HORNUNG

Präzision made in Germany

Our catalogue for

industrial gas control equipment

Industrial gas control equipment

1. Central gas supply

2. Point of use stations

3. Central- and cylinder pressure regulators 30 bar to 400 bar

4. Cylinder pressure regulators up to 16 bar

5. Line pressure regulators

6. Dome pressure regulators

7. Precision pressure regulators 5 mbar - 7 bar

8. Shut-off and dosage valves

9. Filters and safety valves

10. Wall mounting brackets

HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

Central gas supply

Cylinder batteries or cylinder bundles supply individual work places in the factory or laboratory with technical gases over a pipe system. This means that a separation between work station and supply area is guaranteed.

Thus, various causes of accidents and inconveniences, which are caused by single cylinders in the working area, are eliminated.

Contents:

HORNUNG

Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

Cylinder battery **system**

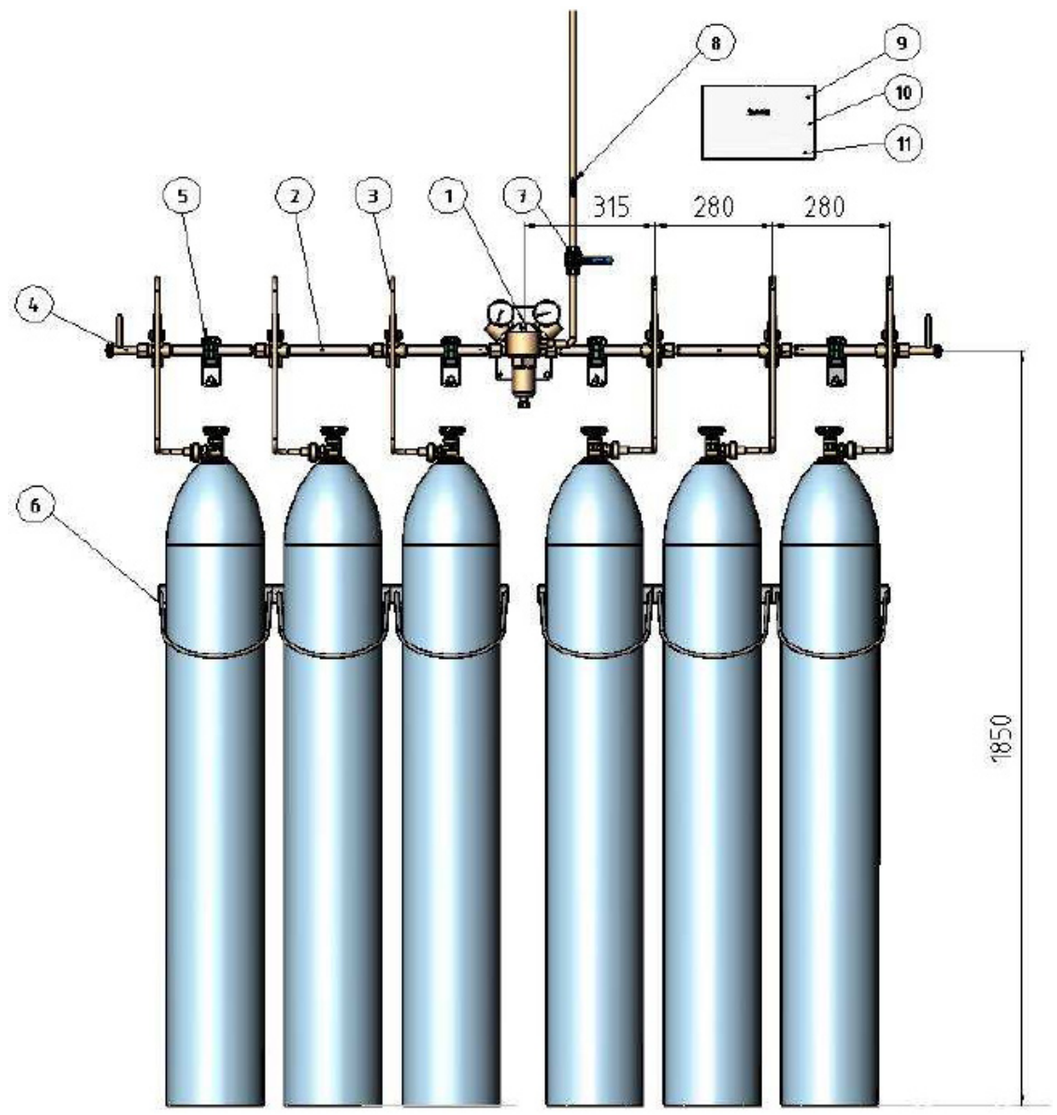


Illustration 1: example system with 2 x 3-x manifold

NO.	NAME
1	Gas supply station
2	Manifold with non-return valve
3	Connections
4	Pressure relief valve
5	Mounting bracket
6	Cylinder retainer
7	Ball valve
8	Flow arrow
9	Sign for Oxygen systems
10	Sign for flammable gases
11	Sign ’’operating instructions for cylinder battery systems”

Description:
Our cylinder battery systems for compressed gases are a modular system and designed for the individual configuration.

The integrated non-return valve insures safety and prevents transfilling.

Technical details:
Exact details and sizes of components can be found in the following data sheets:

“High pressure manifold with non-return valve”
“Gas supply station ZD 60 / ZD 150 / ZD 400”
“High pressure connections HSR”.

Choice of gas supply station:

· ZD 60 Station - to Q=110 Nm³/h [Air]
· ZD 150 Station - to Q=180 Nm³/h [Air]
· ZD 400 Station - to Q=340 Nm³/h [Air]

Technical description of the stations on separate data sheets.

Gas types:

· non-flammable gases
· flammable gases
· Oxygen

Cylinder battery not included.

HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

Cylinder battery **system**

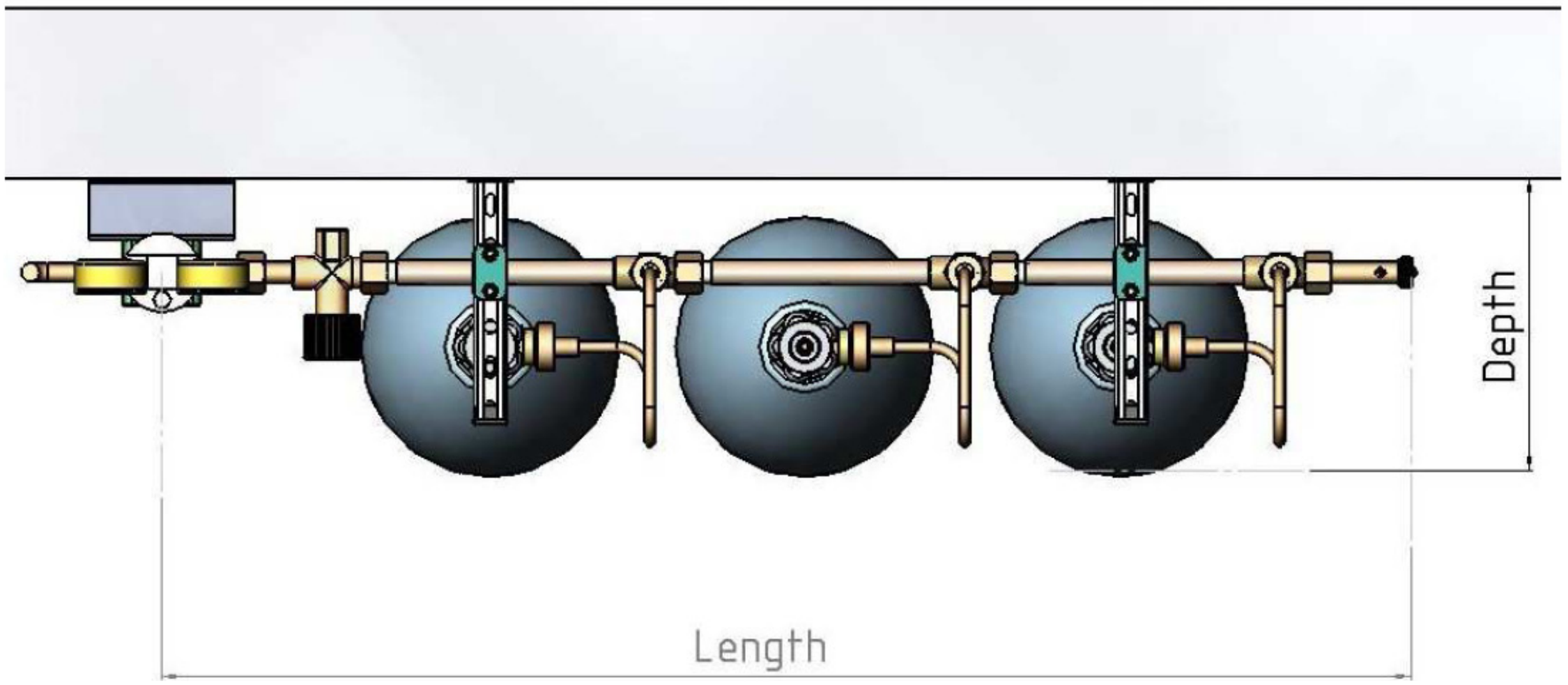


Illustration 2: example system with 1 x 3-x manifold

Size tables single sided systems:

CONNECTIONS	**1X1**	**1X2**	**1X3**	**1X4**	**1X5**	**1X6**
LENGTH (MM)	550	830	1110	1390	1670	1950
DEPTH (MM)	280	280	280	280	280	280

Size tables double sided systems:

CONNECTIONS	**2X1**	**2X2**	**2X3**	**2X4**	**2X5**	**2X6**
LENGTH (MM)	860	1420	1980	2540	3100	3660
DEPTH (MM)	280	280	280	280	280	280

ORDER NOTE

To put together a complete cylinder battery or to your own requirements please use our “***selection sheet for cylinder battery installation***”.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001:2009**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

Bundle battery **system**

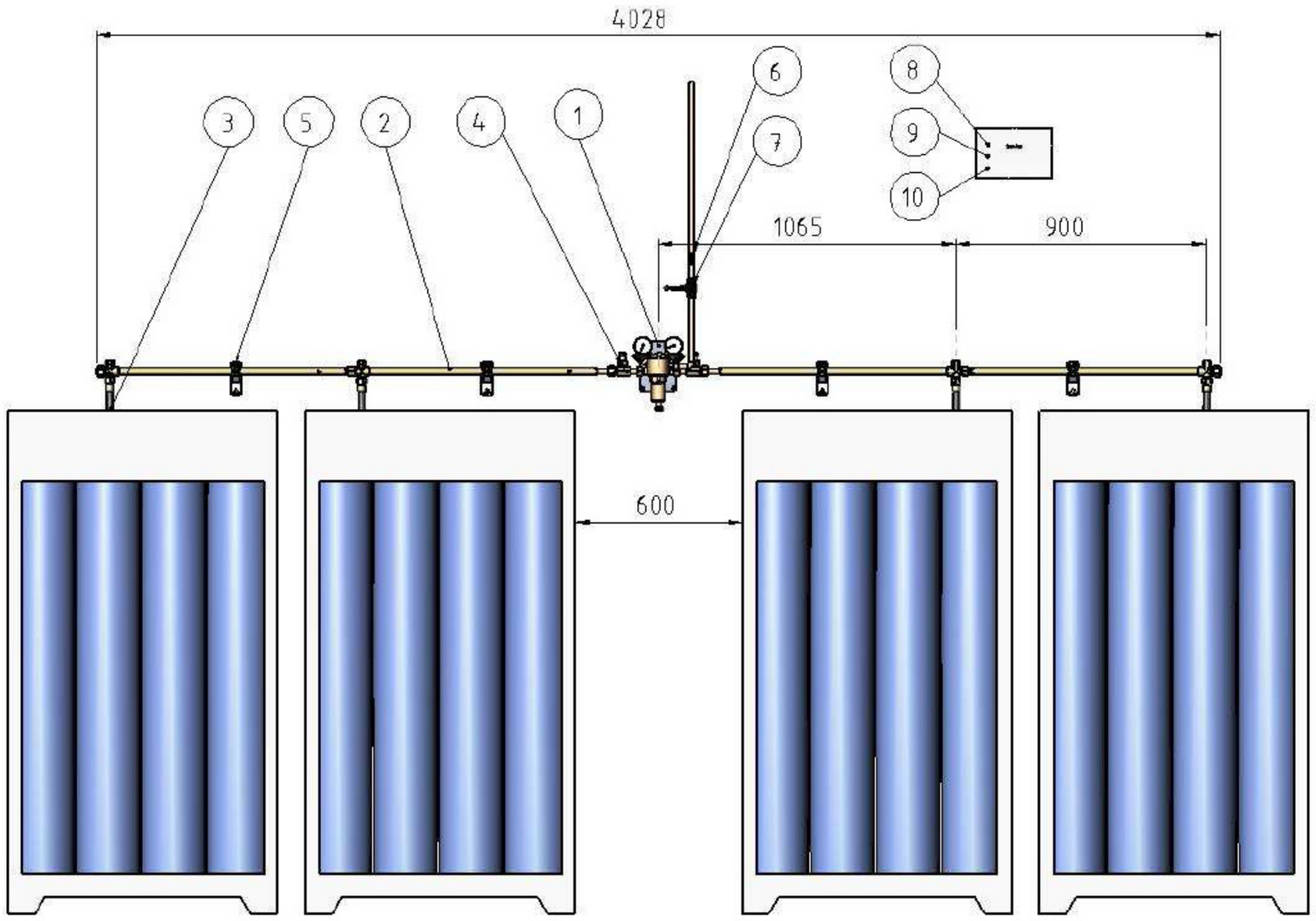


Illustration 1: example system with 2 x 2-x manifold

NO.	NAME
1	Gas supply station
2	Manifold with non-return valve
3	Connection hose
4	Pressure relief valve
5	Mounting bracket
6	Flow arrow
7	Ball valve
8	Sign for Oxygen systems
9	Sign for flammable gases
10	Sign ’’operating instructions for bundle battery systems”

Description:
Our bundle battery systems for compressed gases are a modular system and designed for the individual configuration.

The integrated non-return valve insures safety and prevents transfilling.

Technical details:
Exact details and sizes of components can be found in the following data sheets:

“High pressure manifold with non-return valve”
“Gas supply station ZD 60 / ZD 150 / ZD 400”
“High pressure connections HSR”.

Choice of gas supply station:

· ZD 60 Station - to Q = 110 Nm³/h [Air]
· ZD 150 Station - to Q = 180 Nm³/h [Air]
· ZD 400 Station - to Q = 340 Nm³/h [Air]

Technical description of th the stations on separate data sheets.

Gas types:

· non-flammable gases
· flammable gases
· Oxygen

Cylinder bundles not included.

HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

Bundle battery **system**

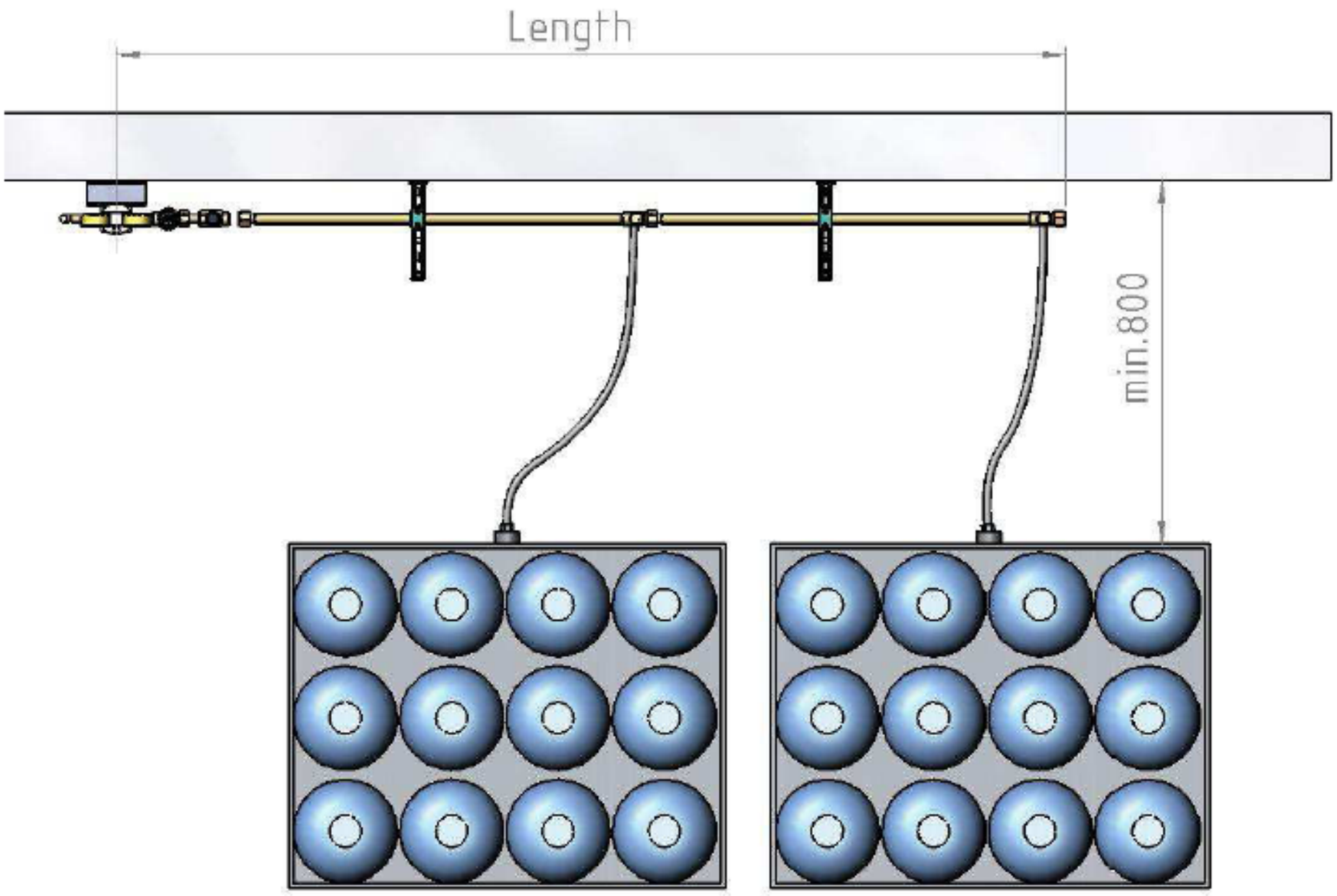


Illustration 2: example system with 1 x 2-x manifold

Size table single sided systems:						
CONNECTIONS	**1X1**	**1X2**	**1X3**	**1X4**	**1X5**	**1X6**
LENGTH (MM)	1200	2100	3000	3900	4800	5700

Size table double sided systems:						
CONNECTIONS	**2X1**	**2X2**	**2X3**	**2X4**	**2X5**	**2X6**
LENGTH (MM)	2250	4050	5850	7650	9450	11250

ORDER NOTE

To put together a complete bundle battery or to your own requirements please use our ***"selection sheet for bundle battery installation".***

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001:2009**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

Selection sheet for cylinder battery installation

Basic choise: onesided or double sided installation?
(Illustration = double sided installation)

one sided	
double sided	

Your requirements:	
Gas type:	
Inlet pressure [bar]:	
Outlet pressure [bar]:	
Required Q-capacity [m ³ /h]:	

Cylinder manifold Sub assy Left side	
1 - x	
2 - x	
3 - x	
4 - x	
5 - x	
6 - x	

Cylinder manifold Sub assy Right side	
1 - x	
2 - x	
3 - x	
4 - x	
5 - x	
6 - x	

Specification of the high pressure connection (selection from data sheet „high pressure connections HSR “)	
Elbow tube HSR	
Plastic hose HSR	
Metal corrugated hose HSR	

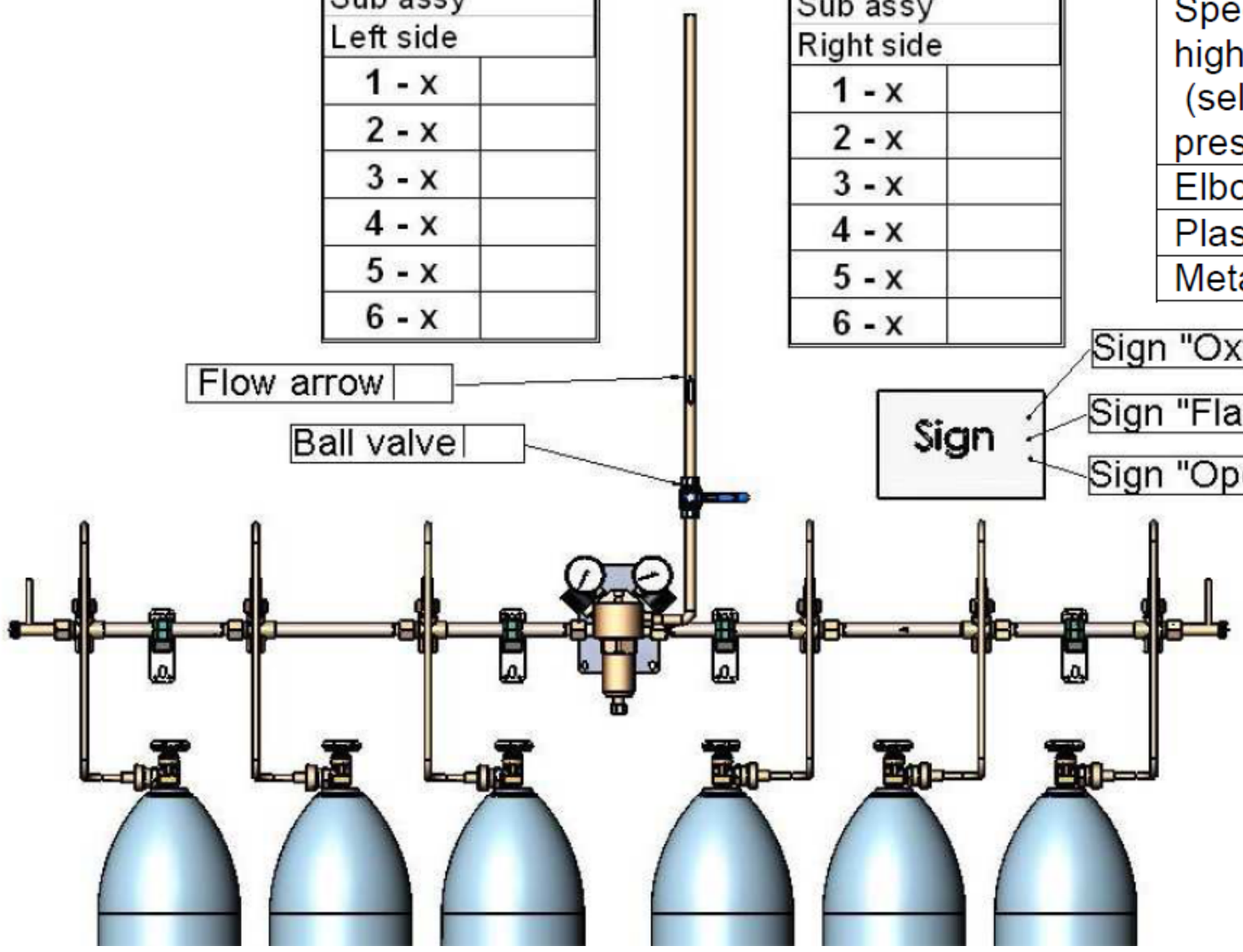


Illustration: Example installation: 2 x 3 -x

With this selection sheet you have the possibility to put together a cylinder battery installation according to your own requirements.

Detailed descriptions and technical details can be obtained from the data sheet “Cylinder battery installation”.

For the required option please put a cross or relevant data in the corresponding box.

HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

Selection sheet for bundle battery installation

Basic choise: onesided or double sided installation?
(Illustration = double sided installation)

one sided	
double sided	

Your requirements:	
Gas type:	
Inlet pressure [bar]:	
Outlet pressure [bar]:	
Required Q-capacity [m ³ /h]:	

Bundle mainifold Sub assy left side	
1- X	
2- X	
3- X	
4- X	
5- X	
6- X	

Bundle manifold Sub assy Right side	
1- X	
2- X	
3- X	
4- X	
5- X	
6- X	

Specification of the high pressure connection (selection from data sheet “high pressure connections HSR”)	
Plastic hose HSR	
Metal corrugated hose HSR	

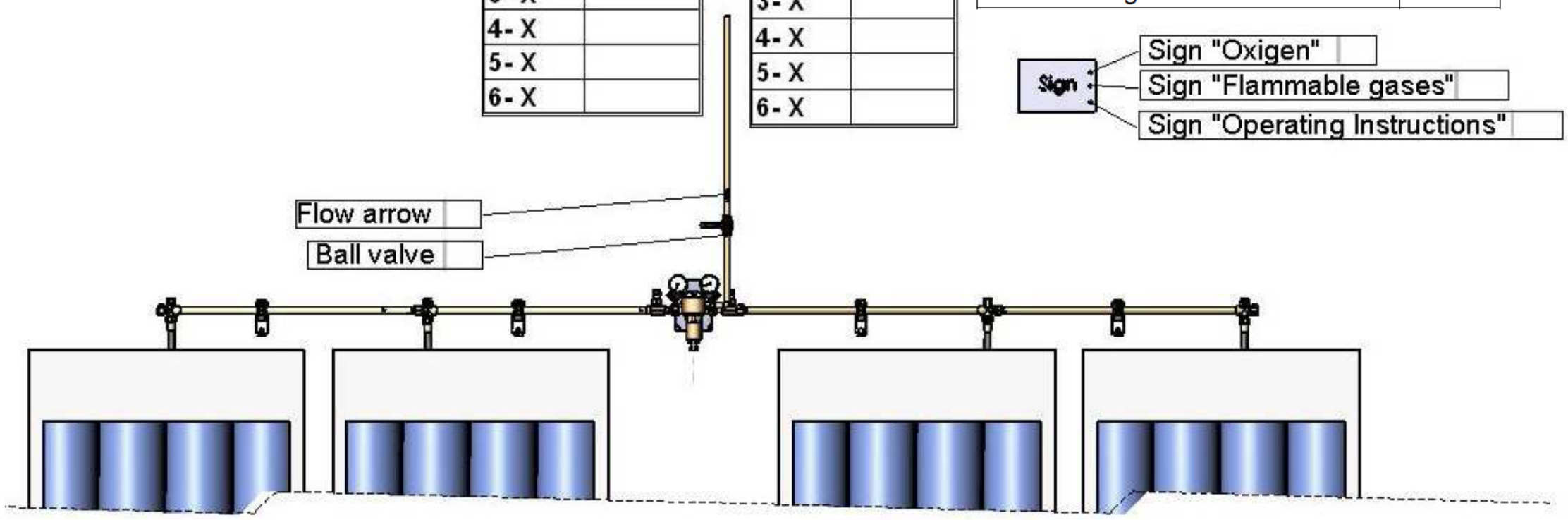


Illustration: Example installation: 2 x 2-x

With this selection sheet you have the possibility to put together a cylinder battery installation according to your own requirements.

Detailed descriptions and technical details can be obtained from the data sheet “Bundle battery installation”.

For the required option please put a cross or relevant data in the corresponding box.

HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

dated 07/2023

Cylinder station **HP 275 Acetylene 2.6**

- 1x1 cylinder

TECHNICAL DETAILS		APPLICATION AREA	DESCRIPTION
Material:	brass	Especially for gases with high requirements on security and leak-tightness. Utilisation in Labs and AAS-supply.	The HP 275 is a single stage cylinder station for Acetylene 2.6. The supply panel serves the secure supply of Acetylene from 1 cylinders and is available for 1x1 cylinder as standard. The station is mounted on a console and has a pressure regulator with in and outlet gauges as standard. Also a safety valve, flashback arrestor, check valve and quick-connectors. Can be retrofitted with contact gauges. In addition, as accessories, a gas failure detector and an emergency shut-off system for upgrading the safety of the system are also available (see. segment 7).
Gas purity:	≤ 2.6		
Max. Inlet pressure:	25 bar		
Outlet pressure range:	0,1 - 1,5 bar		
Operating temp.:	-20°C to +70°C		
Dimensions:	(1x1) 342x143x318		
Weight:	approx. 3 kg (1x1)		
Flow:	approx. 0,5 m³/h (momentary 1m³/h)		
QN-regulator:	4 m³/h		
Connections: Inlet:	to DIN 477-3 (others on request)		
Outlet:	G 3/8 LH m / G 3/8 RH f		
Type approval: flash back arrestor	BAM 007/03		

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

HORNUNG
Präzision made in Germany

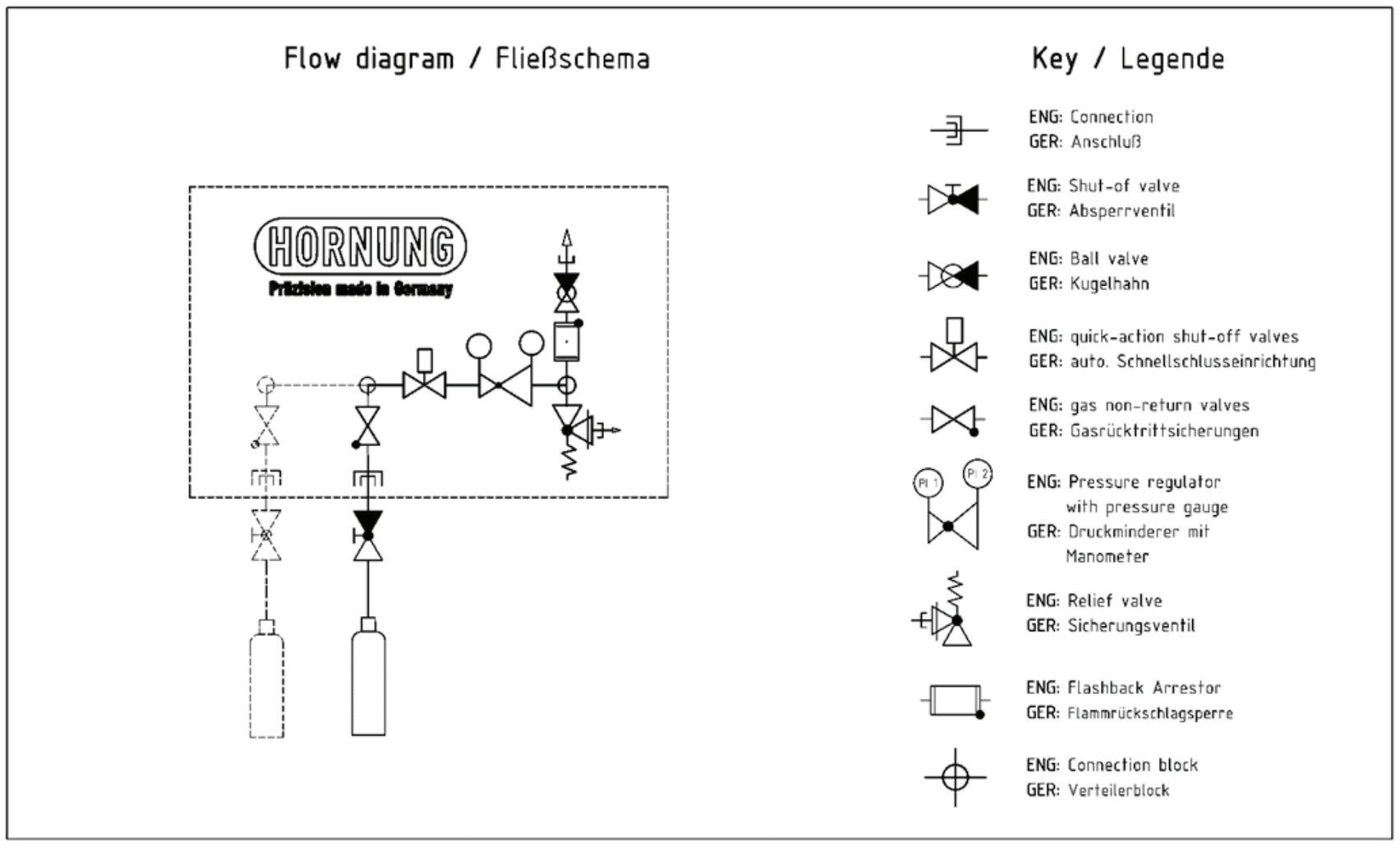
Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

HP 275

FLOW DIAGRAM



SCOPE OF DELIVERY

- pressure regulator with in and outlet gauges
- shut off ball valve
- flash back arrestor
- safety valve

ORDER DETAILS

Number of cylinders:
1 = 1x1 cylinder

Gauges:
1 = standard gauge
2 = contact gauge ex

Outlet pressure range p2:
1 = 0,1 - 1,5 bar

HP275-	1	2	1	Acetylene
Type	No. cylinders	Gauge	p2	Gas type

Accessories: See total catalogue segment

7. Gauges, compression fittings, cylinder retainers and accessories, gas cylinder cabinets und safety equipment.

dated 07/2022

Cylinder station **HP277-ACV Acetylen**

- 2x1 – 2x2 – 2x3 with **A**utomatic **C**hangeover **V**alve (ACV)

TECHNICAL DETAILS

Material:	brass
Gas purity:	≤ 2.6
Max. inlet pressure:	25 bar
Control range:	up to 1,5 bar
Operating temp.:	-20°C to +70°C
Dimensions:	530 x 420 x 170mm
Weight:	approx. 14 kg
flow rate:	approx. 0,5 m³/h (briefly 1 m³/h)
Connection at inlet:	compression fitting M16x1,5m x NPT1/4m steel for 8mm pipe
Outlet:	G3/8 LH m / G 3/8 IG-RH

design approval certificate:

for hose	BAM 0283
for ball valves DN 6	BAM 0394
for quick shut-off device .HDS17	BAM 1481
for pressure regulator	BAM gepr.
for flash back arrestor	BAM 0485

APPLICATION AREA

Especially for acetylene with high safety and tightness requirements, where an uninterrupted supply must be ensured overnight and at weekends.

Application in laboratory and AAS supplies.

DESCRIPTION

The HP 277 is a singel stage cylinder station for acetylen 2.6 for 2x1, 2x2 or 2x3 cylinders with automatic changeover.

The cylinder station is used for the safe withdrawal of acetylene from 1, 2 or 3 cylinders and is available as standard for 2x1, 2x2 or 2x3 cylinders.

The station is mounted on a console and comes standard with a pressure regulator with inlet and outlet gauges, a switchover valve, a safety valve, as well as a flame arrester and quick-action shut-off device.

It can optionally be equipped with contact gauges.

A gas shortage warning device and an emergency stop system for upgrading the safety circuit are also available as accessories (see also Chapter 7).

QUALITY STANDARD

The company Hornung is certified to **ISO 9001 and ISO 14001**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

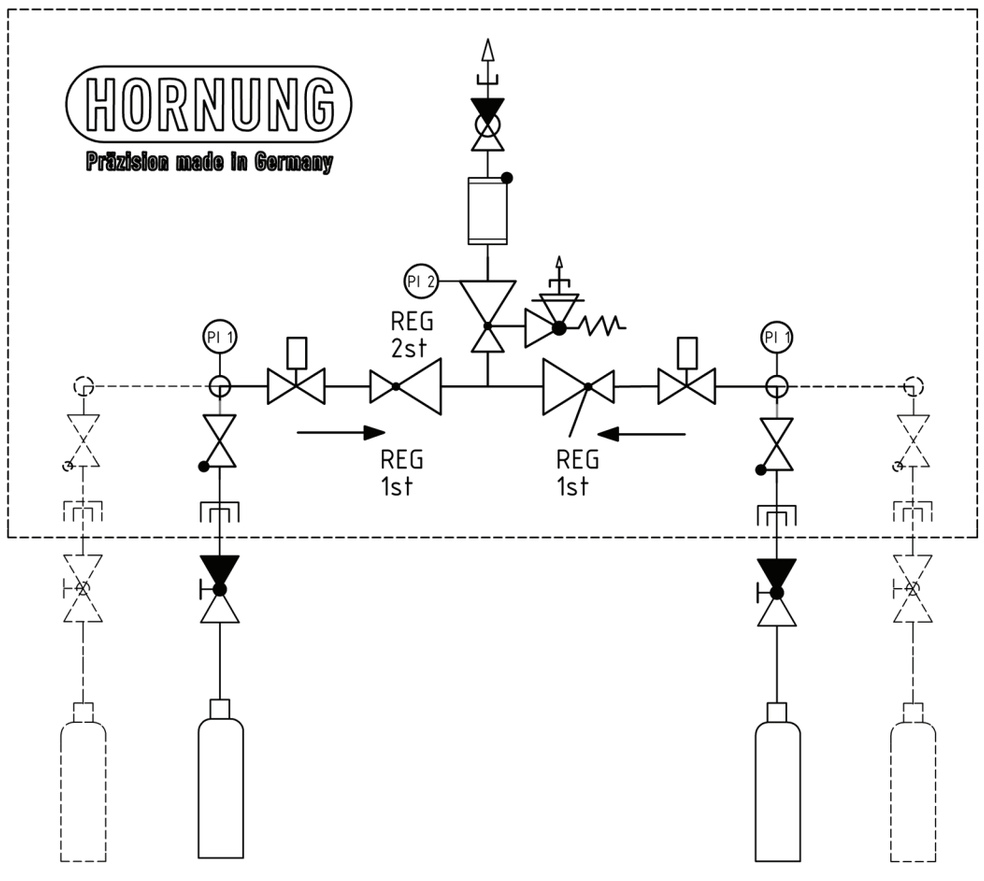
Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

HP 277 -ACV Acetylen

FLOW DIAGRAM

Flow diagram / Fließschema



Key / Legende

ENG: Connection
GER: Anschluß

ENG: Shut-of valve
GER: Absperrventil

ENG: Ball valve
GER: Kugelhahn

ENG: quick-action shut-off valves
GER: auto. Schnellschlusseinrichtung

ENG: gas non-return valves
GER: Gasrücktrittsicherungen

ENG: Pressure regulator
GER: Druckminderer

ENG: Pressure regulator with adjustable pressure
GER: Druckminderer mit einstelbaren Druckbereich

PI
ENG: Pressure gauge
GER: Manometer

ENG: Relief valve
GER: Sicherungsventil

ENG: Flashback Arrestor
GER: Flammrückschlagsperre

ENG: Connection block
GER: Verteilerblock

SCOPE OF SUPPLY

high-pressure hoses, approx. 800 mm long
pressure regulator with inlet- and outlet-gauges
quick shut-off devide
flash back arrestor
safety valve
automatic changeover valve (ACV)
shut-off ball valve

without connecting coupling at outlet

ORDER DETAILS

Quantity of cylinders:
1 = 2x1 cylinder automatic
2 = 2x2 cylinder automatic
3 = 2x3 cylinder automatic

Gauges:
1 = standard gauge
2 = contact gauge ex

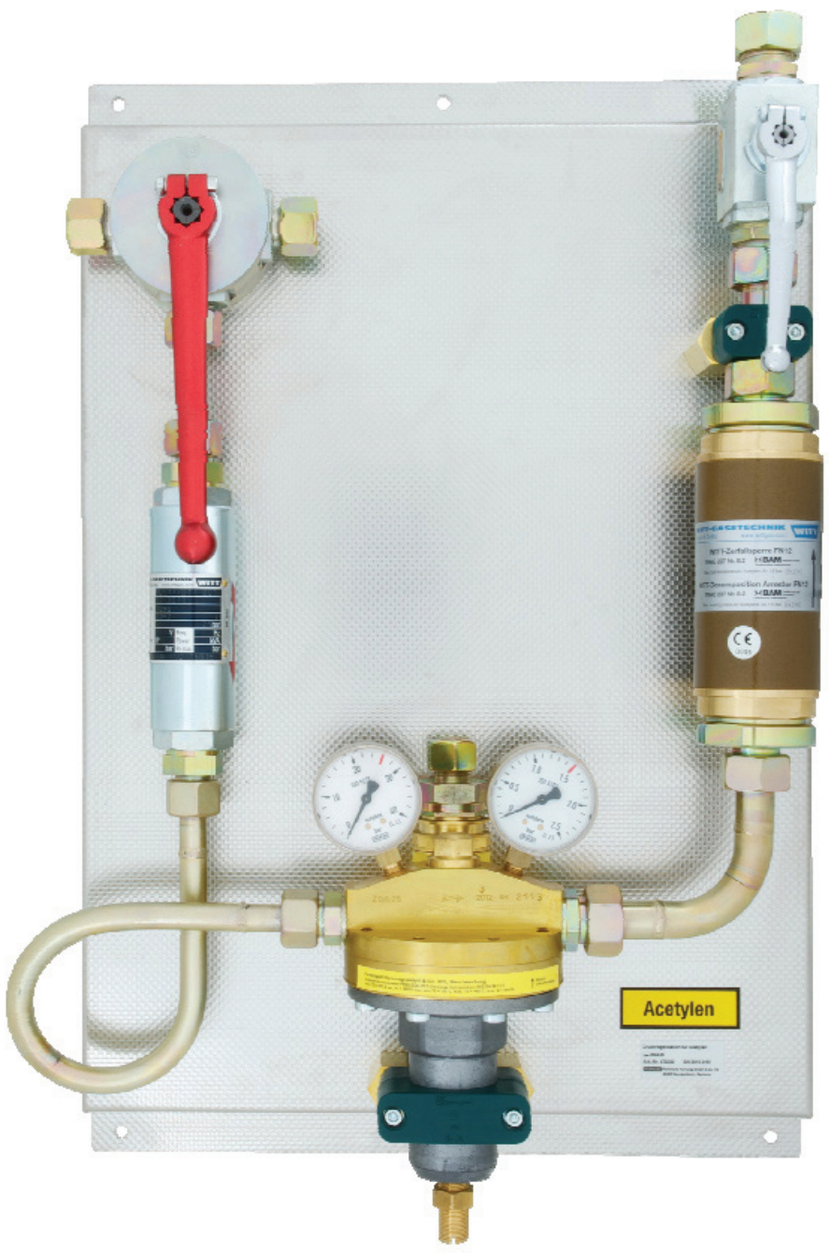
Connection at outlet:
0 = 3/8“ IG/RH
1 = 3/8“ AG/LH

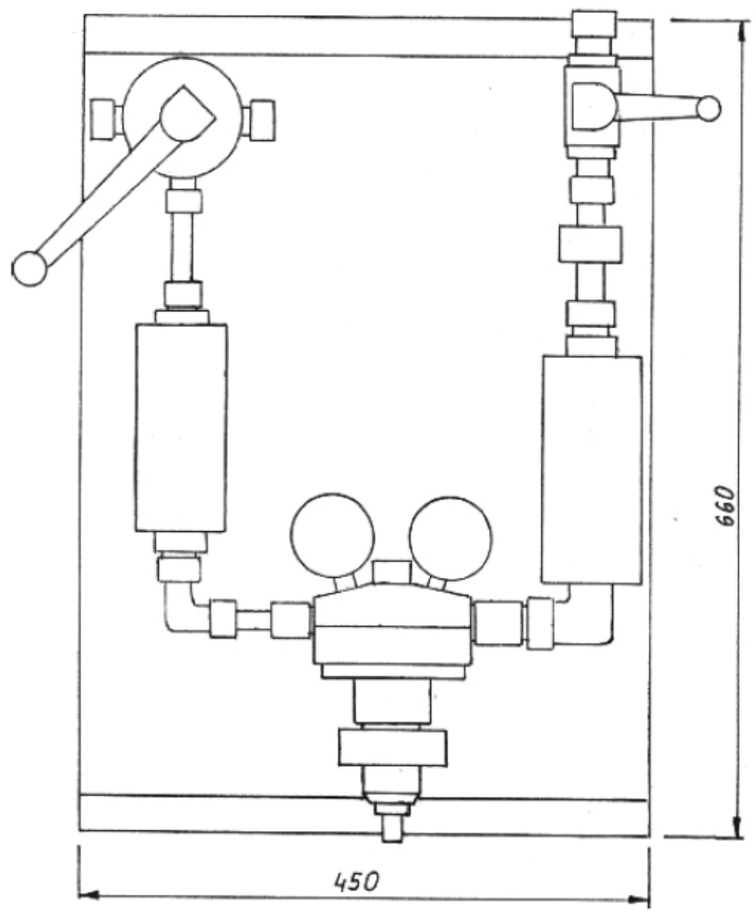
	HP277-	1	2	2	Acetylen
	Type	quantity	Gauges	Connection	Gas type

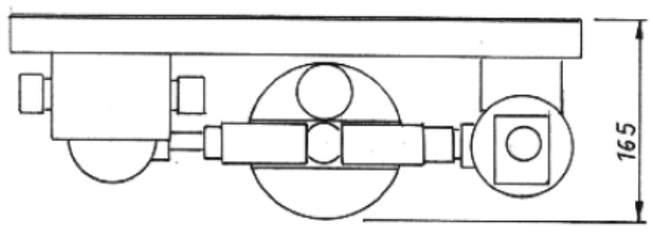
Accessories: See total catalogue segment

7. Gauges, fittings,
cylinder retainers and accessories,
gas cylinder cabinets and safety equipment.

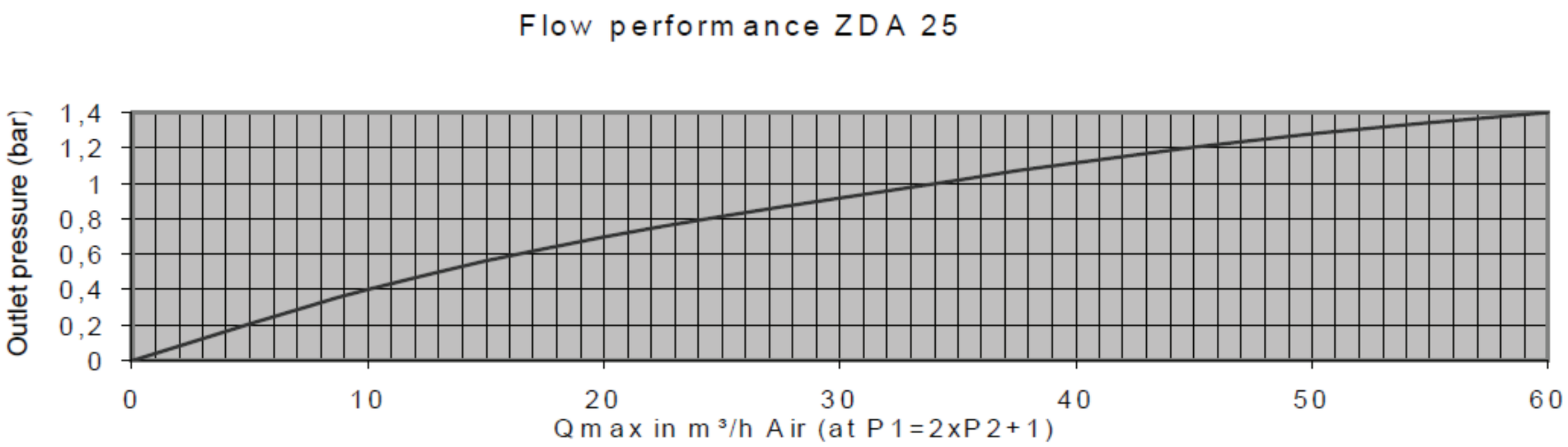
Gas supply station **ZDA 25**







Model	Gas	Inlet pressure P1	Outlet pressure P2	Flow Q1	Inlet connection	Outlet connection
ZDA 25 ST	Acetylene	max. 25 bar	max. 1,5 bar	see diagram	DIN 2353 S 16	DIN 2353 L 22



The supply station ZDA 25 is for the interruption free supply of acetylene with manual switching from cylinder batteries and bundles.
For 2x1 cylinder or max. 2x3 bundles.

