



# Hafner-Pneumatik

Excellence in Pneumatics



**HAFNER**

**Hafner-Pneumatik is the manufacturer of a complete range of high-quality pneumatic control valves.**



Highest quality with state-of-the-art products.

Unique sealing design of the „floating O-Ring”.



50 years of knowledge and venture in the development of pneumatics. Manufacturing facility with a total of more than 2.000 m<sup>2</sup>.



Latest manufacturing technology.

100 % Made in Europe



Manufacturing of customer-specific solutions.



Quality management system ISO 9001 certified.

Further information on:  
[www.hafner-pneumatik.com](http://www.hafner-pneumatik.com)

Hafner is a group of two  
family owned companies.

Hafner Pneumatika Kft.  
Hungary

- Manufacturing
- Engineering
- Research & Development
- Sales Hungary & Romania
- e-marketing

Strategic  
Company  
&  
Product  
Development

Hafner-Pneumatik Krämer KG  
Germany

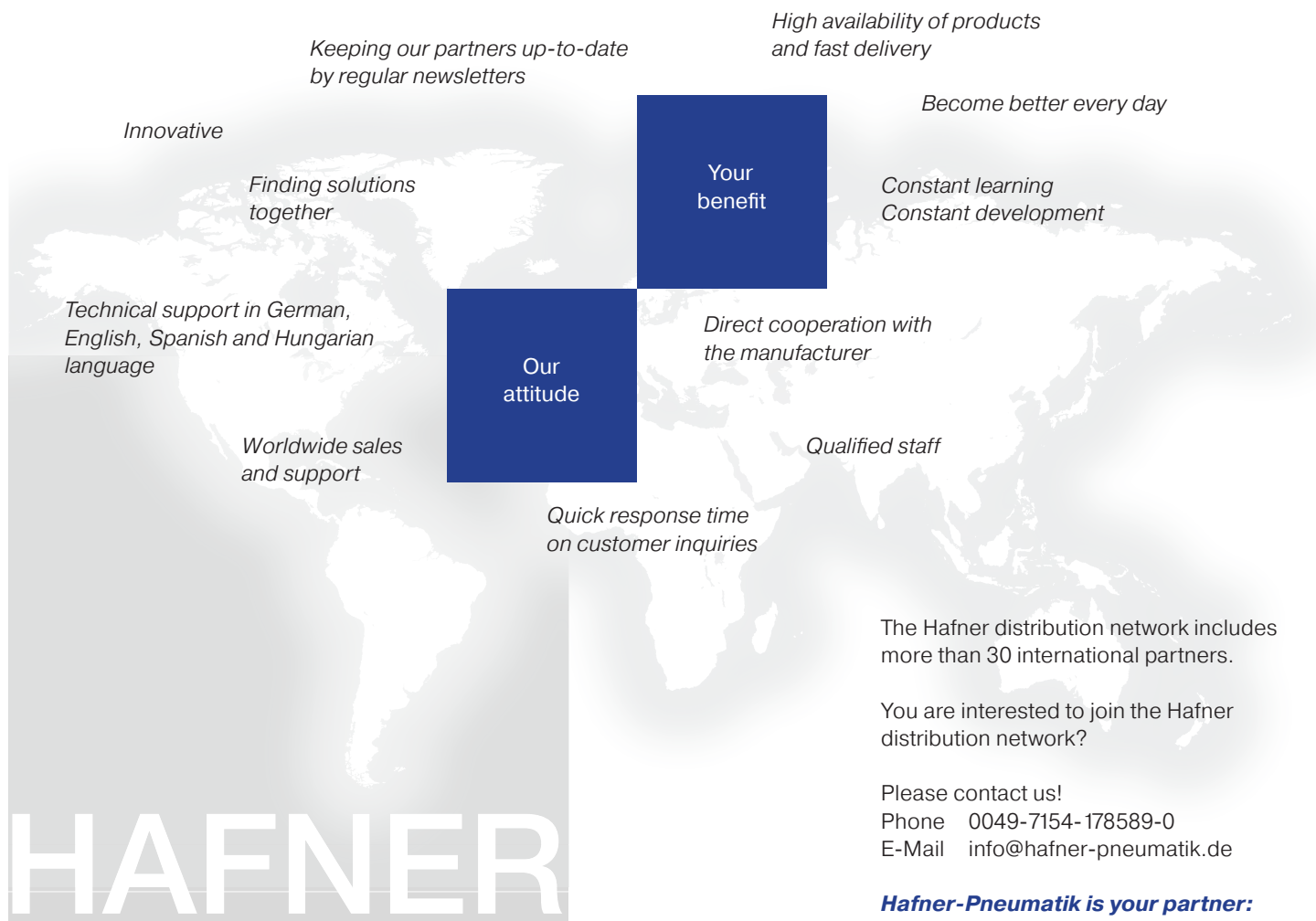
- Worldwide Sales
- Marketing
- Promotion
- Purchasing



The German-Hungarian team of Hafner works closely together  
to assure 100 % customer satisfaction.



