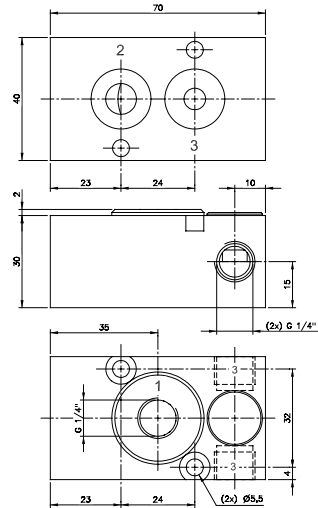
Valve is designed for spring return pneumatic actuators with 1/4" NAMUR-interface to be controlled by a remote piloted 3/2-way valve.

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

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

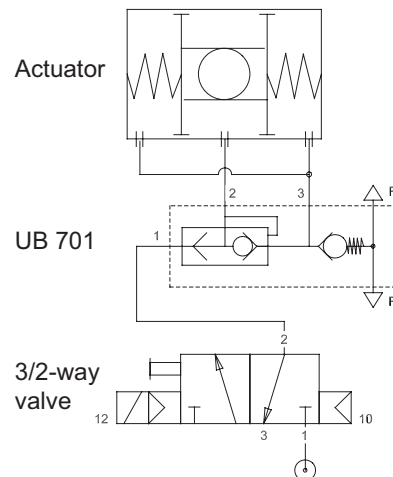
One of the two exhaust ports 3 to be closed by a plug.

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



UB 701

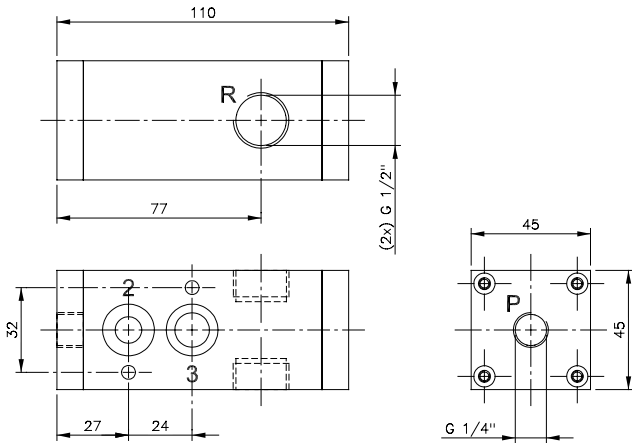
Function:



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

SENR 20/SENR 207/SENR 207 01

Quick-exhaust-block with non-return valve



SENR 20



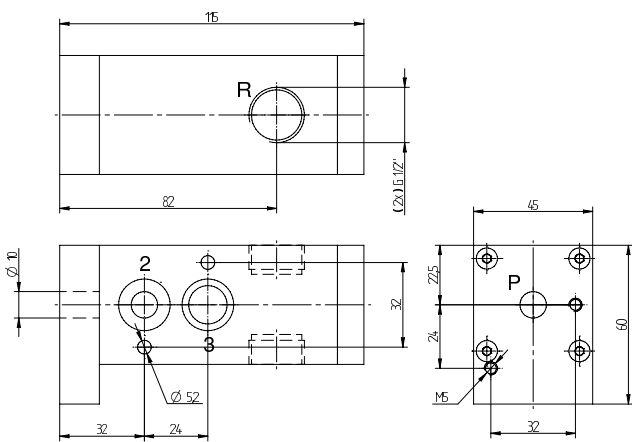
The valve is designed for fast closing of spring-return actuators with 1/4" NAMUR-interface.

Any 3/2-way valve can be used as pilot valve. The connection towards the pilot valve is either G 1/4" ported (type SENR 20) or for NAMUR-valves with the 1/4" NAMUR-interface (SENR 207/ SENR 207 01).

The block assures that only compressed air that has been used to open the actuator is used in the spring-chamber (non-return-function). Excess air is released very fast by the quick-exhaust valve, exhaust-port G 1/2", orifice 10 mm. The non-return valve makes absolutely sure that no ambient atmosphere can be sucked into the actuator.

Two exhaust-ports R allow that the product can always be assembled so the silencer faces downwards.

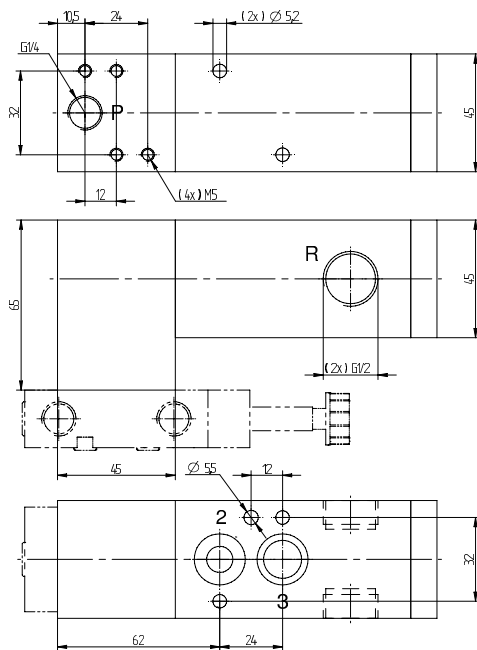
Delivery includes 2 screws, 2 O-rings, 1/2" plug for port R.