The supply station ZDA 25 consists of certified components: regulator, safety valve, quick connectors and check valve.
Three-way ball valve for changing from empty to full batteries.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

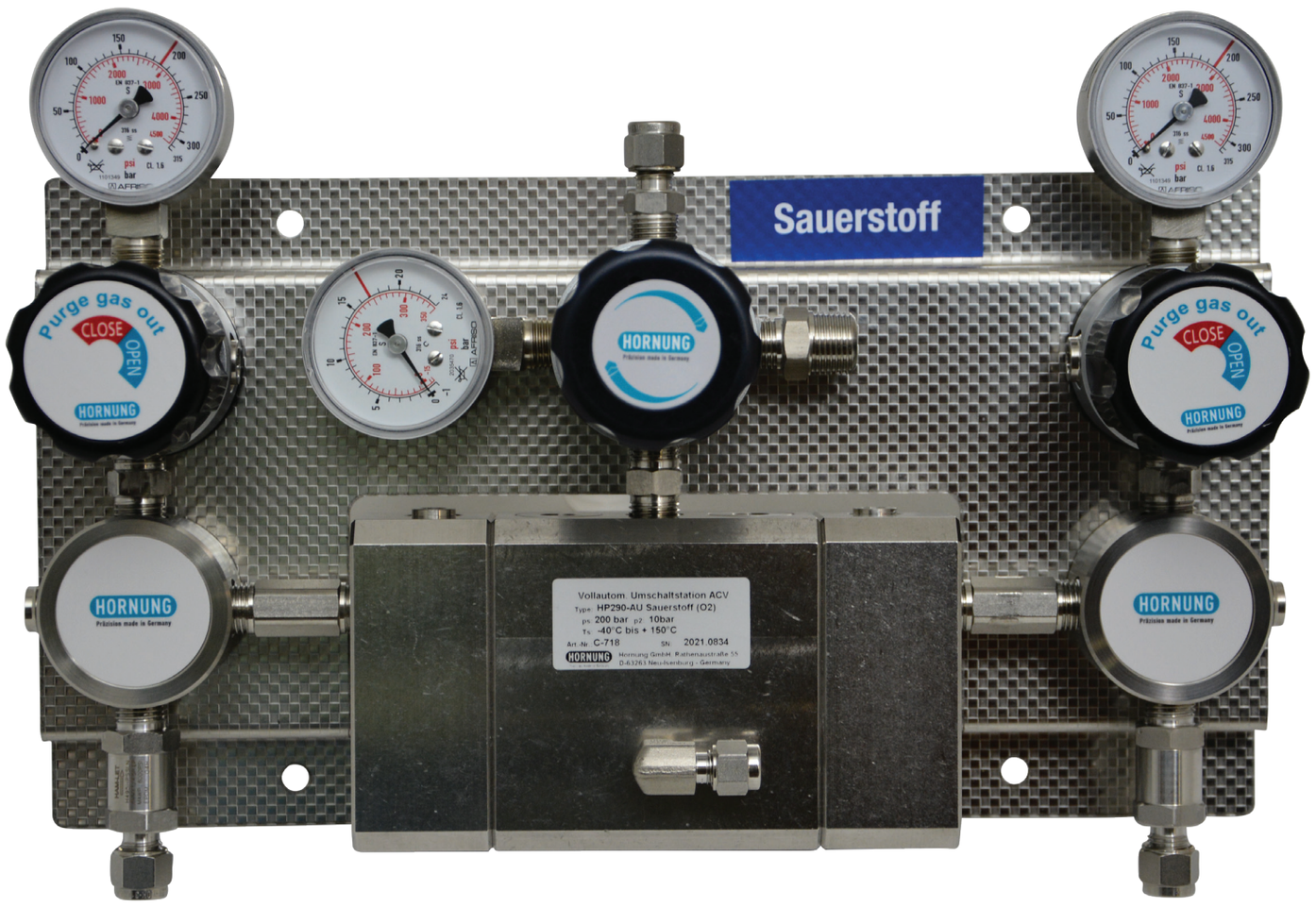
HORNUNG

Präzision made in Germany

dated 07/2023

Cylinder station **HP290-ACV**

- with **A**utomatic **C**hangeover **V**alve (ACV)



compression fittings at outlet are optional

TECHNICAL DETAILS		APPLICATION AREA	DESCRIPTION
Body:	stainless steel 1.4404 or brass chrome plated	The cylinder station HP290-AU is designed for oxygen (BAM tested) and non-corrosive gases and is intended for gas purity 5.0.	The modular design enables an expansion to 2x2 or 2x3 gas cylinders.
Seat:	PCTFE	Especially for gases with high safety and tightness requirements, where an uninterrupted supply must be ensured overnight and at weekends.	The single-stage pressure reducer with integrated blow-off valve for all pressure levels enables precise pressure adjustment.
Diaphragm:	1.4435		Equipped with filters in the inlet and flushing valves, the ergonomically designed expansion station can be used for compact installation situations in gas bottle cabinets.
Leakage rate:	10^{-8} mbar l/s He against atmosphere		It can optionally be equipped with contact gauges.
Gas purity:	≤ 5.0		A gas shortage warning device and an emergency stop system for upgrading the safety circuit are also available as accessories (see also Chapter 7).
Max. inlet pressure:	max. 100 / 200 / 300bar		
Outlet pressure ranges:	1 - 12 bar 1 - 17 bar 1 - 30 bar 5 - 50 bar 5 - 100 bar 5 - 200 bar		
Operating temp.:	-40°C to +150°C		
Gauges:	safety version to: EN 837-1 KL1,6		
Dimensions (wxhxd):	325 x 212 x 155 mm		
Weight:	10 kg		
Connections:	NPT 1/4“ f		

QUALITY STANDARD

The company Hornung is certified to **ISO 9001 and ISO 14001**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

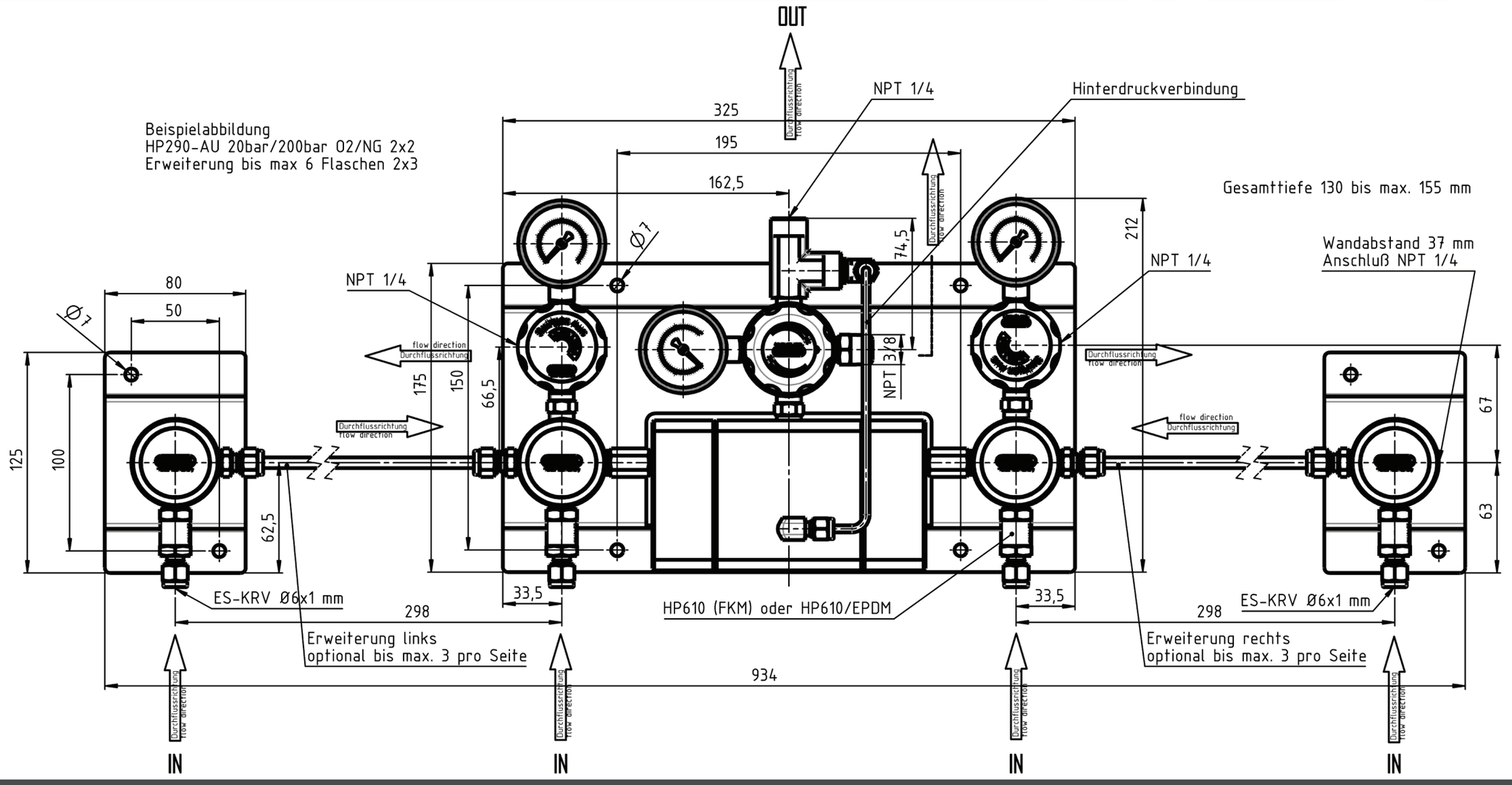
HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

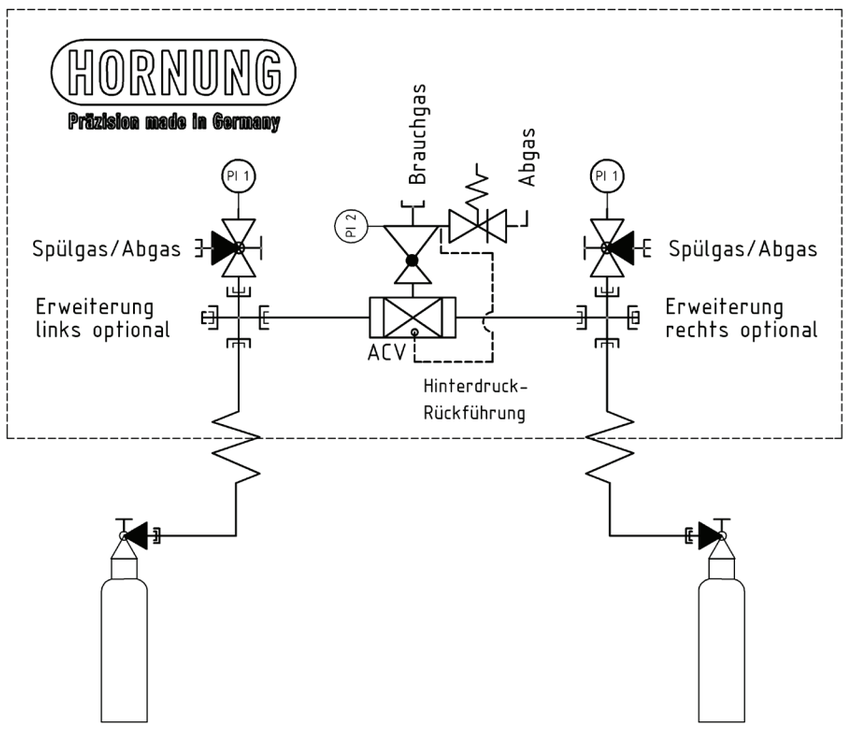
Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

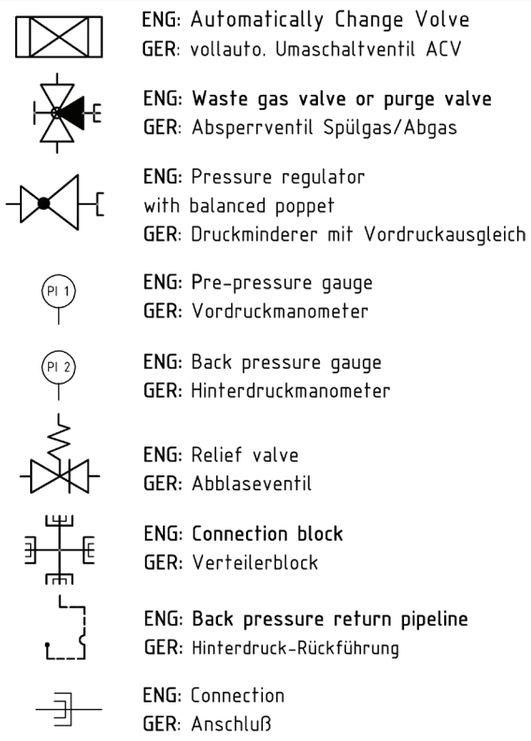
www.hornung.org
info@hornung.org

HP 290



FLOW DIAGRAM





ORDER DETAILS

Material:
1 = stainless steel
2 = brass

Inlet pressure p1:
1 = 100 bar
2 = 200 bar
3 = 300 bar

Outlet pressure p2:
1 = 1 - 12 bar
2 = 1 - 17 bar
3 = 1 - 30 bar
4 = 5 - 50 bar
5 = 5 - 100 bar
6 = 5 - 200 bar

Gauges:
1 = standard gauge
2 = contact gauge ex

Connections at outlet:
0 = NPT 1/4“ f
1 = compression fitting
2 = shut-off valve

HP290-	2	1	1	2	2	Gas type
Type	Material	p1	p2	Gauges	Connections	Gas type

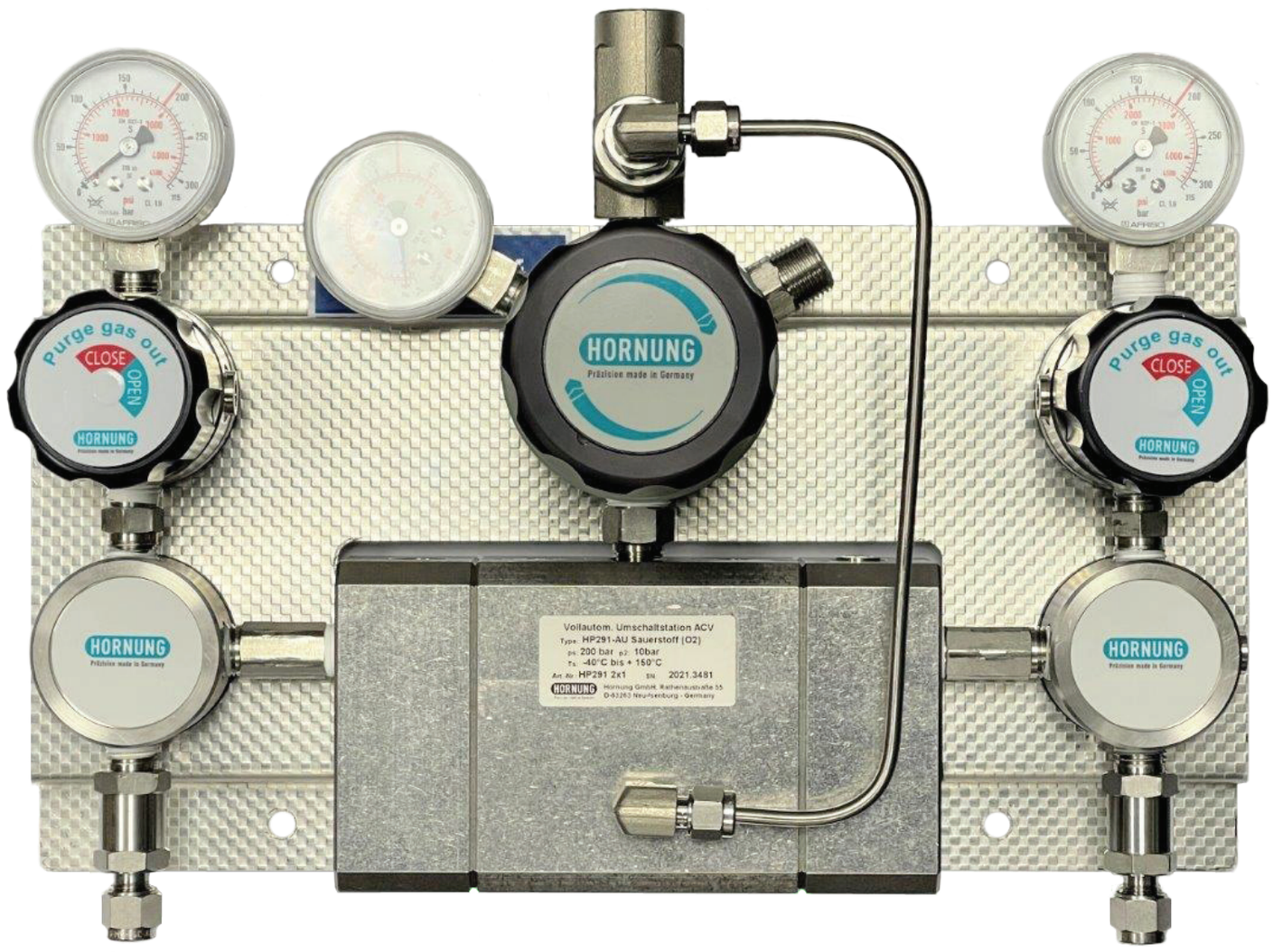
Accessories: See total catalogue segment

Pigtail 200 bar, pigtail 300 bar, connecting hose 200 bar, connecting hose 300 bar, gauges, compression fittings, cylinder retainers and accessories, gas cylinder cabinets and safety equipment.

Stand 03/2023

Cylinder station **HP291-ACV**

- with **A**utomatic **C**hangeover **V**alve (ACV) and balanced poppet



compression fittings at outlet are optional

TECHNICAL DETAILS

Body:	stainless steel 1.4404 or brass chrome plated
Seat:	PCTFE
Diaphragm:	1.4435
Leakage rate:	10^{-8} mbar l/s He against atmosphere
Gas purity:	≤ 6.0
Max. inlet pressure:	max. 100 / 200 / 300bar
Outlet pressure ranges:	0 - 7 bar 1 - 12 bar 1 - 17 bar 1 - 30 bar 5 - 50 bar
Operating temp.:	-40°C to +150°C
Gauges:	safety version to: EN 837-1 KL1,6
Dimensions (wxhxd):	325 x 212 x 155 mm
Weight:	11 kg
Connection inlet:	NPT 1/4“ f
Connection outlet:	NPT 3/8“ f

APPLICATION AREA

The cylinder station HP291-AU is designed for non-corrosive gases and is intended for gas purity 6.0.

Especially for gases with high safety and tightness requirements, where an uninterrupted supply must be ensured overnight and at weekends.

DESCRIPTION

The modular design enables an expansion to 2x2 or 2x3 gas cylinders.

The single-stage pressure reducer with integrated blow-off valve and balance poppet for all pressure levels enables precise pressure adjustment.

Equipped with filters in the inlet and flushing valves, the ergonomically designed expansion station can be used for compact installation situations in gas bottle cabinets.

It can optionally be equipped with contact gauges.

A gas shortage warning device and an emergency stop system for upgrading the safety circuit are also available as accessories (see also Chapter 7).

QUALITY STANDARD

The company Hornung is certified to **ISO 9001 and ISO 14001**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

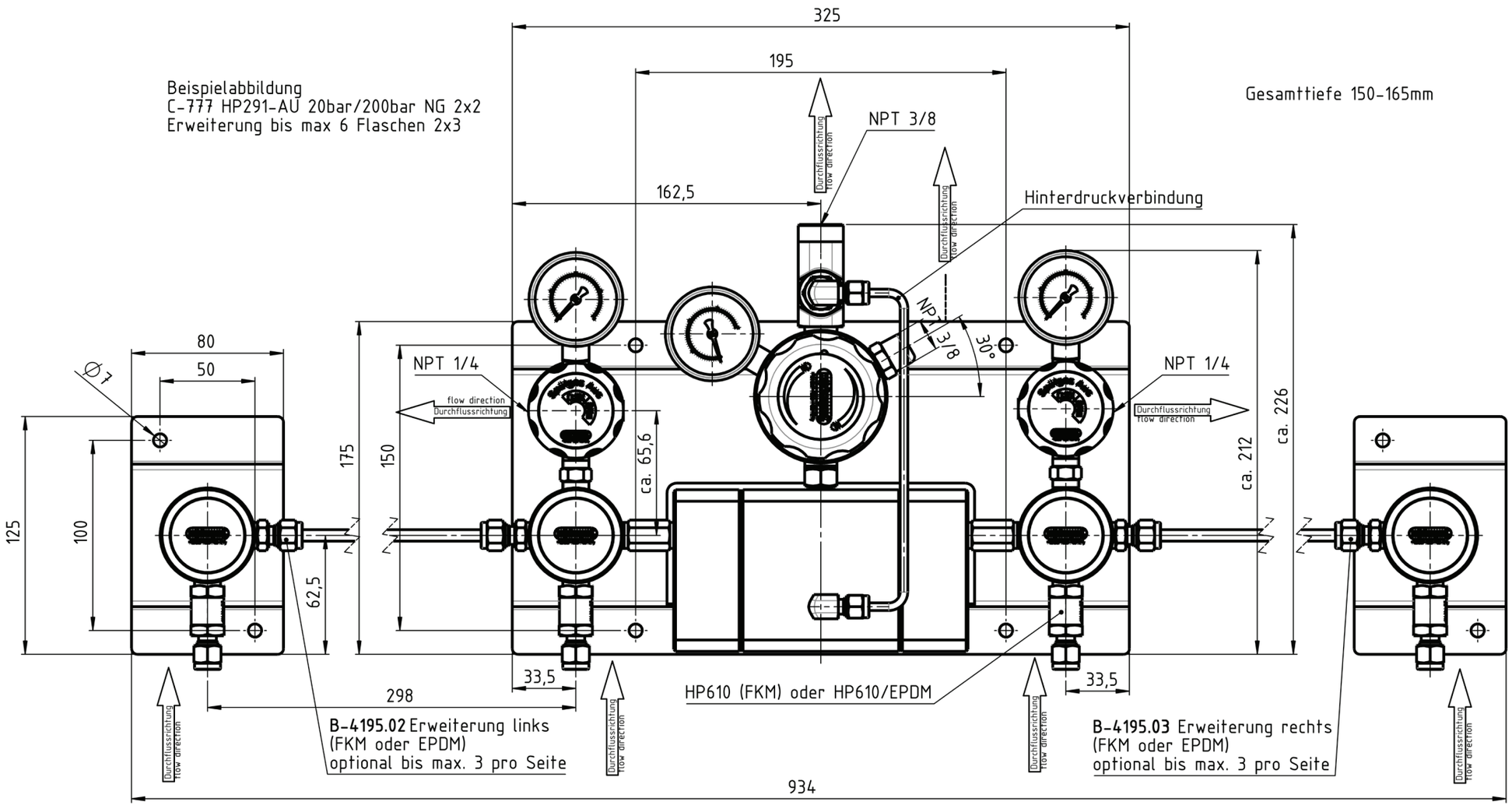
Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

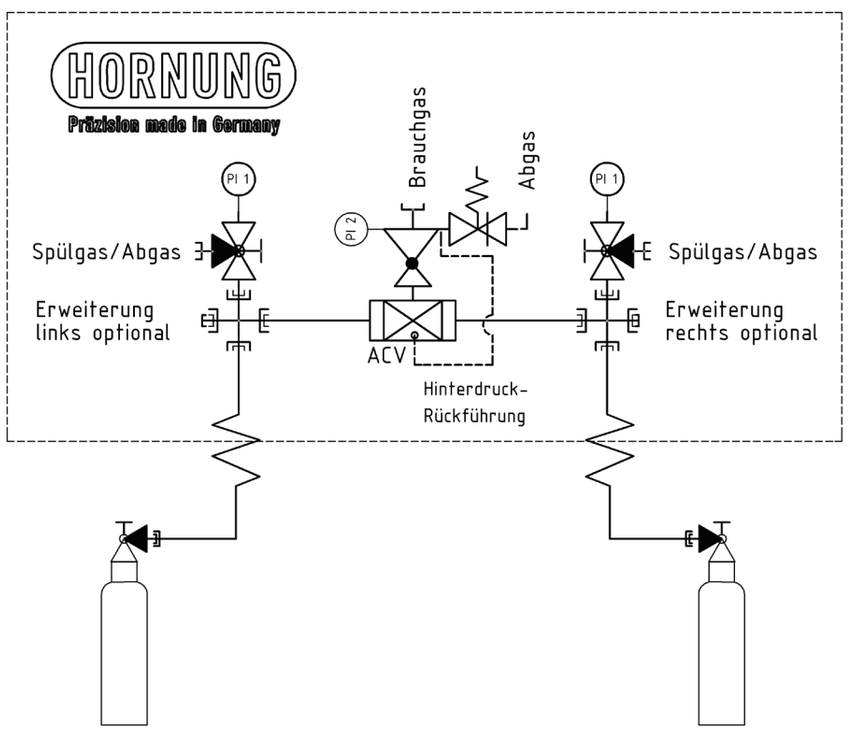
HP 291

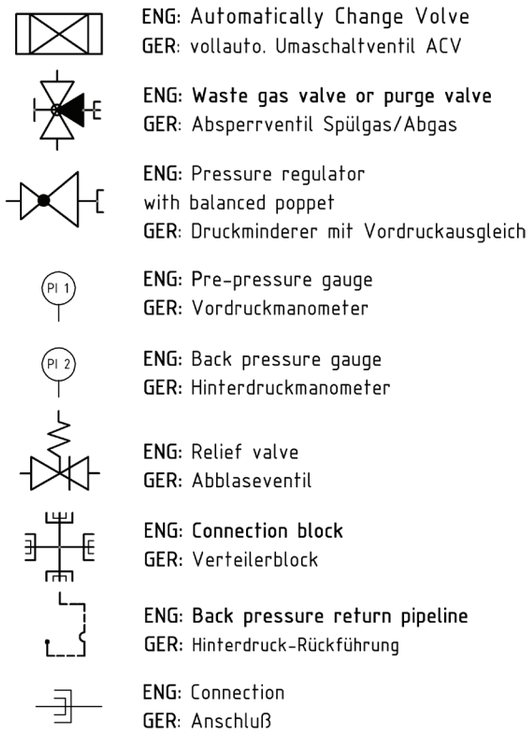
Beispielabbildung
C-777 HP291-AU 20bar/200bar NG 2x2
Erweiterung bis max 6 Flaschen 2x3

Gesamttiefe 150-165mm



FLOW DIAGRAM





ORDER DETAILS

Material:
1 = stainless steel
2 = brass

Inlet pressure p1:
1 = 100 bar
2 = 200 bar
3 = 300 bar

Outlet pressure p2:
0 = 1 - 7 bar
1 = 1 - 12 bar
2 = 1 - 17 bar
3 = 1 - 30 bar
4 = 5 - 50 bar

Gauges:
1 = standard gauge
2 = contact gauge ex

Connections at outlet:
0 = NPT 3/8“ f
1 = compression fitting
2 = shut-off valve

HP291-	2	1	1	2	2	Gas type
Type	Material	p1	p2	Gauges	Connections	Gas type

Accessories: See total catalogue segment 7. Pigtail 200 bar, pigtail 300 bar, connecting hose 200 bar, connecting hose 300 bar, gauges, compression fittings, cylinder retainers and accessories, gas cylinder cabinets and safety equipment.

Gas supply station **ZD 60**

Illustration 1

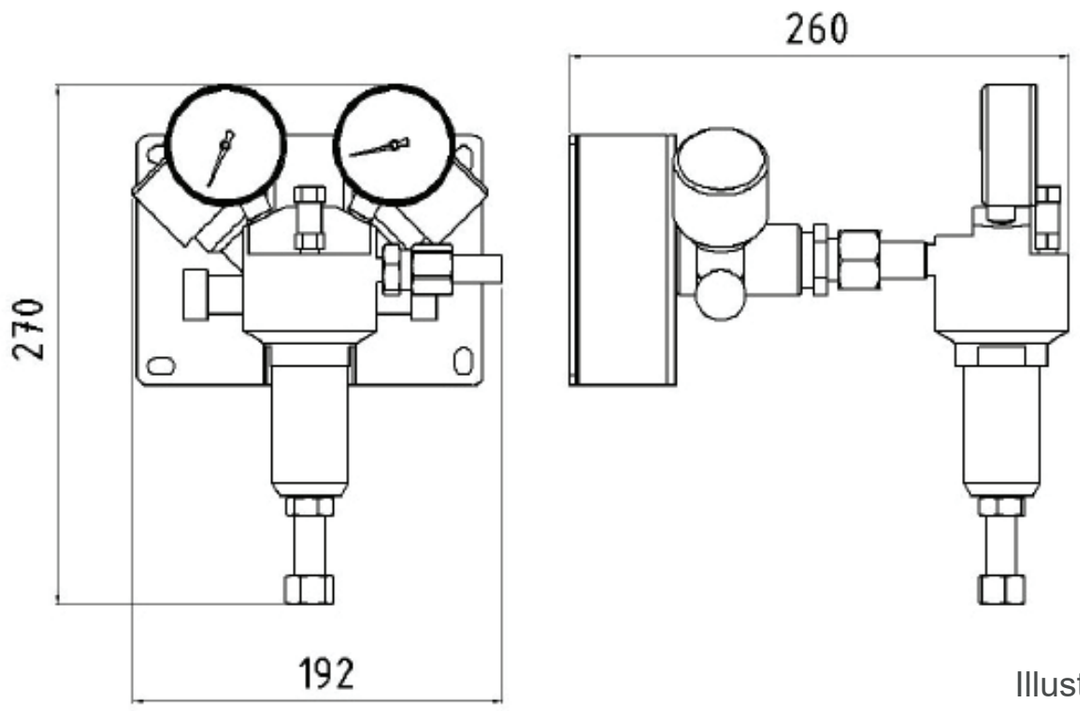
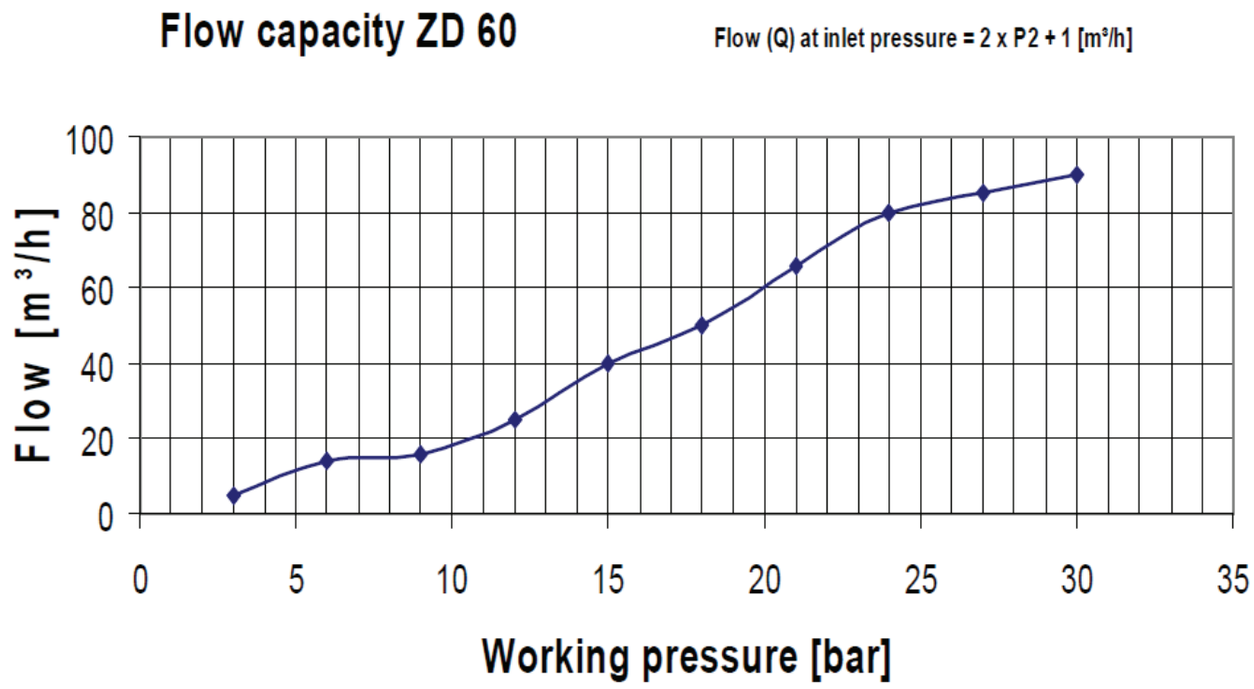


Illustration 2



DESCRIPTION

The supply station ZD 60 is available in a single and double sided configuration.
The double sided station (illustration 1+2) for assembly in double sided cylinder an bundle battery systems guarantees the interruption free gas supply with manual switching.

The single sided station (illustration 3+4) is for assembly in single sided cylinder and bundle battery systems and ensures a safe cut-off of the gas supply.

With the supply station ZD 60 a maximum pressure of 300 bar can be reduced to a maximum pressure of 10, 20 or 30 bar and held constant.

The supply station consists of a single stage central pressure regulator to DIN EN 961 (ISO 7291) with BAM Oxygen certification.

The integrated relief valve protects the valve from excessive outlet pressure.

Double shut-off valve (double sided station) or a main shut-off valve (single sided station), both certified with BAM, are also feature of the station.

The assembly is mounted on a wall bracket.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

ZD 60

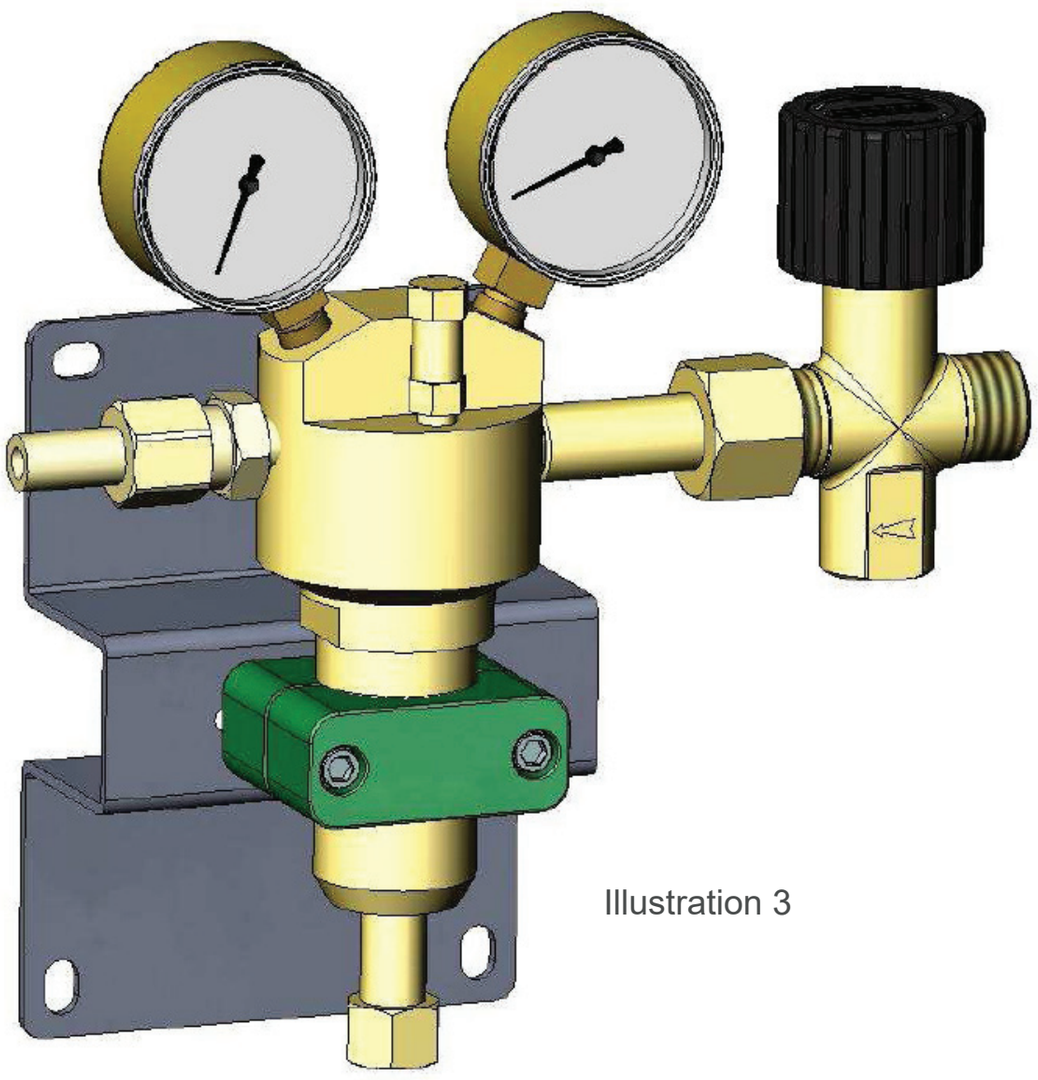


Illustration 3

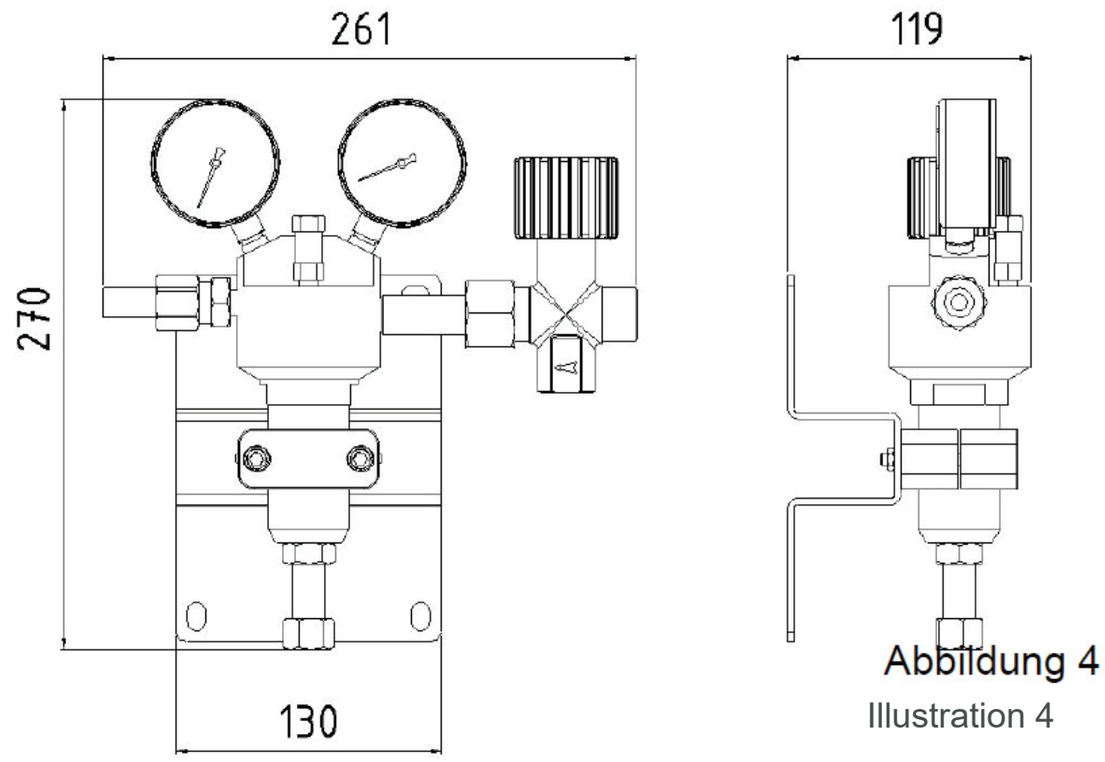


Abbildung 4
Illustration 4

Illustration 3+4: single side regulator (right)
Also available as left, sizes identical

TECHNICAL DETAILS

Material:	brass	**Size:**	261 x 270 x 119 mm (1 s.) 192 x 270 x 260 mm (2 s.)
Seat:	EPDM		
Filter:	metal, pore size 40 µm	**Weight:**	4500 g (1 s.) 5500 g (2 s.)
Diaphragm:	stainless steel	**Connections:**	Inlet:
Max. inlet pressure:	300 bar	Single sided:	G 3/4 DIN 8542 or G 3/4 DIN 477
Regulating range:	1,0 - 30 bar	Double sided:	G 3/4 DIN 477
Operating temp.:	-20°C bis +60°C	Outlet:	nipple 1/2“
		Gauge:	G 1/4

ORDER DETAILS

Format:
1 = single sided, right
2 = single sided, left
3 = double sided

Inlet pressure (p1):
1 = 200 bar
2 = 300 bar

Outlet pressure (p2):
1 = 1 - 10 bar
2 = 1 - 20 bar
3 = 1 - 30 bar

Connection inlet (only with single sided):
1 = G 3/4 m DIN 8542
2 = G 3/4 m DIN 477 / Nr. 9

Station - Type							
		51	-1	1	2	1	Gas type
51	Supply station ZD 60	Type	Format	p1	p2	Inlet	Gas type

Accessories:
High pressure manifold : see data sheet “High pressure manifold”

Note:
See also data sheet “Cylinder battery system“ and “Bundle battery system”

Gas supply station **ZD 150**

Illustration 1

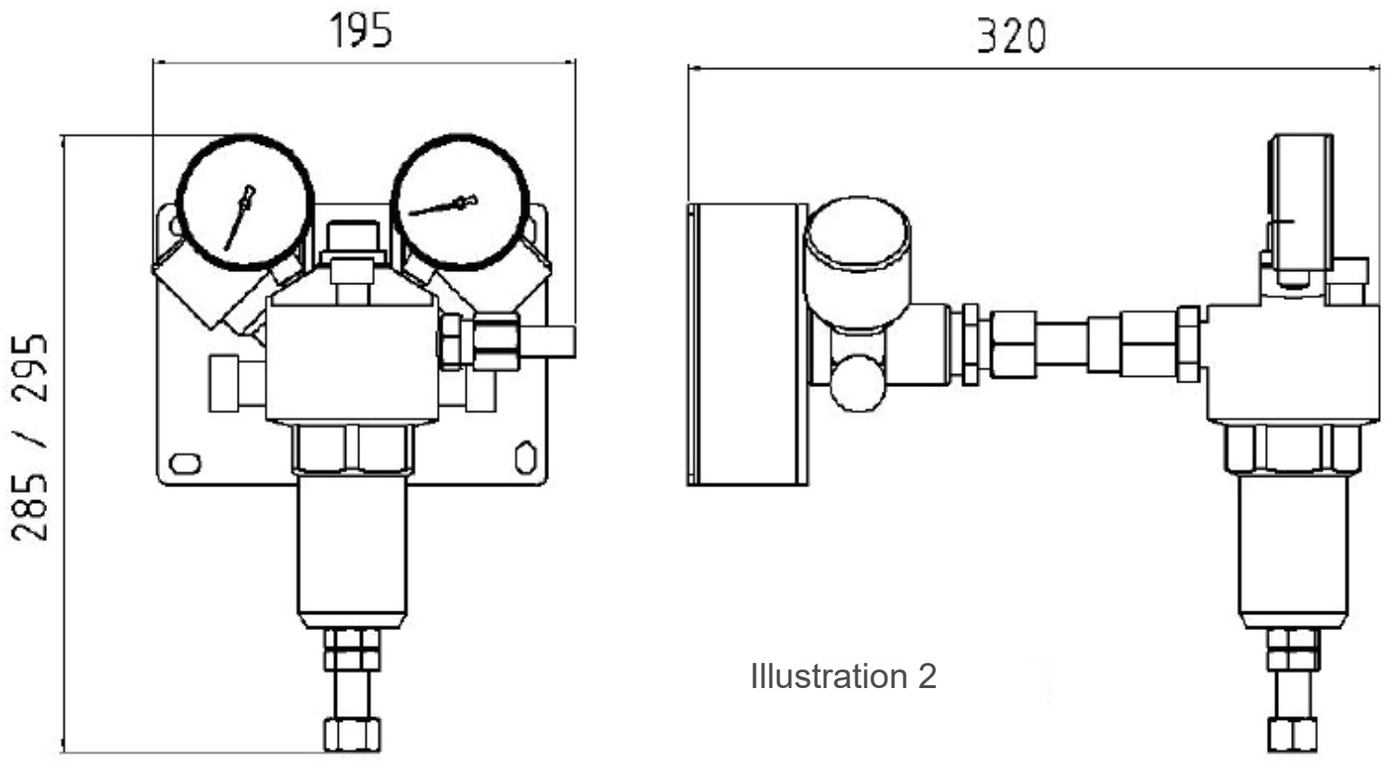
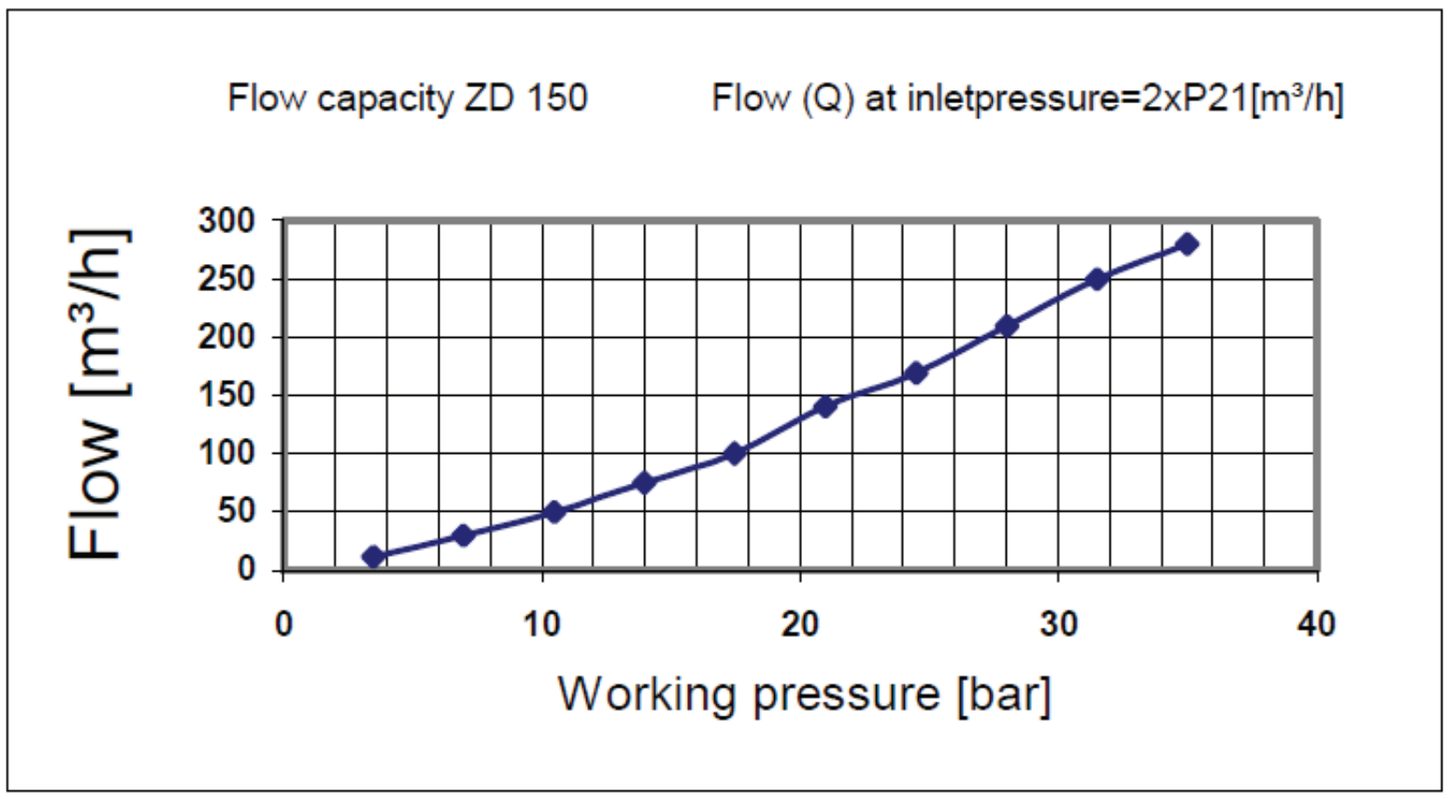


Illustration 2



DESCRIPTION

The supply station ZD 150 is available in a single and double sided configuration.