**Our attitude is your benefit.  
Become a part of it!**



## Hafner is using a unique sealing design inside the valves which we call „the floating O-Ring”.

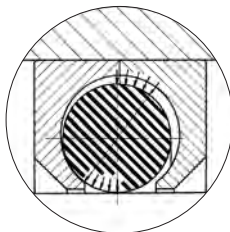
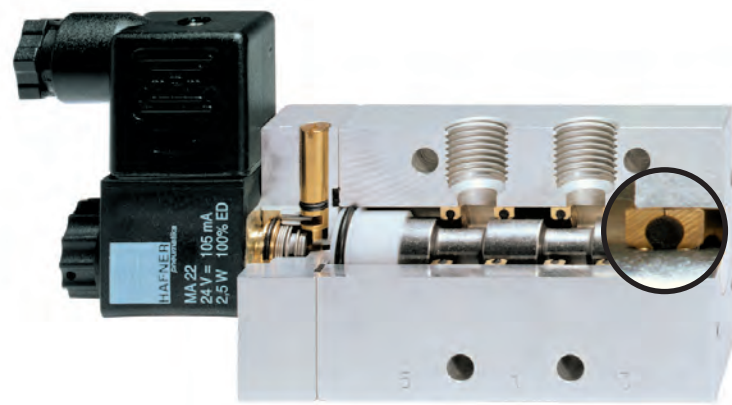
By using high quality materials and a unique sealing system, we offer distinct advantages to our customers. No compromises were made in the selection of materials. The bodies are made from anodised aluminium, the spools from stainless steel and the manual overrides from brass. The major advantage of Hafner's sealing concept is the low friction.

The advantage is based on the following technical features:

There is no deformation of the seals during assemblage of the valve – they are allowed to move independently within the brass cage. Without air pressure there is no contact pressure and, therefore, no friction. This construction also has consequences for the seals of the valves in use. When switching a 5/2 valve, only three of the five seals are exposed to pressure and applying friction to the spool.

This unique sealing design means that the contact pressure, and consequently the sealing effect, increases proportionally to the air pressure. If the air pressure is low, contact pressure of the seals and friction are minimised.

Even when pressure is high, due to the shape of the cage, there is only the minimal contact pressure applied to the sealing rings which is necessary to seal the valve, as shown in the drawing.



### These features offer you:

- High durability and an extended lifetime
- High flow combined with compact design
- High reliability of the valves





We are committed to offer a complete range of pneumatic control valves.



Ready to use pneumatic control systems.



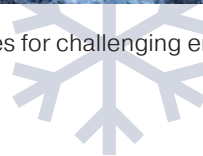
Valves actuated by solenoid, air pilot, manually or mechanically.



Valves ported M5 to G 3/4" with a maximum air-flow of 6.000 l/min.



Valves for challenging environments.

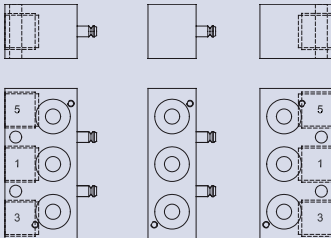


**We offer a large variety of solenoid valves for in-line, manifold- and valve terminal use.**



#### **Flexible Solenoid Valves with Modular Manifolds:**

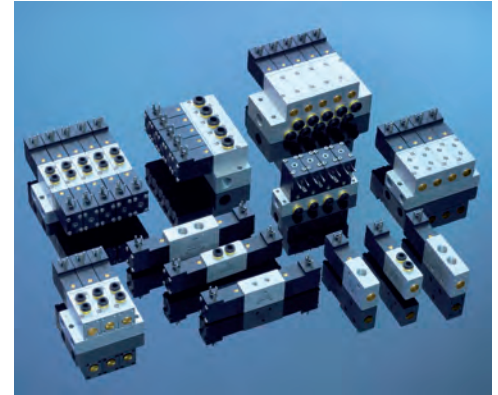
Valves of the G-range can be used in-line as well as on manifold plates. Most of the manifolds are designed as modular system allowing the distribution-partner as well as the customer to make last-minute changes.