SENR 207

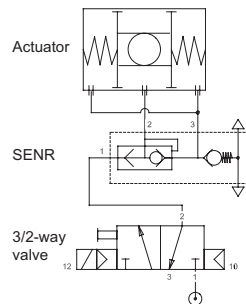
Special solution (SENR 207 01):

Quick-exhaust block for external piping and universal NAMUR-valve mounting.



SENR 207 01

Function:

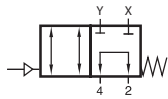


Type	NAMUR	Port P	Port R	Air flow P to 2	Air flow exhaust	Operating press.	Weight
SENR 20	1/4"	G 1/4"	G 1/2"	1250 l/min	2500 l/min	2 - 10 bar	0,54 kg ❄️
SENR 207	1/4"	1/4" NAMUR	G 1/2"	1250 l/min	2500 l/min	2 - 10 bar	0,56 kg ❄️
SENR 207 01	1/4"	G 1/4" - 1/4" NAMUR	G 1/2"	1250 l/min	2500 l/min	2 - 10 bar	0,85 kg ❄️

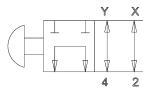


PN 411 721/BHN 420 701

Short-cut valve when using manual gearbox



PN 411 721



BHN 420 701



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 and 4 through to X and Y. When no pneumatic signal is applied the ports 2 and 4 are shortcut.

On request:

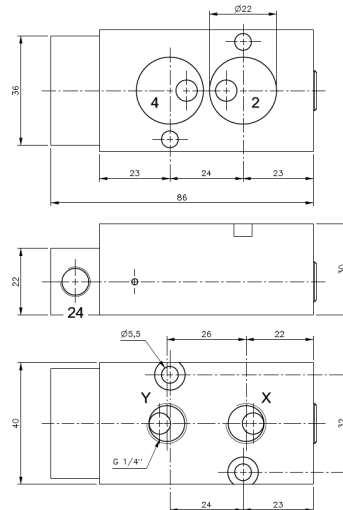
Valve that is normally blocked, type PN 411 711.

Function BHN 420 701

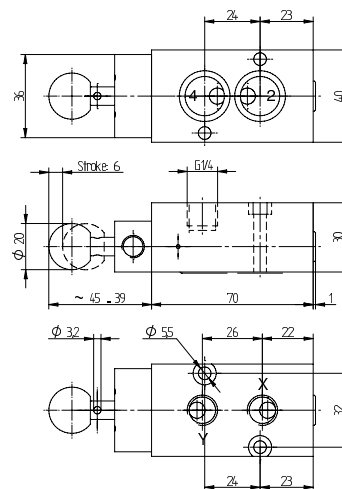
As long as the knob is pushed, the valve forwards the signals applied to 2 and 4 through to X and Y. When knob is pulled the ports 2 and 4 are shortcut.

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.



PN 411 721

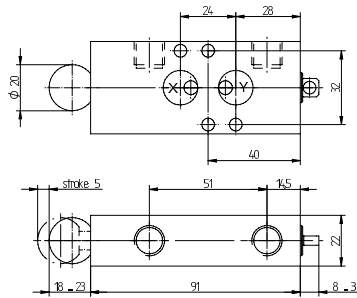
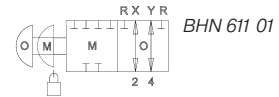
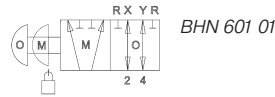
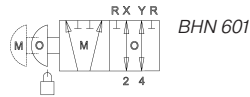


BHN 420 701

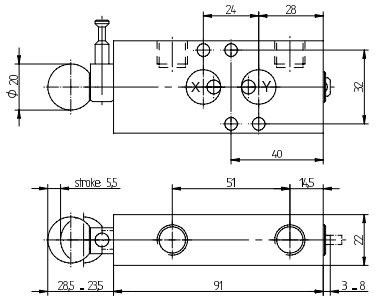
Type	Port size	Air flow	Operating press.	Actuating press.	Actuating Force	Weight
PN 411 721	G 1/4"-1/4" NAMUR	1250 l/min	1,5 - 10 bar	3 - 10 bar		0,20 kg
BHN 420 701	G 1/4"-1/4" NAMUR	1250 l/min	1 - 10 bar		18 N	0,22 kg

BHN 601/BHN 601 01/BHN 611 01

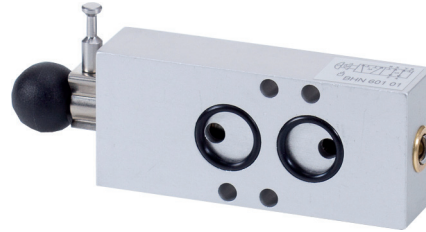
Manual actuated block and vent/block and block



BHN 601



BHN 601 01/ BHN 611 01



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 exhaust 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.

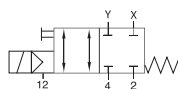
If the valve is required with G 1/4" ports, plate GPN 1/4 can be added. For details please refer to page 2.10.12.