The double sided station (illustration 1+2) for assembly in double sided cylinder and bundle battery systems guarantees the interruption free gas supply with manual switching.

The single sided station (illustration 3+4) is for assembly in single sided cylinder and bundle battery systems and ensures a safe cut-off of the gas supply.

With the supply station ZD 150 a maximum pressure of 300 bar can be reduced to a maximum pressure of 10, 16, 20 or 35 bar and held constant.

The supply station consists of a single stage central pressure regulator to DIN EN 961 (ISO 7291) with BAM Oxygen certification.

The integrated relief valve protects the valve from excessive outlet pressure.

Double shut-off valve (double sided station) or a main shut-off valve (single sided station), both certified with BAM, are also feature of the station.

The assembly is mounted on a wall bracket.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

ZD 150

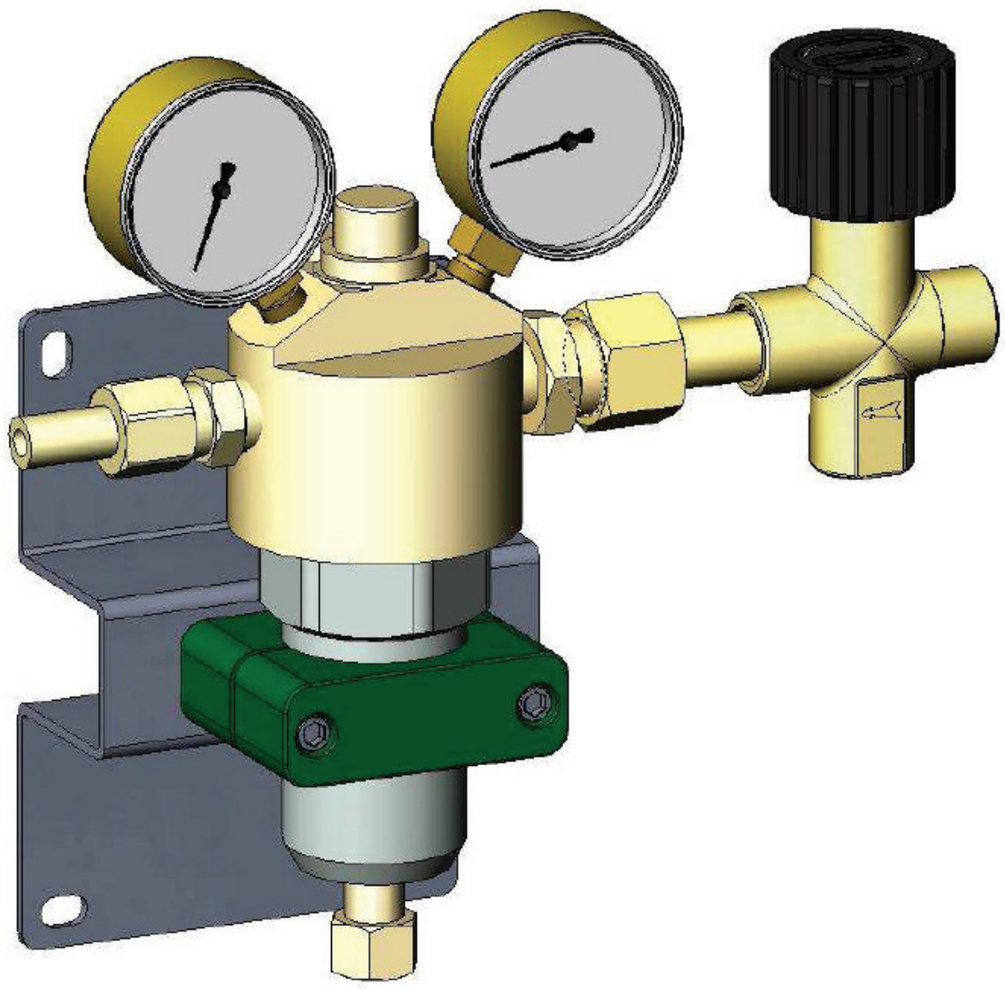


Illustration 3

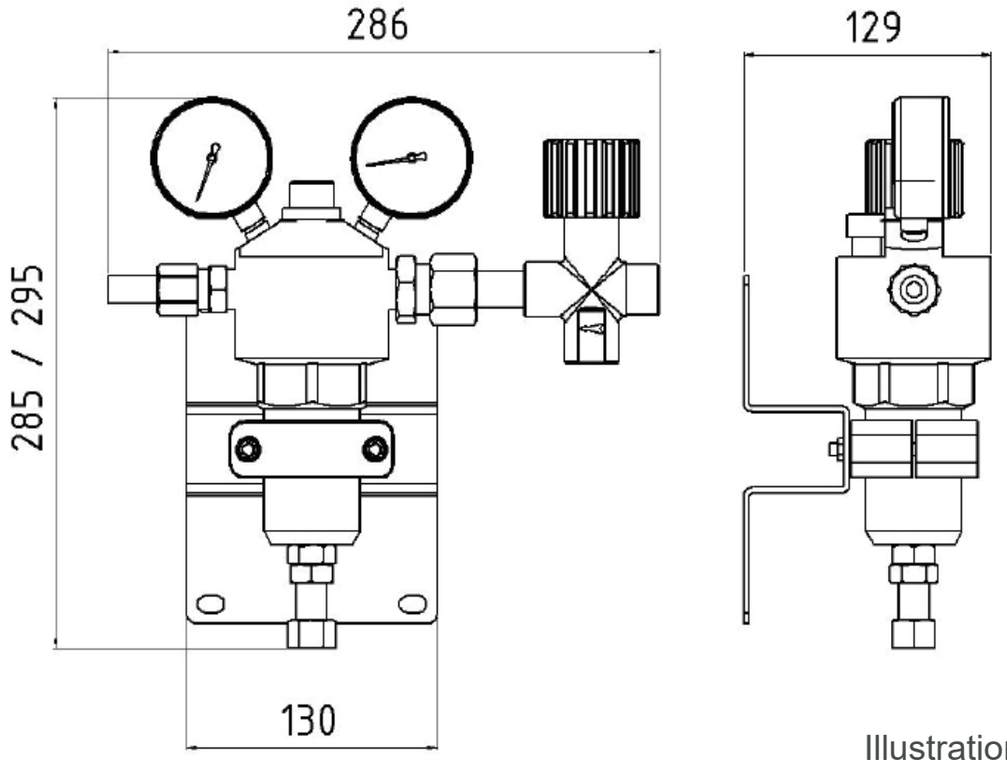


Illustration 4

Illustration 3+4: single side regulator (right)
Also available as left, sizes identical

TECHNICAL DETAILS

Material:	brass	**Size:**	295 x 195 x 320 mm (1 s.) 295 x 286 x 129 mm (2 s.)
Seat:	EPDM		
Filter:	metal, pore size 40 µm	**Weight:**	5300 g (1 s.) 6500 g (2 s.)
Diaphragm:	stainless steel	**Connections:**	Inlet:
Max. inlet pressure:	300 bar	Single sided:	G 3/4 DIN 8542 or G 3/4 DIN 477
Max. output:	280 ^{3}/h	Double sided:	G 3/4 DIN 477
Regulating range:	1,0 - 35 bar	Outlet:	nipple 1/2“
Operating temp.:	-20°C to +60°C	Gauge:	G 1/4

ORDER DETAILS

Format:
1 = single sided, right
2 = single sided, left
3 = double sided

Inlet pressure (p1):
1 = 200 bar
2 = 300 bar

Outlet pressure (p2):
1 = 1 - 10 bar
2 = 1 - 16 bar
3 = 1 - 20 bar
4 = 1 - 35 bar

Connection inlet (only with single sided):
1 = G 3/4 m DIN 8542
2 = G 3/4 m DIN 477 / Nr. 9

Station - Type		47	-1	1	2	1	Gas type
47	Supply station ZD 150	Typ	Format	p1	p2	Inlet	Gas type

Accessories:
High pressure manifold: see data sheet “High pressure manifold”

Note:
See also data sheet “Cylinder battery system“ and “Bundle battery system”

Gas supply station **ZD 400**

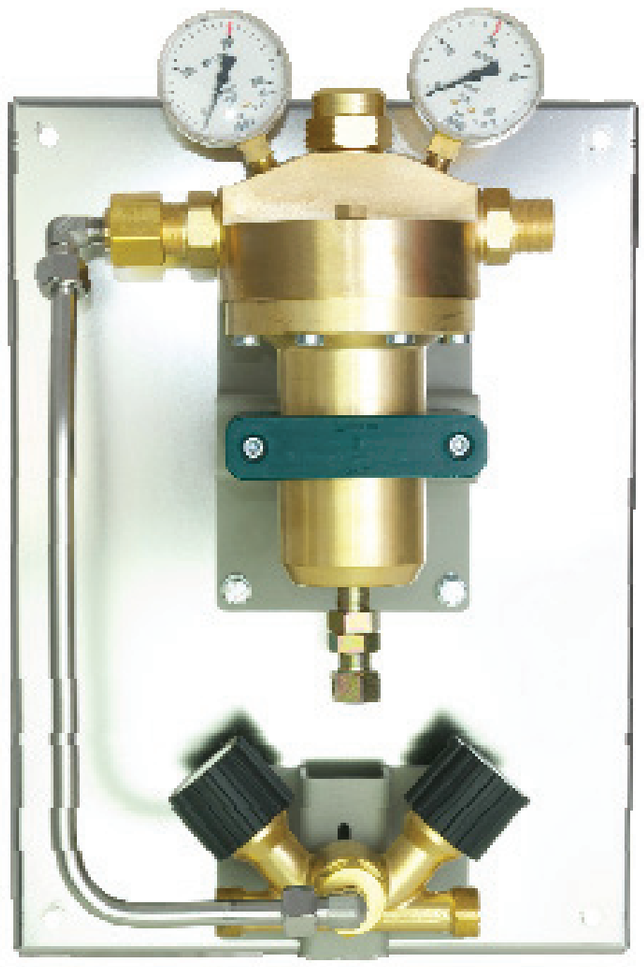
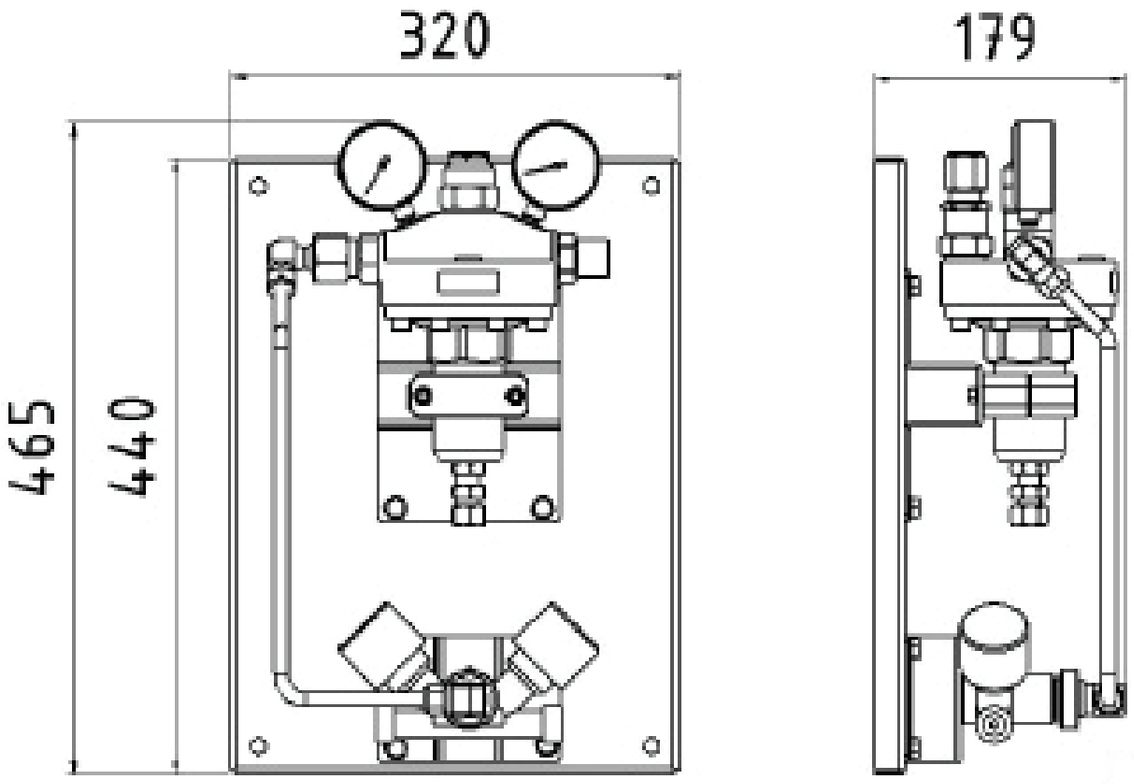
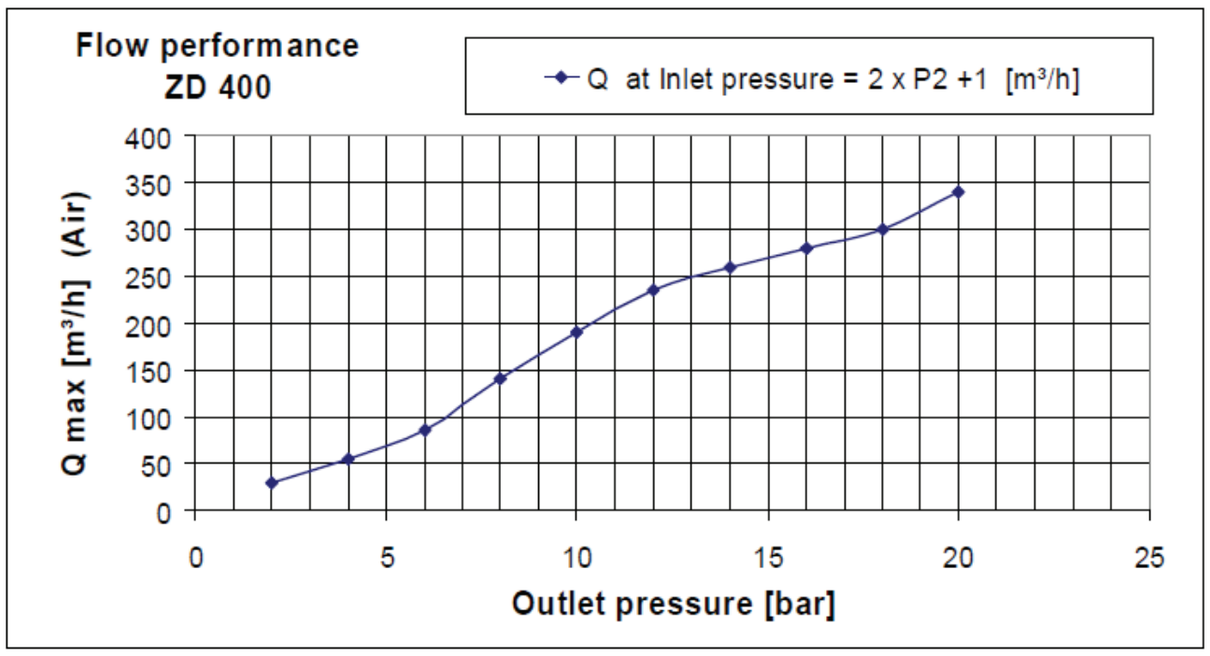


Illustration 1
2-sided gas supply station (version 3),
optional version 1 available,
see order details





DESCRIPTION

The supply station ZD 400 is available in a single and double sided configuration.

The double sided station (illustration 1) for assembly in double sided cylinder and bundle battery systems guarantees the interruption free gas supply with manual switching.

The single sided station (illustration 2) is for assembly in single sided cylinder and bundle battery systems and ensures a safe cut-off of the gas supply.

With the supply station ZD 400 a maximum pressure of 300 bar can be reduced to a maximum pressure of 2, 5, 6, 8,12 or 20 bar and held constant.

The supply station consists of a single stage central pressure regulator to DIN EN 961 (ISO 7291) with BAM Oxygen certification.

The integrated relief valve protects the valve from excessive inlet pressure.

Double shut-off valve (double sided station) or a main shut-off valve (single sided station), both certified with BAM, are also a feature of the station.

The assembly is mounted on a wall bracket.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

ZD 400

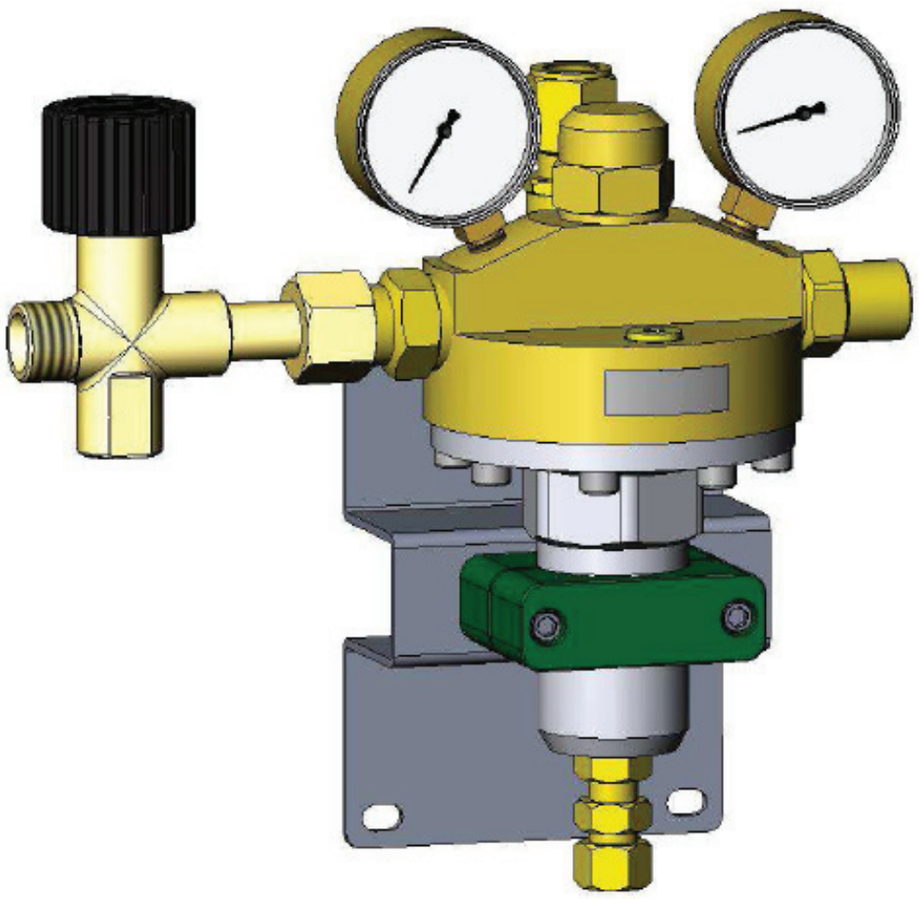
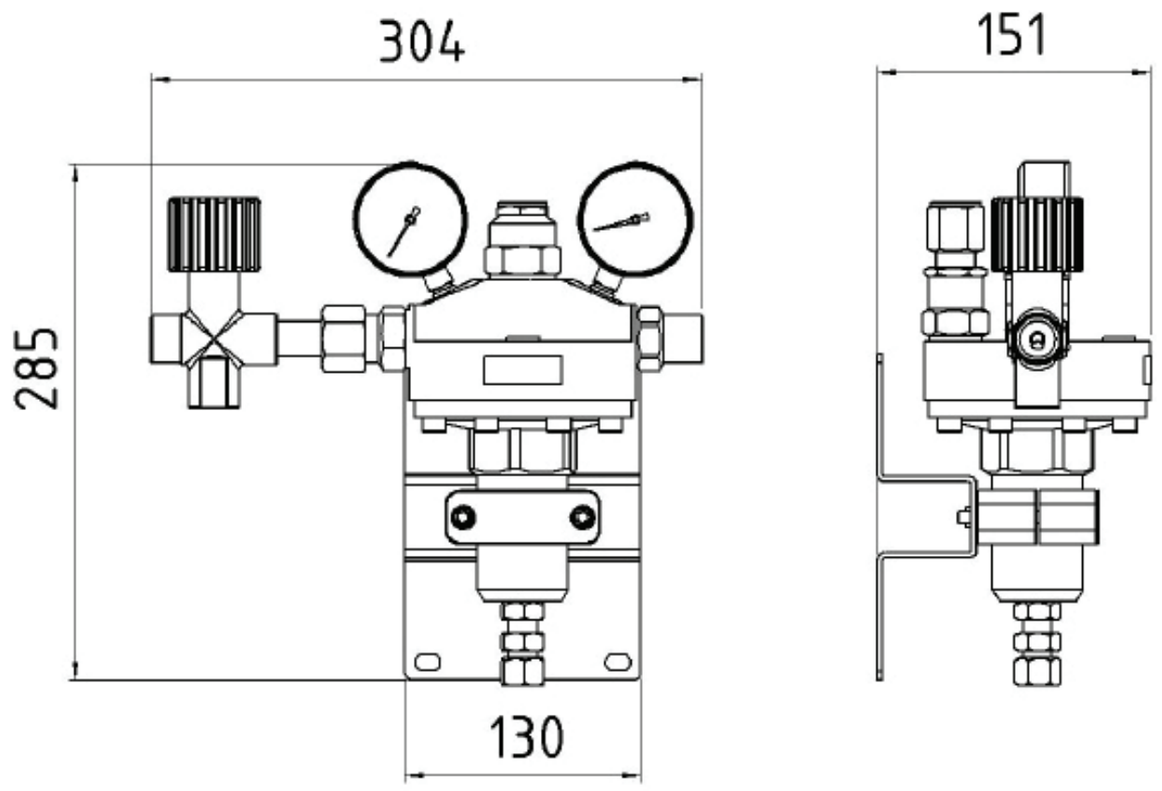


Illustration 2



Version 2 - one-sided gas supply station (left),
also available in right-hand version,
identical dimensions.

TECHNICAL DETAILS

Material:	brass	**Size:**	285 x 304 x 151 mm (1 s.) 465 x 371 x 241 mm (2 s.)
Seat:	PCTFE	**Weight:**	7500 g (1 s.) 11000 g (2 s.)
Filter:	metal, pore size 40 µm		
Diaphragm:	EPDM	**Connections:** Single sided:	Inlet: G 3/4 DIN 8542 or G 3/4 DIN 477
Max. inlet pressure:	300 bar		
Max. output:	340 ^{3}/h	Double sided:	G 3/4 DIN 477
Regulating range:	0,1 - 20 bar	Outlet:	G 3/4 DIN 8542
Operating temp.:	-20°C to +60°C	Gauge:	G 1/4

ORDER DETAILS

Format:
1 = single sided, right
2 = single sided, left
3 = double sided

Inlet pressure (p1):
1 = 200 bar
2 = 300 bar

Outlet pressure (p2):
1 = 0,1-2,5 bar
2 = 1 - 6 bar
3 = 1 - 8 bar
4 = 1 - 12 bar
5 = 1 - 20 bar

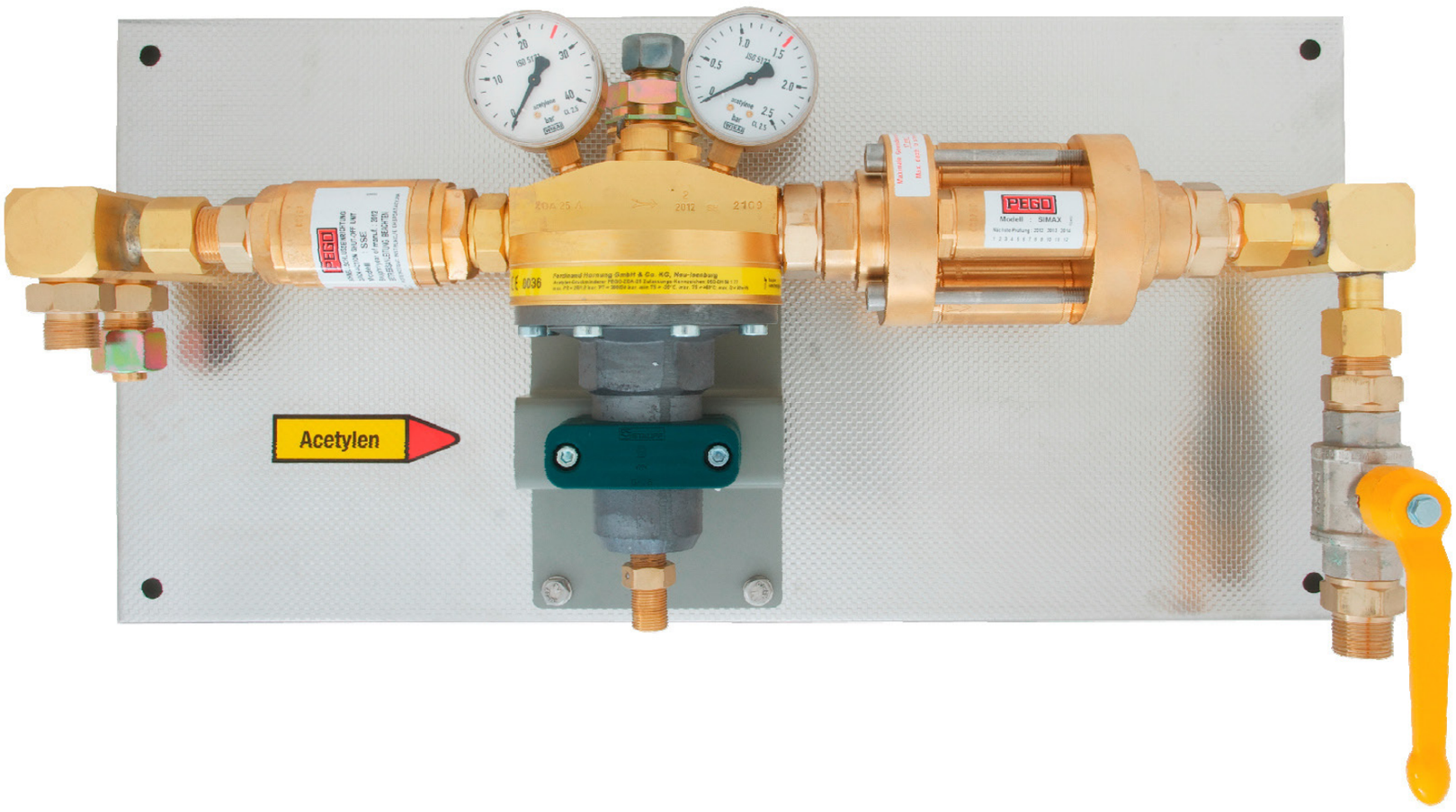
Connection inlet (only with single sided):
0 = G 3/4 m DIN 477 / Nr. 9: double sided
1 = G 3/4 m DIN 8542: single sided
2 = G 3/4 m DIN 477 / Nr. 9: single sided

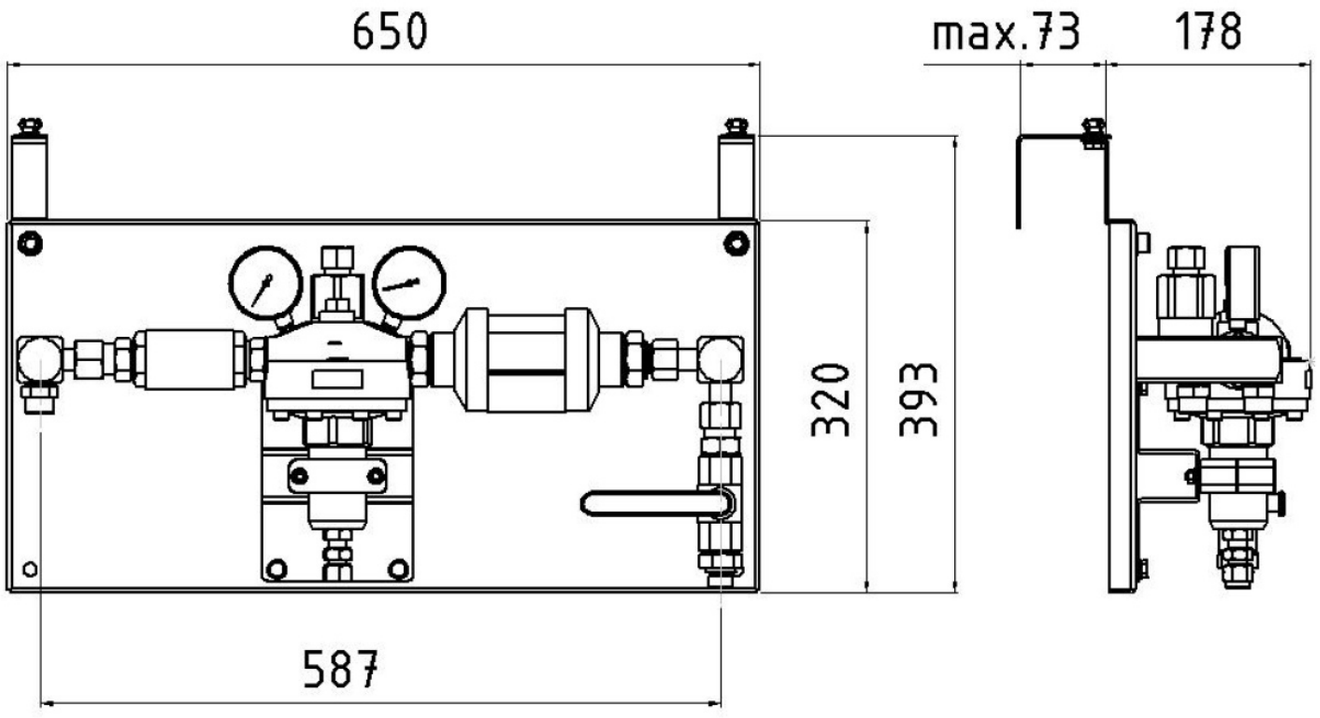
Station - Type		53	-1	1	2	1	Gas type
53	Supply station ZD 400	Type	Format	p1	p2	Inlet	Gas type

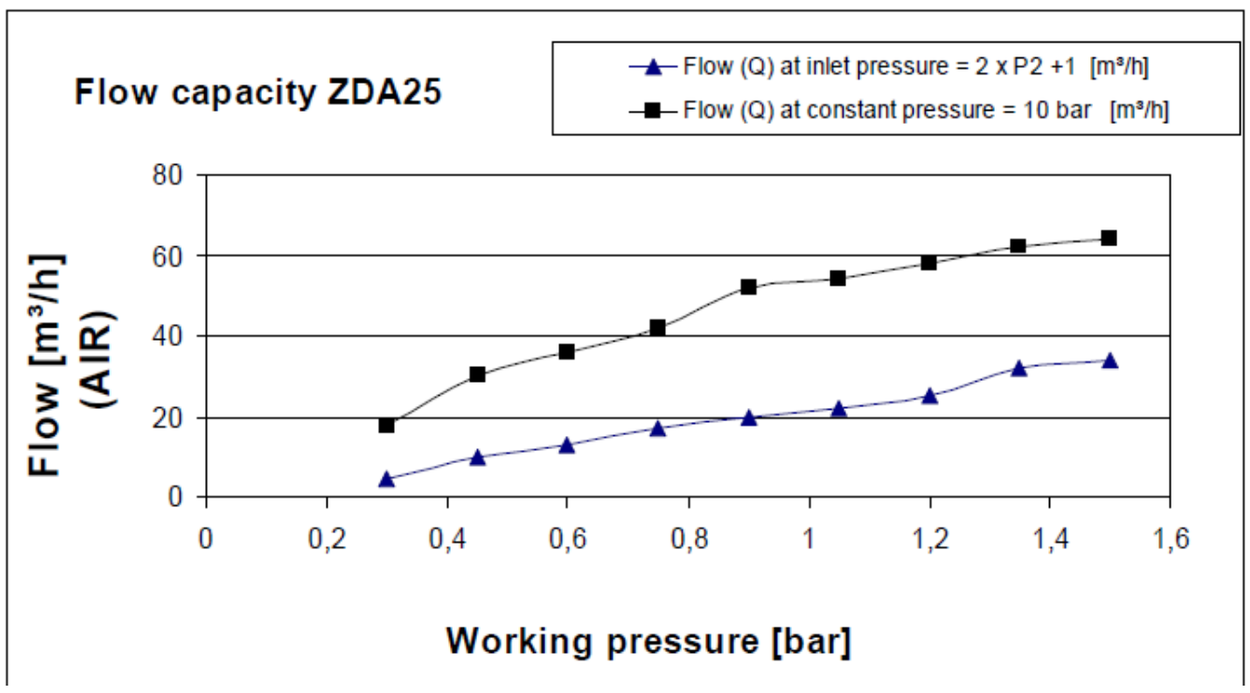
Accessories:
High pressure manifold: see data sheet “High pressure manifold”

Note:
See also data sheet “Cylinder battery system“ and “Bundle battery system”

Gas supply station **ZDA 25 portable**







DESCRIPTION

The gas supply station ZD 25 is a single sided Acetylene supply unit.

The construction of the basic console with brackets enables the use on different locations e.g. cylinder bundles.

A permanent installation is also possible. Up to 2 inlet connections can be made to the station.

To protect the high pressure connections in front of the regulator an automatic non-return valve to DIN EN 15615 is installed.

The deployed central regulator ZDA 25 is type approved to DIN EN 961 and reduces the max. inlet pressure of 25 bar down to max. 1,5 bar. The large diaphragm area gives good control.

The safety equipment installed after the regulator guarantees a safe gas supply according to EN 730-1.

A shut-off valve installed at the outlet ensures a complete gas flow stop.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001:2009**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

ZDA 25 PORTABLE

INFORMATION

Automatic non-return valve
Should an acetylene flashback occur, the pressure impulse actuates a cylinder in the automatic non-return valve and immediately closes the valve. Thus stopping any further gas flow.

TEST SPECIFICATION SAFETY ARRANGEMENT

Equipment should be tested at least annually.
Test equipment can be supplied on request. Safety equipment can be repaired and serviced by the manufacturer.

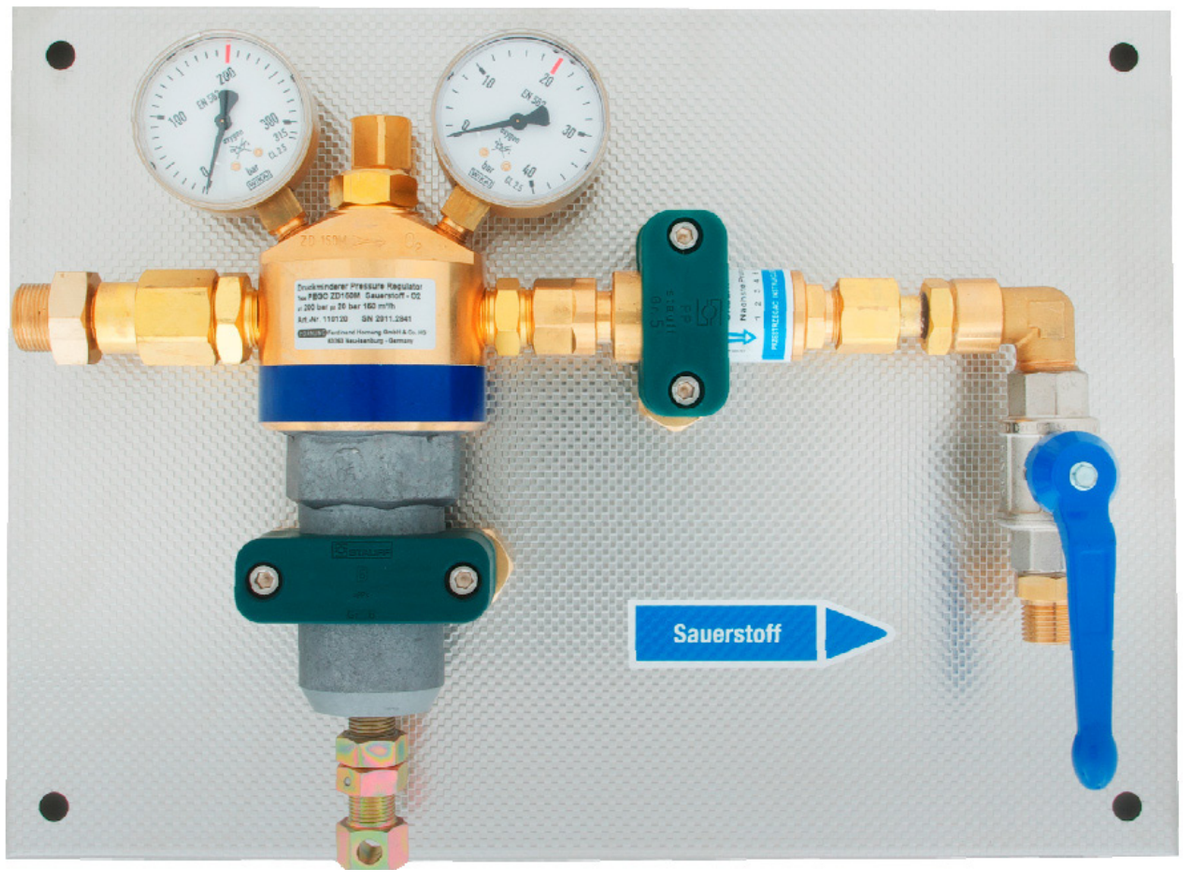
TECHNICAL DETAILS

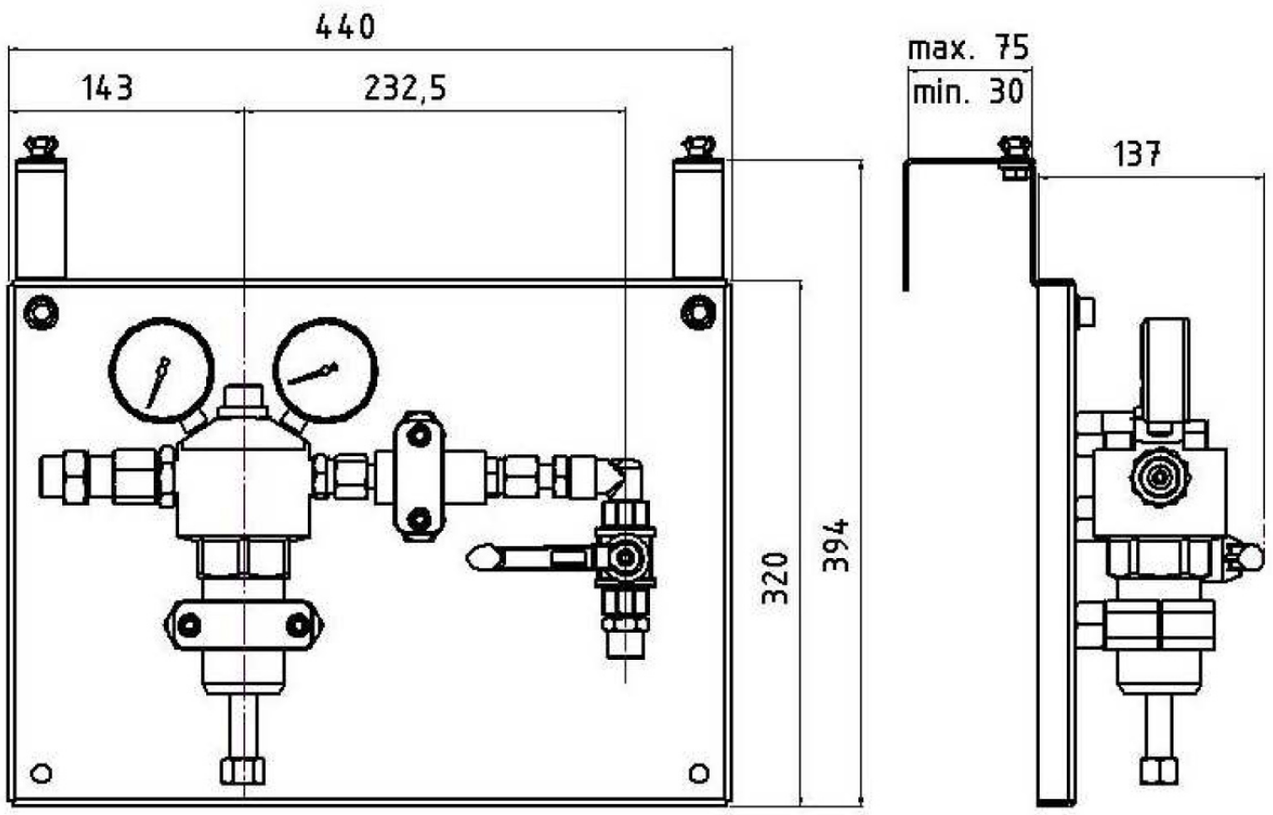
Material:	brass	**Size:**	650 x 320 x 178 mm without brackets
Seat:	EPDM	**Weight:**	~19kg
Filter:	A2, pore size 0,1 mm	**Connections:**	inlet: M24 x 1,5m (2 connections)
Diaphragm:	EPDM		outlet: G 3/4 m DIN 8542
Max. inlet pressure:	25 bar		
Max. flow :	0,5 m³/h / per cylinder		
Regulating range:	0,1 - 1,5 bar		
Operating temp.:	-20°C to +60°C		

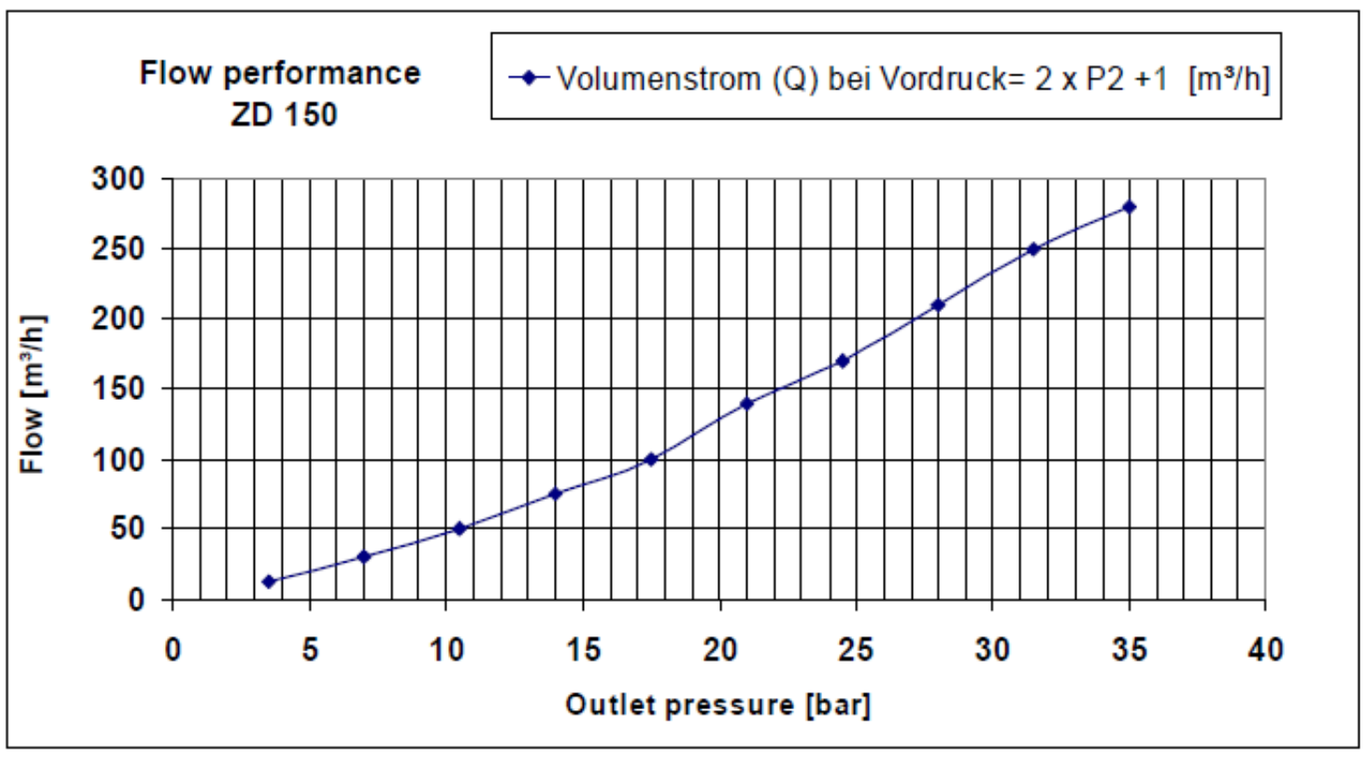
ORDER NUMBER: 52-0002

Accessories:
· ZD 150 manifold portable
· Gas manifold portable
· Low pressure hose to station
· High pressure hose to cylinder bundle

Gas supply station **ZD 150 portable**







DESCRIPTION

The gas supply station ZD 150 is a single sided Oxygen supply unit.