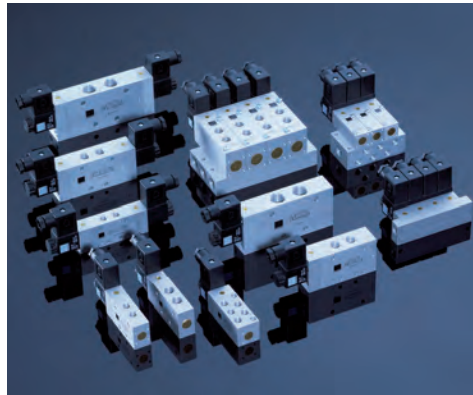
The customer has a choice of three different lines.



MMD-series ( 10,5 mm wide)  
Ports M5 or 4 mm pif  
Air flow 230 l/min

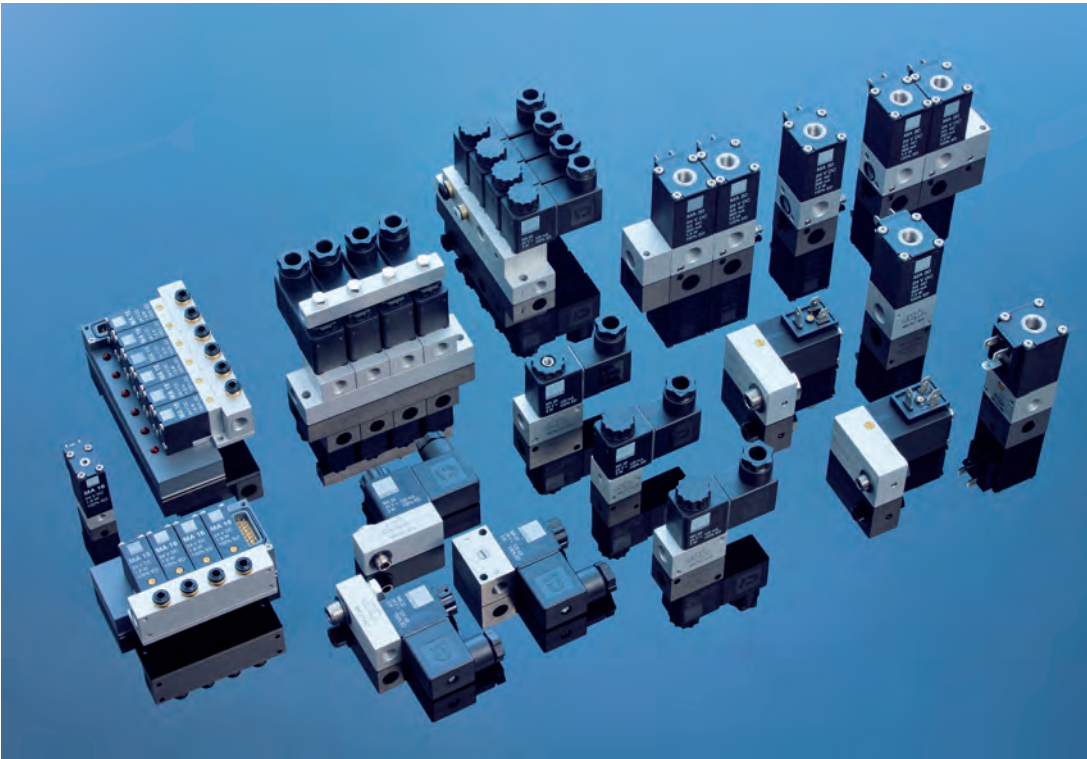


MD-series ( 16 mm wide)  
Ports M5 or G 1/8"  
Air flow 280 - 450 l/min

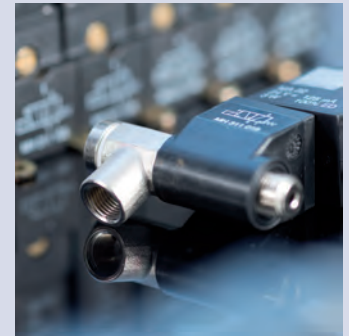


MH-series (22 mm + wide)  
Ports from M5 up to G 3/4"  
Air flow 180 - 6.000 l/min

A wide range of direct actuated valves  
enrich the program of solenoid valves.