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

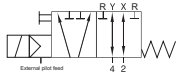
Type	Function	lockable	Air flow	Operating press.	Actuation force	Weight
BHN 601	vents actuator	O-position	900 l/min	1 - 10 bar	18 N	0,23 kg 
BHN 601 01	vents actuator	M-position	900 l/min	1 - 10 bar	18 N	0,24 kg
BHN 611 01	blocks actuator	M-position	900 l/min	1 - 10 bar	18 N	0,24 kg

MNEH 411 711/MNEH 611 601

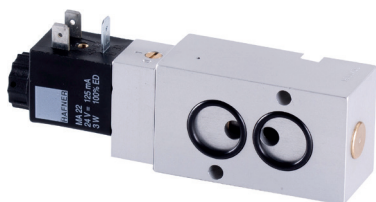
Electrically actuated block and block/block and vent valve



MNEH 411 711



MNEH 611 601



The **MNEH 411 711** 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 “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) as well as G 1/4” ports (piped application).

Delivery includes 2 screws, 2 O-rings.

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 X and Y through to 2 and 4.

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

On request: Valve where port 2 and 4 is shortcut in basic position, type MNEH 411 721.

The **MNEH 611 601** is made for blocking the air supply from the pilot valve to the actuator and venting the actuator at the same time. 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).

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

Function:

As long as there is neither an electric signal applied to the coil nor air pressure applied to the external pilot port, the valve forwards the signals from the pilot valve which are applied to X and Y through to 2 and 4.

Pilot ports are blocked and actuator chamber is vented as soon as an electric signal as well as air pressure to the external pilot port is applied.

Available with solenoid operators:

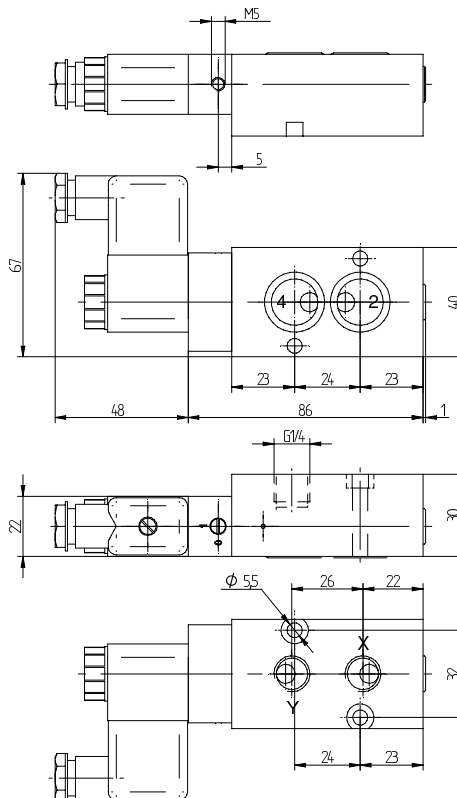
230V/50Hz, 100V/50Hz, 24V/50Hz, 48V=. 24V=, 12V=.

The valves are equipped with manual override to turn.

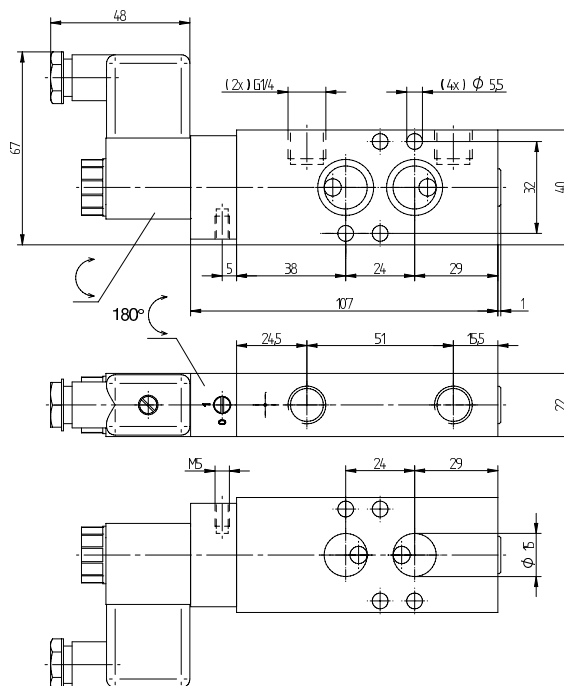
Valves can be used in combination with a positioner.

External pilot-feed is required.

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



MNEH 411 711

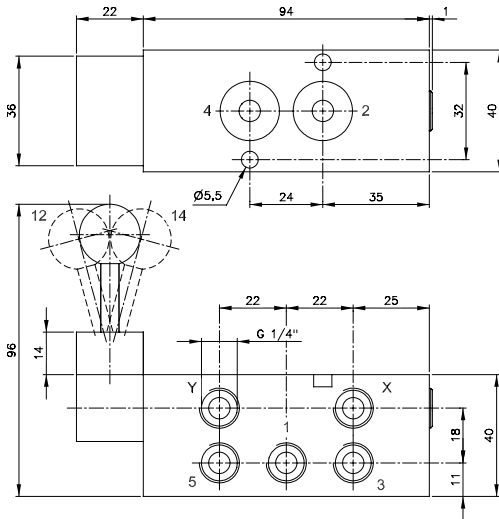
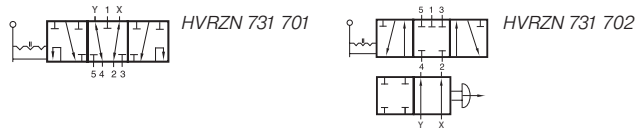