The construction of the basic console with brackets enables the use on different locations e.g. cylinder bundles.

A permanent installation is also possible.

With the supply station ZD 150 a maximum pressure of 300 bar can be reduced to a maximum pressure of 10, 16, 20 or 35 bar and held constant.

The supply station consists of a single stage central pressure regulator to DIN EN 961 (ISO 7291) with BAM oxygen certification.

The integrated relief valve protects the valve from excessive outlet pressure.

The installed safety equipment guarantees safe gas supply according to EN 730-1.

A shut-off valve installed at the outlet ensures a complete gas flow stop.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001:2009**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

ZD 150 PORTABLE

INFO

Safety equipment

Always in use where high gas flows are needed by minimum pressure loss.
The high gas flow is a guarantee for longer life, higher safety and functionality.

Safety elements:
· Non-return valve
· Flame arrestor
· Thermal cut-off valve

Long life through installed dust filter

TEST SPECIFICATION SAFETY ARRANGEMENT

Equipment should be tested at least biannually. Test equipment can be supplied on request.
Safety equipment can be repaired and serviced by the manufacturer.

TECHNICAL DETAILS

Material:	brass	**Size:**	440 x 320 x 137 mm
Seat:	EPDM	**Weight:**	8000 g
Filter:	metal, pore size 40 µm		
Diaphragm:	stainless steel		
Max. inlet pressure:	300 bar		
Max. output:	280 m³/h		
Regulating range:	1,0 - 35 bar		
Operating temp.:	-20°C to +60°C		

ORDER DETAILS

Inlet pressure (p1):
1 = 200 bar
2 = 300 bar

Outlet pressure (p2):
1 = 1 - 10 bar
2 = 1 - 16 bar
3 = 1 - 20 bar
4 = 1 - 35 bar

Station - Type		47-	1	1	Gas type
47	Station ZD 150 portable	Type	p1	p2	Gas type

Accessories:
· ZDA 25 Station, portable
· Gas manifold, portable
· Low pressure hose to station
· High pressure hose to cylinder bundle

dated 09/2023

Pressure controlling station **ZGV 3/4**

- 2x1 cylinder (bundle) single or dual-stage with a self-acting switch

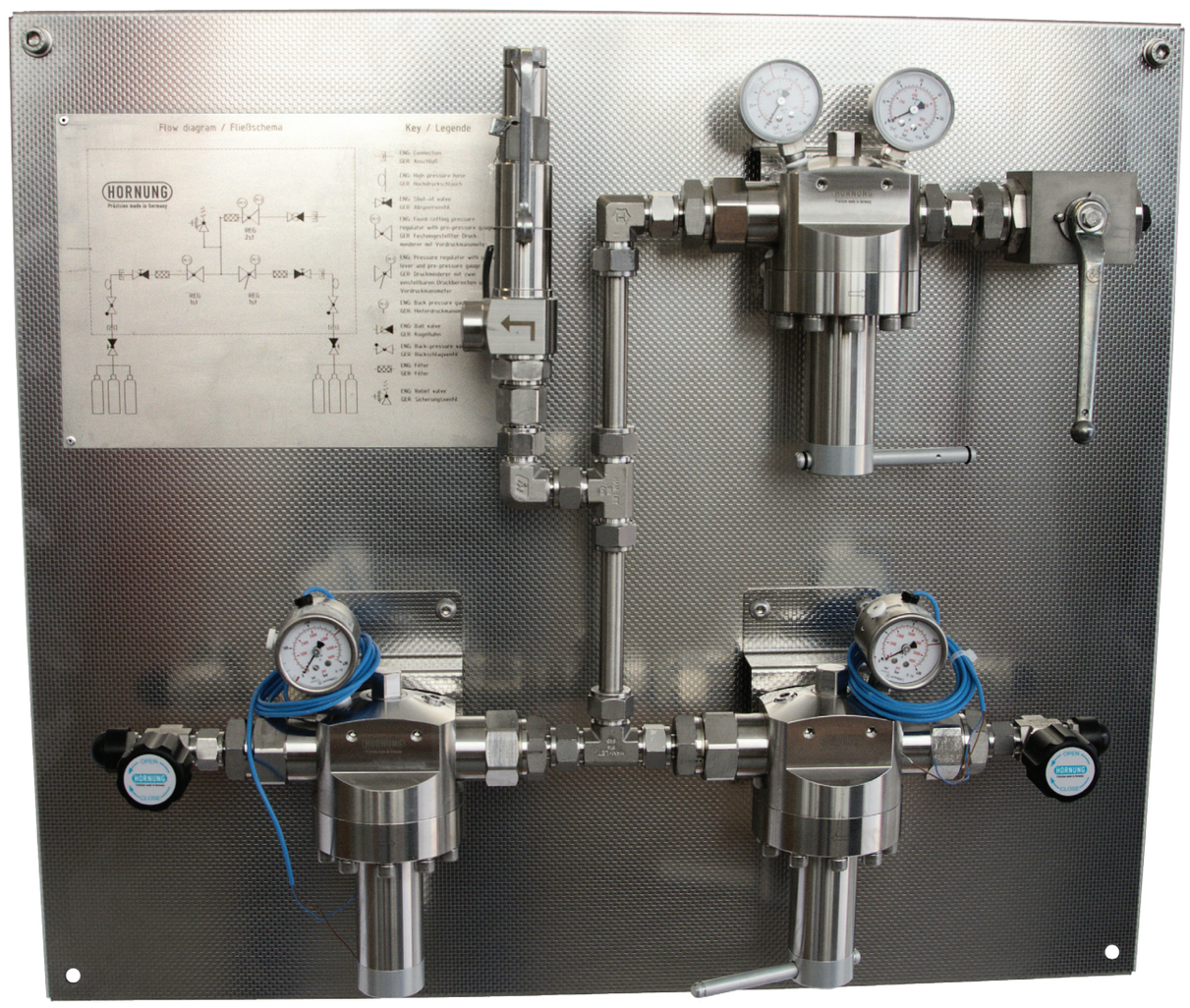


illustration: 2-stage
with safety valve

TECHNICAL DETAILS

Body:	stainless steel 1.4404 or brass
Seat:	PCTFE Ø10mm
Diaphragm:	EPDM or FKM
Max. inlet pressure:	300 bar
Outlet pressure ranges:	single-stage 10 - 12 bar 25 - 30 bar 45 - 55 bar dual-stage 6 bar 20 bar 30 bar
Operating temp.:	-40°C up to +150°C
Gauges:	safety version according to EN 837-1 KL 1,6
Dimensions (wxhxd):	750 x 650 x 165 mm
Connections:	inlet: KLR 12mm outlet: G 3/4“ IG

APPLICATION AREA

Especially for gases with safety and impermeability requirements, as well as for the assurance of an uninterrupted gas supply overnight and during the weekends.

An enhancement of the gas supplying concept is achieved by an optional integration of a gauge and a gas leakage warning device.

DESCRIPTION

The pressure controlling station ZGV 3/4 is a ingle or dual-stage pressure controlling station with a self-acting switch.

It’s main purpose is the ensured withdrawal of gases and gas mixtures from gas cylinders.

The self-acting function of a two-stage station is activated as soon as the pressure on the primary stage descends below a preset value

The pressure reduction is controlled by two integrated pressure control regulators conected by exhausts. This enables an exchange of gas cylinders without an interruption of gas supply.

The station is mounted on a stainless steel panel and possesses as standard an inlet and an outlet gauge as well as an exhaust and a cut-off valve for the process gas + filter.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

HORNUNG
Präzision made in Germany

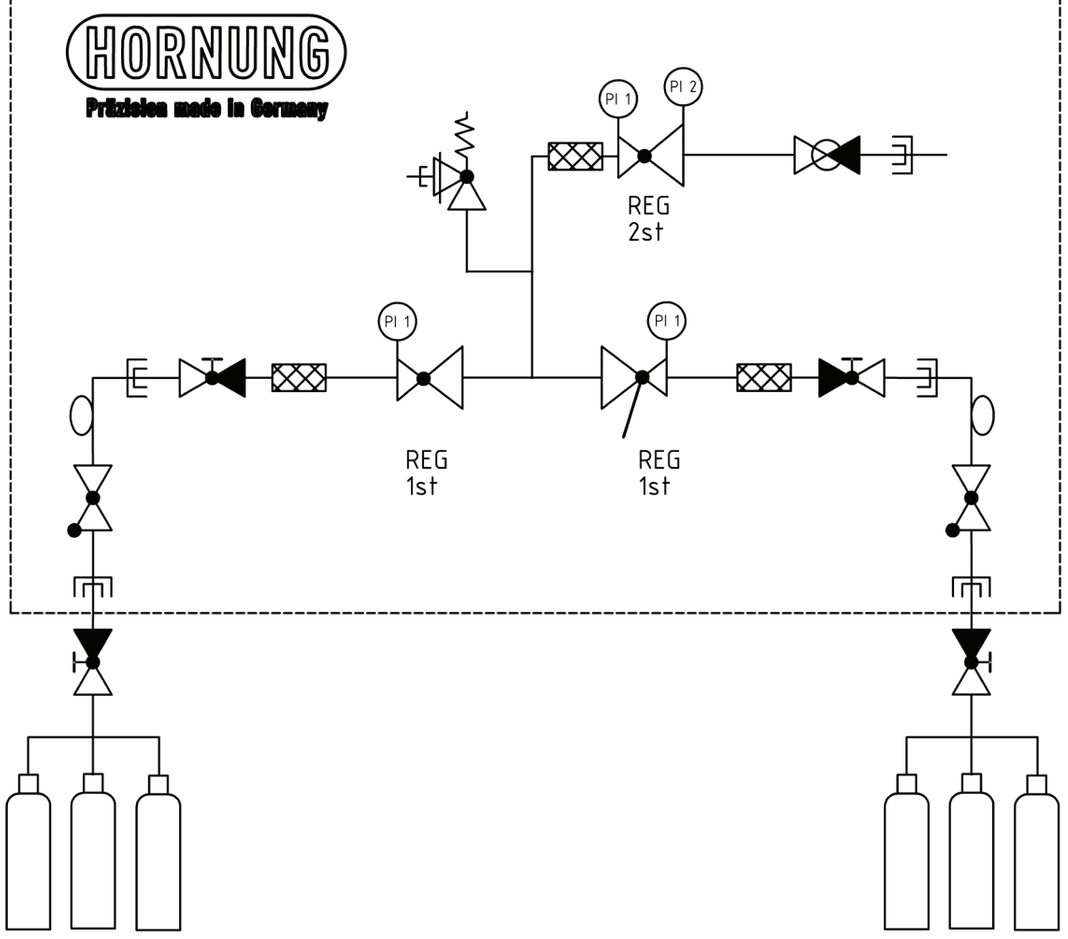
Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

ZGV 3/4

Flow diagram / Fließschema



Key / Legende

ENG: Connection
GER: Anschluß

ENG: High pressure hose
GER: Hochdruckschlauch

ENG: Shut-of valve
GER: Absperrventil

ENG: Fixed-setting pressure regulator with pre-pressure gauge
GER: Festeingestellter Druck-minderer mit Vordruckmanometer

ENG: Pressure regulator with preselection lever and pre-pressure gauge
GER: Druckminderer mit zwei einstellbaren Druckbereichen und Vordruckmanometer

ENG: Back pressure gauge
GER: Hinterdruckmanometer

ENG: Ball valve
GER: Kugelhahn

ENG: Back-pressure valve
GER: Rückschlagventil

ENG: Filter
GER: Filter

ENG: Relief valve
GER: Sicherungsventil

ACCESSORIES

See chapter in the general catalogue

7. Connecting hose 200 bar, connecting hose 300 bar, gauge, inductive gauge, threaded joint, cylinder mounts and accessories

The composition can be equiped with a CE labelled safety valve. (Standard with 2-stage version)
Other design options of the pressure regulating station on request.

ORDER DETAILS

Material:
1 = brass
2 = stainless steel

Inlet pressure p1:
1 = 200 bar
2 = 300 bar

Stages:
1 = single stage
2 = dual-stage

Outlet pressure p2:
1 = 6 bar
2 = 20 bar
3 = 30 bar

Gauge:
1 = standardized gauge
2 = inductive gauge

ZGV 3/4-	1	1	1	2	2	Gas type
Type	Material	p1	Stages	p2	Gauge	Gas type

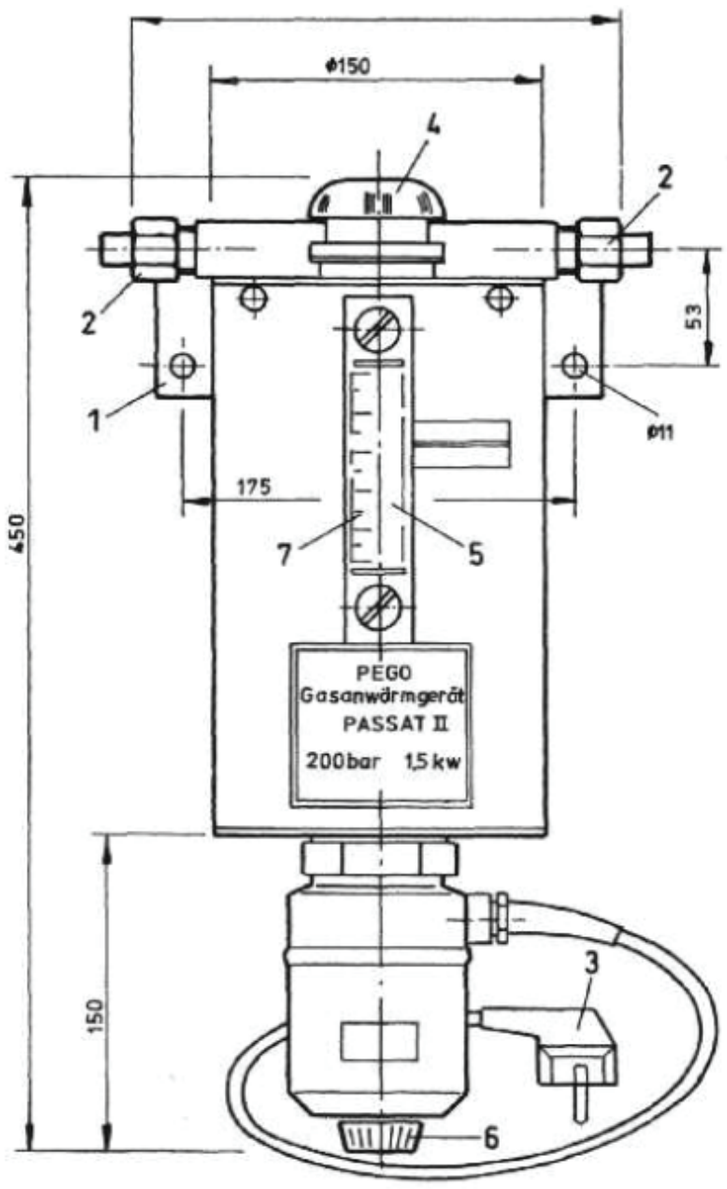
Accessories:
High pressure manifold: see data sheet “High pressure manifold”

Notice:
See further data sheet: “Cylinder manifold station” and “bundle manifold station“

HORNUNG

Präzision made in Germany

Gas preheater **Passat II**



Model	Gas type	Inlet pressure P1	Flow Q1	Heating power	In & outlet connections	Voltage	Max. heating fluid
Passat II	NF, NC	max. 200 bar	max. 420 m^3/h	35 - 80° C / 1,5 kW	G 1/2 DIN EN 560 with solder nipple	230 V	3,25 l

With the gas warmer Passat II, non-aggressive and non-flammable gases pre-heated.
Gas can at low ambient temperatures and high flow rates can cause the piping and regulator to ice up.

This is prevented by the Passat II. Materials in contact with medium: Aluminium, copper and brass.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001:2009**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

Acetylene **cylinder battery manifold**

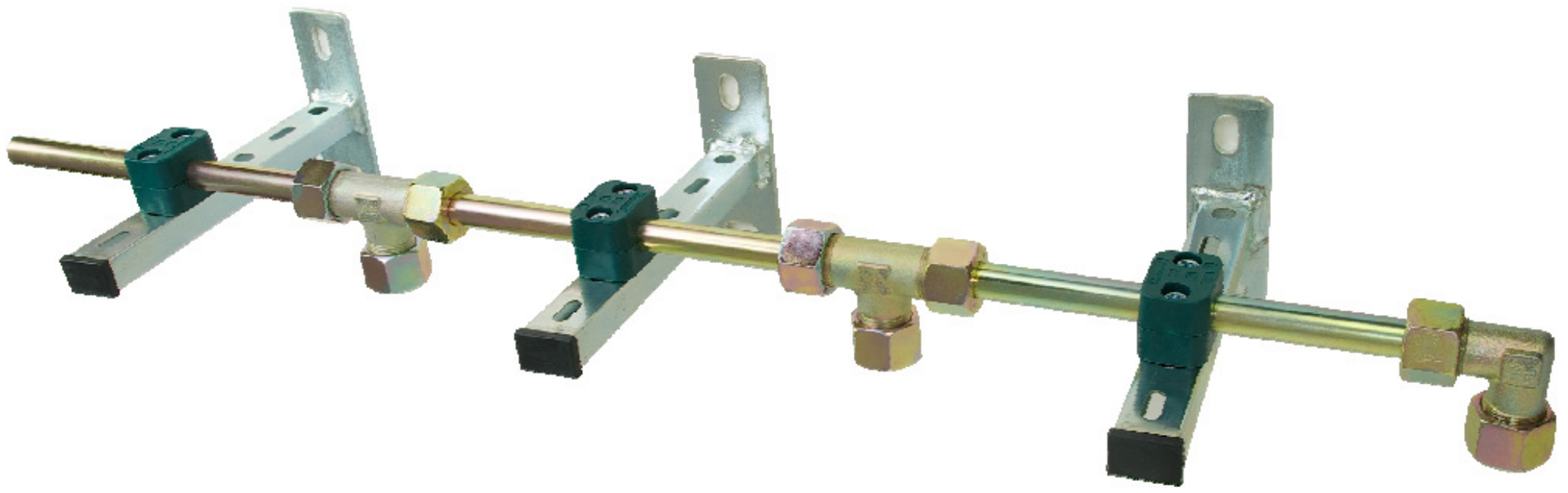
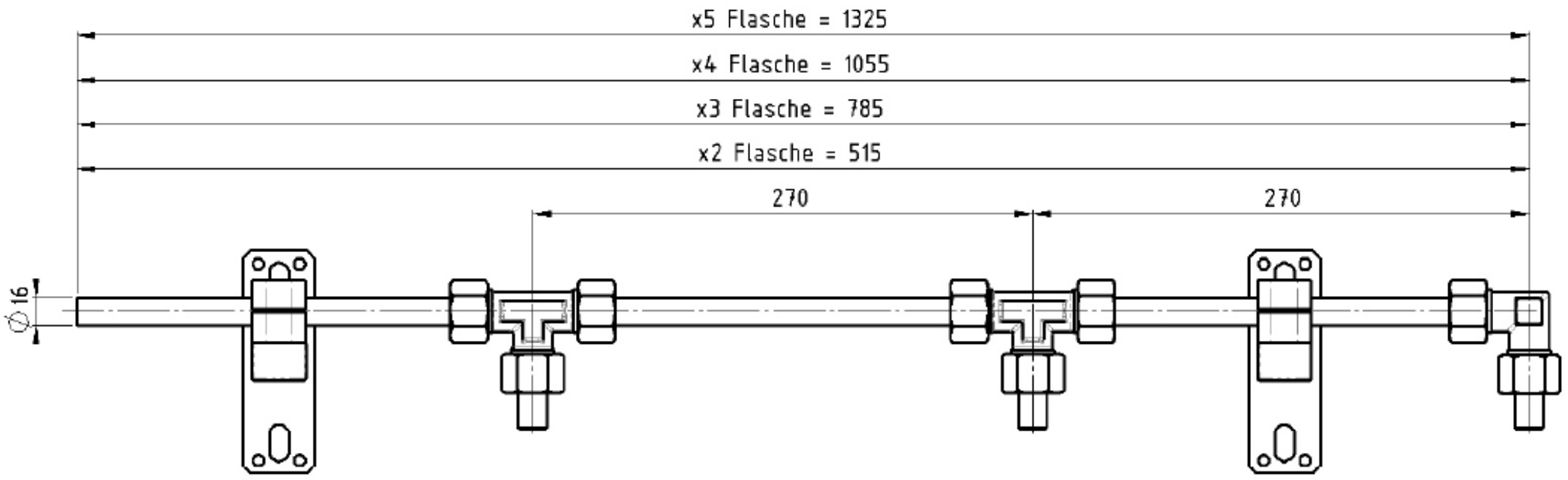


Image shown: x3



Cylinder battery manifolds for acetylene are permanently installed high pressure lines with mounting brackets, 90° shut-off valves W 21,8 x 1/14 LH, tube and tube connections for connection to a supply regulator station.

For use with acetylene cylinder connection hose
Order No. 910220

Order No.	Manifold
910202	2x2 cylinder
910203	2x3 cylinder
910204	2x4 cylinder
910205	2x5 cylinder

TECHNICAL DETAILS

Material:	steel / brass	
Connections:	inlet:	W 21,8 x 1/14 LH
	outlet:	tube Ø 16

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001:2009**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

HORNUNG
Präzision made in Germany

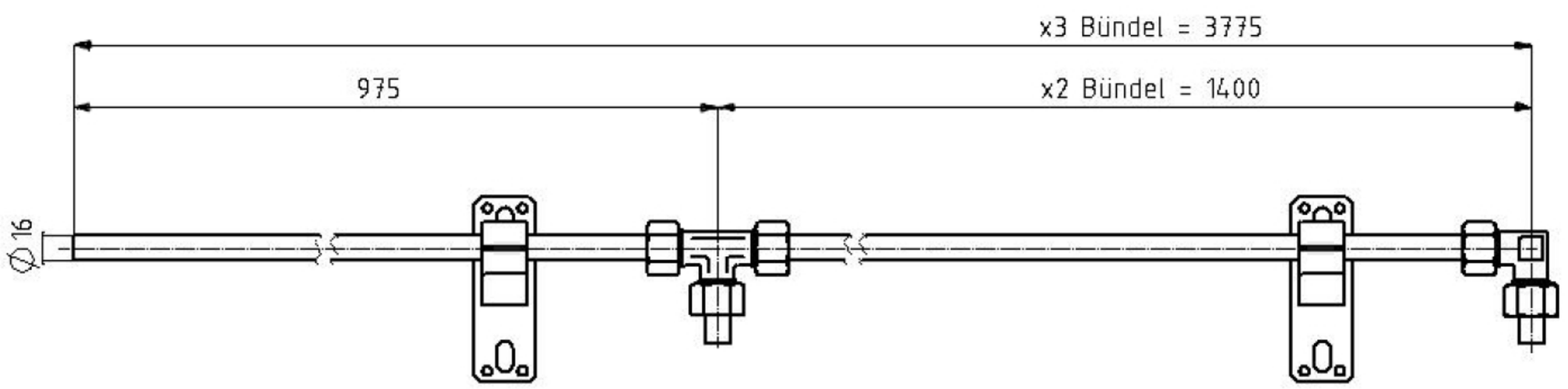
Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

Acetylene **cylinder bundle manifold**

Image shown: x2



Acetylene Bundle manifolds are permanently installed high pressure lines with connection tubes, mounting consoles and connections for the bundle connecting hose.

For use with connecting hose for acetylene
Order No. 910222

Order No.	Manifold
910211	2x1 bundle
910212	2x2 bundle
910213	2x3 bundle

TECHNICAL DETAILS

Material:	steel	
Connections:	inlet:	M 24 x 1,5 spherical
	outlet:	tube Ø 16

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001:2009**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

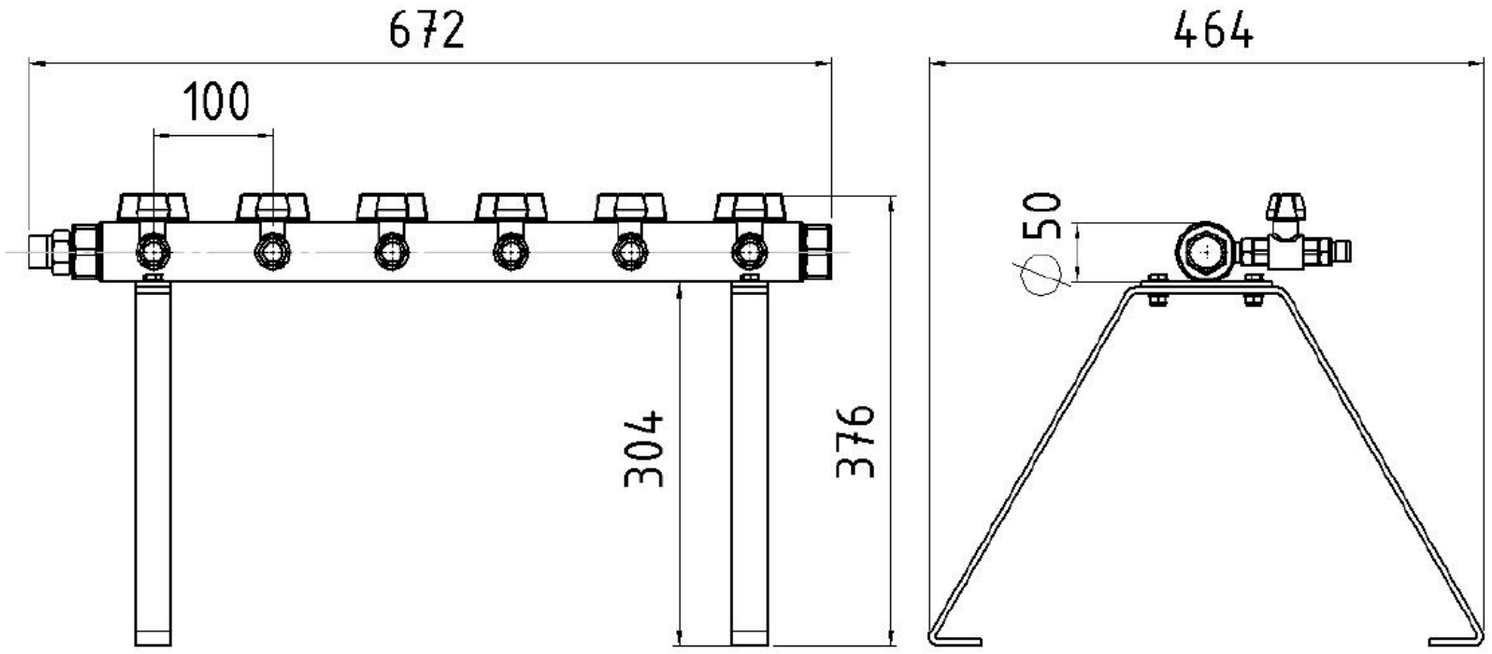
HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

Gas manifold **portable**



DESCRIPTION

The gas manifold portable serves the purpose of providing gas up to 6 points of use.

The portable design enables use on different locations e.g. construction sites.

This manifold is designed for use with an inlet pressure of max. 20 bar.

Depending on the application, there is the possibility to install a point of use pressure regulator or flowmeter.

The gas manifold can be supplied for different gases:

- Non-flammable gases
- Flammable gases
- Acetylene
- Oxygen

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001:2009**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

Gas manifold

TECHNICAL DETAILS

Material:	stainless steel and brass	Connections:	
Seals:	viton	Inlet:	
Max. inlet pressure:	20 bar		Acetylene + flammable gases: G 3/8 DIN 8542 Non-flammable gases + O2: G 3/8 DIN 8542
Operating temp.:	-20°C to +60°C	Outlet:	
Dimensions:	672 x 464 x 376 mm		Acetylene + flammable gases: G 3/8 DIN 8542 Non-flammable gases + O2: G 3/8 DIN 8542
Weight:	11 kg		

ORDER DETAILS

Gas:
0601 = Oxygen (O2)
0602 = Acetylene (C2H2)
0613 = Non-flammable gases
0616 = Flammable gases

Typ		62-	0601
62-	Gas manifold, portable	Typ	Gas type

Accessories:

· ZD 150 Station portable
· ZDA 25 Station portable
· Low pressure hose for the station
· High pressure hose for cylinder bundles

Manifold with check valve

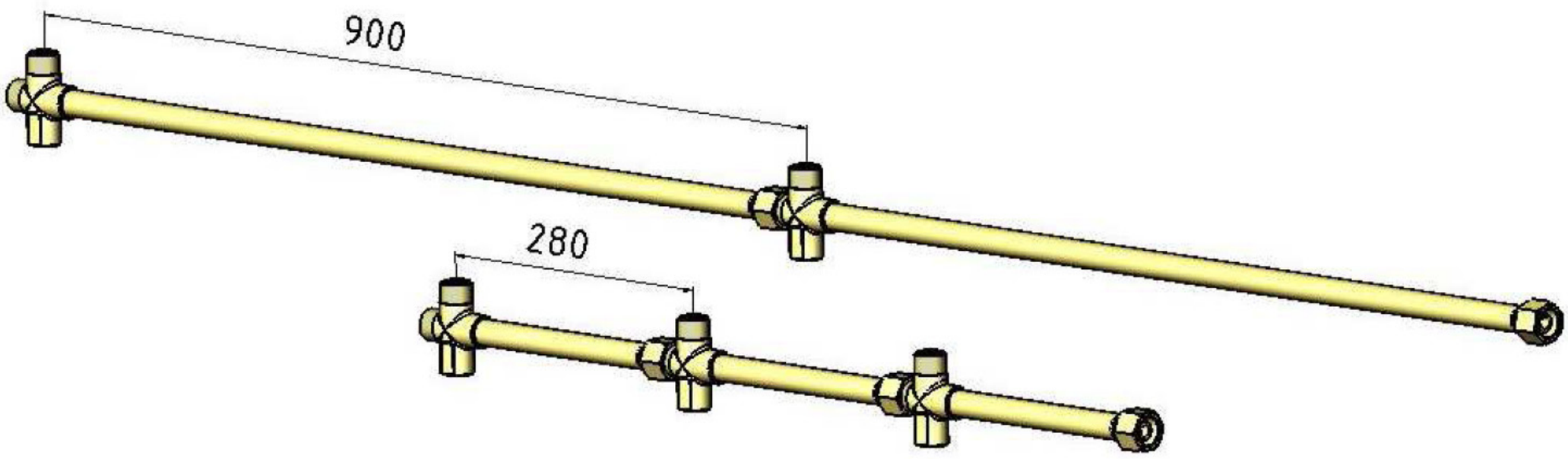


Illustration 1:
top: 2 x manifold with check valve, 1-fold – for bundle battery installations
bottom: 3 x manifold with check valve, 1-fold – for cylinder battery installations

MANIFOLD WITH CHECK VALVE, 1-FOLD

The Modular system is stackable in any number.
Long version: (dimension 900 mm), for bundle battery installations.
Short version: (dimension 280 mm), for cylinder battery installations.
The integrated check valve with filter component provides safety and avoids an unintentional and not allowed decanting.

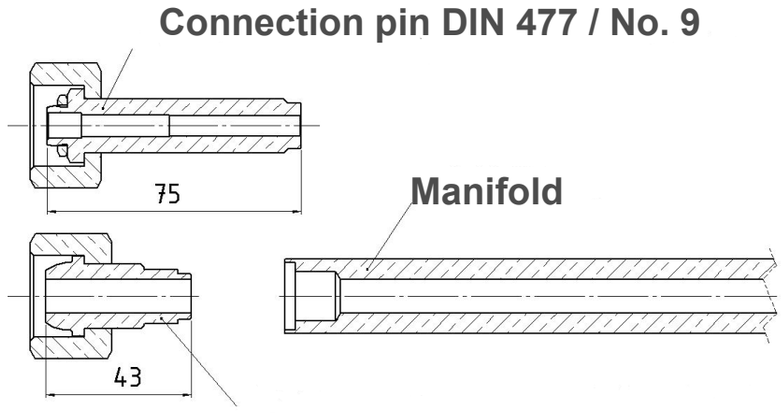
Applicable for the left or right side of a cylinder or bundle battery. By use of a metallic sealing connection according to DIN 8542, no additional sealing components between manifold and further equipment are needed.

The oxygen compatibility is tested and approved by BAM - Berlin.
Functioning parts are replaceable as a service-kit.

Reference: To connect the manifold to the gas supply, only our high pressure connections SLR are suitable.

SELECTION OF CONNECTION PINS FOR CONNECTION TO FURTHER EQUIPMENT

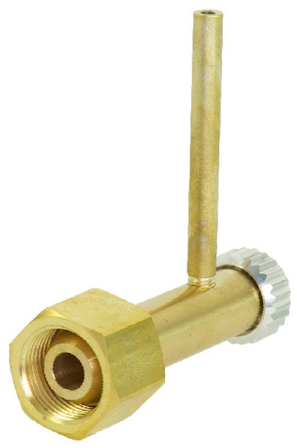
Connection pin DIN 477 / No. 9



A range of connection pins enables an individual connection to following cylinder stations.

Additional connections on request.

OPTIONS AND ACCESSORIES



Pressure relief valve, G3/4, DIN 8542

The pressure relief valve serves a safe pressure relief from the manifold system before an exchange of a cylinder or bundle.

Oxygen compatibility approved by BAM – Berlin. T
he connected vent pipe enables a connection to a disposal conduit.

For each manifold system (one-way), one pressure relief valve is required.

HORNUNG
Präzision made in Germany

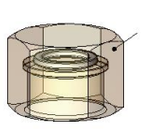
Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

Manifold with CV

CLOSING CAP FOR CHECK VALVE



Closing cap

Reference: No DIN 477 connection

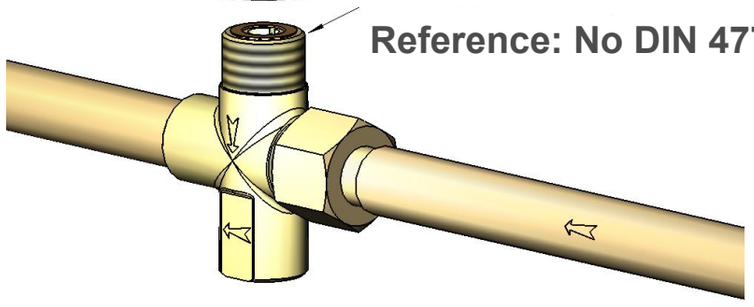


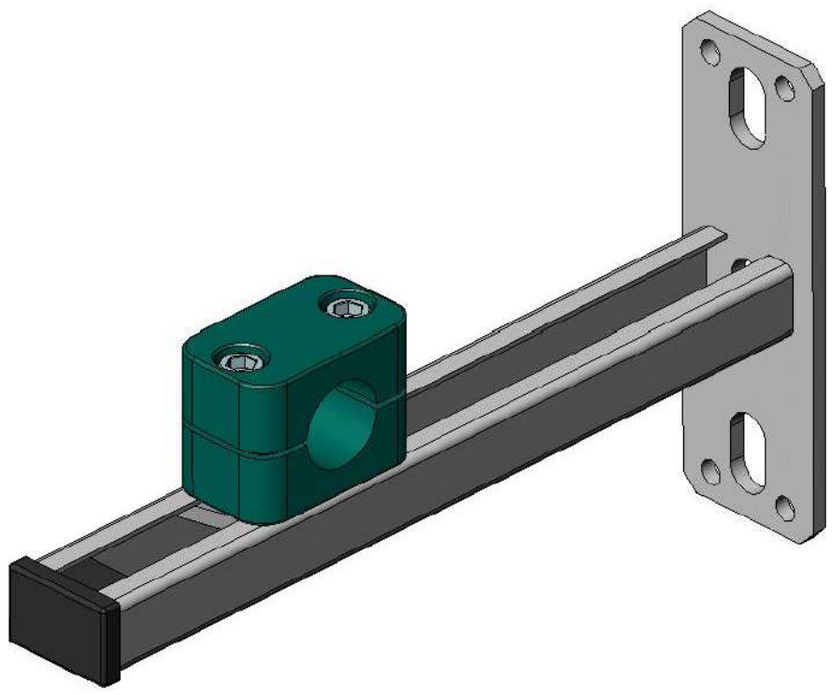
Image 2

For closing of check valve connections, which aren't connected to the gas supply temporarily.

With an integrated O-ring to cover the check valves' seal surface.

Reference – check valve
The inlet connection is no connection according to DIN 477 (see image 2).

WALL MOUNTING, 1-FOLD



The wall mounting is offered to provide a safe hold for the manifold system. The mounting is adjustable within three axes and guarantees an exact alignment of the manifold.

Required wall mountings per side:
1-fold = 1 mounting
2-fold = 1 mounting
3-fold = 2 mountings
4-fold = 2 mountings
5-fold = 3 mountings
6-fold = 3 mountings

TECHNICAL DETAILS:
MANIFOLD WITH CHECK VALVE:

Material:	brass	Nominal diameter, pipe:	ø 10 mm
Seat:	ø 8 mm	Pore size, filter:	40 µ
Gasket:	viton	Differential pressure:	0,5 bar

REFERENCE

To arrange a complete and individual cylinder or bundle battery installation according to your requirements and wishes, please use our "Selection sheet for cylinder battery installation", respectively "Selection sheet for bundle battery installation".

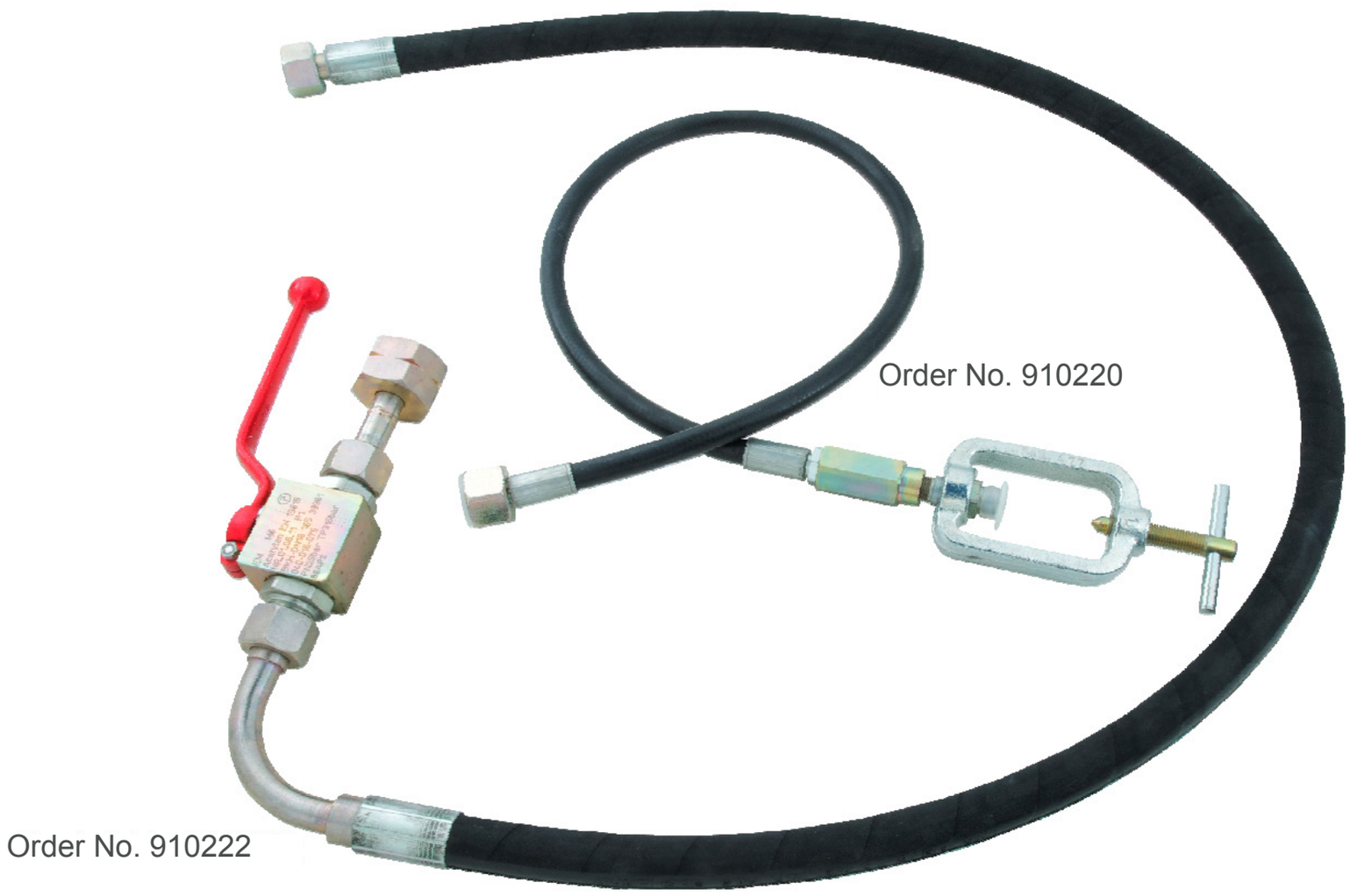
QUALITY STANDARD

The company Hornung is certified to DIN EN ISO 9001 and ISO 14001:2009. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

HORNUNG

Präzision made in Germany

Acetylene **connecting hose**



Order No. 910220

Order No. 910222

Cylinder connection hose for connection between cylinder and manifold. Ca. 1000 mm long with connecting clamp to DIN 477.