Also available:  
Valves made from Polyamide



16 mm wide solenoids



22 mm wide solenoids



30 mm wide solenoids

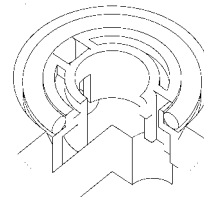
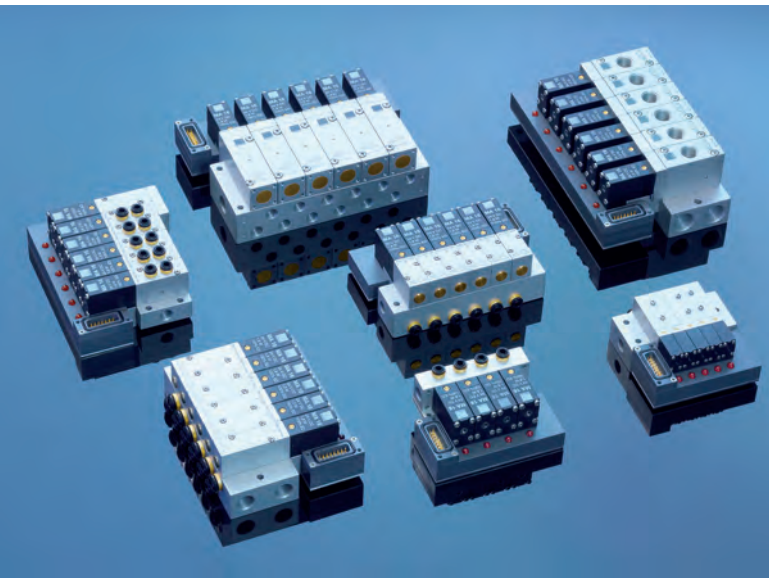
Air-flow of up to 200 l/min

Application:

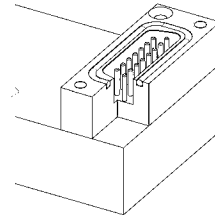
- Control of plastic diaphragm valves
- Pharmaceutical industry



Our range of 16 mm and 22 mm Hafner terminals combine high flow and compact design. We have achieved a true IP 65 rating due to the O-ring seal which is fitted to the electrical connections.

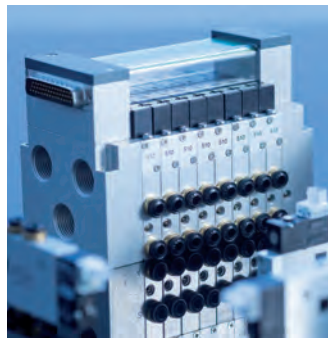


Seal at valve



Seal at connector

Solenoids equipped with varistor and red LED. Air flow from 30 l/min up to 1.250 l/min.

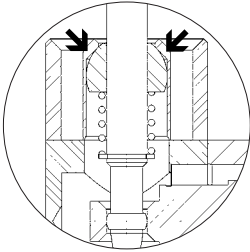


The 10 mm miniature valve terminal is equipped with 4 mm push-in fittings and offers IP 40.

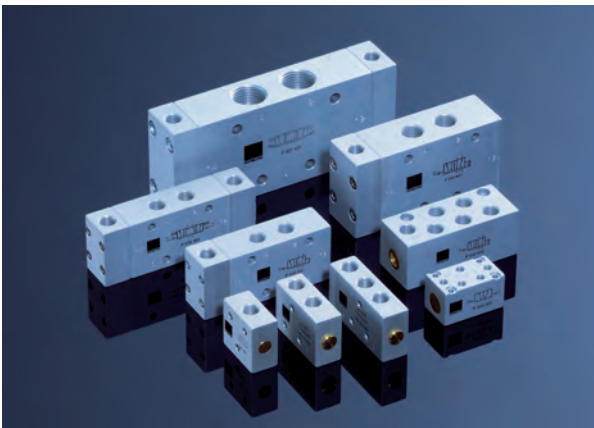
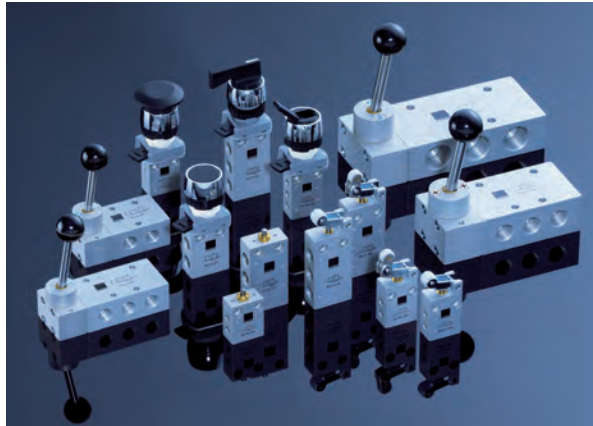