MNEH 611 601

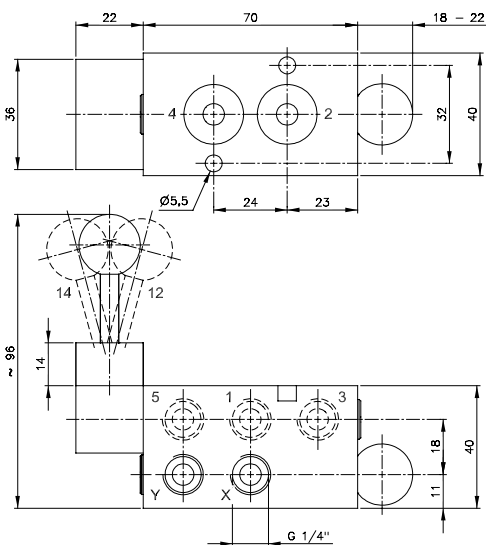
Type	Port size	Air flow	Operating press.	Actuation press.	Power consumption	Weight
MNEH 411 711	G 1/4" - 1/4" NAMUR	1250 l/min	1 - 10 bar	3 - 6 bar	3 W = / 5 VA ~	0,20 kg
MNEH 611 601	1/4" NAMUR	900 l/min	1 - 10 bar	3 - 6 bar	3 W = / 5 VA ~	0,28 kg

HVRZN 731 701/HVRZN 731 702

Pneumo-manual override valve for positioners



HVRZN 731 701



HVRZN 731 702



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:

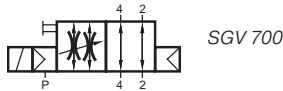
In order to avoid unintended manual actuation the lever of both versions has to be pulled thoroughly for being manipulated out of central position.

Delivery includes 2 screws, 2 O-rings.

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

SGV 700

Two-speed valve



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 and helps to avoid water hammers.

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 solenoid receives 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 end 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.

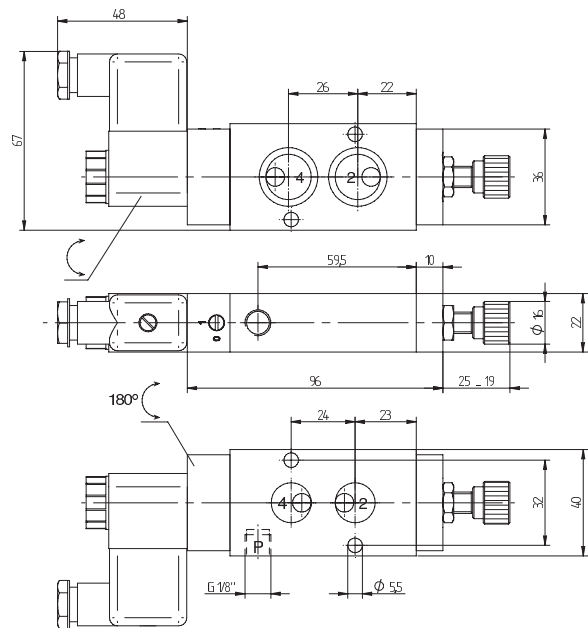
The valve is designed to go as a sandwich between actuator and NAMUR-pilot-valve.

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

For details please refer to page 2.10.12.

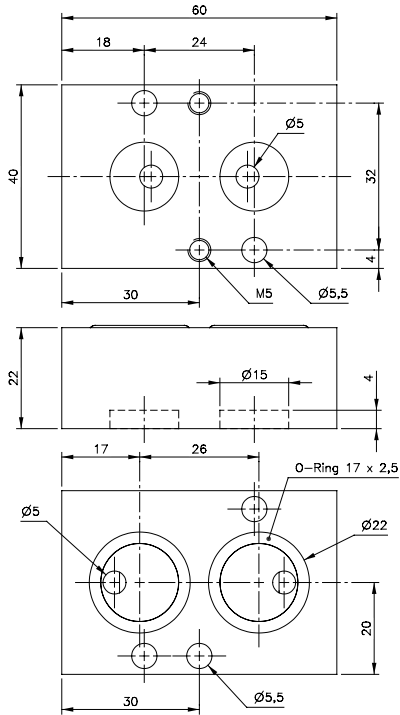
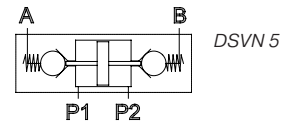
The valve needs an external air supply, port P (G 1/8").

Delivery includes 2 screws, 2 O-rings.



SGV 700

Type	NAMUR	Air flow	Operating press.	Power consumption	Weight
SGV 700	1/4"	1250 l/min	2 - 10 bar	3 W = / 5 VA ~	0,28 kg



DSVN 5



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.

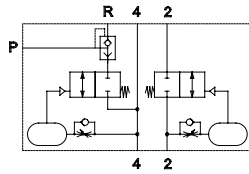
For details please refer to page 2.10.12.

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

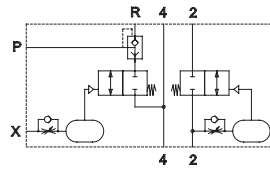
Type	NAMUR	Air flow P to A/B	Air flow A/B to P	Operating press.	Weight
DSVN 5	1/4"	230 l/min	360 l/min	1 - 10 bar	0,10 kg

CBN 700 K/CBN 700 K EB

Controlblock for butterfly valves with inflatable valve-seat



CBN 700 K



CBN 700 K EB



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 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.