Order No. 910220

Bundle connecting hose for connection between cylinder bundle and manifold. Aprox. 1000 long with shut-off ball valve.

Connection to cylinder bundle spherical with o-ring seal M28 x1,5 LH.

Connection to manifold spherical with o-ring seal M24 x1,5 RH.

Order No. 910222

Other sizes and combinations on request!

TECHNICAL DETAILS

Material:	synthetic rubber
Gas type:	acetylene

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001:2009**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

Cylinder and bundle connecting hose

- check valve optional

Connecting hoses are flexible high pressure components and connect the cylinder or a cylinder bundle to the high pressure manifold.
The check valve can be ordered optionally by adding RV to the Order-No.

NOTE: Only metal corrugated hoses are allowed for use with Oxygen.

Cylinder connecting hoses 200 bar

ORDER-NO.	OPTION CHECK VALVE WITH PRESSURE RELIEF	LENGTH	GAS TYPE	MATERIAL
910420	RV with pressure relief	1000 mm	Nitrogen	Plastic hose
910320	RV with pressure relief	1000 mm	Inert gas	Plastic hose
910620	RV with pressure relief	1000 mm	Hydrogen	Plastic hose
910520	RV with pressure relief	1000 mm	Compressed air	Plastic hose
910121	RV with pressure relief	1000 mm	Oxygen	Metal corrugated hose 1.4541
910421	RV with pressure relief	1000 mm	Nitrogen	Metal corrugated hose 1.4541
910321	RV with pressure relief	1000 mm	Inert gas	Metal corrugated hose 1.4541
910621	RV with pressure relief	1000 mm	Hydrogen	Metal corrugated hose 1.4541
910521	RV with pressure relief	1000 mm	Compressed air	Metal corrugated hose 1.4541

NOTE: If a check valve is desired, please add RV to the Order-No.

Bundle connecting hoses 200 bar

ORDER-NO.	OPTION CHECK VALVE WITH PRESSURE RELIEF	LENGTH	GAS TYPE	MATERIAL
910422	RV with pressure relief	1800 mm	Nitrogen	Plastic hose
910322	RV with pressure relief	1800 mm	Inert gas	Plastic hose
910622	RV with pressure relief	1800 mm	Hydrogen	Plastic hose
910522	RV with pressure relief	1800 mm	Druckluft	Plastic hose
910123	RV with pressure relief	1800 mm	Compressed air	Metal corrugated hose 1.4541
910423	RV with pressure relief	1800 mm	Nitrogen	Metal corrugated hose 1.4541
910323	RV with pressure relief	1800 mm	Inert gas	Metal corrugated hose 1.4541
910623	RV with pressure relief	1800 mm	Hydrogen	Metal corrugated hose 1.4541
910523	RV with pressure relief	1800 mm	Compressed air	Metal corrugated hose 1.4541

NOTE: If a check valve is desired, please add RV to the Order-No.

HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

Cylinder and bundle connecting

Cylinder connecting hose 300 bar

ORDER-NO.	OPTION CHECK VALVE WITH PRESSURE RELIEF	LENGTH	GAS TYPE	MATERIAL
911320	RV with pressure relief	1000 mm	Non-flammable gas	Plastic hose
911630	RV with pressure relief	1000 mm	Flammable gas	Plastic hose
910530	RV with pressure relief	1000 mm	Compressed air	Plastic hose
911331	RV with pressure relief	1000 mm	Non-flammable gas	Metal corrugated hose 1.4541
911631	RV with pressure relief	1000 mm	Flammable gas	Metal corrugated hose 1.4541
910531	RV with pressure relief	1000 mm	Compressed air	Metal corrugated hose 1.4541
910131	RV with pressure relief	1000 mm	Oxygen	Metal corrugated hose 1.4541

NOTE: If a check valve is desired, please add RV to the Order-No.

Bundle connecting hose 300 bar

ORDER-NO.	OPTION CHECK VALVE WITH PRESSURE RELIEF	LENGTH	GAS TYPE	MATERIAL
911332	RV with pressure relief	1800 mm	Non-flammable gas	Plastic hose
911632	RV with pressure relief	1800 mm	Flammable gas	Plastic hose
910532	RV with pressure relief	1800 mm	Compressed air	Plastic hose
910133	RV with pressure relief	1800 mm	Oxygen	Metal corrugated hose 1.4541
911333	RV with pressure relief	1800 mm	Non-flammable gas	Metal corrugated hose 1.4541
911633	RV with pressure relief	1800 mm	Flammable gas	Metal corrugated hose 1.4541
910533	RV with pressure relief	1800 mm	Compressed air	Metal corrugated hose 1.4541

NOTE: If a check valve is desired, please add RV to the Order-No.

Other connections, dimensions and details available on request!

Hand-nut connections available on request!

TECHNICAL DETAILS	
Material:	see table
Gas type:	see table
Inlet:	DIN 477 according to gas type
Outlet:	DIN 477 3/4“

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001**. All single parts are manufactured, assembled and tested in house. The finished parts are therefore under the criteria of our exact quality control with 100% final control.

HORNUNG
Präzision made in Germany

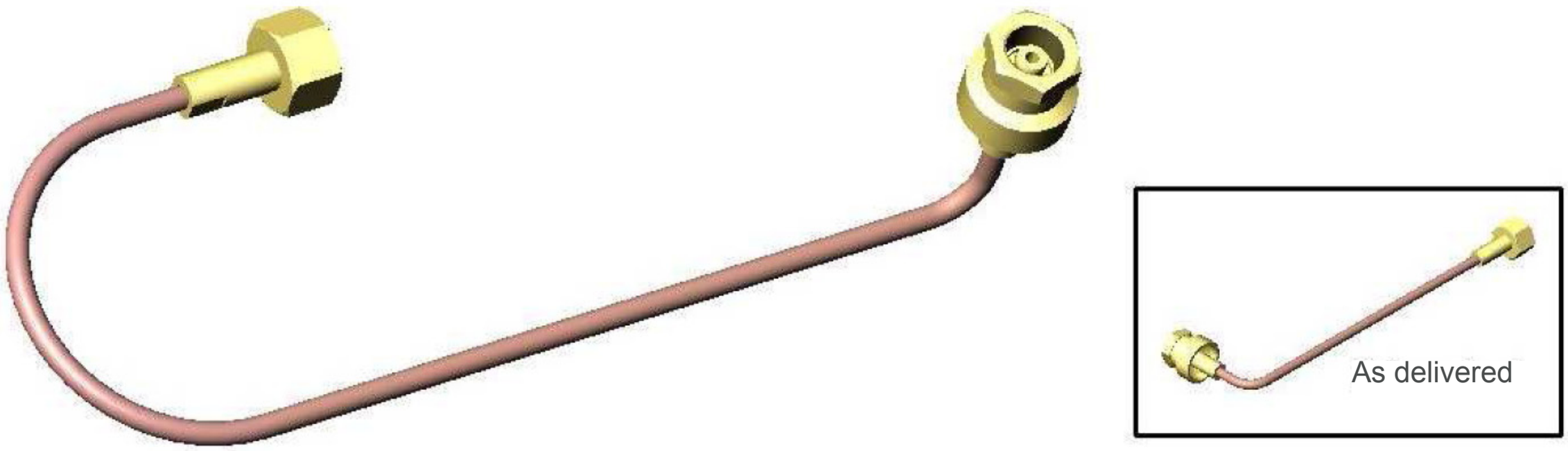
Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

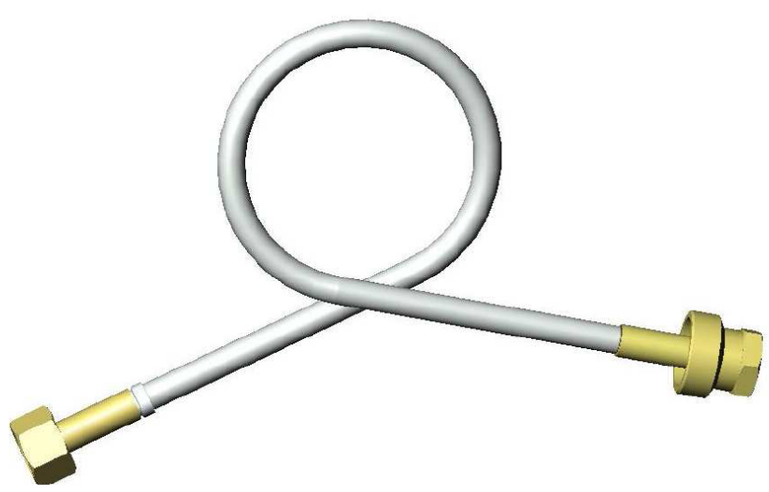
High pressure connections **SLR**

Elbow connection tube SLR for cylinder battery



Plastic hose SLR for cylinder battery and cylinder bundle

Metal corrugated hose SLR for cylinder battery and cylinder bundle



Elbow connection tubes are flexible copper tubes and connect the cylinder to the distributing main with a non-return valve.
Delivery condition: single bend, cylinder side.

Advantage: Copper tubes, as opposed to plastic hose; do not require the prescribed annual inspection. Connection hose SLR are flexible high pressure hose and connect the cylinder or a cylinder bundle to the distributing main with a non-return valve.

NOTE: Only metal corrugated hose is allowed with oxygen.

All three variations were conceived specially for our distributing main with a non-return valves.

Elbow connection tube SLR for cylinder battery, PN 200 bar

ORDER NO.	LENGTH	NORM	GAS TYPE	MATERIAL
920110	800 mm	DIN 477	Oxygen	Copper
920810	800 mm	DIN 477	Laughing Gas (N20)	Copper
920510	800 mm	DIN 477	Compressed air	Copper
920310	800 mm	DIN 477	Carbon dioxide	Copper
920410	800 mm	DIN 477	Nitrogen	Copper
920310	800 mm	DIN 477	Inert gas	Copper
920610	800 mm	DIN 477	Hydrogen	Copper

HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

Elbow connection tube SLR for cylinder battery, PN 200 bar, continued

ORDER NO.	LENGTH	NORM	GAS TYPE	MATERIAL
920111	800 mm	CGA 540 (USA)	Oxygen	Copper
920811	800 mm	CGA 326 (USA)	Laughing gas (N20)	Copper
920511	800 mm	CGA 346 (USA)	Compressed air	Copper
920311	800 mm	CGA 320 (USA)	Carbon dioxide	Copper
920411	800 mm	CGA 580 (USA)	Nitrogen	Copper
920112	800 mm	BS 341 (GB)	Oxygen	Copper
920812	800 mm	BS 341 (GB)	Laughing gas (N20)	Copper
920512	800 mm	BS 341 (GB)	Compressed air	Copper
920312	800 mm	BS 341 (GB)	Carbon dioxide	Copper
920412	800 mm	BS 341 (GB)	Nitrogen	Copper

Plastic hose SLR for cylinder battery, PN 200 bar

ORDER NO.	LENGTH	NORM	GAS TYPE	MATERIAL
920820	1000 mm	DIN 477	Laughing gas (N20)	Plastic hose
920520	1000 mm	DIN 477	Compressed air	Plastic hose
920320	1000 mm	DIN 477	Carbon dioxide	Plastic hose
920420	1000 mm	DIN 477	Nitrogen	Plastic hose
920320	1000 mm	DIN 477	Inert gas	Plastic hose
920620	1000 mm	DIN 477	Hydrogen	Plastic hose
920821	1000 mm	CGA 326 (USA)	Laughing gas (N20)	Plastic hose
920521	1000 mm	CGA 346 (USA)	Compressed air	Plastic hose
920321	1000 mm	CGA 320 (USA)	Carbon dioxide	Plastic hose
920421	1000 mm	CGA 580 (USA)	Nitrogen	Plastic hose
920822	1000 mm	BS 341 (GB)	Laughing gas (N20)	Plastic hose
920522	1000 mm	BS 341 (GB)	Compressed air	Plastic hose
920322	1000 mm	BS 341 (GB)	Carbon dioxide	Plastic hose
920422	1000 mm	BS 341 (GB)	Nitrogen	Plastic hose

Plastic hose SLR for cylinder bundle, PN 200 bar

ORDER NO.	LENGTH	NORM	GAS TYPE	MATERIAL
920823	1500 mm	DIN 477	Laughing gas (N20)	Plastic hose
920523	1500 mm	DIN 477	Compressed air	Plastic hose
920323	1500 mm	DIN 477	Carbon dioxide	Plastic hose
920423	1500 mm	DIN 477	Nitrogen	Plastic hose
920323	1500 mm	DIN 477	Inert gas	Plastic hose
920623	1500 mm	DIN 477	Hydrogen	Plastic hose
920824	1500 mm	CGA 326 (USA)	Laughing gas (N20)	Plastic hose
920524	1500 mm	CGA 346 (USA)	Compressed air	Plastic hose
920324	1500 mm	CGA 320 (USA)	Carbon dioxid	Plastic hose
920424	1500 mm	CGA 580 (USA)	Nitrogen	Plastic hose
920825	1500 mm	BS 341 (GB)	Laughing gas (N20)	Plastic hose
920525	1500 mm	BS 341 (GB)	Compressed air	Plastic hose
920325	1500 mm	BS 341 (GB)	Carbon dioxide	Plastic hose
920425	1500 mm	BS 341 (GB)	Nitrogen	Plastic hose

Rathenaustraße 55
63263 Neu-Isenburg
Phone: +49 6102 7883-70
Fax: +49 6102 7883-40
www.hornung.org
info@hornung.org

SLR

Metal corrugated hose SLR for cylinder battery, PN 200 bar

ORDER NO.	LENGTH	NORM	GAS TYPE	MATERIAL
920130	1000 mm	DIN 477	Oxygen	Metal corrugated hose 1.4541
920830	1000 mm	DIN 477	Laughing gas (N20)	Metal corrugated hose 1.4541
920530	1000 mm	DIN 477	Compressed air	Metal corrugated hose 1.4541
920330	1000 mm	DIN 477	Carbon dioxid	Metal corrugated hose 1.4541
920430	1000 mm	DIN 477	Nitrogen	Metal corrugated hose 1.4541
920330	1000 mm	DIN 477	Inert gas	Metal corrugated hose 1.4541
920630	1000 mm	DIN 477	Hydrogen	Metal corrugated hose 1.4541
920131	1000 mm	CGA 540 (USA)	Oxygen	Metal corrugated hose 1.4541
920831	1000 mm	CGA 326 (USA)	Laughing gas (N20)	Metal corrugated hose 1.4541
920531	1000 mm	CGA 346 (USA)	Compressed air	Metal corrugated hose 1.4541
920331	1000 mm	CGA 320 (USA)	Carbon dioxid	Metal corrugated hose 1.4541
920431	1000 mm	CGA 580 (USA)	Nitrogen	Metal corrugated hose 1.4541
920132	1000 mm	BS 341 (GB)	Oxygen	Metal corrugated hose 1.4541
920832	1000 mm	BS 341 (GB)	Laughing air (N20)	Metal corrugated hose 1.4541
920532	1000 mm	BS 341 (GB)	Compressed air	Metal corrugated hose 1.4541
920332	1000 mm	BS 341 (GB)	Carbon dioxid	Metal corrugated hose 1.4541
920432	1000 mm	BS 341 (GB)	Nitrogen	Metal corrugated hose 1.4541

Metal corrugated hose SLR for cylinder bundle, PN 200 bar

ORDER NO.	LENGTH	NORM	GAS TYPE	MATERIAL
920133	1500 mm	DIN 477	Oxygen	Metal corrugated hose 1.4541
920833	1500 mm	DIN 477	Laughing gas (N20)	Metal corrugated hose 1.4541
920533	1500 mm	DIN 477	Compressed air	Metal corrugated hose 1.4541
920333	1500 mm	DIN 477	Carbon dioxid	Metal corrugated hose 1.4541
920433	1500 mm	DIN 477	Nitrogen	Metal corrugated hose 1.4541
920333	1500 mm	DIN 477	Inert gas	Metal corrugated hose 1.4541
920633	1500 mm	DIN 477	Hydrogen	Metal corrugated hose 1.4541
920134	1500 mm	CGA 540 (USA)	Oxygen	Metal corrugated hose 1.4541
920834	1500 mm	CGA 326 (USA)	Laughing gas (N20)	Metal corrugated hose 1.4541
920534	1500 mm	CGA 346 (USA)	Compressed air	Metal corrugated hose 1.4541
920334	1500 mm	CGA 320 (USA)	Carbon dioxid	Metal corrugated hose 1.4541
920434	1500 mm	CGA 580 (USA)	Nitrogen	Metal corrugated hose 1.4541
920135	1500 mm	BS 341 (GB)	Oxygen	Metal corrugated hose 1.4541
920835	1500 mm	BS 341 (GB)	Laughing gas (N20)	Metal corrugated hose 1.4541
920535	1500 mm	BS 341 (GB)	Compressed air	Metal corrugated hose 1.4541
920335	1500 mm	BS 341 (GB)	Carbon dioxid	Metal corrugated hose 1.4541
920435	1500 mm	BS 341 (GB)	Nitrogen	Metal corrugated hose 1.4541

TECHNICAL DETAILS FOR PN 200 BAR

Material:	see table	Inlet:	see table according to gas type
Gas type:	see table	Outlet:	flat sealing, G 3/4“, not DIN 477

HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

SLR

Elbow connection tube SLR for cylinder battery, PN 300 bar

ORDER NO.	LENGTH	NORM	GAS TYPE	MATERIAL
923010	800 mm	DIN 477-5	Non flammable gases	Copper
923310	800 mm	DIN 477-5	Flammable gases	Copper
923110	800 mm	DIN 477-5	Compressed air	Copper
923210	800 mm	DIN 477-5	Oxygen	Copper

Plastic hose SLR for cylinder battery, PN 300 bar

ORDER NO.	LENGTH	NORM	GAS TYPE	MATERIAL
923020	1000 mm	DIN 477-5	Non flammable gases	Plastic hose
923320	1000 mm	DIN 477-5	Flammable gases	Plastic hose
923120	1000 mm	DIN 477-5	Compressed air	Plastic hose

Plastic hose SLR for cylinder bundle, PN 300 bar

ORDER NO.	LENGTH	NORM	GAS TYPE	MATERIAL
923021	1500 mm	DIN 477-5	Non flammable gases	Plastic hose
923321	1500 mm	DIN 477-5	Flammable gases	Plastic hose
923121	1500 mm	DIN 477-5	Compressed air	Plastic hose

Metal corrugated hose SLR for cylinder battery, PN 300 bar

ORDER NO.	LENGTH	NORM	GAS TYPE	MATERIAL
923030	1000 mm	DIN 477-5	Non flammable gases	Metal corrugated hose 1.4541
923330	1000 mm	DIN 477-5	Flammable gases	Metal corrugated hose 1.4541
923130	1000 mm	DIN 477-5	Compressed air	Metal corrugated hose 1.4541
923230	1000 mm	DIN 477-5	Oxygen	Metal corrugated hose 1.4541

Metal corrugated hose SLR for cylinder bundle, PN 300 bar

ORDER NO.	LENGTH	NORM	GAS TYPE	MATERIAL
923031	1500 mm	DIN 477-5	Non flammable gases	Metal corrugated hose 1.4541
923331	1500 mm	DIN 477-5	Flammable gases	Metal corrugated hose 1.4541
923131	1500 mm	DIN 477-5	Compressed air	Metal corrugated hose 1.4541
923231	1500 mm	DIN 477-5	Oxygen	Metal corrugated hose 1.4541

Other connections, dimensions and details available on request!

TECHNICAL DETAILS FOR PN 300 BAR

Material:	see table	Inlet:	DIN 477-5 according to gas type
Gas type	see table	Outlet:	flat seal G 3/4“, not DIN 477

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001:2009**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

HORNUNG

Präzision made in Germany

T-joint with **pressure release valve**

The t-joint is used in connection with a shut-off valve for pressure release in cylinder-bundles and battery manifolds

ORDER NO.	GAS
620120	Oxygen
620120	Nitrogen
620120	Pure gas
620120	Hydrogen
620120	Compressed air
620120	Argon / CO2

Other sizes and combinations on request!

TECHNICAL DETAILS

Material:	brass	Gas type:	see table
Pressure:	max. 200 bar	Connection:	3/4“ - flat

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001:2009**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

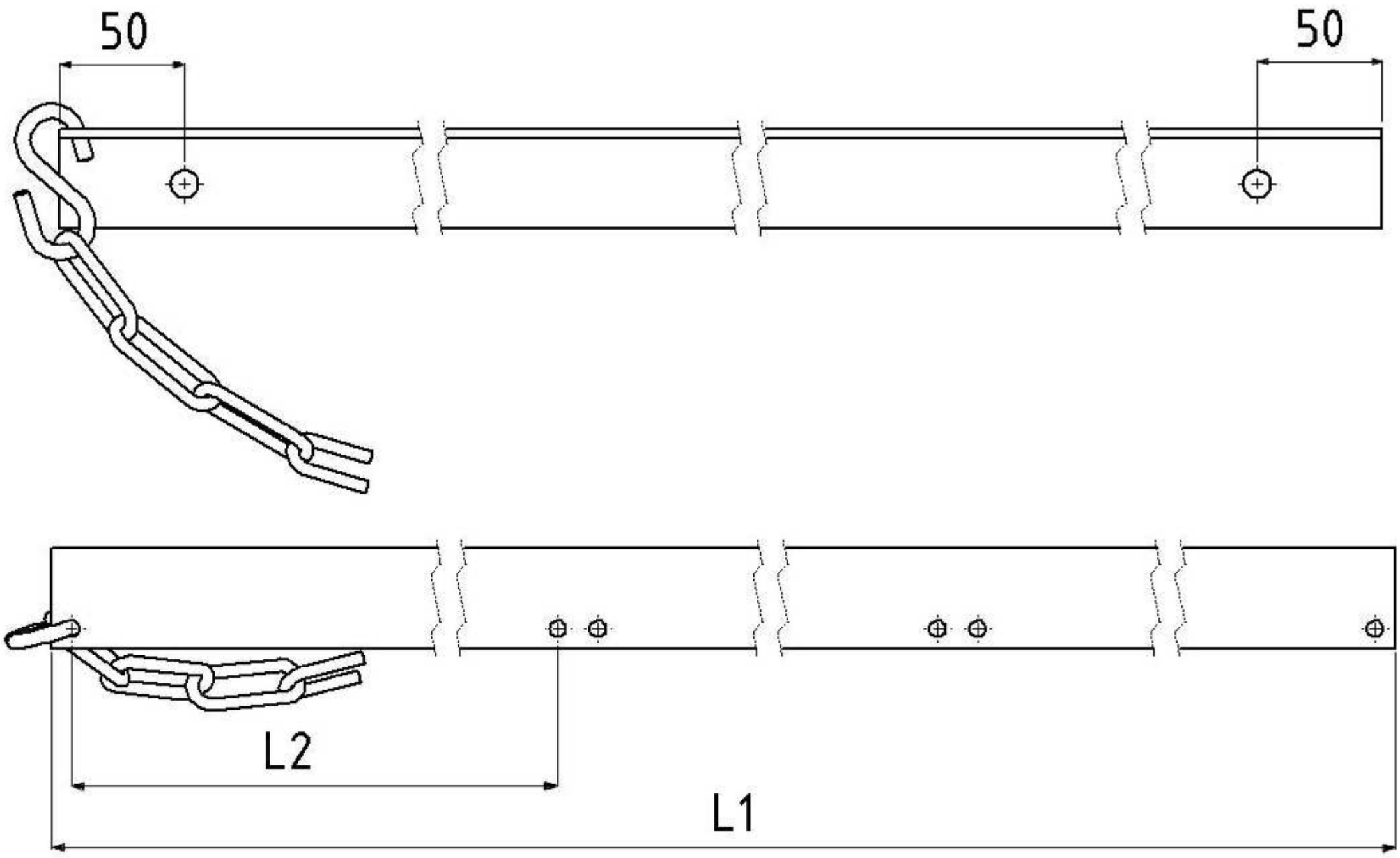
HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

Cylinder retainer



The usual cylinder battery consists of many 40 litre or 50 litre single cylinders that are connected to permanently installed high pressure lines. To prevent cylinders from falling over, cylinder retainers with chains are used.

CYLINDER Ø (mm)	AMOUNT	L1 (mm)	L2 (mm)	ORDER NO.
229	1	270	254	B2119/51
229	2	540	254	B2119/52
229	3	810	254	B2119/53
318	1	360	344	B2119/61
318	2	720	344	B2119/62
318	3	1080	344	B2119/63

TECHNICAL DETAILS

Material: steel zinc plated

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001:2009**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

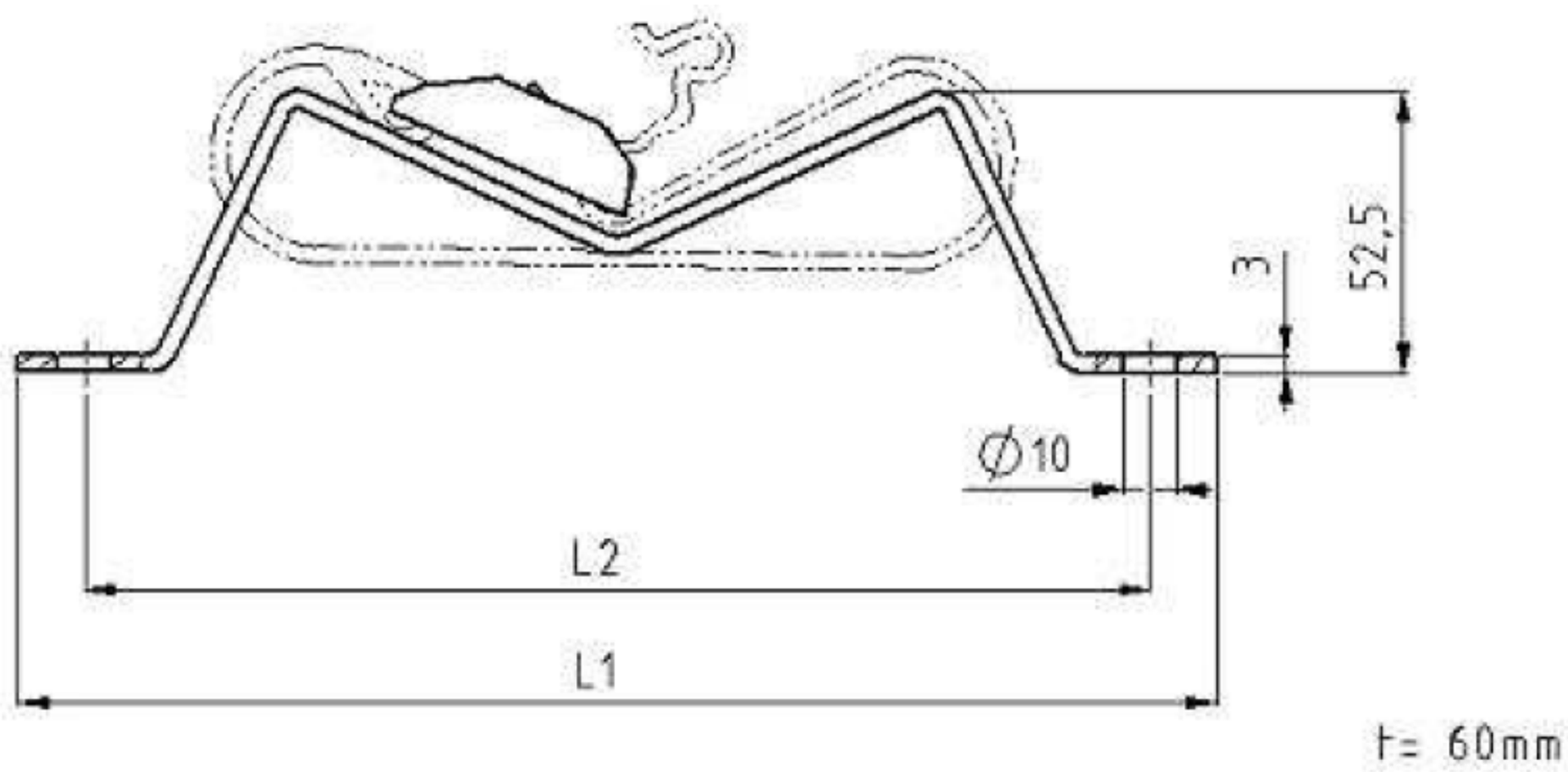
HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

Cylinder retainer



The usual cylinder battery consists of several 40 litre or 50 litre single cylinders, which are attached to stationary installed high pressure collecting lines. The cylinder retainers have belts to avoid the gas cylinders to fall over.
This cylinder retainer is designed for different cylinder sizes, which are secured by an adjustable belt.

CYLINDERS Ø (mm)	QUANTITY	L1 (mm)	L2 (mm)	ORDER NO.
229	1	255	200	HP60900

TECHNICAL DETAILS

Retainer:	coated steel plate
Fastener:	zinc die-cast synthetic fabric

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001:2009**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

Point of use stations

Work places that are supplied over a ring and junction pipe system and central supply gas system, require work place specific gas supply stations.

These are usually composed of a shut off valve at 90° or straight and the following supply station pressure regulator.

Contents:

HORNUNG

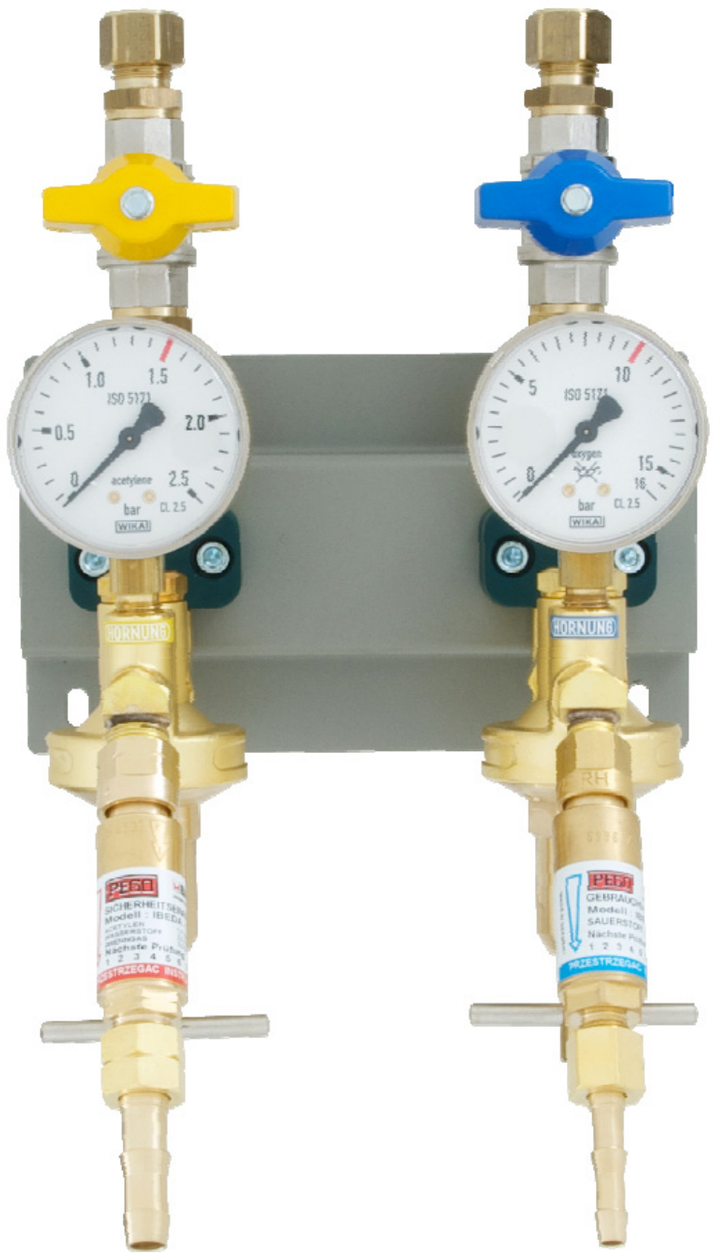
Präzision made in Germany

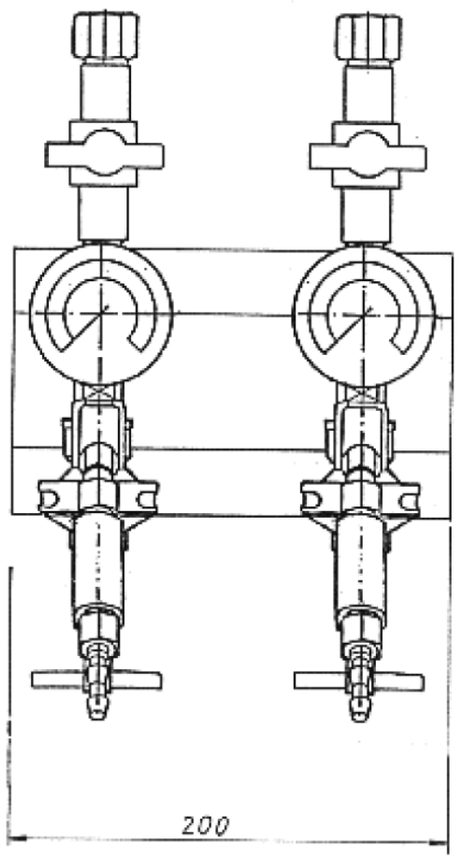
Rathenaustraße 55
63263 Neu-Isenburg

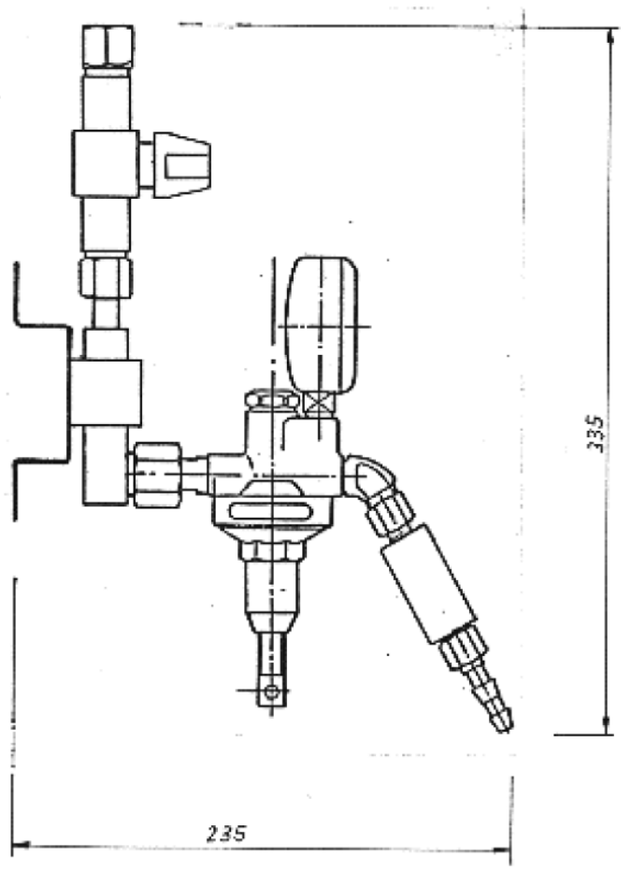
Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

Point of use station **EDR**







MODEL	GAS	INLET PRESSURE P1	OUTLET PRESSURE P2	FLOW Q1	INLET CONNECTION	OUTLET CONNECTION
EDR ST	NF, F, NC	max. 25 bar 1,5 bar Acetylene	max. 10 bar 1,5 bar Acetylene	max. 30/1 m³/h	clamp screw Ø 12	G 1/4, G 3/8 LH DIN EN 560

Point of use stations are connected with a ring and junction system.
Our point of use stations EDR consist of a point of use regulator in brass, ball valve, automatic non-return valve (according to DIN EN 15615) and wall console. This station can be delivered with one, two or three regulators.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001:2009**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

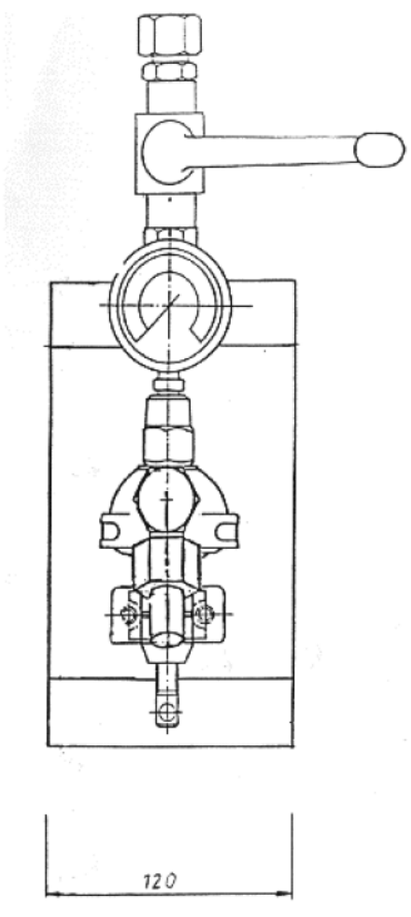
HORNUNG
Präzision made in Germany

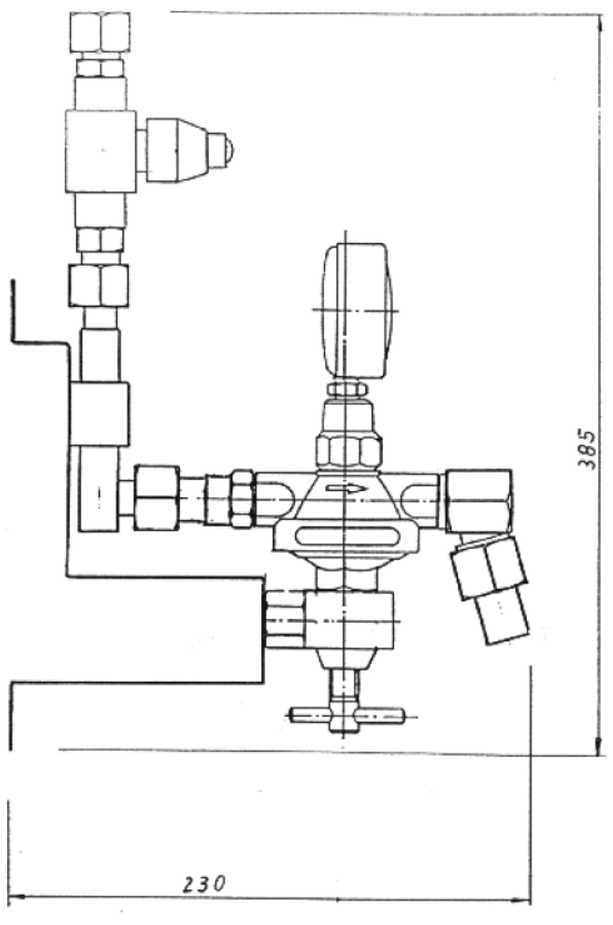
Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

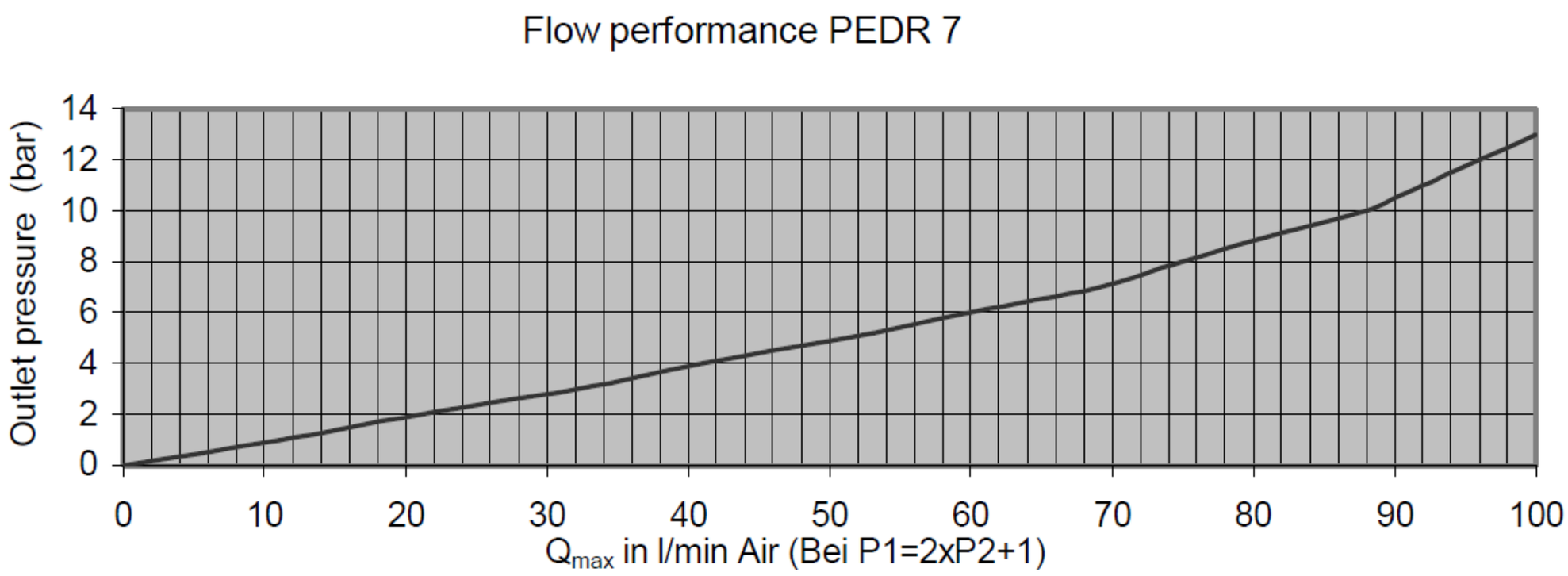
www.hornung.org
info@hornung.org

Point of use station PEDR 7





MODEL	GAS	INLET PRESSURE P1	OUTLET PRESSURE P2	FLOW Q1	INLET CONNECTION	OUTLET CONNECTION
PEDR 7 ST	F, NF, NC	max. 35 bar	max. 30 bar	max. 70 m³/h	clamp screw Ø 16	G 1/2 DIN EN 560



Point of use stations are connected with a ring and junction system.

Our point of use stations PEDR consist of a point of use regulator in brass, ball valve, automatic non-return valve (according to DIN EN 15615) and wall console.

For large flow volumes from flame cutting, plasma and laser cutting applications.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001:2009**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

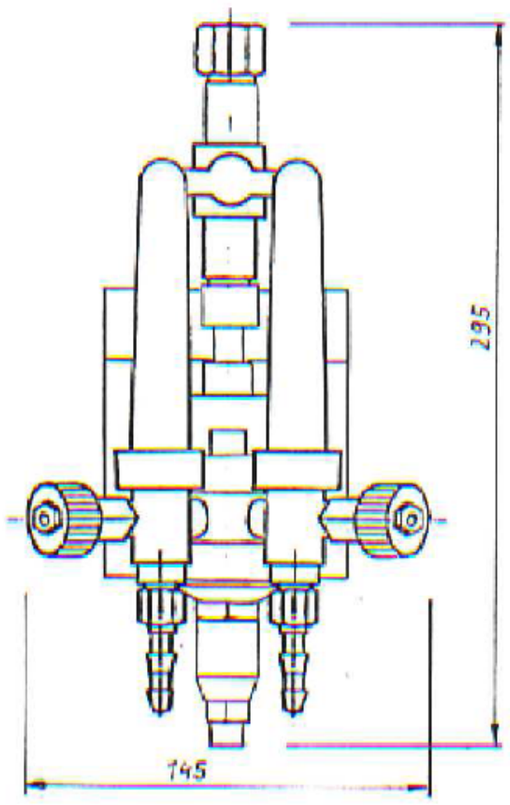
HORNUNG
Präzision made in Germany

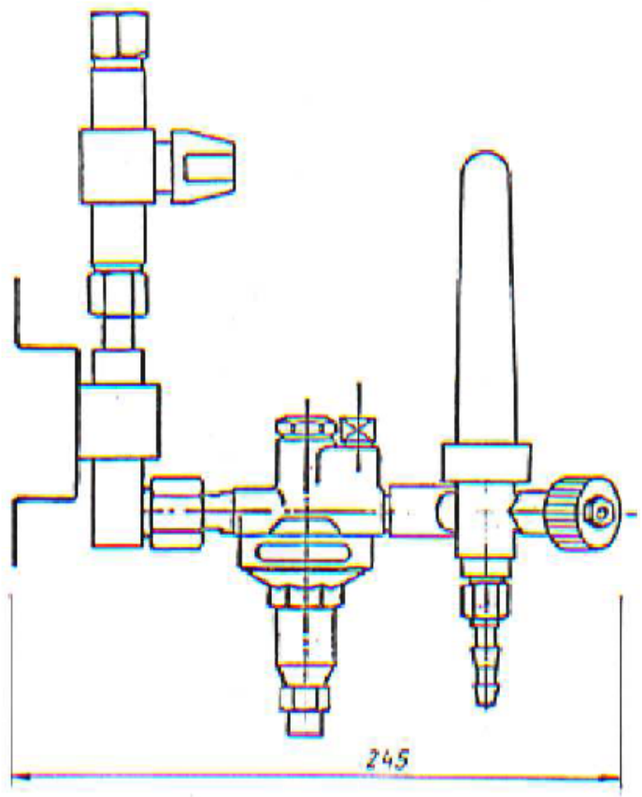
Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

Point of use station **EDR - Flow**





MODEL	GAS	INLET PRESSURE P1	INLET CONNECTION	OUTLET CONNECTION
EDR-FLOW	F, NF, NC	max. 25 bar	clamp screw Ø12	G 1/4, G 3/8 LH DIN EN 560

N_2	CO_2Ar	FORMING GAS	H_2O	TYPE
1-16 l/min 4-32 l/min	1-16 l/min 3-30 l/min	1-16 l/min 3-30 l/min	1-16 l/min 2-32 l/min	1,2 or 3 x

Point of use stations are connected with a ring and junction system. The gas volume can be adjusted with the flowmeter.