Valve terminals with all ports on the bottom and shut-off screw, offering the possibility to take away air pressure at any valve on the plate individually. Designed for assembly in control cabinets. Also available as manifold solution.

Extensive range of valves with mechanical or manual actuators, impressive through their compact design and low actuation force.

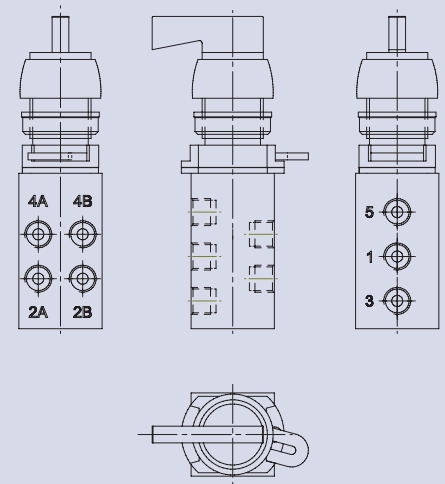


All hand lever valves are equipped with a long-lasting metallic seal.



Designed to best serve our customers' needs for pure pneumatic applications: Air pilot valves, booster valves and logical elements.

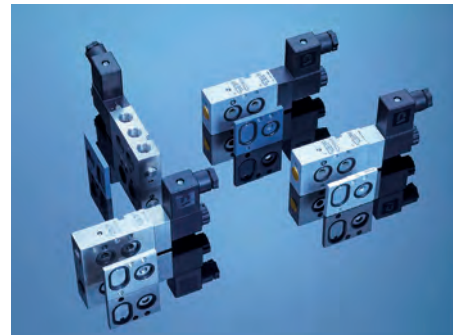
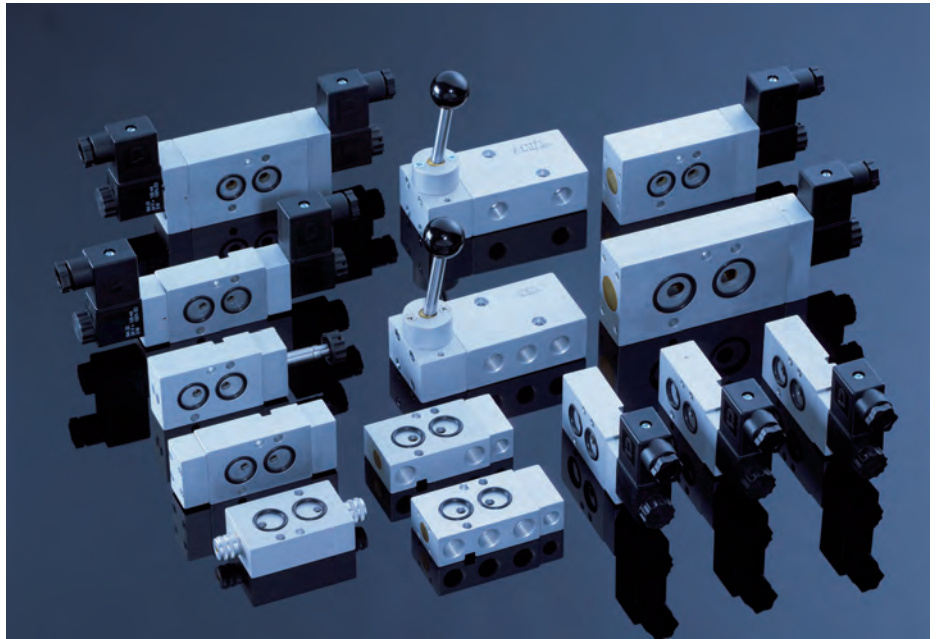
Also available:  
Double 3/2- and double 5/2-way valves with 3-position rotary lever.