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

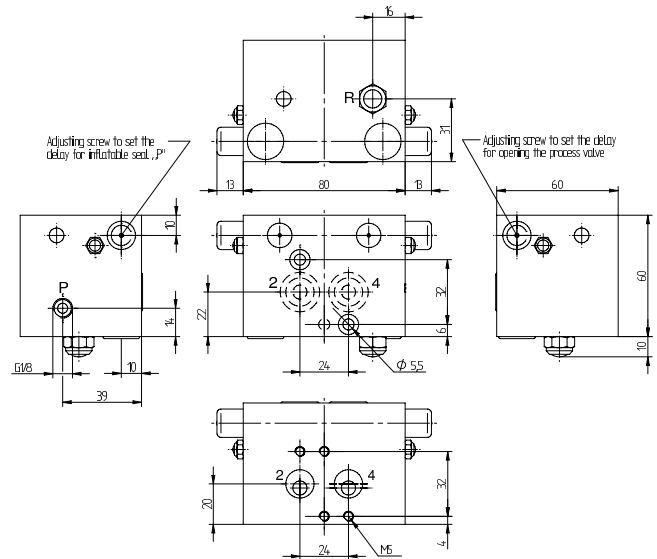
If the valve is required with G 1/4" ports, plate GPN 1/4 can be added. For details please refer to page 2.10.12.

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

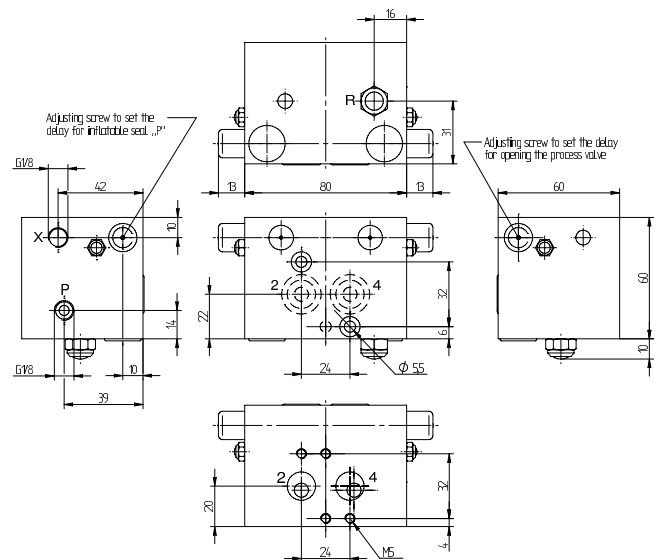
Also available for explosion hazardous environment zone 22 (cat. III D), please refer to page 2.14.4.1.

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 te seal.



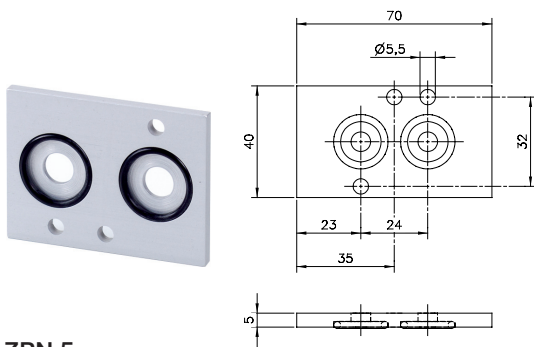
CBN 700 K



CBN 700 K EB

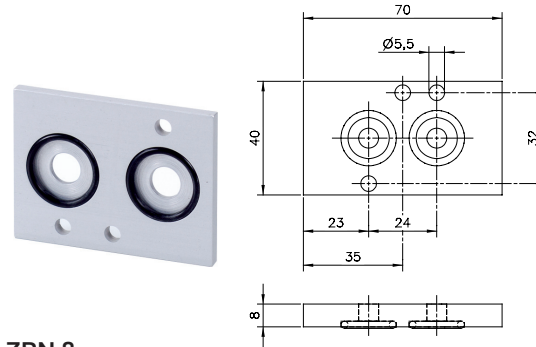
Type	NAMUR	Port P	Port X	Air flow act.	Operating press.	Air flow seal	Weight	
CBN 700 K	1/4"	G 1/8"		900 l/min	3 - 10 bar	400 l/min	0,80 kg	Ex
CBN 700 K EB	1/4"	G 1/8"	G 1/8"	900 l/min	3 - 10 bar	400 l/min	0,80 kg	Ex

Mounting accessories 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.



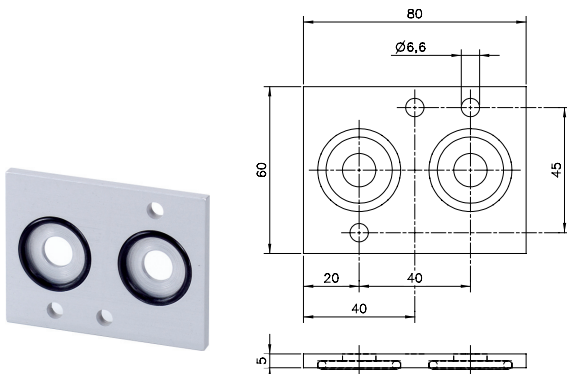
ZPN 5

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.