Our point of use stations EDR-Flow consist of one regulator, flow meter, ball valve, dosage/ shut-off valve and a wall console.

This station can be delivered with one, two or three outlets.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001:2009**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

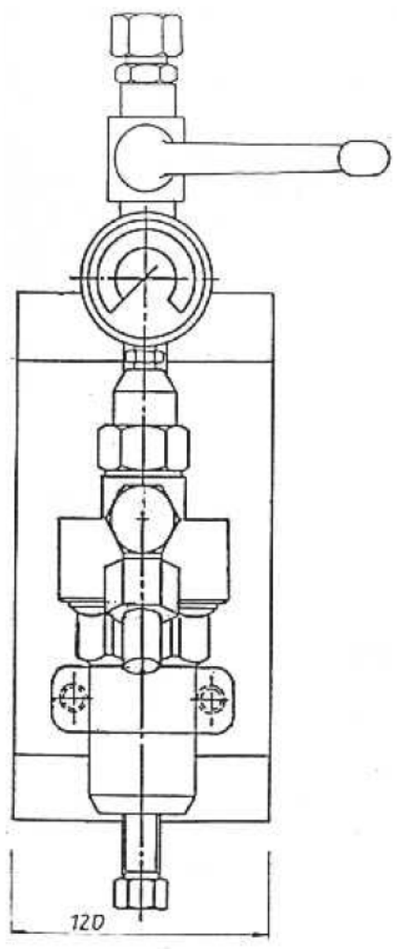
HORNUNG
Präzision made in Germany

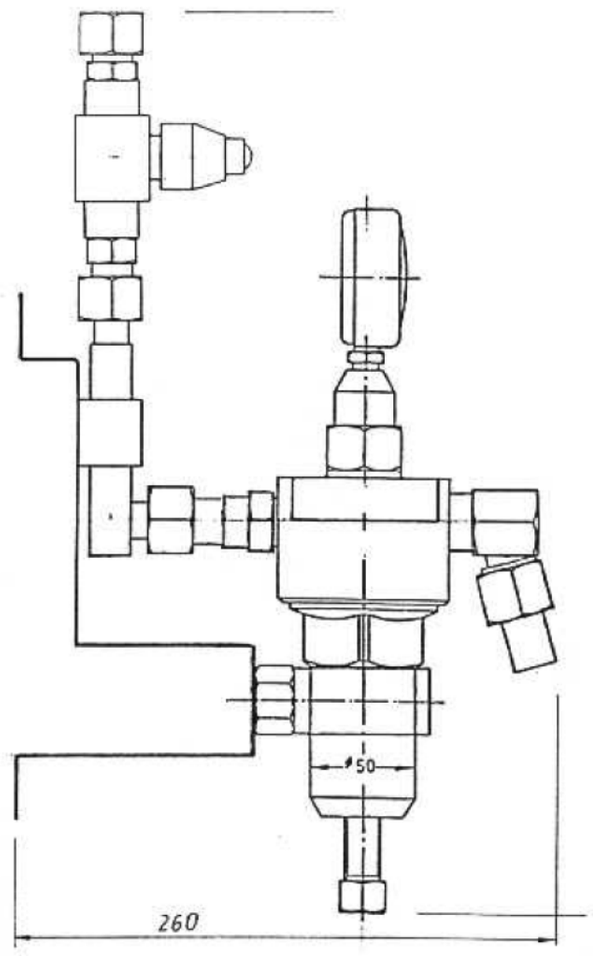
Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

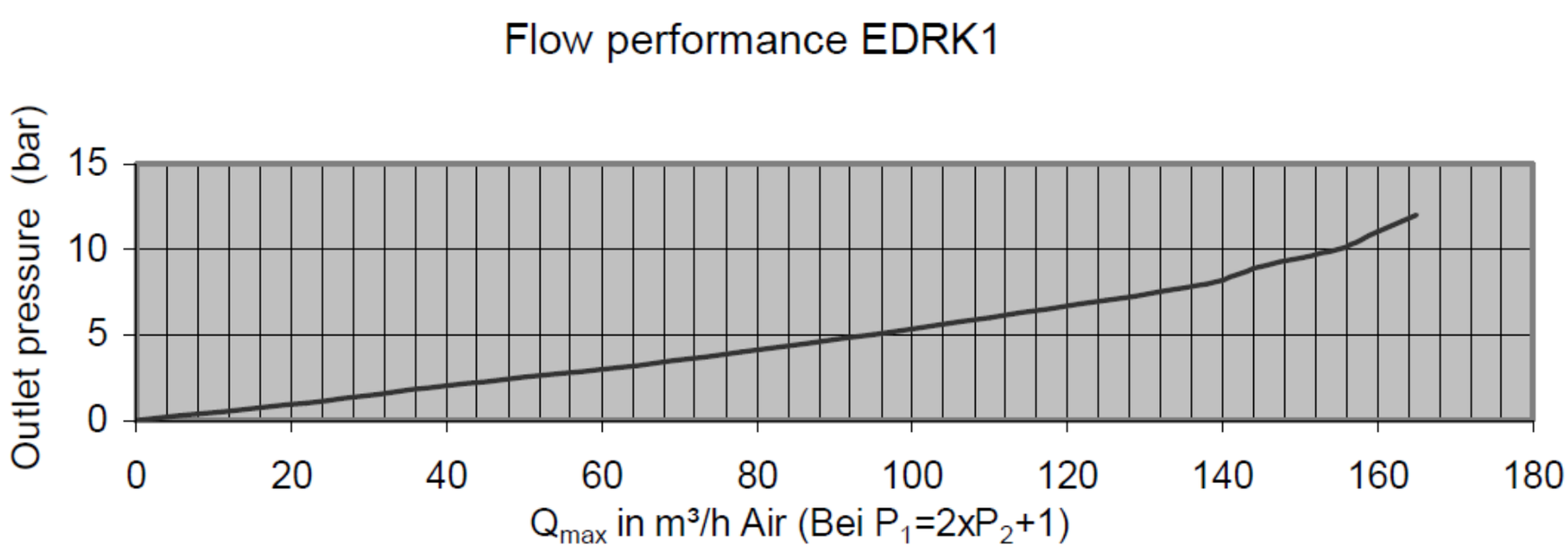
www.hornung.org
info@hornung.org

Point of use station **EDRK 1**





MODEL	GAS	INLET PRESSURE P1	OUTLET PRESSURE P2	FLOW Q1	INLET CONNECTION	OUTLET CONNECTION
EDRK 1 ST	F, NF,NC	max. 40 bar	max. 35 bar	see diagram	clamp screw Ø 16	G 3/4 with soldering nipple



Point of use stations are connected with a ring and junction system.
For large flow volumes from flame cutting, plasma and laser cutting applications.

The EDRK 1 consists of one regulator, ball valve and mounting bracket.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001:2009**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

Central and cylinder pressure regulators 30 bar to 400 bar

Central pressure regulators or main pressure regulators, describes pressure reduction valves that reduce the high pressure from main containers (compressor tanks, cylinder batteries or liquid gas tanks) to an intermediate pressure.

The amount of intermediate pressure depends on the gas volume and pressure that would be needed by the following gas supply station.

Contents:

HORNUNG

Präzision made in Germany

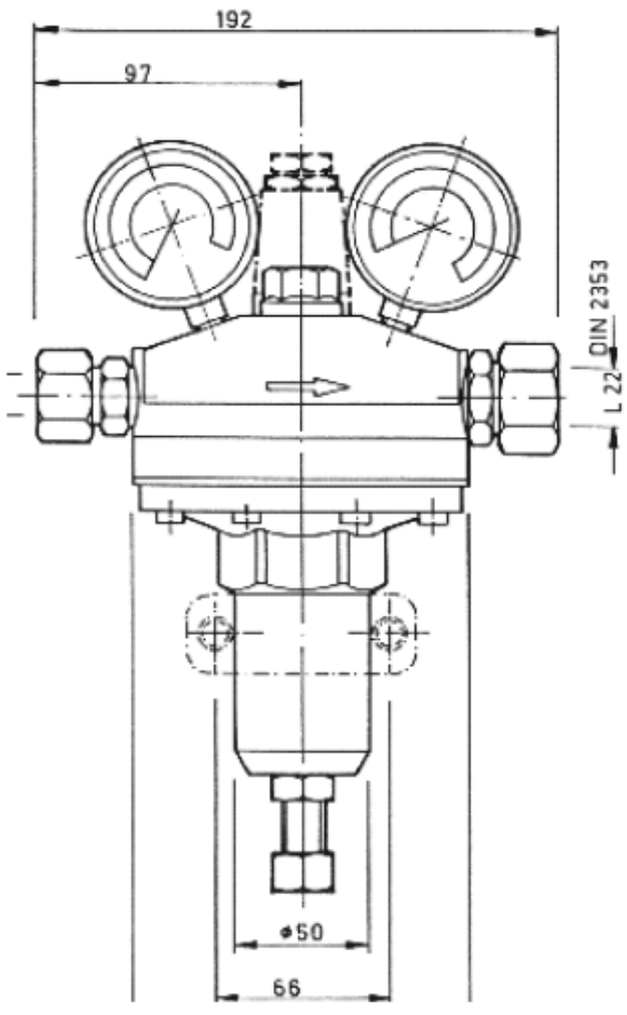
Rathenaustraße 55
63263 Neu-Isenburg

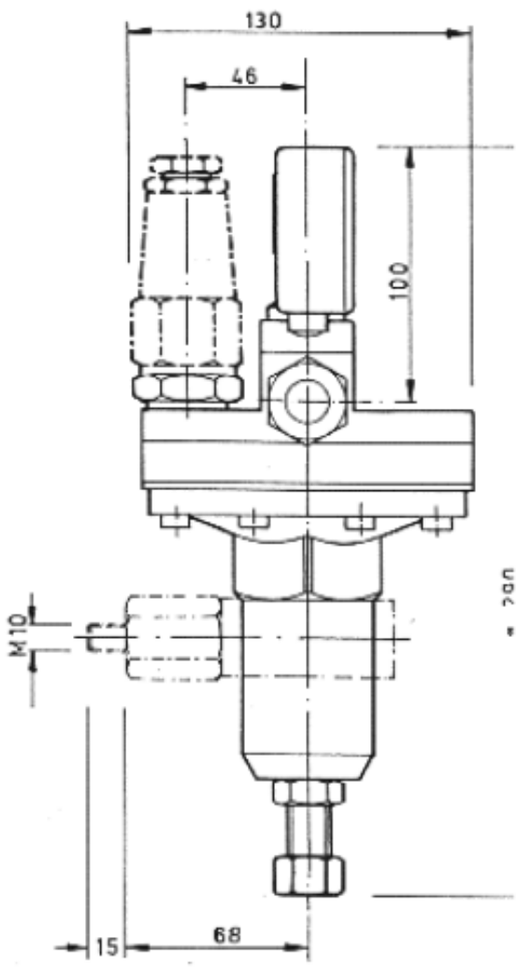
Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

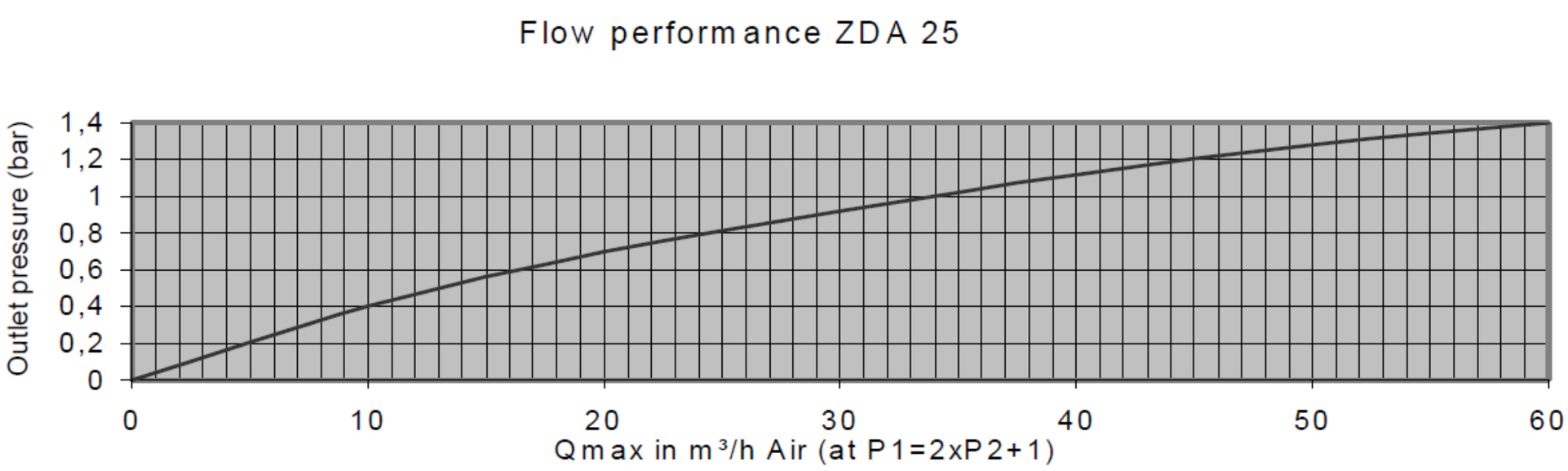
Central pressure regulator **ZDA 25**

- for Acetylene





MODEL	GAS	INLET PRESSURE P1	OUTLET PRESSURE P2	FLOW Q1	INLET CONNECTION	OUTLET CONNECTION
ZDA 25	Acetylene	max. 25 bar	max. 1,5 bar	see diagram	clamp screw Ø 16	clamp screw Ø 22



The central pressure regulator ZDA 25 reduces a maximum inlet pressure from 25 bar down to max. 1,5 bar.

Suitable for connection to acetylene batteries and 2x3 bundles.

The ZDA 25 is a single stage brass regulator with safety valve certified to DIN EN 961.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001:2009**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

HORNUNG

Präzision made in Germany

dated 09/2023

Manifold pressure regulator L2 Acetylen

Fittings and gauges optional

TECHNICAL DETAILS		APPLICATION AREA	DESCRIPTION
Material:	brass	In the special version for acetylene, our L2 Ace is designed for pressure reduction from high pressure to medium pressure in supply systems.	The manifold pressure regulator L2 is characterised by an accurate regulation and a large throughput. It also achieves a high pressure consistency.
Valve seat:	Ø 26		
Cv-value:	13,7	We urgently recommend to protect following components with suitable relief valves against inadmissibly high pressures.	The spring loaded pressure regulator works according to the principle of the force equilibrium between the adjusted spring force and the outlet pressure. It does not require a separate gas supply.
Seat:	EPDM		
Diaphragm:	EPDM		It can be equipped optionally with an inlet and an outlet gauge.
Max. inlet pressure:	25 bar		
Outlet pressure ranges:	up to 1,5 bar		
Dimensions:	Ø 177 x 276 mm		
Weight:	28 kg		
Connections:	Inlet / outlet G 2“ Gauge NPT 1/4“ DIN EN 7291		

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

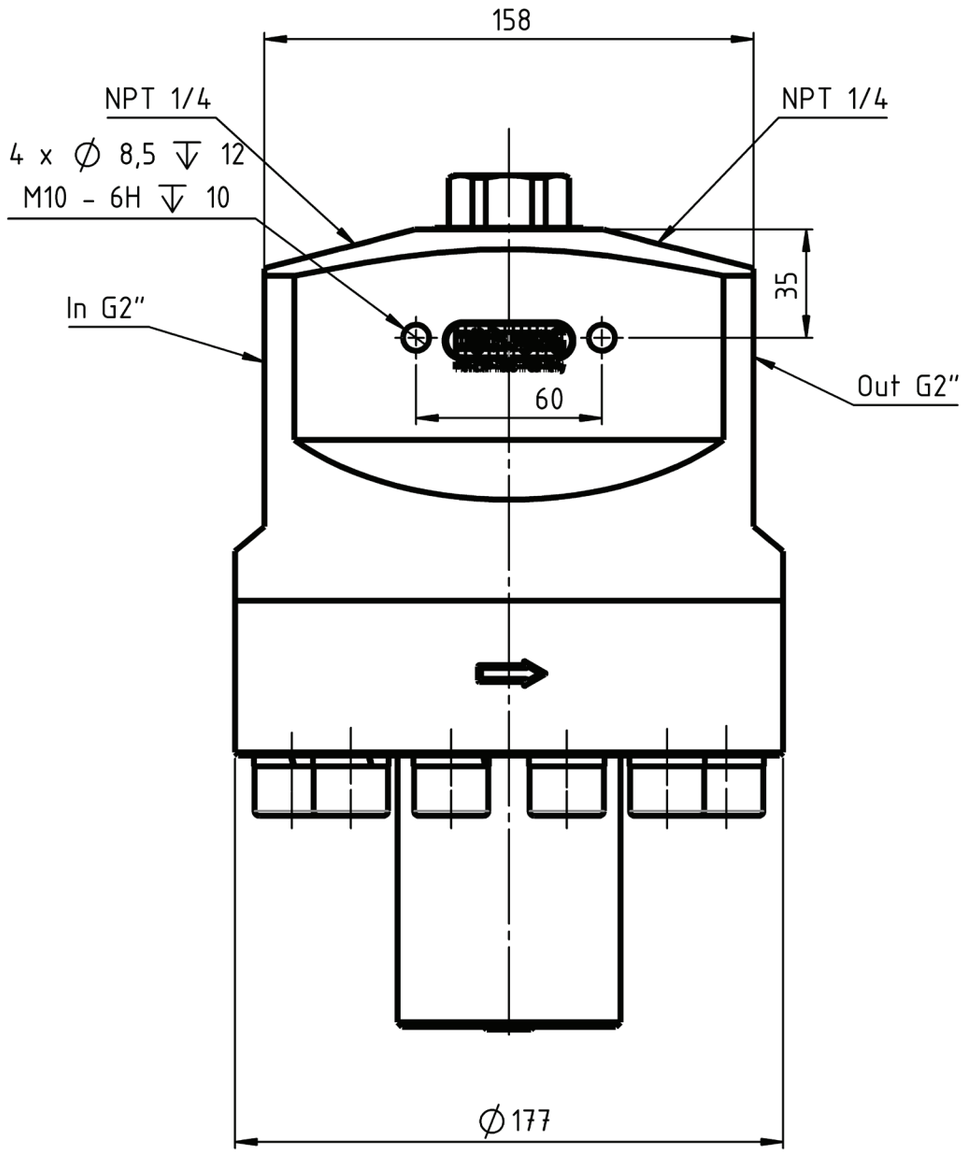
HORNUNG
Präzision made in Germany

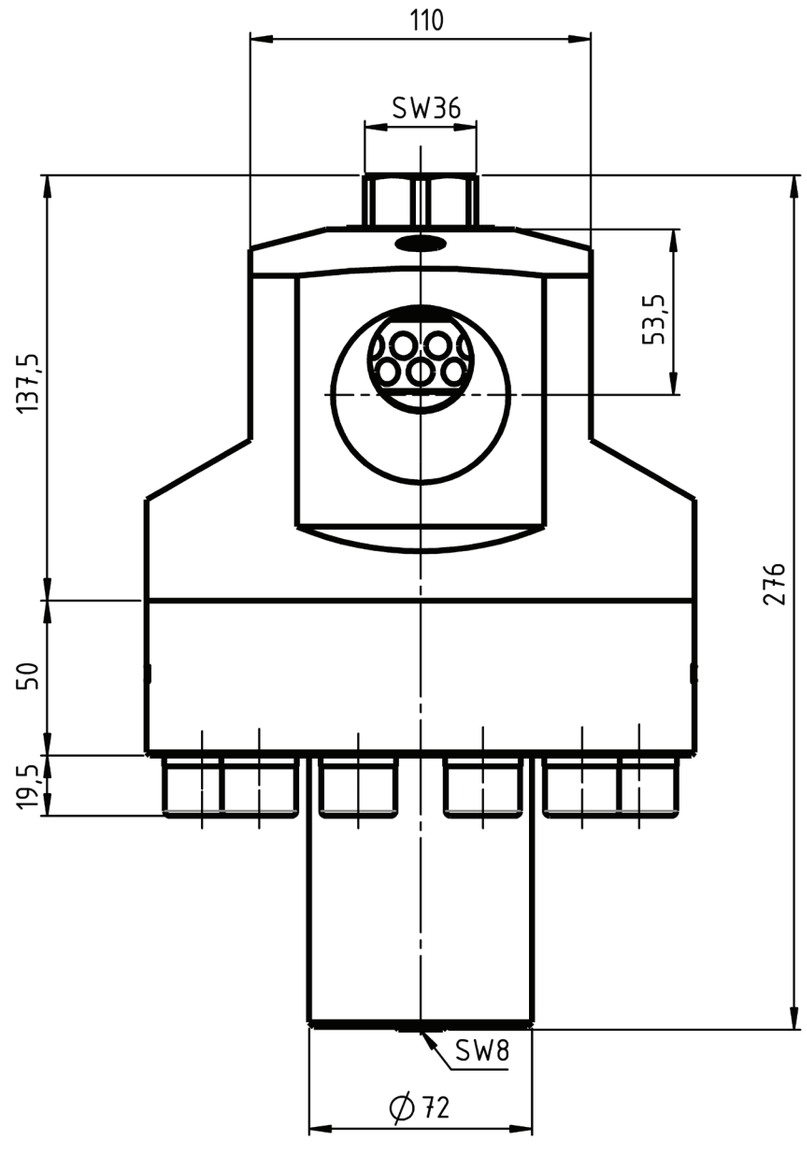
Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

L2 Acetylen





VERSION

A large independence from fluctuation of the inlet pressure is reached with a balanced poppet.

BAM checked according to DIN EN 15615.

CE-marking according to Pressure Equipment Directive 2014/68/EU.

ORDER DETAILS

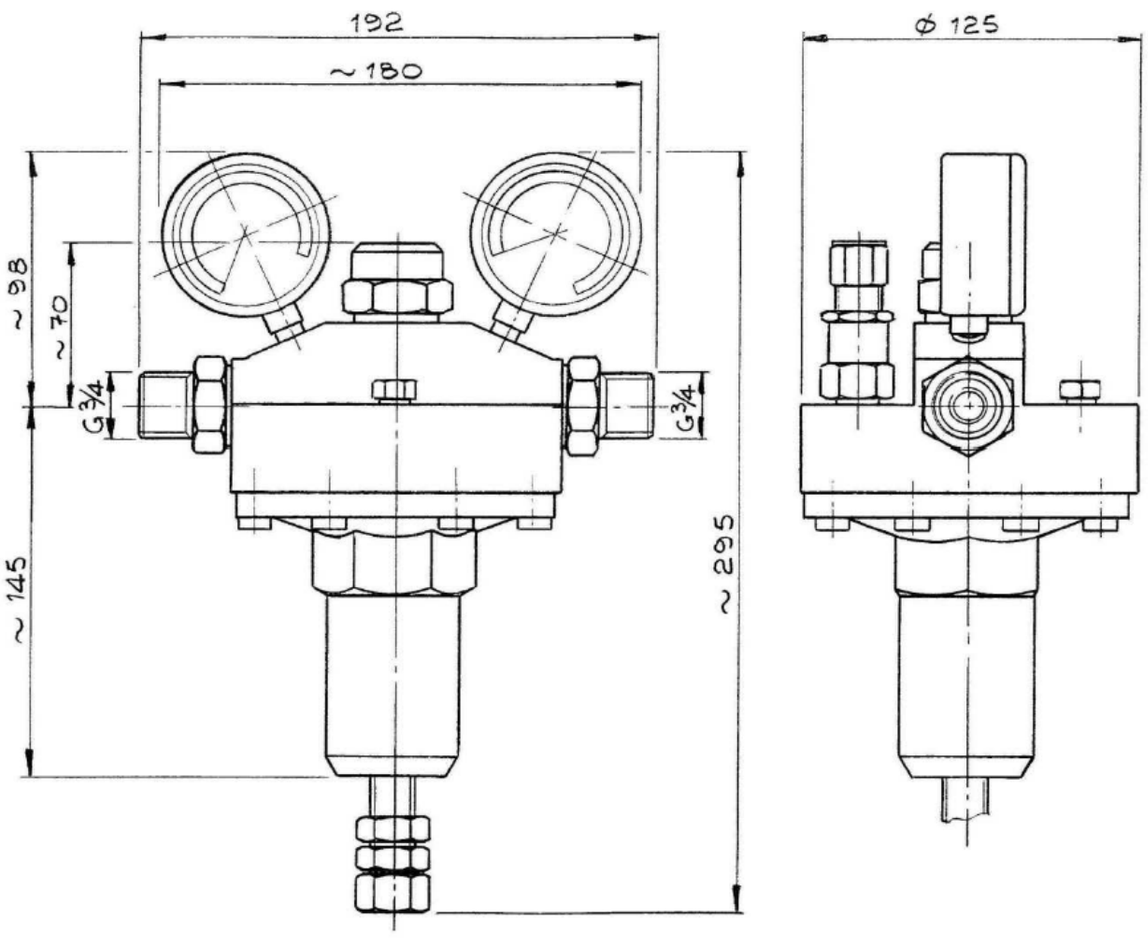
Material:	**Diaphragm:**	**Outlet pressure:**	**Gauges:**	**Inlet / outlet:**
1 = brass	1 = EPDM	0 = 1,5 bar	0 = none	0 = G 2“
			1 = with inlet and outlet gauge	

article number:	39011000	without gauges
	39011010	with gauges

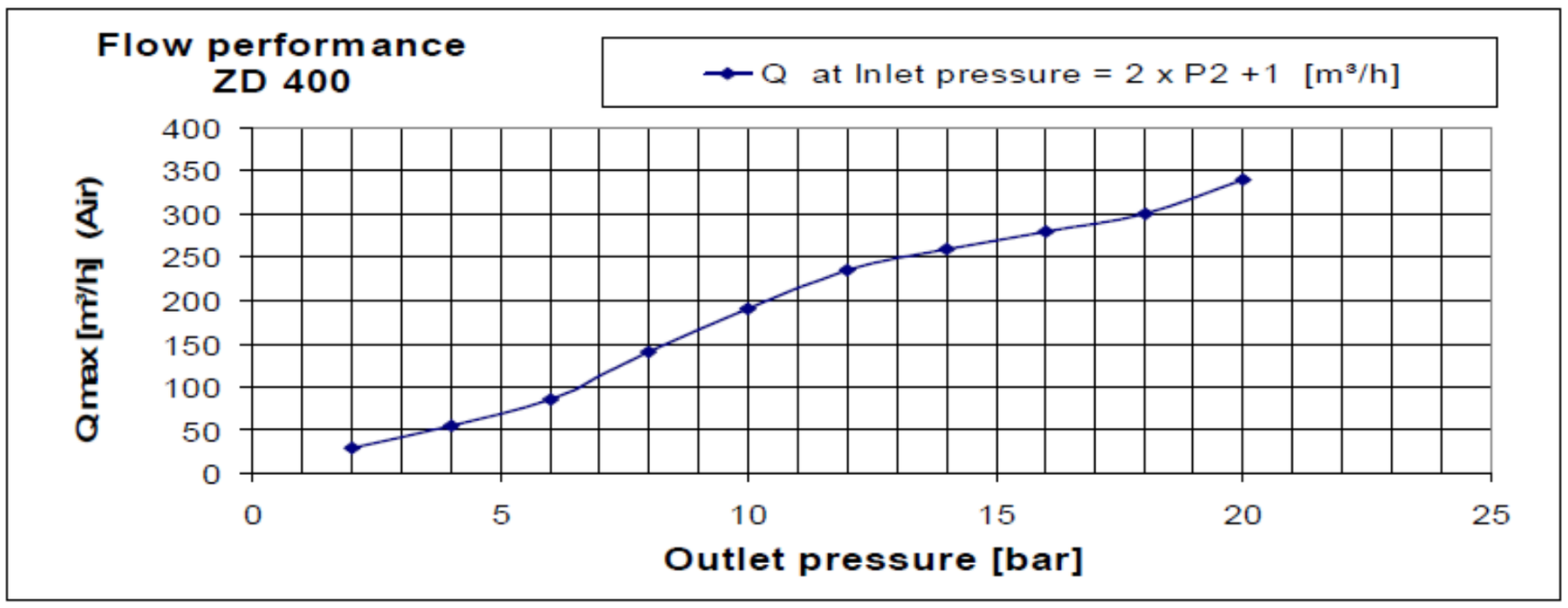
Accessories: see total catalogue segment

7. Gauges, fittings and accessories
safety valves available on request

Central pressure regulator **ZD 400**



MODEL	GAS	INLET PRESSURE P1	OUTLET PRESSURE P2	FLOW Q1	INLET CONNECTION	OUTLET CONNECTION
ZD 400	NF, F, NC	max. 300 bar	max. 0-20 bar	340 m³/h	G 3/4	G1



The pressure regulator ZD 400 reduces the max. inlet pressure of 300 bar down to a max. outlet pressure of 20 bar.

The ZD 400 is a single stage diaphragm controlled regulator with a balanced poppet.

A specifically constructed poppet version assures constancy in outlet pressure. BAM certified for Oxygen.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001:2009**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

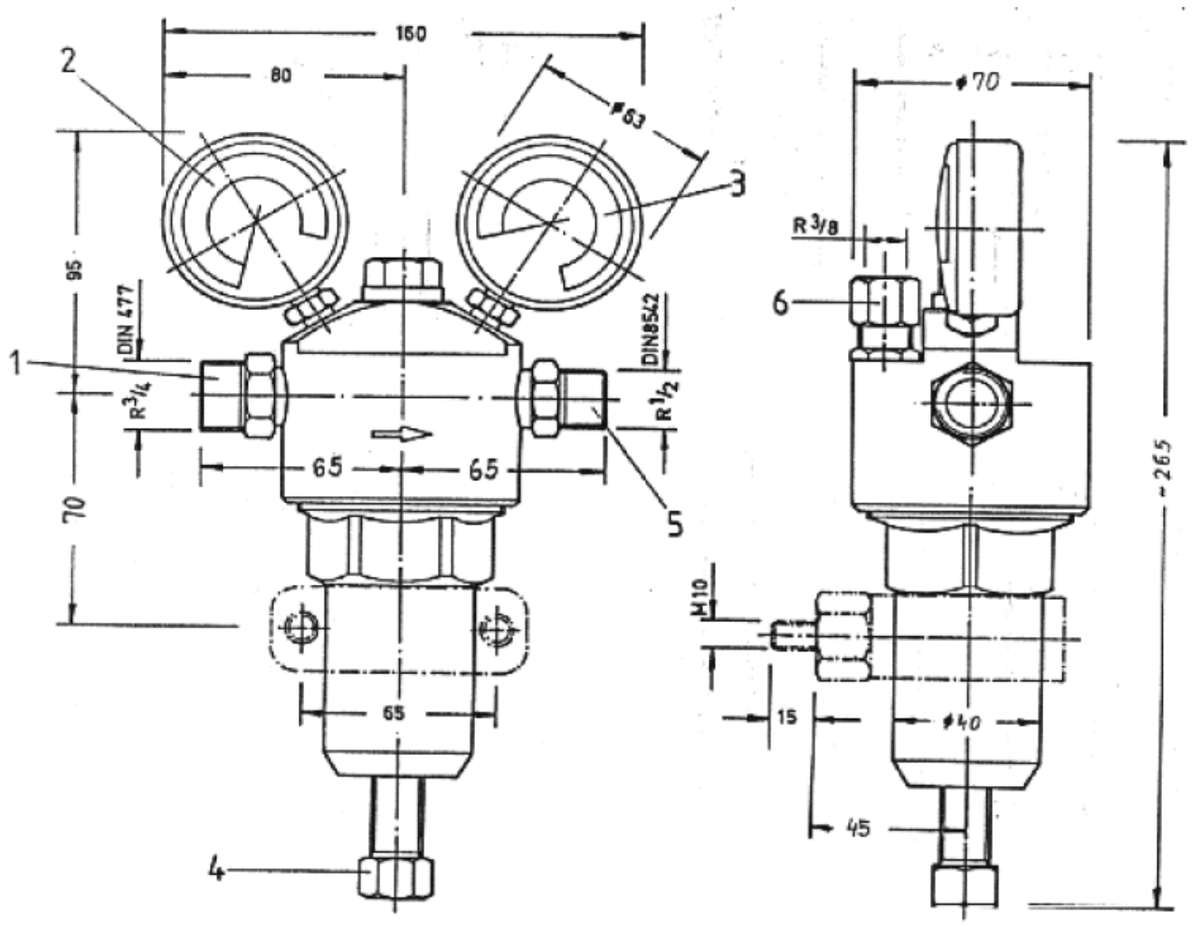
HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

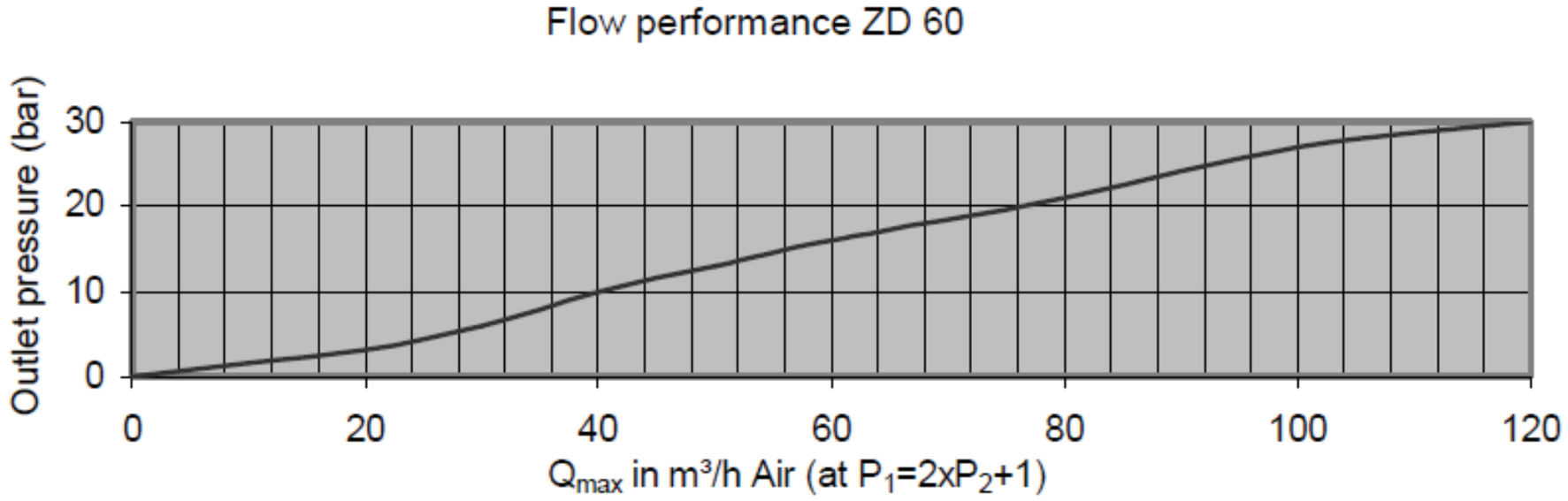
Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

Central pressure regulator **ZD 60**



MODEL	GAS	INLET PRESSURE P1	OUTLET PRESSURE P2	FLOW Q1	INLET CONNECTION	OUTLET CONNECTION
ZD 60	F, NF, NC	max. 300 bar	max. 30 bar	see diagram	W21,8 x 1/14“ DIN 477	G 1/2 DIN EN 560



The central pressure regulator ZD 60 reduces a maximum inlet pressure from 300 bar down to max. 30 bar and keep constant.
The ZD 60 is supplied in brass for non-corrosive, flammable (except acetylene) and non-flammable gases.

The ZD 60 is a single stage regulator with relief valve and certified to DIN EN 961 (ISO 7291) BAM.
The regulator is available in straight or 90° configuration and can also be supplied with a wall bracket.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

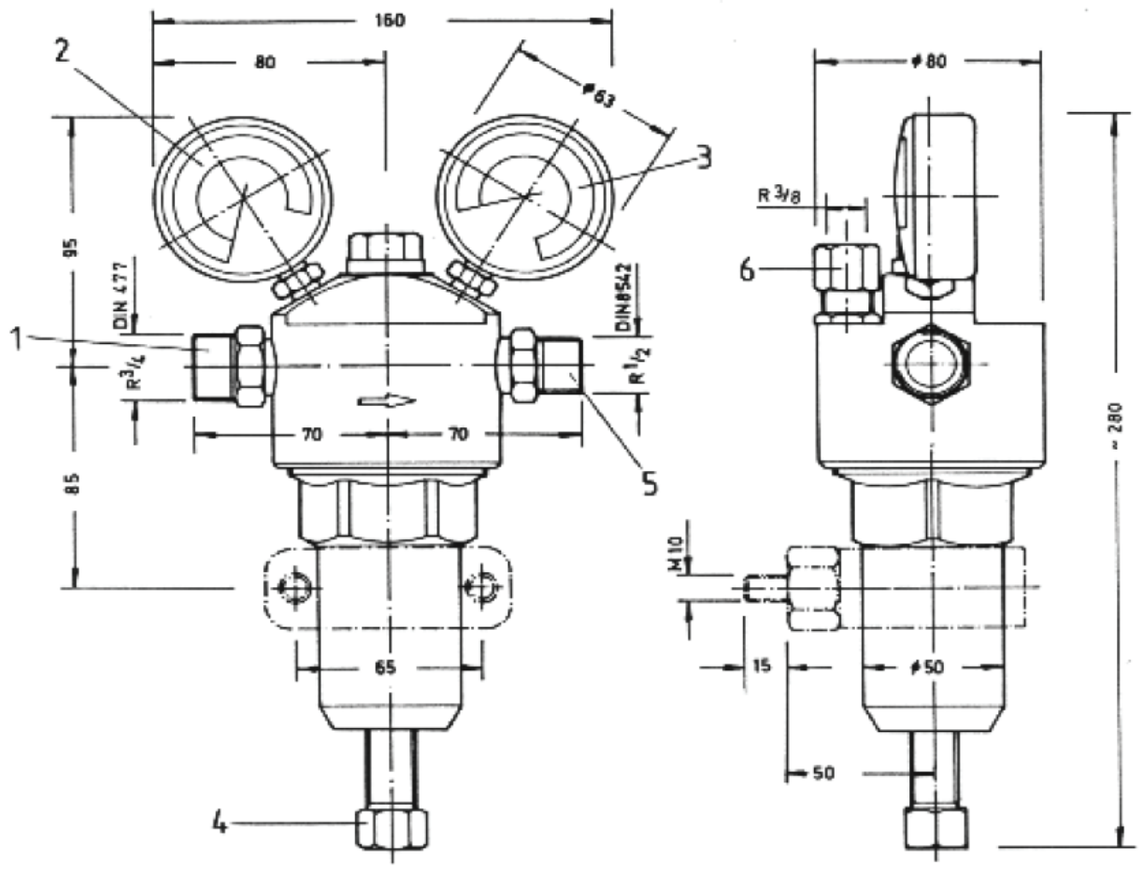
HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

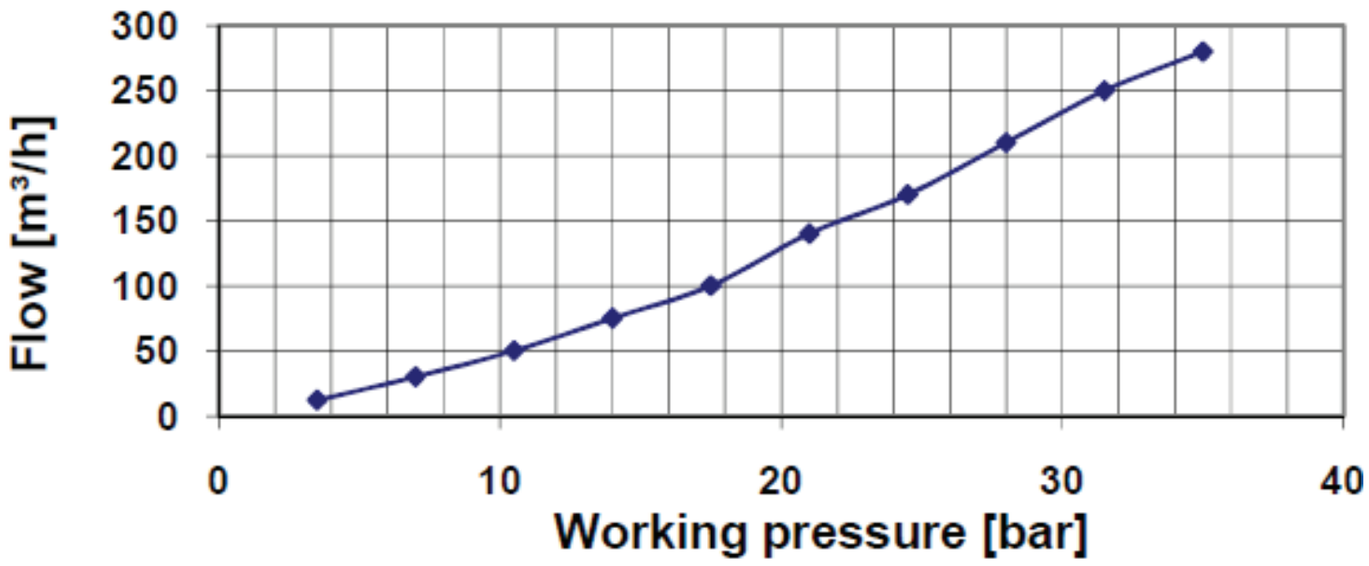
www.hornung.org
info@hornung.org

Central pressure regulator **ZD 150**



MODEL	GAS	INLET PRESSURE P1	OUTLET PRESSURE P2	FLOW Q1	INLET CONNECTION	OUTLET CONNECTION
ZD 150	NF, F, NC, C	max. 300 bar	max. 40 bar	280 ^{3}/h	W21,8 x 1/14“ DIN 477	G 1/2 DIN EN 560

Flow capacity ZD 150 Flow (Q) at inletpressure=2xP2+1[m³/h]



The central pressure regulator ZD 150 reduces a maximum inlet pressure from 300 bar down to max. 40 bar and keep constant.
The ZD 150 is supplied in brass for non-corrosive, flammable (except acetylene) and non-flammable gases.