# Robust design

The „NAMUR-range” consists of valves with 1/4” interface (NAMUR 1), 1/2” interface (NAMUR 2) as well as an extensive variety of accessories.

- Special coil-design for superior protection in wet environment
- As a standard:  
Exhaust air recirculation to protect the actuator from aggressive environmental air in any 3/2-way valve
- Low power solenoid systems
- Valves with fail-safe function
- Various accessories such as quick-exhaust valves, safety valves etc.
- Available with coil and connector IP 67
- Private labelling
- Precise and independent flow control with the Hafner flow regulator plates
- Maximum air-flow at compact design
- Different port-schemes



„Hafner on the Rocks“ and „Hafner Heavy Metal“ are designed for challenging environments and applications.

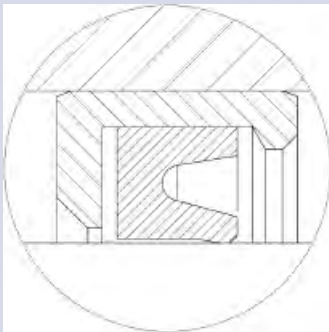


#### „Hafner on the Rocks“ – Low Temperature Valves

Temperature range: -50° to +50° C

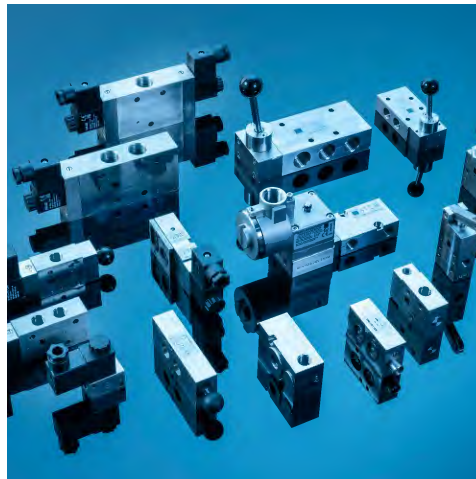
TR-certificate for the Russian market available.

Also available with ATEX-approved low temperature solenoid systems.



**We use lip-seals inside our low temperature valves.**

- Almost wear-free
- Very low friction
- No lubrication required



#### „Hafner Heavy Metal“ – Stainless Steel Valves

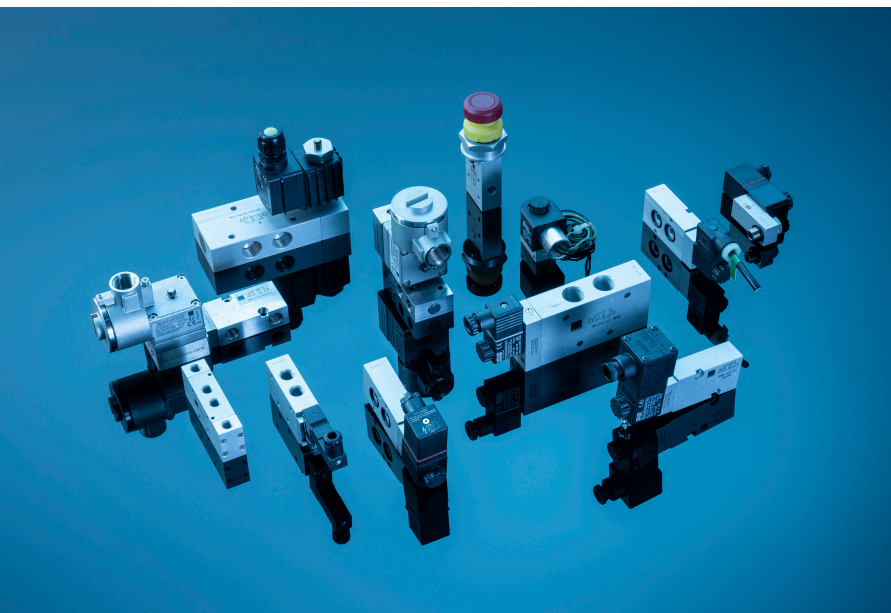
Valves made from high-grade stainless steel (316L = 1.4404).

High resistance against aggressive environmental conditions.