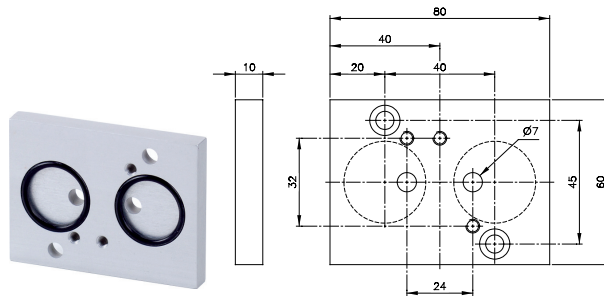
ZPN 8

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.



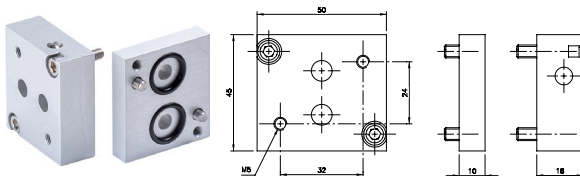
ZPN 6-5

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.



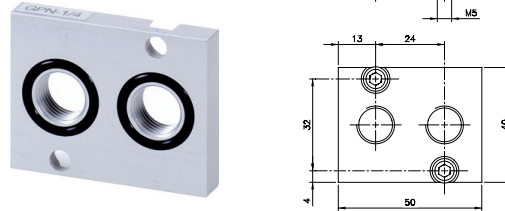
ZPN 6-10

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



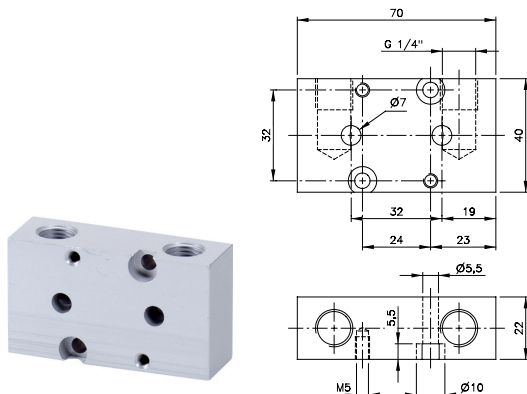
ZPN 701-90

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



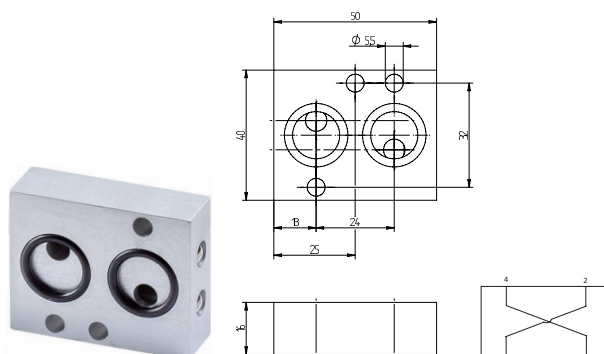
GPN 1/4

Plate to convert a 1/4" NAMUR-interface into 2 x G 1/4" threaded ports for remote piloting. For 1/2" NAMUR-interface on request.



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.

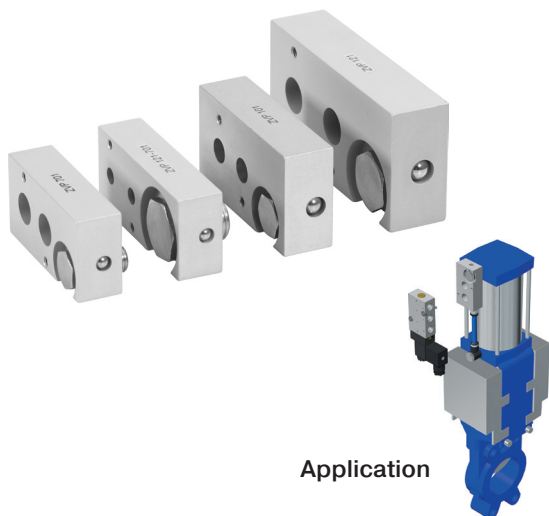


ZPNX 16

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

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.

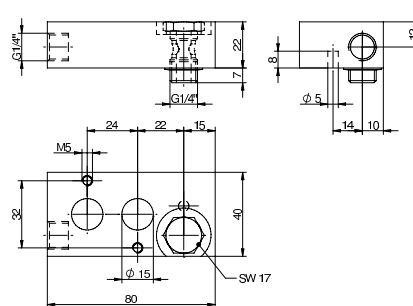
ZVP 101 to be assembled onto a cylinder with G 3/8" ports (diameter 63, 80 mm according to ISO 6431/ISO 15552). Designed for an orifice size 10 mm in combination with e.g. MNH 510 101.

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.

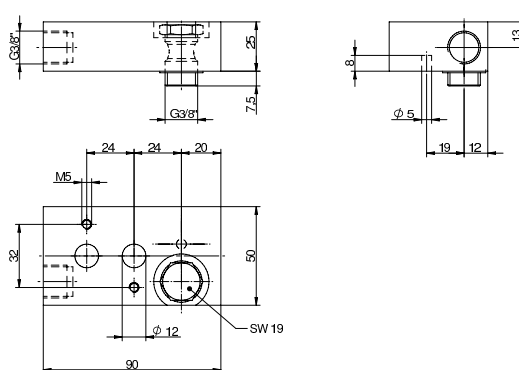
ZVP 121-701 to be assembled onto a cylinder with G 1/2" ports and equipped with a NAMUR-valve of 1/4" standard.