The ZD 150 is a single stage regulator with relief valve and certified to DIN EN 961 (ISO 7291) BAM.
The regulator is available in straight or 90° configuration and can also be supplied with a wall bracket.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

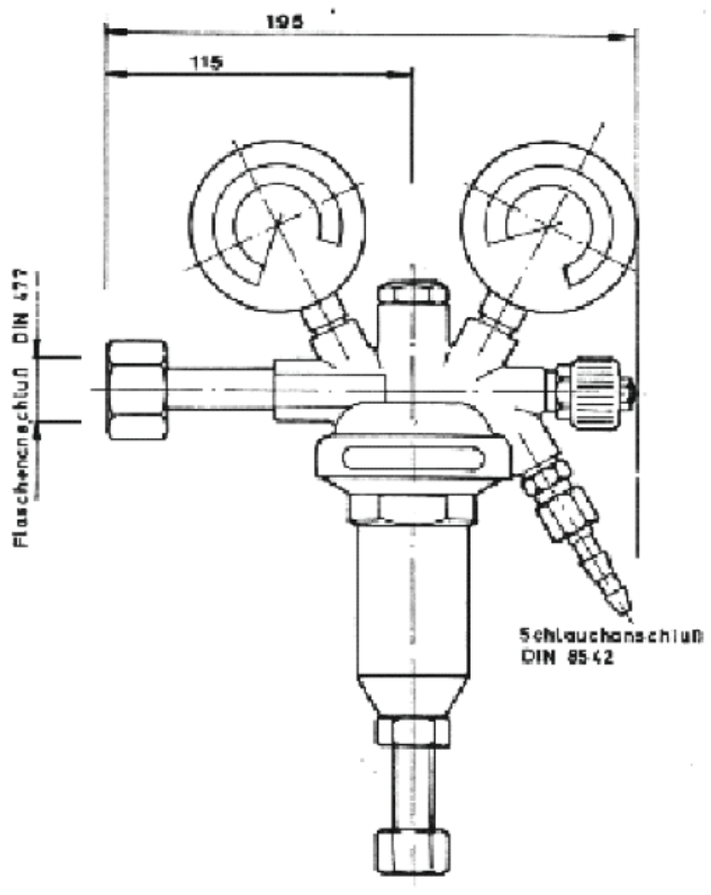
HORNUNG
Präzision made in Germany

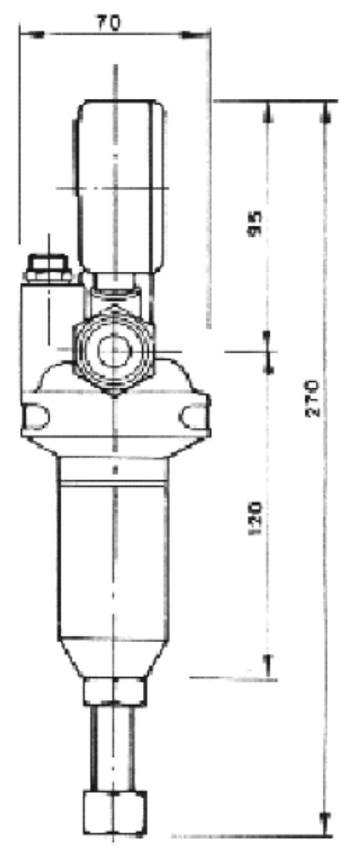
Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

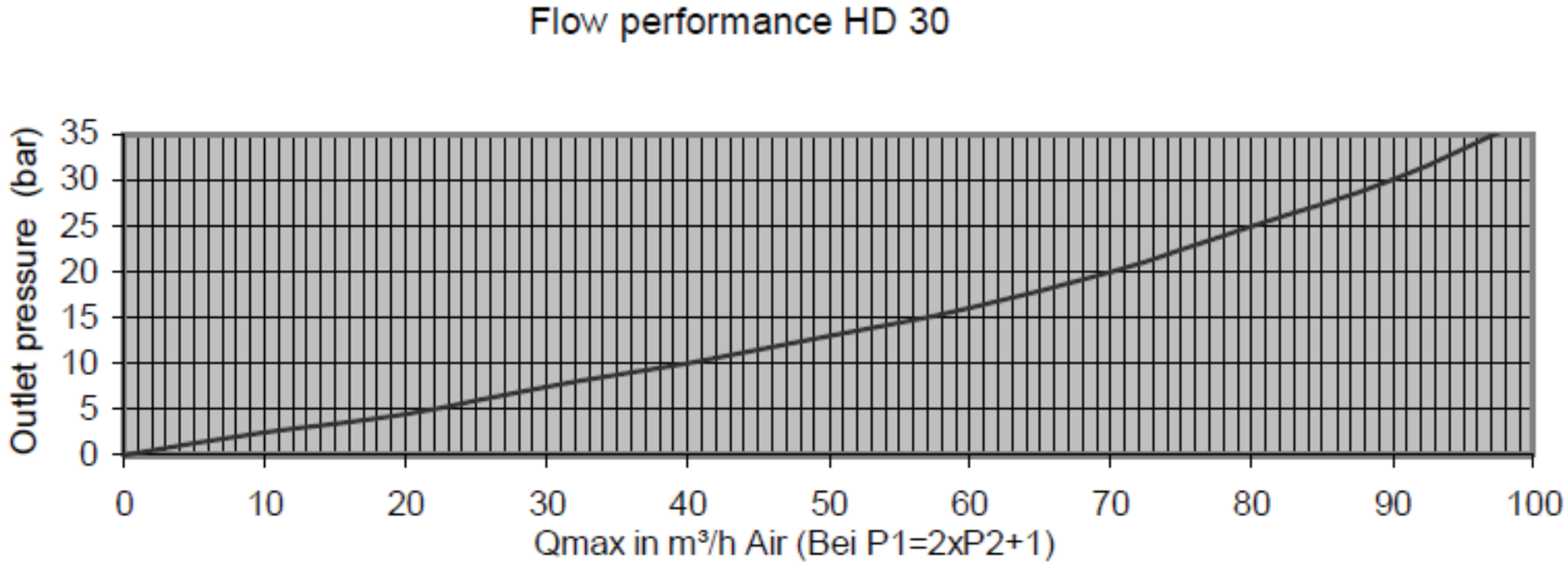
www.hornung.org
info@hornung.org

Cylinder pressure regulator HD 30





MODEL	GAS	INLET PRESSURE P1	OUTLET PRESSURE P2	FLOW Q1	INLET CONNECTION	OUTLET CONNECTION
HD 30	F, NF, NC	max. 300 bar	max. 30 bar	max. 80 m³/h air	cylinder DIN 477-1 / 477-5	DIN EN 560



The cylinder pressure regulator HD 30 reduces the cylinder pressure from max. 300 bar down to max. 30 bar.

The regulator can be delivered for several gases, nickel or chrome plated with metal diaphragm and hand connection.

QUALITY STANDARD

The company Hornung is certified to **ISO 9001:2015 and ISO 14001:2015**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

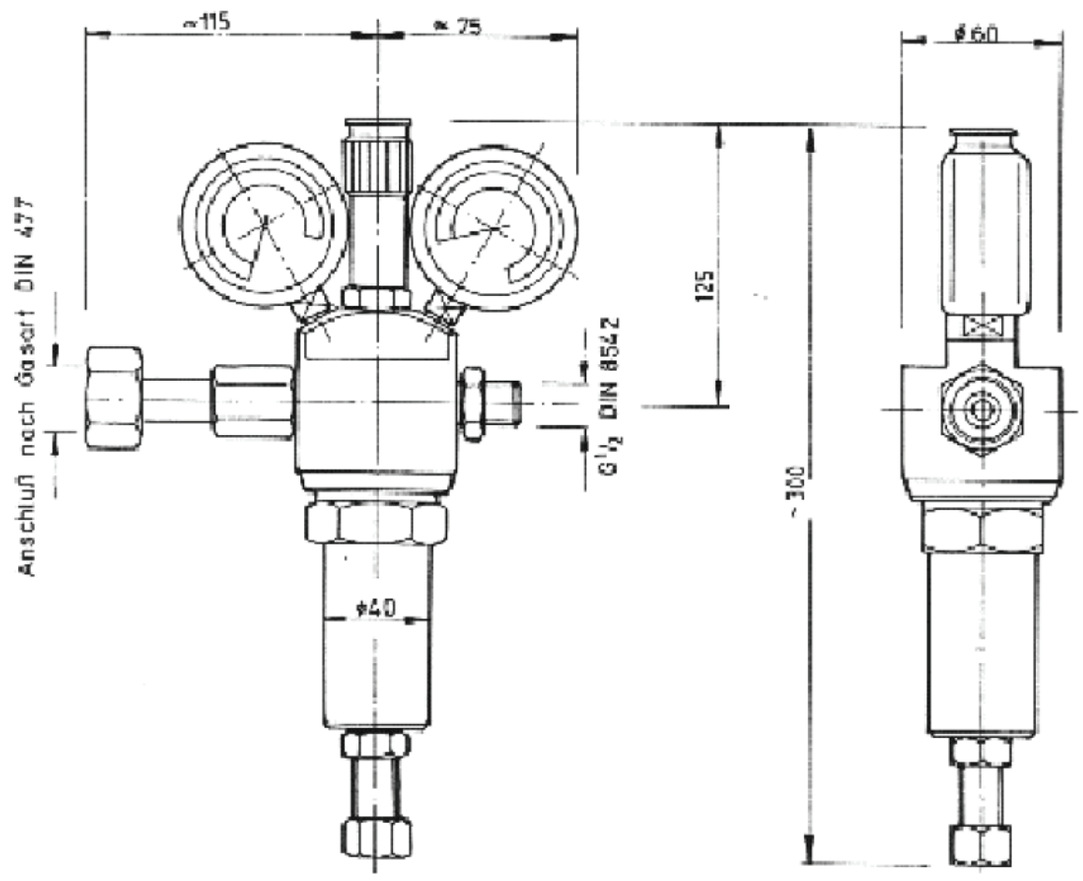
HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

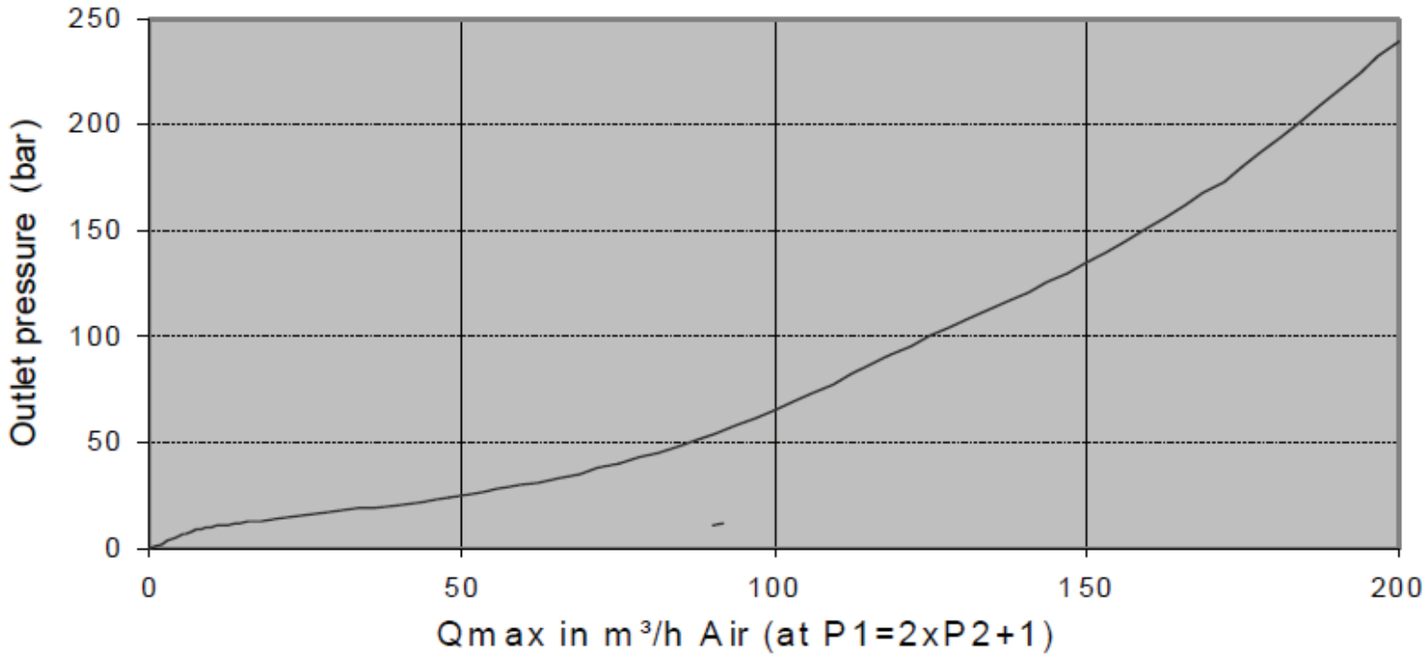
www.hornung.org
info@hornung.org

Cylinder pressure regulator HD 50/ 100/ 150/ 200



MODEL	GAS	INLET PRESSURE P1	OUTLET PRESSURE P2	FLOW Q1	INLET CONNECTION	OUTLET CONNECTION
HD 50/ 100/ 150/ 200	NF, F, NC	max. 300 bar	max. 200 bar	200 m³/h	cylinder DIN 477-1 / 477-5	screw Ø 16

Flow performance HD 50/100/150/ 200



The cylinder pressure regulators HD 50/ 100/ 150/ 200 reduces the cylinder pressure from max. 300 bar down to max. 200 bar.

These cylinder pressure regulators are capable of reducing a maximum inlet pressure of 300 bar to an operating pressure range of max. 50/ 100/ 150/ 200 bar.

QUALITY STANDARD

The company Hornung is certified to **ISO 9001:2015 and ISO 14001:2015**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

HORNUNG

Präzision made in Germany

Cylinder pressure regulator **HD250 FL**

TECHNICAL DETAILS		APPLICATION AREA	DESCRIPTION
Material:	brass matt chrome plated or stainless steel	This pressure regulator is designed for use with high inlet and high outlet pressures. High pressure applications.	The Cylinder pressure regulator HD250 FL is a single-stage pressure-regulator made of matt Chrome plated brass or high-grade steel 1.4404. The HD250 FL is designed as a piston pressure-regulator and reduces the pressure of compressed gases to a maximum outlet pressure of 250 bar. It works according to the principle of the force equilibrium between the adjusted spring action and the outlet pressure. The pressure regulator is fitted as standard with gas specific connections.
Seat:	PCTFE		
Elastomere:	viton / NBR		
Max. inlet pressure:	300 bar		
Operating area:	5 - 250 bar 1 - 100 bar 1 - 50 bar		
Operating temp.:	-20°C bis +70°C		
Size:	180 x 95 x 125		
Weight:	1350g		
Connections:	NPT ¼“ f		

QUALITY STANDARD

The company Hornung is certified to **ISO 9001:2015 and ISO 14001:2015**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

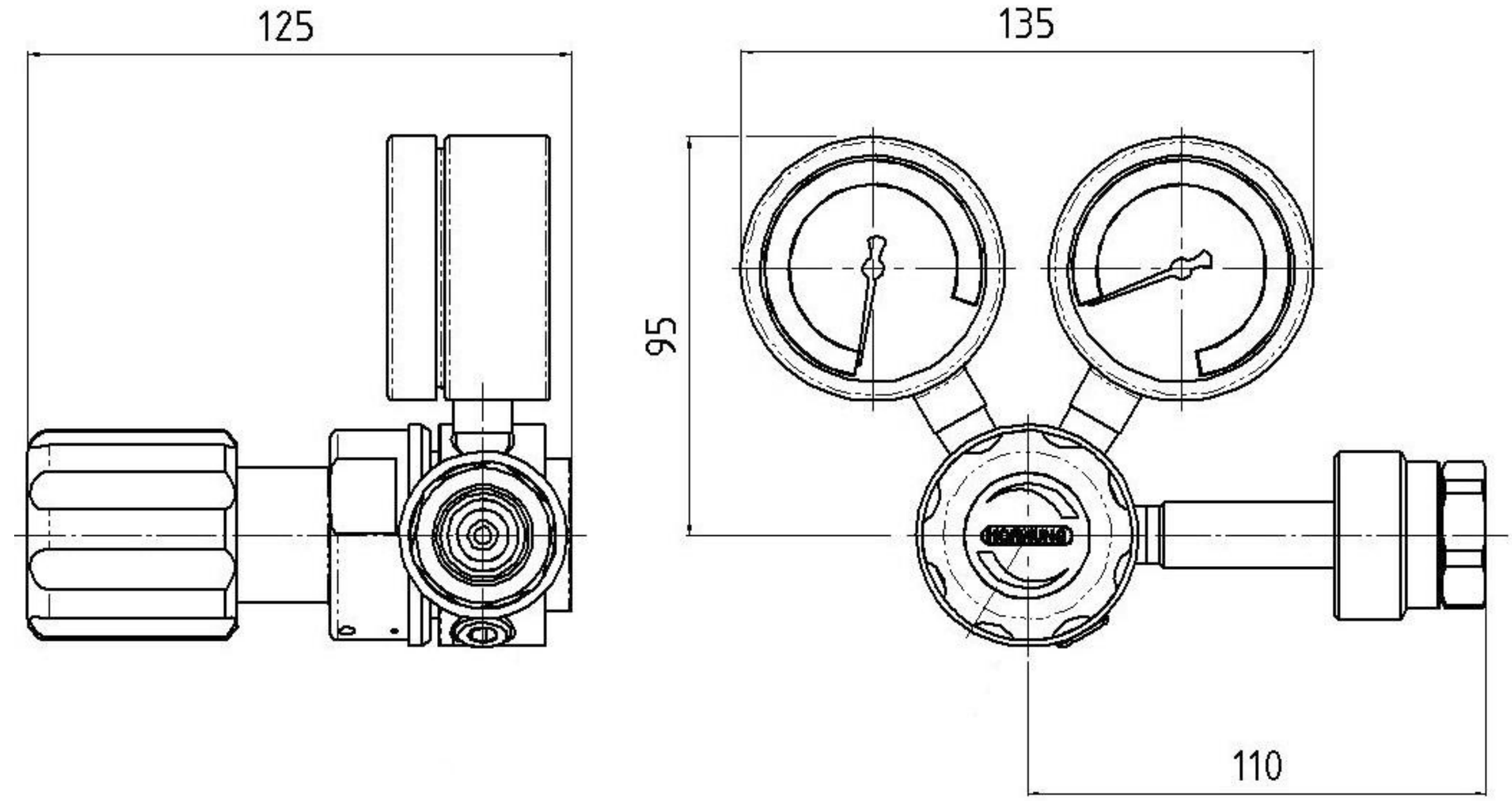
HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

HD250 FL



ORDERING INFORMATION

Material:
1 = brass, nickel and matt chrome plated
2 = stainless steel

Gaskets:
1 = NBR
2 = viton

Inlett pressure:
1 = 200 bar
2 = 300 bar

Operating area:
1 = 5 - 250 bar
2 = 1 - 100 bar
3 = 1 - 50 bar

Regulator type		34-	1	1	2	1	Gas type
34	HD250 FL	Type	Material	Gaskets	Inlet pressure	Pressure	Gas type

Accessories: See total catalogue segment

7. Gauges, screws, Cylinder holders and accessories
8. Compression fittings

Cylinder pressure regulator **HD 400 FL**

- for high pressure applications

TECHNICAL DETAILS		APPLICATION AREA	DESCRIPTION
Body:	stainless steel 1.4404 electropolished or brass, nickel and matt chrome plated	This pressure regulator is designed for use with high inlet and high outlet pressures. High pressure applications. The high-grade stainless steel construction with elastomer made of viton compound permits the use of aggressive media with this pressure regulator.	HD 400 FL is a single-stage pressure regulator made of brass, nickel and matt chrome plated or stainless steel 1.4404. HD 400 FL is designed as a piston pressure regulator and reduces the pressure of compressed gases to a maximum outlet pressure of 300 bar. The pressure regulator will be fitted with gas specific cylinder conector to all common national standards.
Seat:	PCTFE		
Gaskets:	viton / NBR		
Max. inlet pressure:	300 bar		
Outlet pressure ranges:	10 - 300 bar		
Operating temp.:	-20°C up to +70°C		
Dimensions (wxhxd):	180 x 95 x 125 mm		
Weight:	1350 g		
Connections:	NPT 1/4“ f		

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001:2009**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

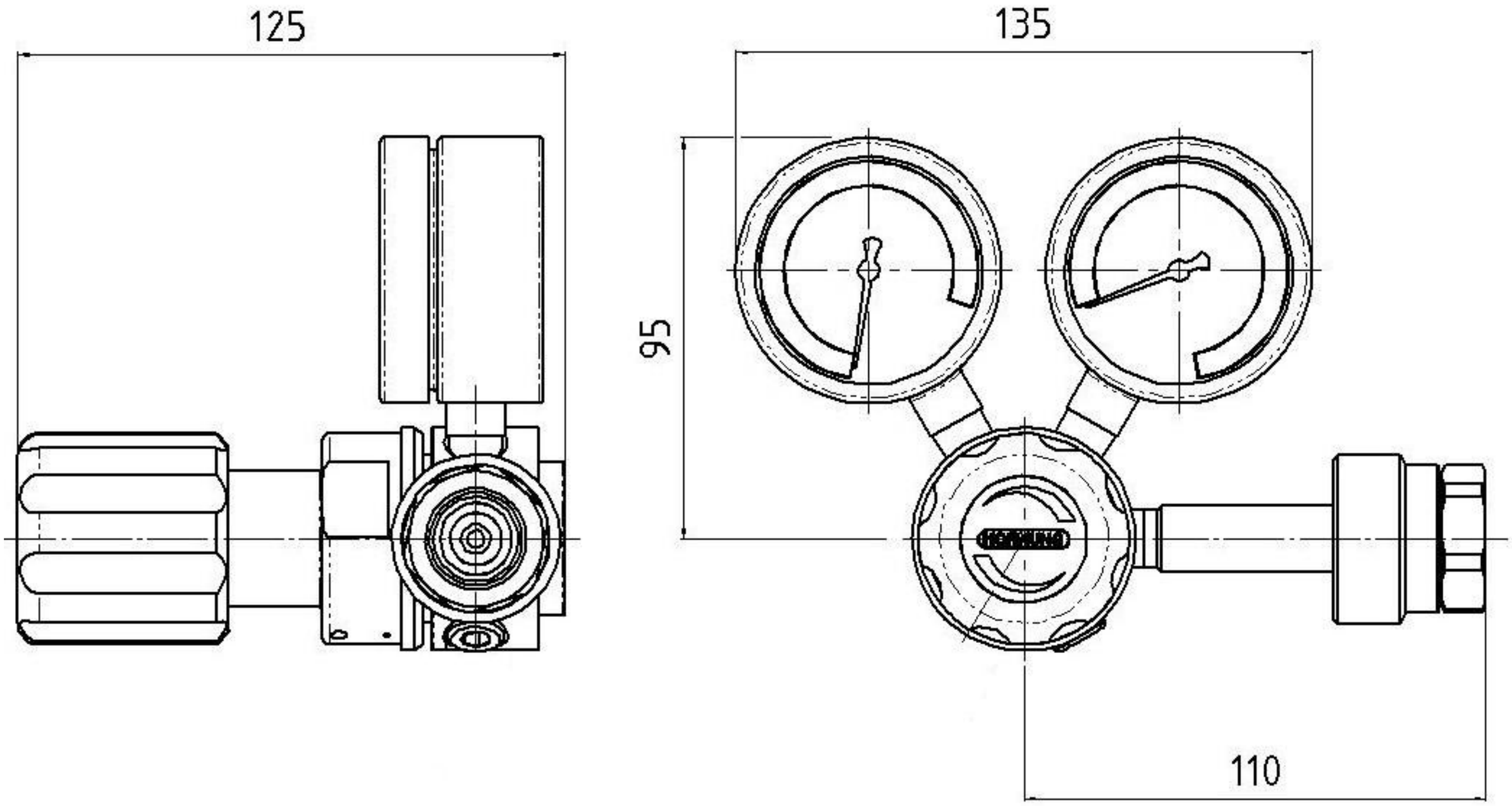
HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

HD 400 FL



ORDER DETAILS

Material:
1 = brass, nickel and matt chrome plated
2 = stainless steel

Gaskets:
1 = NBR
2 = viton

Regulator type		50-	1	1	Gas type
50	HD 400 FL	Typ	Material	Gaskets	Gas type

Accessories: See total catalogue segment

7. Gauges, screws, cylinder retainers and accessories
8. Compression fittings

HORNUNG

Präzision made in Germany

Cylinder pressure regulators to 16 bar

Pressure regulators reduce the cylinder pressure of compressed and pressure dissolved gases as well as liquid gases.

Precision components finely tuned with control elements, guarantee an optimum continuity of the gas flow of our regulators.

Contents:

HORNUNG

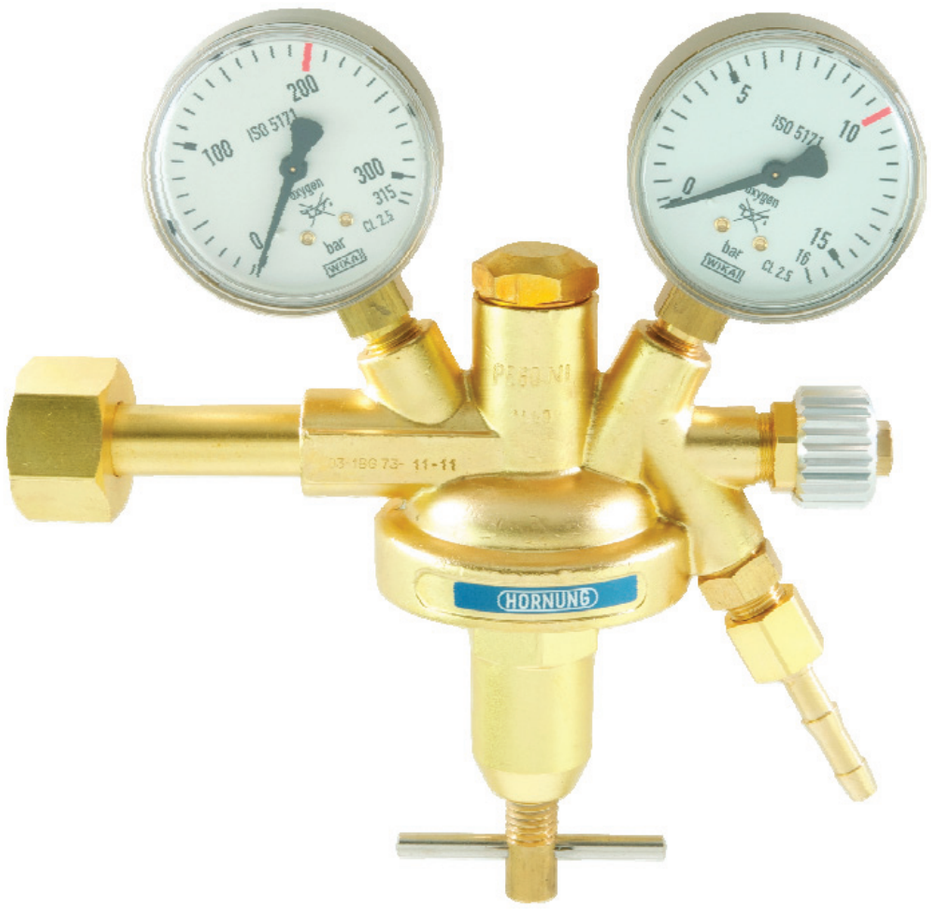
Präzision made in Germany

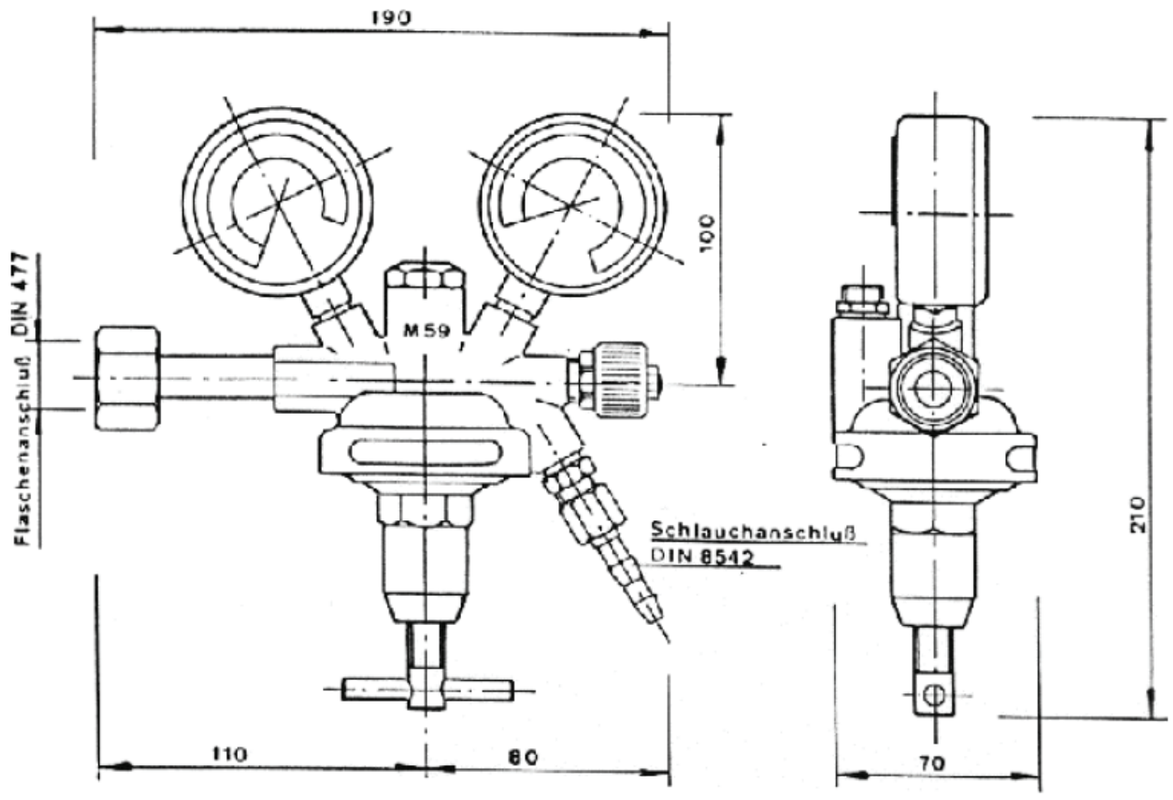
Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

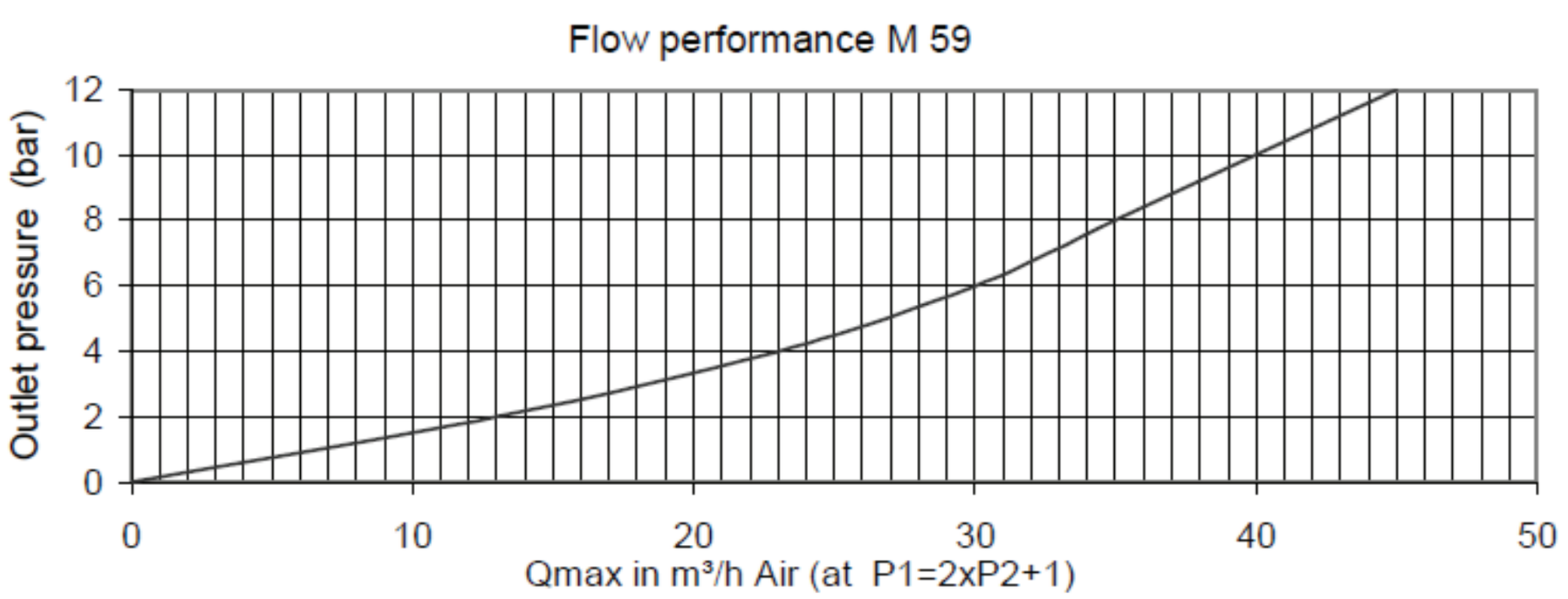
www.hornung.org
info@hornung.org

Cylinder pressure regulator **M 59**





MODEL	GAS	INLET PRESSURE P1	OUTLET PRESSURE P2	FLOW Q1	INLET CONNECTION	OUTLET CONNECTION
M 59	F, NF, NC	max. 300 bar	max. 16 bar	see diagram	cylinder DIN 477-1 / 477-5	Gas dependant DIN EN 560 G 1/4 RH G 3/8 LH



The cylinder regulator M 59 reduces the pressure of compressed gases as well as liquid gases from max. 300 bar down to a max. pressure of 16 bar.

The M 59 is a brass single stage regulator with relief valve for Oxygen and Acetylene and with technical approval.

The regulator can be supplied nickel or chrome plated for other gases, metal diaphragm and hand connection.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

HORNUNG
Präzision made in Germany

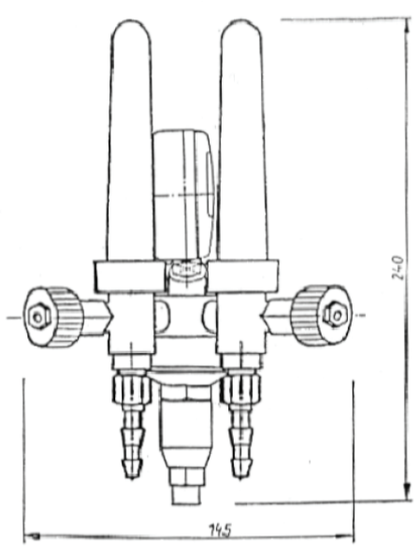
Rathenaustraße 55
63263 Neu-Isenburg

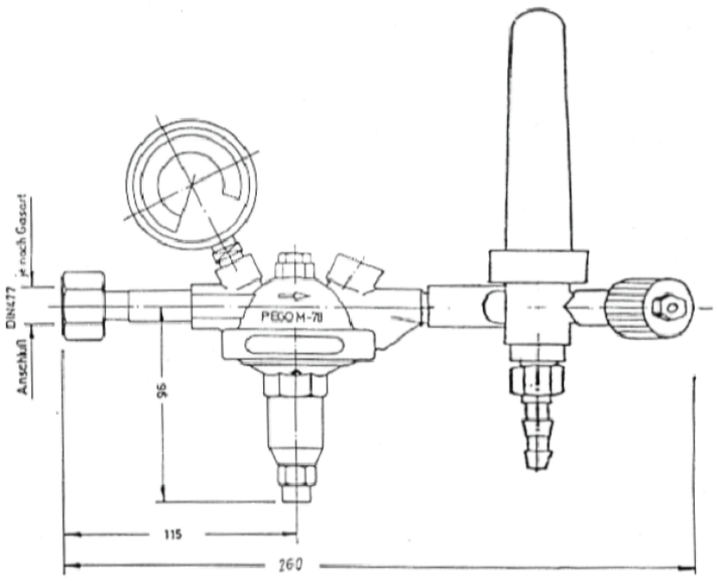
Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

dated 07/2022

Cylinder pressure regulator **M 78 Flow**





MODEL	GAS	INLET PRESSURE P1	OUTLET PRESSURE P2	INLET CONNECTION	OUTLET CONNECTION
M 78 / FLOW	F, NF, NC	max. 300 bar	1-16 l/min 3-30 l/min	cylinder DIN 477-1 / 477-5	Gas dependant DIN EN 560 G 1/4 RH, G 3/8 LH

N_2	$C0_2Ar$	FORMIERGAS
1-16 l/min 3-30 l/min	1-16 l/min 3-30 l/min	1-16 l/min 2-30 l/min

The cylinder regulator M 78 reduces the pressure of compressed gases as well as liquid gases from max. 300 bar to the corresponding flowmeter pressure.

On the flowmeter the required gas flow in l/min can be adjusted and set.

This station can be delivered with one, two or three outlets. The regulator can be supplied nickel or chrome plated for other gases, metal diaphragm and hand connection.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

Cylinder pressure regulator **FL1 / FL2 / FL3**

Image FL 2

TECHNICAL DETAILS		APPLICATION AREA	DESCRIPTION
Body:	brass, matt chrome plated	The cylinder pressure regulator of the type FL are used where an exact dosage of the flow is required.	The cylinder pressure regulators from the series FL are equipped with 1 / 2 or 3 measurement tubes.
Flowmeter housing:	anodized aluminium	**Gas types:** - Co2/ Argon - inert gas - other gas types on request	It reduces cylinder pressure of compressed gases from a max. of 200 bar down to the outlet flow shown on the flowmeter measurement tube. The integrated balanced poppet ensures a constant and uniform pressure throughout the emptying of the cylinder. The exact amount of flow in l/min can be preset and read on the flowmeter measurement tubes. The pressure regulator is fitted as standard with gas specific connections to DIN 477. A relief valve is also fitted. The pressure regulator can be supplied as 1, 2 or 3x flowmeter with different measuring ranges.
Diaphragm:	1.4435		
Elastomer:	viton, NBR		
Max. inlet pressure:	200 bar		
Flow:	dependant on gas type and measurement tube		
Operating temp.:	-20°C bis +70°C		
Weight:	750 g / 900 g / 1100 g		
Connections:	outlet: G 1/8“ f		

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001:2009**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

FL1 / FL2 / FL3

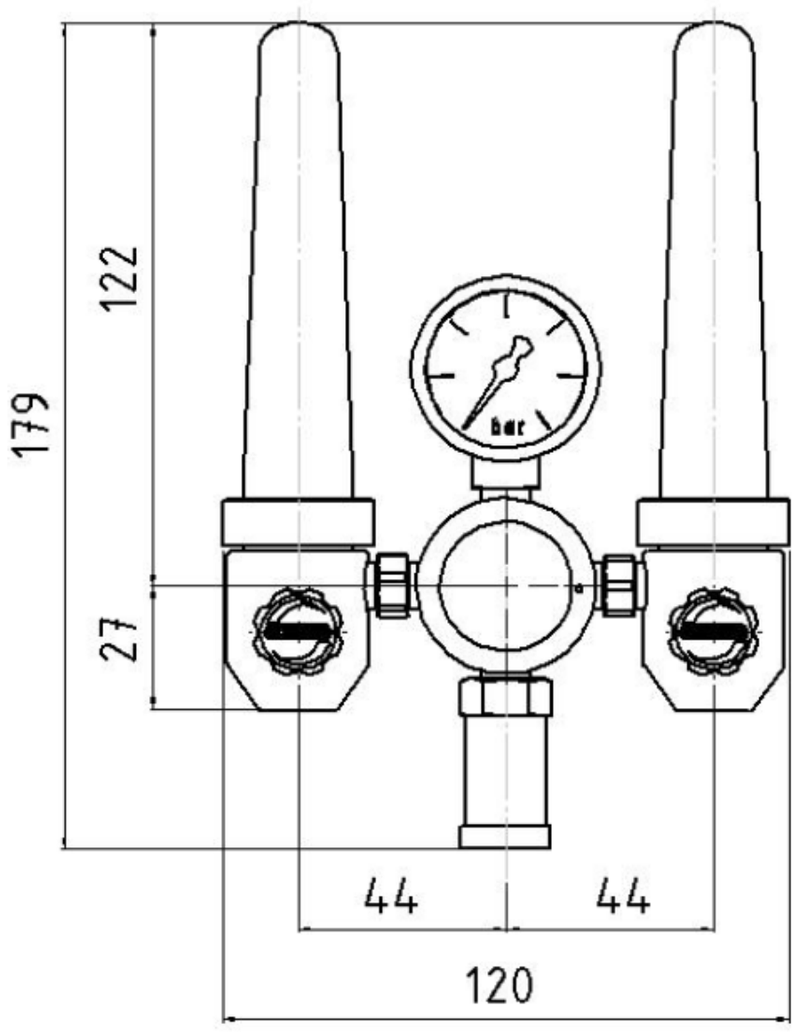


Illustration: FL 1

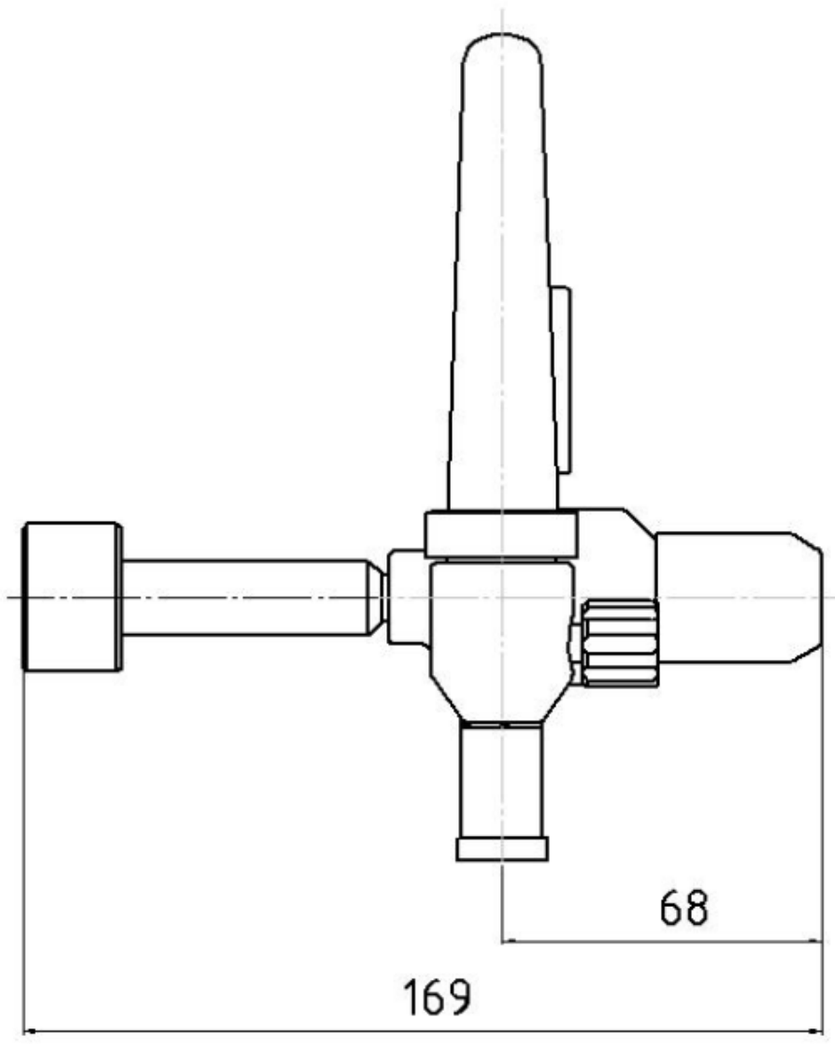
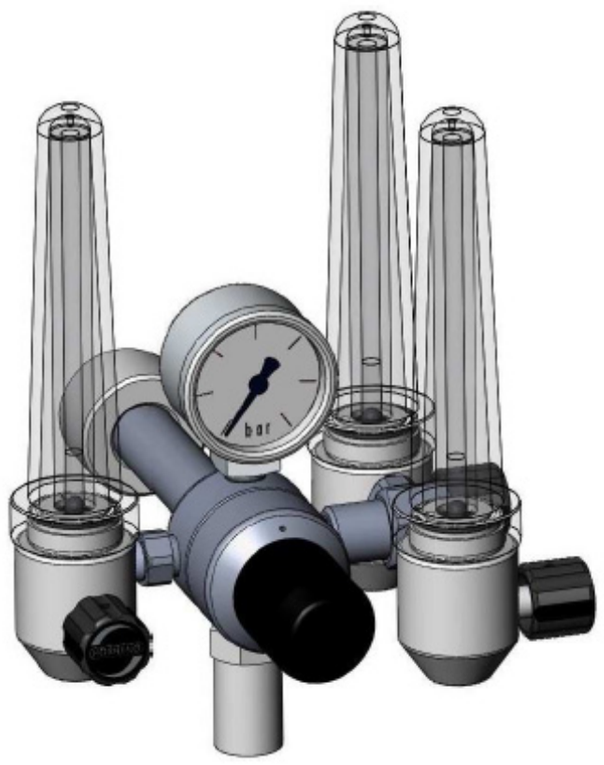


Illustration: FL 3



ORDER DETAILS

No. of measurement tubes:
1 = 1 measurement tube
2 = 2 measurement tubes
3 = 3 measurement tubes

Measuring area:
1 = 2 - 18 l/min
2 = 3 - 28 l/min

Option on the outlet side:
1 = G 1/8” - Internal
2 = compression fitting 6 mm
3 = hose nozzle d = 6,3 mm

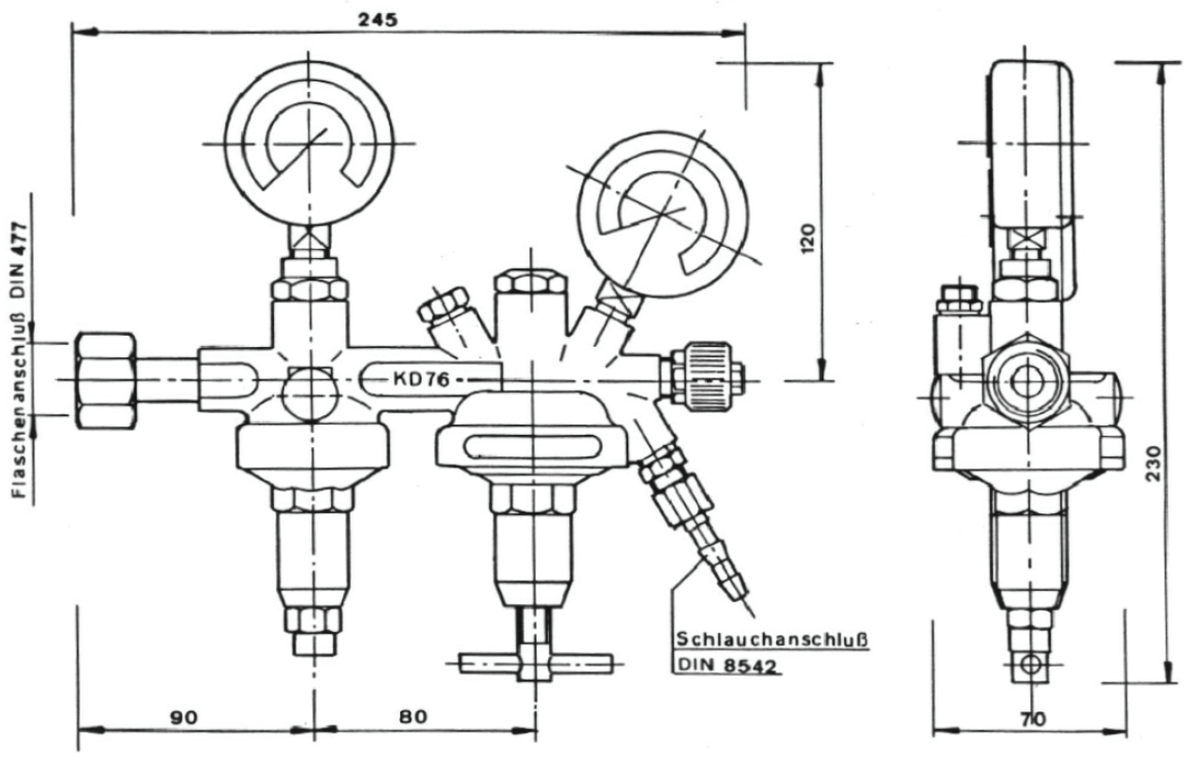
Regulartor type		02	-1	1	1	Gas type
02	FL1 / FL2 / FL3	Type	Tube	Area	Option	Gas type

HORNUNG

Präzision made in Germany

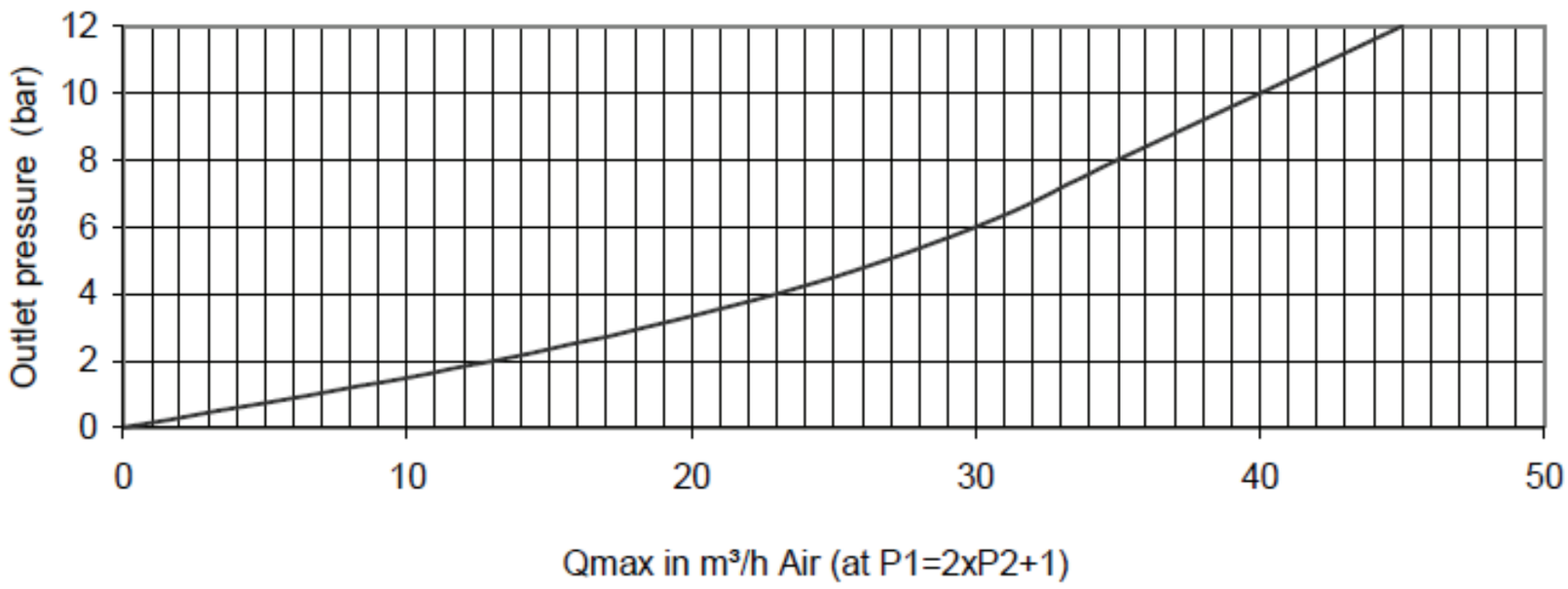
dated 07/2022

Cylinder pressure regulator **KD 76**



MODEL	GAS	INLET PRESSURE P1	OUTLET PRESSURE P2	FLOW Q1	INLET CONNECTION	OUTLET CONNECTION
KD 76	F, NF, NC (not Acetylene)	max. 300 bar	max. 16 bar	see diagram	cylinder DIN 477-1 / 477-5	Gas dependant DIN EN 560 G 1/4 RH G 3/8 LH

Flow performance KD 76



The cylinder regulator KD 76 reduces the pressure of compressed gases as well as liquid gases.
The KD 76 can be used when constant outlet pressure is required.