**For explosion hazardous environments, you have the choice of a wide range of ATEX-approved valves for zones 1, 2, 21 and 22.**

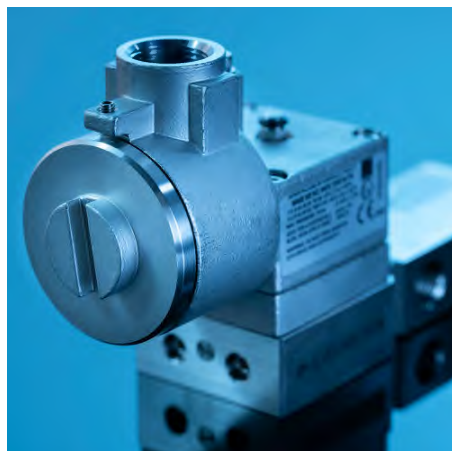


**Different kinds of actuation are available:**

- Solenoid actuated
- Pneumatically actuated
- Manually & Mechanically actuated
- Accessories

**The customer has the choice of a full range of ATEX-approved solenoid systems:**

- Ex na (non-sparking)
- Ex ia (intrinsically safe)
- Ex m (encapsulation with cable)
- Ex e mb (encapsulation with junction box)
- Ex dm (encapsulated flameproof)
- Ex d (flameproof)



# Hafner where non-standard is standard

A collection of various LEGO Technic components, including beams, connectors, and specialized parts, arranged on a blue background. The components are primarily white and black, with some featuring blue, red, and green accents. The parts are scattered across the frame, showing a variety of shapes and sizes typical of the LEGO Technic system.

Developing customer specific solutions is part of our daily business.

Technical drawing of a 3-position 3/2-way solenoid valve. The drawing includes three views: a front view, a side view, and a top view. Dimensions are provided in millimeters (mm). The front view shows a total width of 113 mm, a central body width of 35 mm, and a total height of 100 mm. The side view shows a total height of 100 mm and a total width of 113 mm. The top view shows a total width of 113 mm and a total height of 100 mm. The valve has three ports: two on the left and one on the right. The right port is labeled '1/2" G1/2"'. The valve is shown in a closed position.

Valve for pressing machines designed according to customer specifications with bar code and type number.

HAFNER 15

A detailed view of the internal components of a network switch. The image shows a complex arrangement of electronic modules, including a central processing unit with a small display screen, various control buttons, and numerous ports. A large bundle of blue Ethernet cables is connected to the right side of the unit. The internal components are housed in a light-colored metal chassis, and the overall design is compact and professional.

## Special control-boxes for paper-mills manufactured by Hafner.

### Main advantages:

- No tubing inside the cabinets
- Possibility to shut-off the air-supply individually —> easy to maintain



Solenoid valve cabinet 8 stations.



Air distributor cabinet.



Block form flow regulators with 3/4" ports,  
offering 6.000 l/min air-flow.

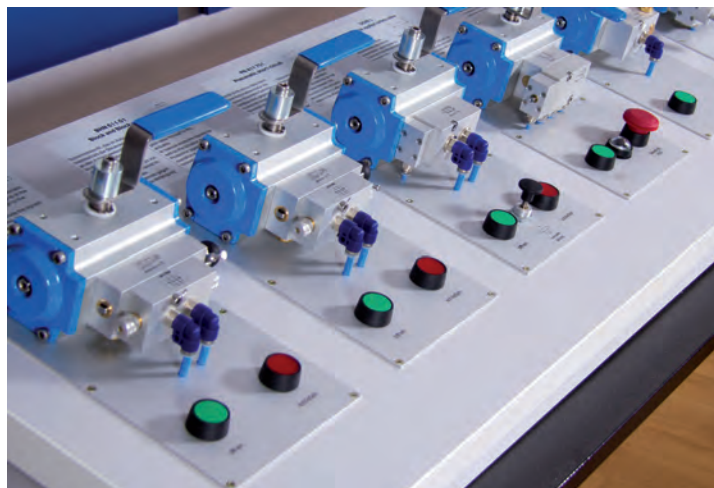
# Paper Industry



**We are proud to have one of the widest ranges of smart valve-automation components for process automation.**

Besides 3/2-way and 5/2-way valves for standard on and off applications, customers often have a demand for special control valves and accessories.