Delivery contains the plate and the banjo for one port.

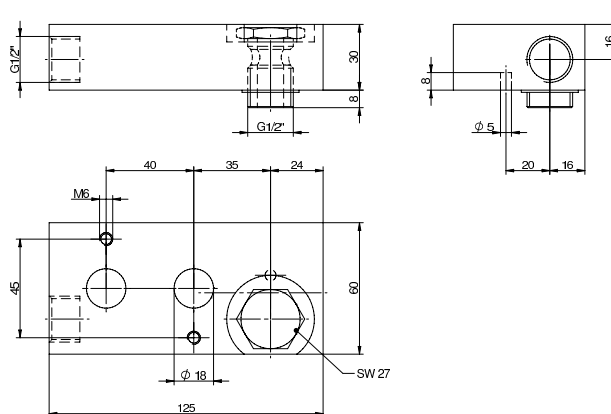
Straight male fittings and rotating elbow fittings to make the other connection can be supplied on request.



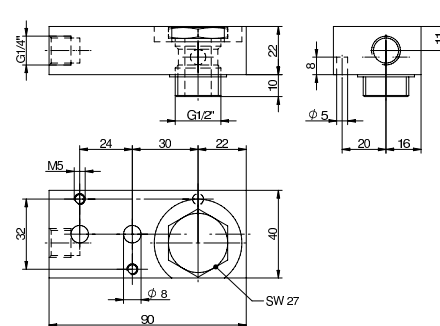
ZVP 701



ZVP 101



ZVP 121

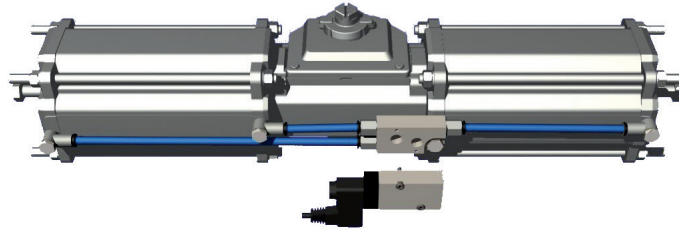


ZVP 121-701

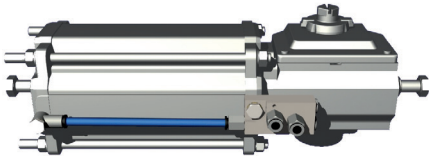
Type	Port A	Port B	NAMUR	Orifice	Weight
ZVP 701	Banjo G 1/4"	G 1/4"	1/4"	7 mm	0,35 kg
ZVP 101	Banjo G 3/8"	G 3/8"	1/4"	10 mm	0,40 kg
ZVP 121	Banjo G 1/2"	G 1/2"	1/2"	12 mm	0,45 kg
ZVP 121-701	Banjo G 1/2"	G 1/4"	1/4"	7 mm	0,35 kg

ZVPS 701/ZVPS 101/ZVPS 121

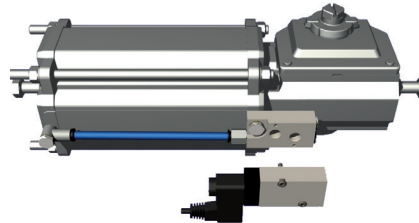
Plates for cylinder-valve combinations – 2. for scotch-yoke actuators



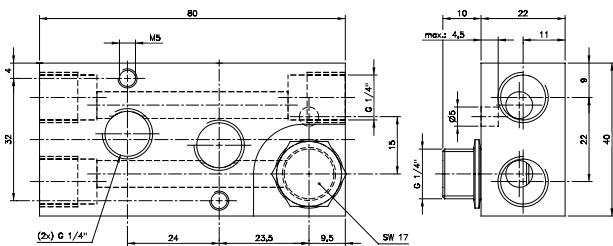
Double cylinder actuator



Single cylinder actuator, piped



Single cylinder actuator, NAMUR

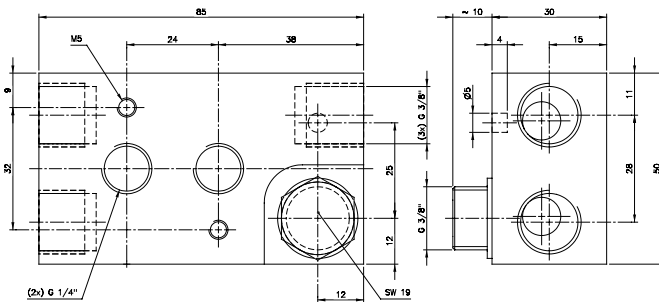


ZVPS 701

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.