**Also available:  
Valves with banjo-screw to control angle-seat-valves.**



# Industry



## The range includes:

- Flow regulators
- Block & Block Valves
- Block & Vent Valves
- Short-circuit valves
- Exhaust-air recirculation block
- Pneumo-manual override for positioners
- Valves with fail-in-place function
- Controlblock for valves with inflatable seal
- Quick-exhaust valves
- Pressure holding valve
- Two-speed valve



## The Hafner NAMUR-Flex Valve:

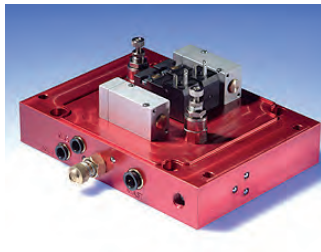
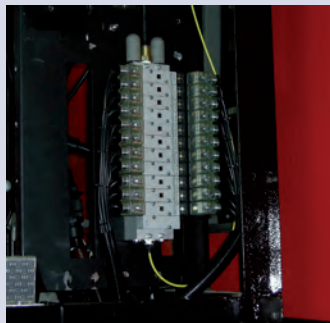
Flexible NAMUR-valve which can either be used as a 5/2-way valve, or by adding the „Flex-Pack“ as a 3/2-way valve with exhaust air recirculation.

Hafner products are an integral part of mobile applications.  
They can be utilised from an individual bleed valve controlling  
bus doors to a complex control system operating axle lifts.

Valve terminal in a fire truck.



Fuel unloading system.

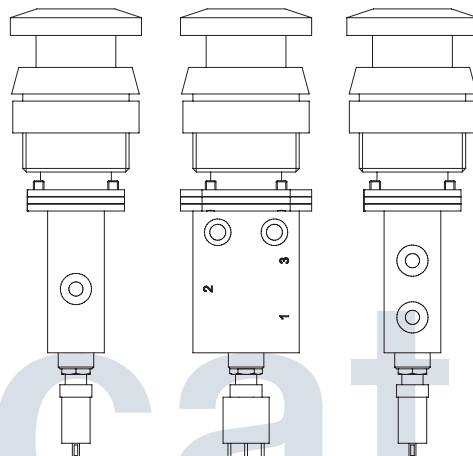


Mast control module.

PTO (power take-off) valve is  
ideal to use in bottom loading  
systems with its compact  
design, interchangeability &  
customized manifold system.



KNORR-Series – Valves for the railway industry and commercial vehicles as well as for heavy duty applications.

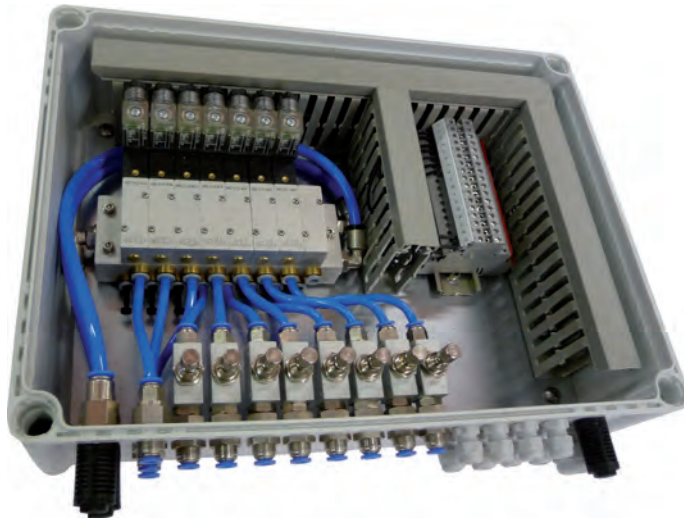


Also available:  
3/2-way manually actuated valve  
with electric switch. Equipped with  
mushroom pushbutton with detent.  
Used in the Chinese railway.

Applications



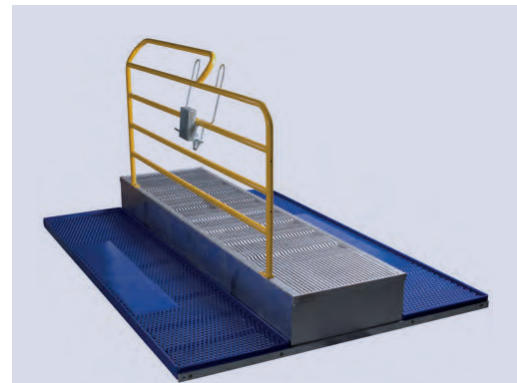
Hafner valves are well received in the agriculture sector because of the very robust design, high IP protection class as well as the possibility to do bass-free items.



Box to control animal feeding.



Using a coil made from epoxy and a connector with molded cable, the Hafner valves reaches protection class IP67 in accordance to IEC 60 529.



#### **Bestseller:**

Small direct acting valve used in lifting platform for pig farming.



# Agriculture



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