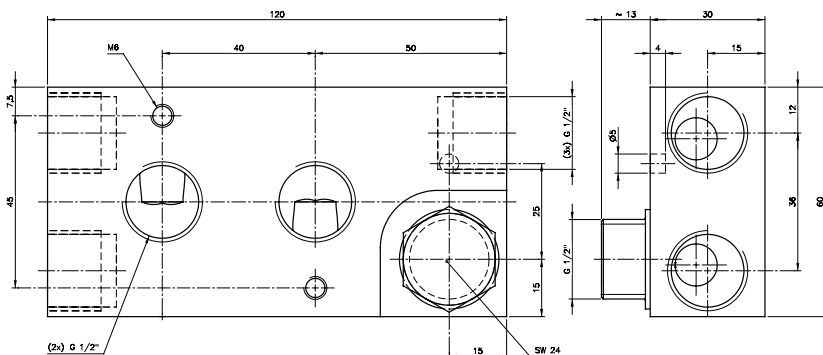


ZVPS 101

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 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.

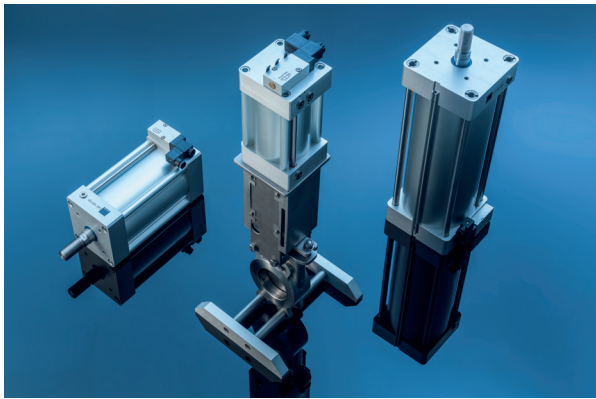


ZVPS 121

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

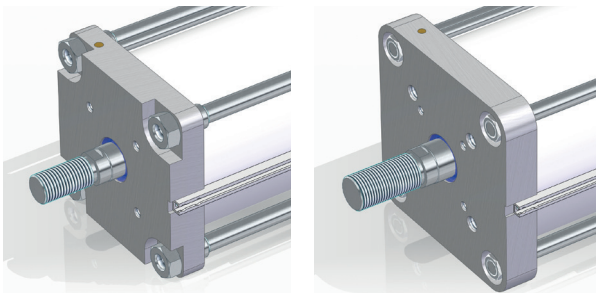
Linear Actuators with NAMUR-interface



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

Key features:

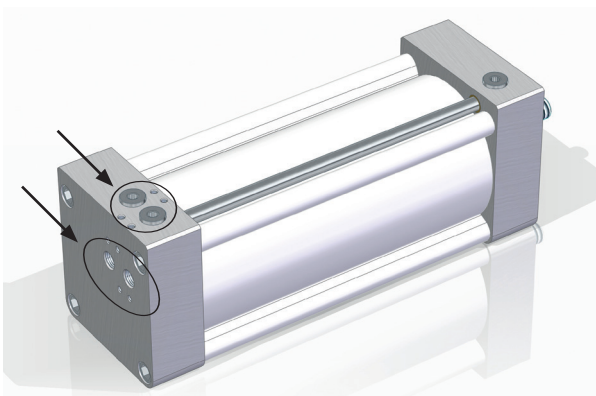
- Double acting
- Cylinder standard similar to ISO 15552
- Diameter: 80 ... 320 mm
 - 80 – 125 mm: Profile tube
 - 160 – 320 mm: with tie rods
- Stroke length: 25 ... 1000 mm (others on request)
- Actuators diameter 80 – 160 mm with interface to solenoid valve according to VDI/VDE 3845 (NAMUR 1 – 1/4"),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



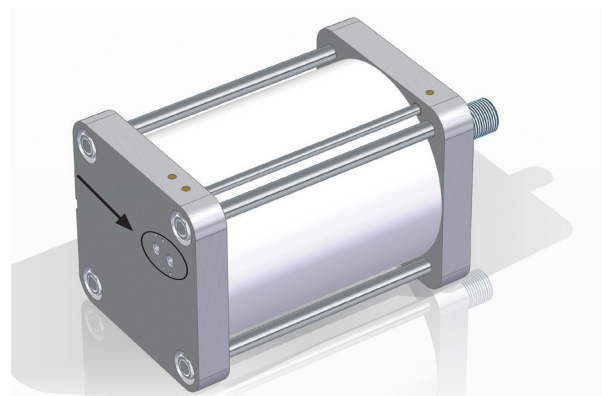
These kind of cylinders are mainly used for the automation of knife-gate-valves. Therefore the head of the cylinder has a mounting port pattern according to DIN 3358/ISO 5210 for direct mounting to knife-gate-valves.

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



HAFNER

aim fluid control sinds 1995. Als onafhankelijke specialist in het meten en regelen van diverse soorten vloeistof- en gasstromen (Flow & Fluid Technology) richt aim zich op de professionele markt. De markt met de behoefte aan standaardproducten tot aan engineeringprojecten die verregaande technische kennis vereisen op het gebied van afsluiters, magneetventielen, pneumatiek ventielen, actuators, appendages, vacuümpompen, compressoren, fittingen en toebehoren.

Vanuit het hoofdkantoor en magazijn te Son & Breugel, nabij Science Park Ekkersrijt, ontzorgt aim zijn klanten van A tot Z en biedt technische en logistieke maatwerkoplossingen door gedegen kennis, een gedreven en persoonlijke service én een klantspecifiek voorraadbeheer.

Ontzorgend, **Betrokken** & **Verantwoordelijk**

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