The KD 76 (according to ISO 2503) is a 2-stage brass regulator with relief valve and shut-off valve for the outlet pressure.
Also available nickel or chrome plated with metal diaphragm and hand nut connection.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

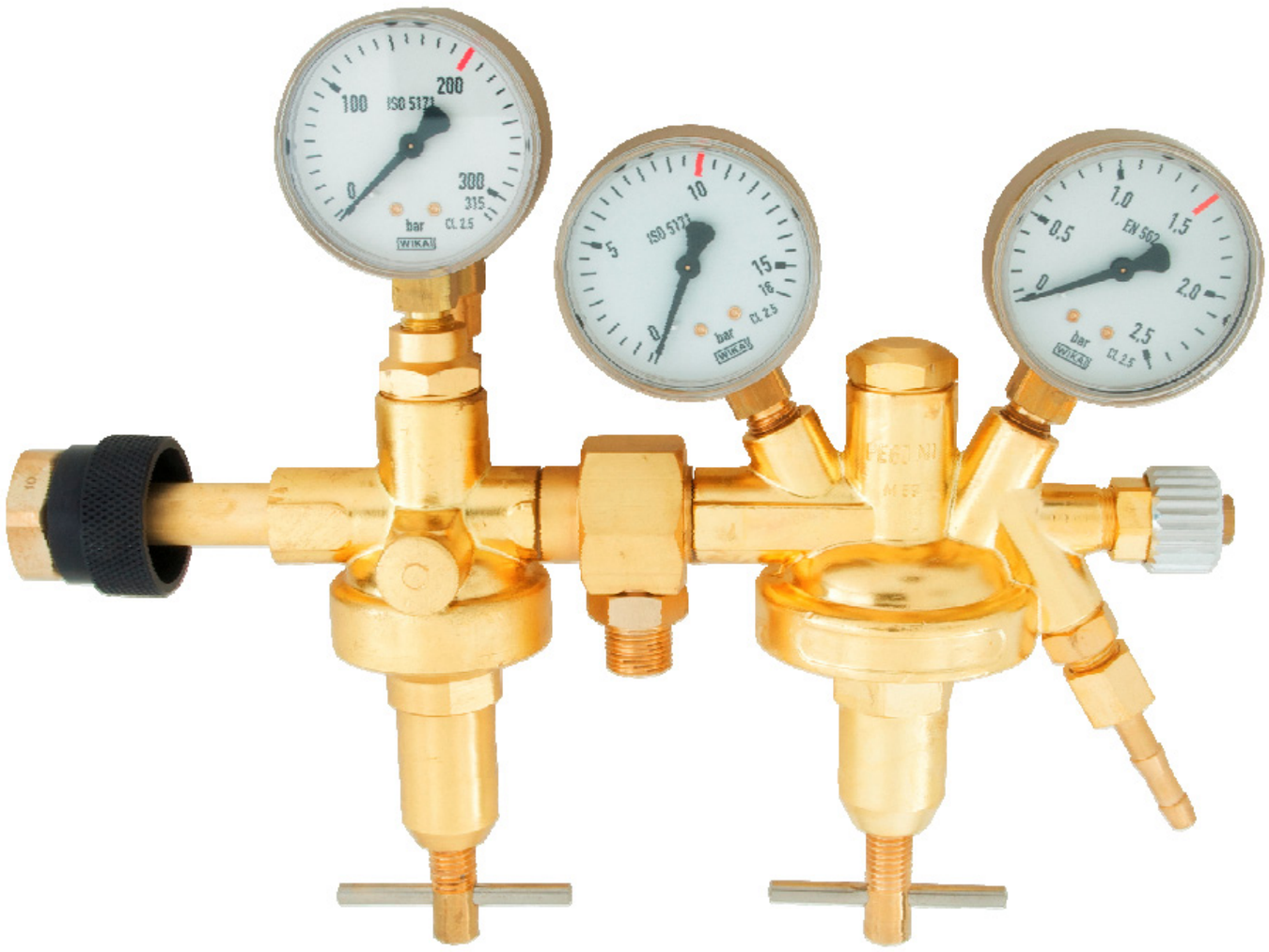
HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

Cylinder pressure regulator **TPR 30-10**



TECHNISCHE DATEN	
Body:	brass - brass, nickel plated
Max. Vordruck:	200 / 300 bar
Max. inlet pressure: Pz:	1-16 / 1-30 bar
P2:	0-1,5 / 1-10 / 1-16 bar
Operating temp.:	-20°C to +70°C
Gauges:	safety versions to EN 837-1 KL1,6
Dimensions (wxhxt):	300 x 240 x 70 mm
Connections: inlet:	DIN 477-1 / 477-5
outlet:	Pz: G 3/8 RH
	P2: G 1/4 RH G 3/8 LH

APPLICATION AREA

Everywhere (for reasons of cost and space) that different outlet pressures are simultaneously extracted from one cylinder.

The pressure regulator can be supplied with an optional hand nut connection and in nickel plated brass.

DESCRIPTION

Cylinder pressure regulator in brass reduces the pressure of compressed gases as well as liquid gases with two separate adjustable outlets.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001:2009**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

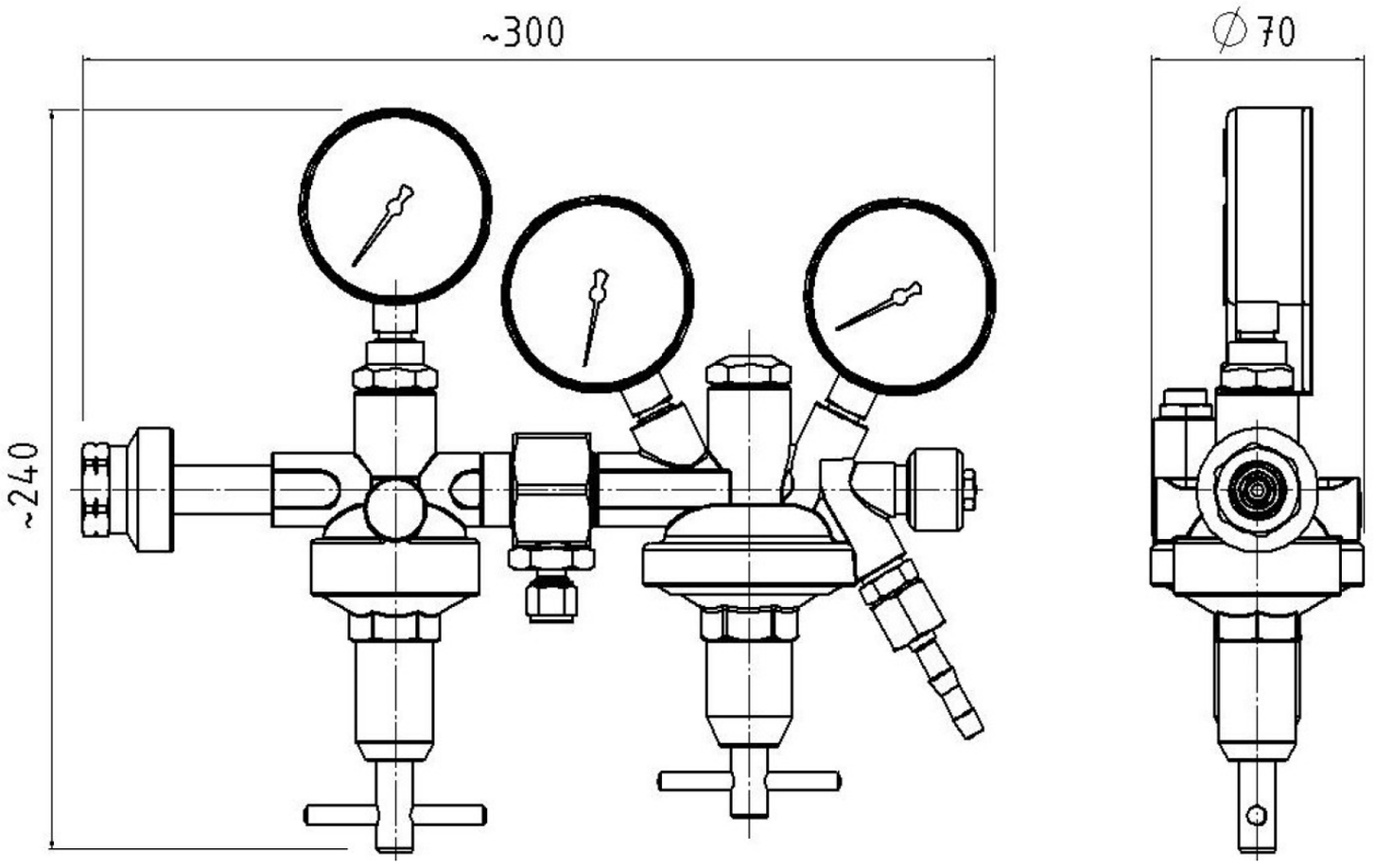
HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

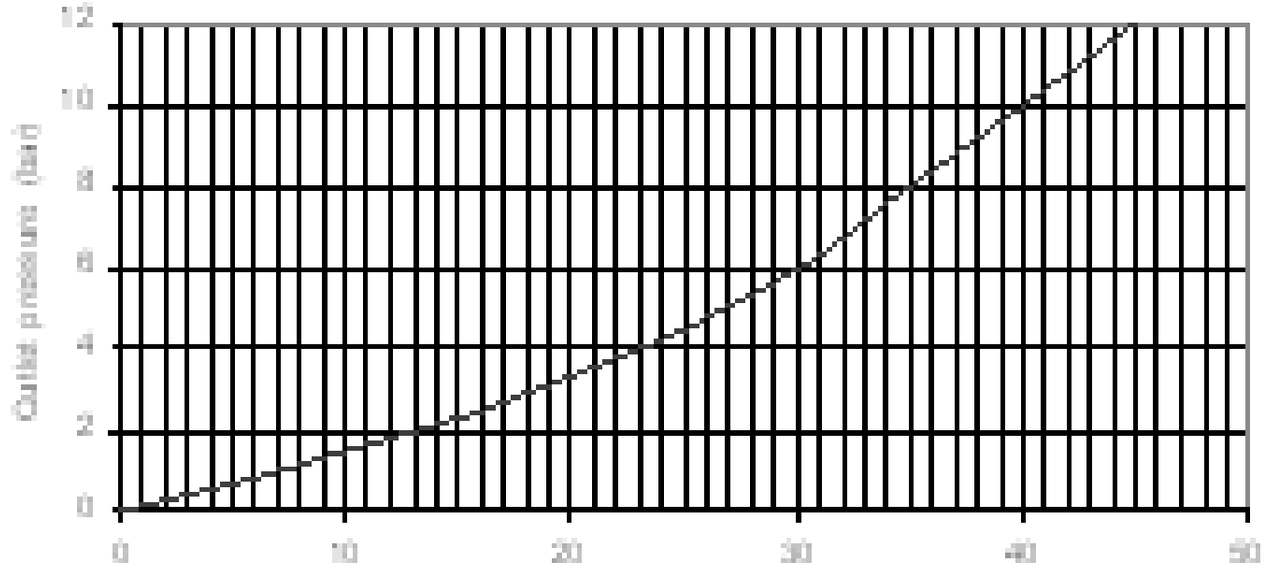
www.hornung.org
info@hornung.org

TPR 30-10



FLOW PERFORMENCE TPR 30-10

Flow performance TPR 30-10



ORDER DETAILS

Material	Inlet:	Intermediate:	Outlet:
1 = brass	1 = 200 bar	1 = 1 - 10 bar	1 = 0,1 - 1,5 bar
2 = brass, nickel plated	2 = 300 bar	2 = 1 - 16 bar	2 = 1 - 6 bar
		3 = 1 - 30 bar	3 = 1 - 10 bar
			4 = 1 - 16 bar

Regulator type							
39	TPR 30-10	39- Type	2 Material	1 Inlet	2 Intermediate	2 Outlet	Gas type Gas type

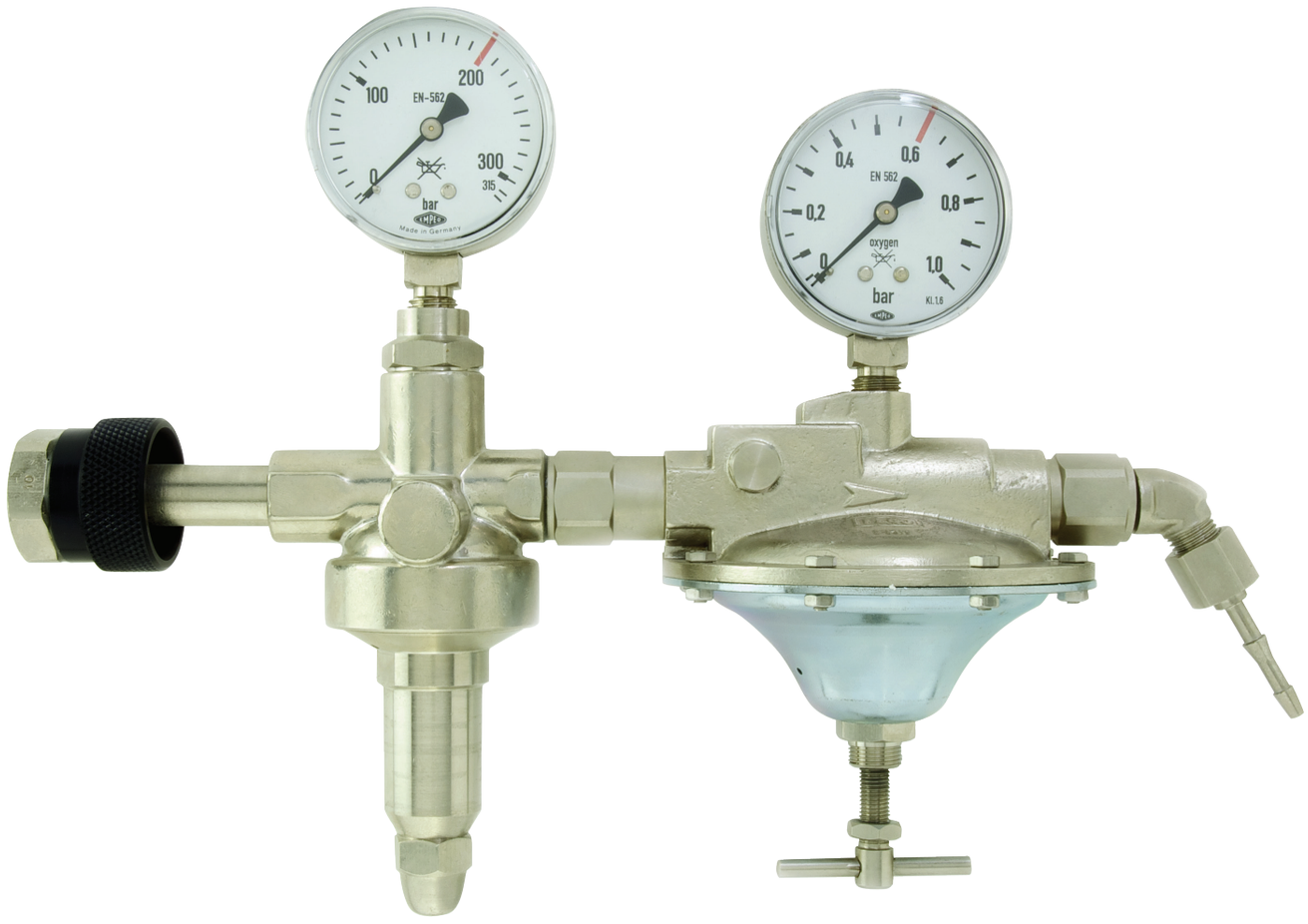
Accessories: See total catalogue segment

7. Gauges, screw connections, hose connectors, quick couplings (pure gas)

dated 07/2022

Precision cylinder pressure regulator **VDS-FHR 3 / VDS-FHR 4**

- dual stage for mbar operating pressures in brass, or nickel plated



TECHNICAL DETAILS		APPLICATION AREA	DESCRIPTION
Body:	brass or brass, nickel plated	Especially for mbar applications: · Laboratories and industries · Science and research · Instrumentation · Glass- and lamp industries · Process enginiering.	The precision pressure regulator VDS-FHR is a two-stage bottle pressure reducer from Brass or nickel-plated brass for precise Backpressure adjustment in millibar range from approx. 10 mbar for non-corrosive gases up to Gas quality 5.0. The two-stage construction also ensures in case of large changes in the input pressure a constant working pressure. With the large-area diaphragm as a control mechanism, the FHR in the second stage enables a highly precise adjustment of the working pressure in the mbar range. Depending on the required flow rate, the FHR 3 or FHR 4 can be selected.
Seat:	3 mm or 4 mm		
Gaskets:	NBR		
Diaphragm:	NBR		
Max. inlet pressure:	300 bar		
Outlet pressure ranges:	ca. 10 mbar - 1 bar		
Operating temp.:	-20 up to +70°C		
Dimensions (wxhxd):	292 x 124 x 110 mm		
Connections:	inlet thread: DIN 477-1 and -5 (others on request) outlet thread: G 1/4“ -DIN 3852		

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

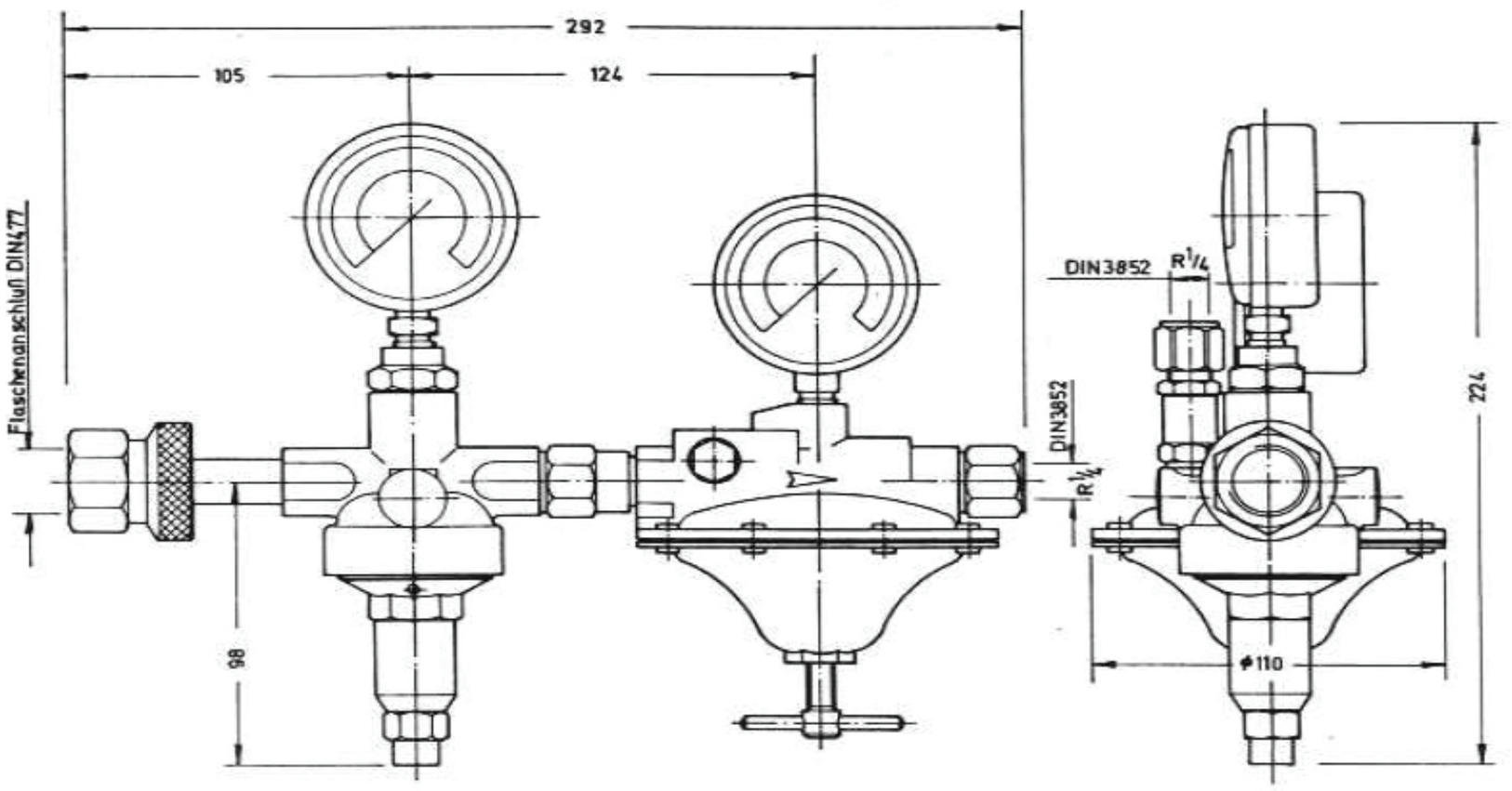
HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

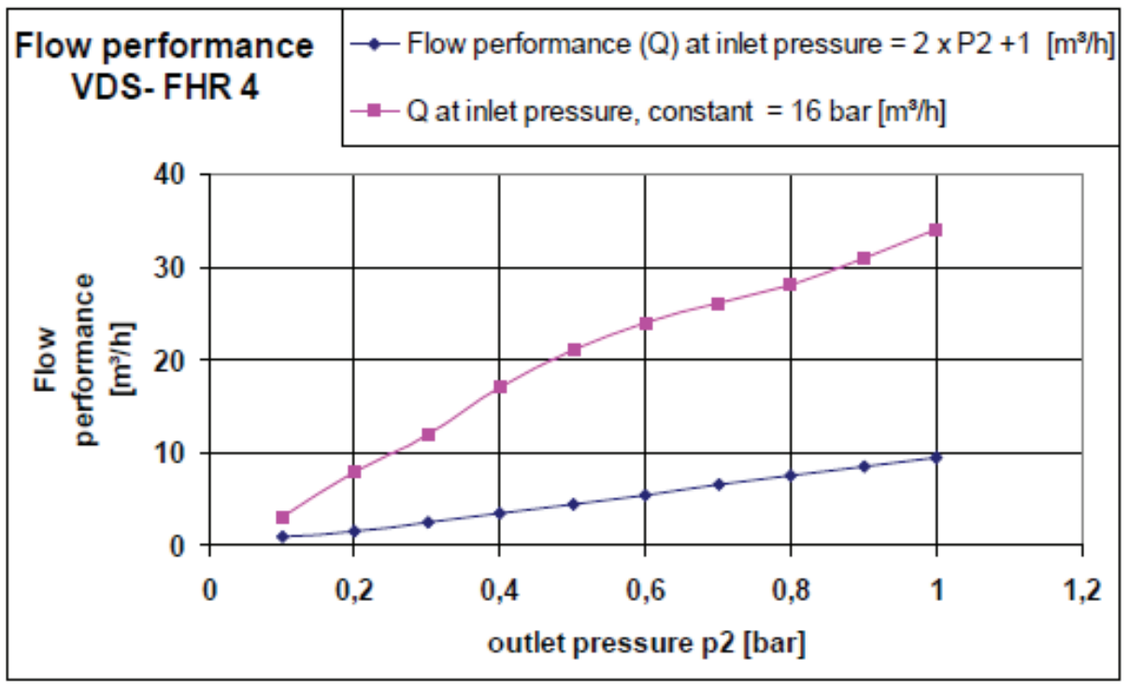
Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

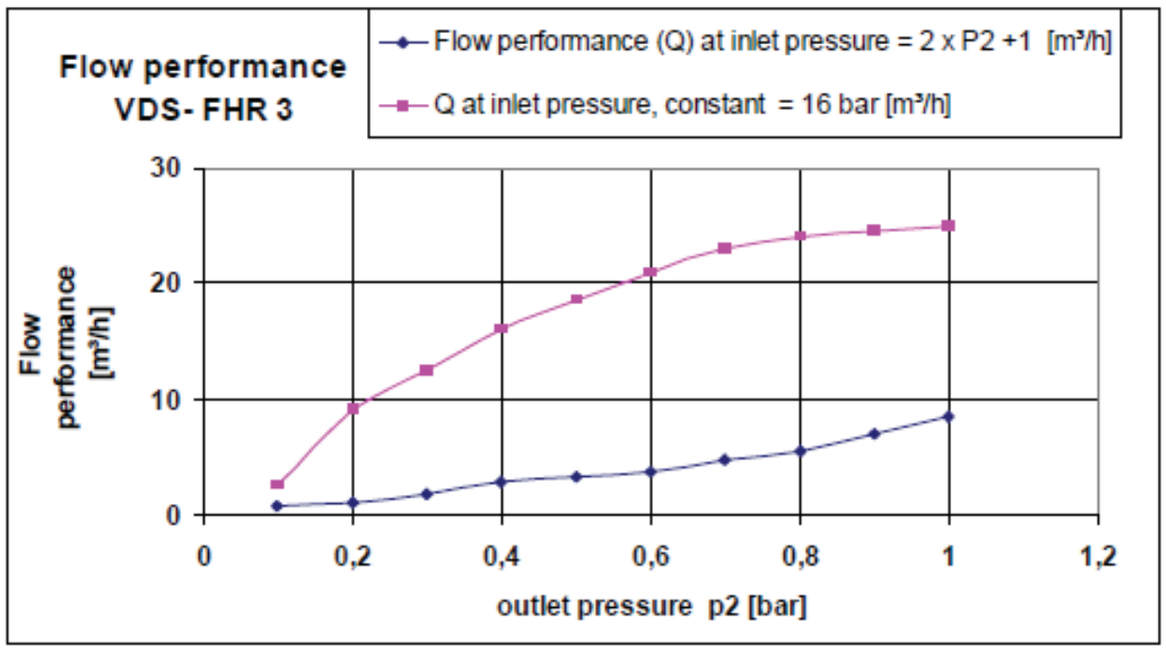
VDS-FHR 3/ VDS-FHR 4



Flow performance VDS-FHR 4



Flow performance VDS-FHR 3



ORDER DETAILS

Material:
1 = brass
2 = brass, nickel plated, hand connected

Inlet pressure:
1 = 200 bar
2 = 300 bar

Seat:
1 = 3 mm
2 = 4 mm

Outlet pressure ranges:
1 = up to 30 mbar
2 = up to 50 mbar
3 = up to 70 mbar
4 = up to 100 mbar
5 = up to 200 mbar
6 = up to 300 mbar
7 = up to 500 mbar
8 = up to 700 mbar
9 = up to 1000 mbar

Regulator type	2-stage	17-	2	2	2	1	Gas type
VDS-FHR 3 / FHR 4	precision regulator	Type	Material	Inlet	Seat	Outlet	Gas type

Accessories: See total catalogue segment

7. Gauges, screws, compression fittings, cylinder retainers and accessories

Precision cylinder pressure regulator **HP-FR1**

- dual stage, in stainless steel or brass/ aluminium for mbar applications and low flow

TECHNICAL DETAILS

Bodies:	stainless steel or brass / aluminium
Seat:	PCTFE / Viton/NBR
Gaskets:	viton / NBR
Diaphragm:	stainless steel / viton / NBR
Max pressure inlet:	200 bar
Outlet pressure range:	50 mbar - 7 bar
Operating temp.:	-20 up to +70°C
Dimensions (wxhxd):	124 x 94 x 145 mm
Weight:	850 g
Connections:	thread inlet: DIN 477-1 (others on request) thread outlet: NPT 1/8“ f

APPLICATION AREA

- Instrumentation
- mbar applications
- Gasanalysis
- Gaschromatography
- Process engineering
- Metallurgy
- Science and research
- Lamp production

DESCRIPTION

The precision HP-FR 1 is a compact dual stage cylinder pressure regulator made of stainless steel or brass/aluminium for operating pressures from 50 mbar up to 7 bar.

The dual stage construction with integrated balanced poppet guarentees absolutely stable working pressures even if inlet pressure fluctuate significantly.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001:2009**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

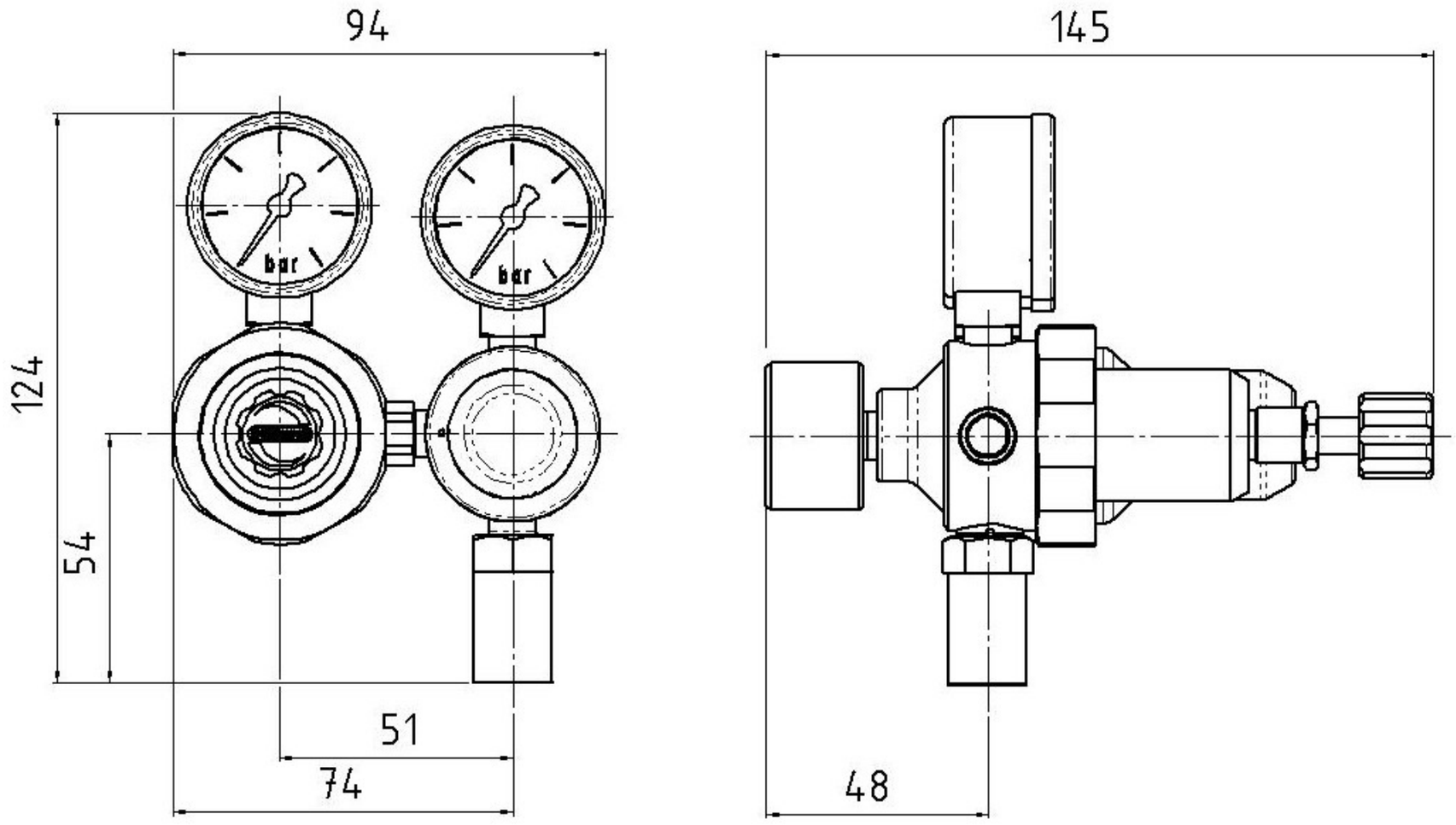
HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

HP-FR 1



PERFORMANCE CURVE

ORDER DETAILS

Material:
1 = brass / aluminium
2 = stainless steel

Diaphragm:
1 = NBR
2 = viton
3 = stainless steel (1.4435)
4 = hastelloy (2.4610)

Gaskets:
1 = NBR
2 = viton

Outlet pressure ranges:
1 = up to 170 mbar
2 = up to 350 mbar
3 = up to 500 mbar
4 = up to 700 mbar
5 = up to 2,1 bar
6 = up to 4,2 bar
7 = up to 7,0 bar

Regulator type							
27	HP-FR 1	27-	2	3	2	4	Gas types
		Type	Material	Diaphragm	Gaskets	Outlet	Gas types

Accessories:
5. Diaphragm shut-off and metering valves
7. Gauges, screws, compression fittings, cylinder retainers and accessories

Line pressure regulators

Line pressure regulators are regulators for use in pipe systems where the gas pressure is reduced over the corresponding system.

Contents:

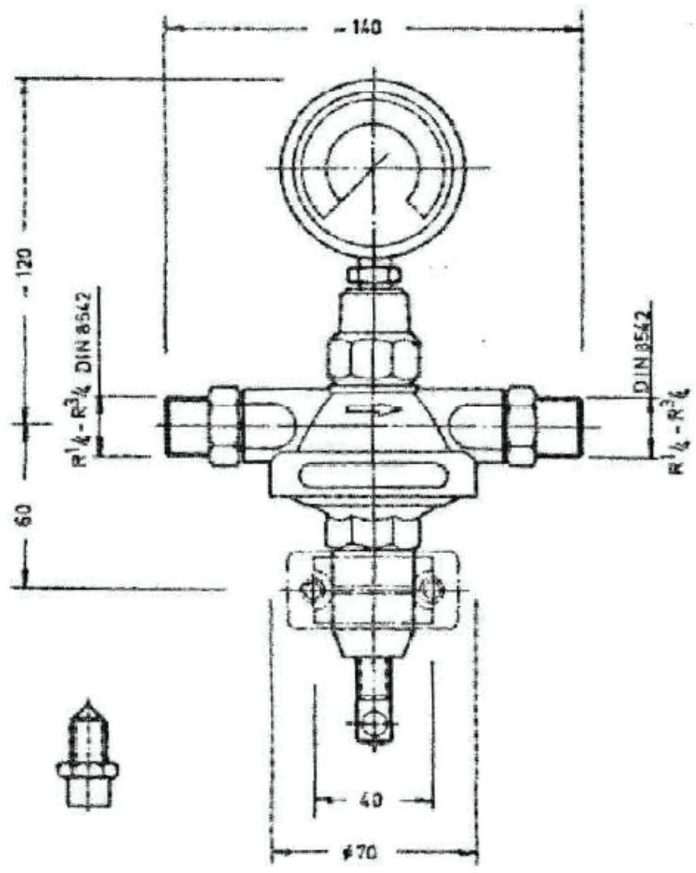
HORNUNG
Präzision made in Germany

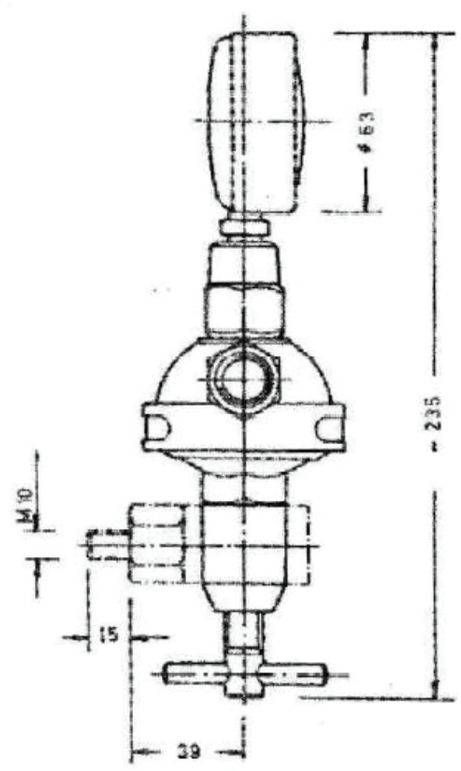
Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

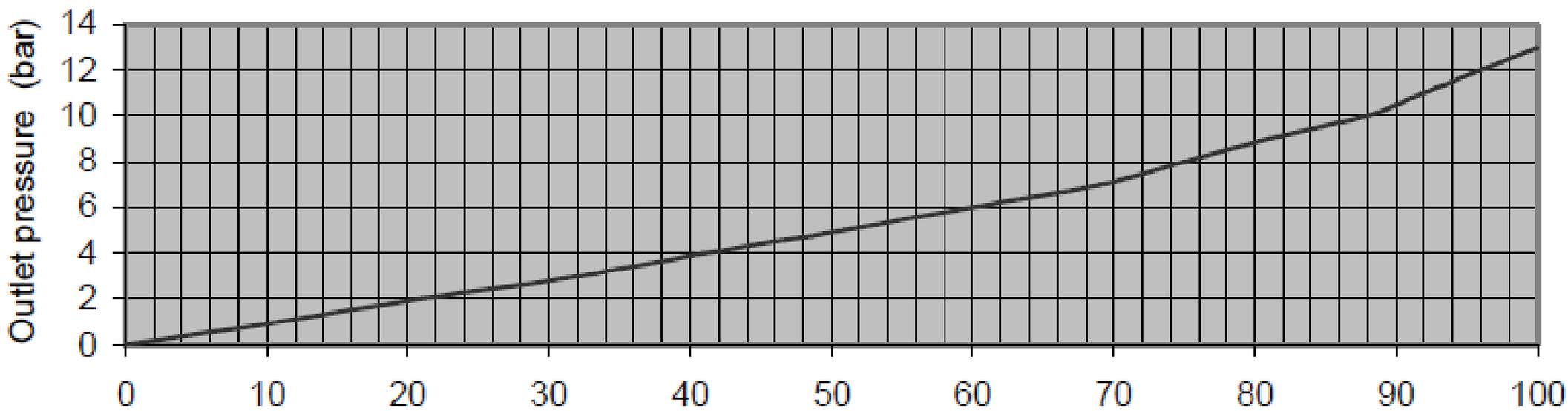
Line pressure regulator **PR**





MODEL	GAS	INLET PRESSURE P1	OUTLET PRESSURE P2	FLOW Q1	INLET CONNECTION	OUTLET CONNECTION
PR 2	F, NF, NC	max. 200 bar	max. 30 bar	15 - 150 m³/h air	G 1/4 - G 1/2 DIN EN 560	G 1/4 - G 3/4 DIN EN 560
PR 3 / 5 / 7	F, NF, NC	max. 35 bar	max. 30 bar	15 - 150 m³/h air	G 1/4 - G 3/4 DIN EN 560	G 1/4 - G 3/4 DIN EN 560

Flow performance PR



The PR regulator can be supplied with an outlet manometer or relief valve. A bracket for wall mounting is also available.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

Line pressure regulator **PFR 7**

TECHNICAL DETAILS	
Material:	brass or stainless steel
Valve seat:	Ø 7,0
Seat:	EPDM or viton
Diaphragm:	EPDM or viton
Max. inlet pressure:	100 bar
Outlet pressure ranges:	0,1 - 2,5 bar 1 - 6 bar 1 - 10 bar 1 - 16 bar
Operating temp.:	-20°C to +60°C
Dimension (wxhxd):	192 x 290 x 125 mm
Connections:	inlet- G 1/2 f outlet- G 3/4 f

DESIGN

The use of stainless steel in connection with elastomere made of viton permits the application of this pressure regulator with aggressive media.

Through the large effective diaphragm surface, at low pressure variant, optimal controllability is guaranteed.

DESCRIPTION

The pressure regulator PFR 7 is for the installation in line systems with large gas flows.

The line pressure regulator PFR 7 is characterised by an accurate regulation and a large throughput.

The spring-loaded pressure regulator works according to the principle of the force equilibrium between the adjusted spring force and the outlet pressure.

It can be equipped optionally with an inlet and an outlet gauge.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001:2009**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

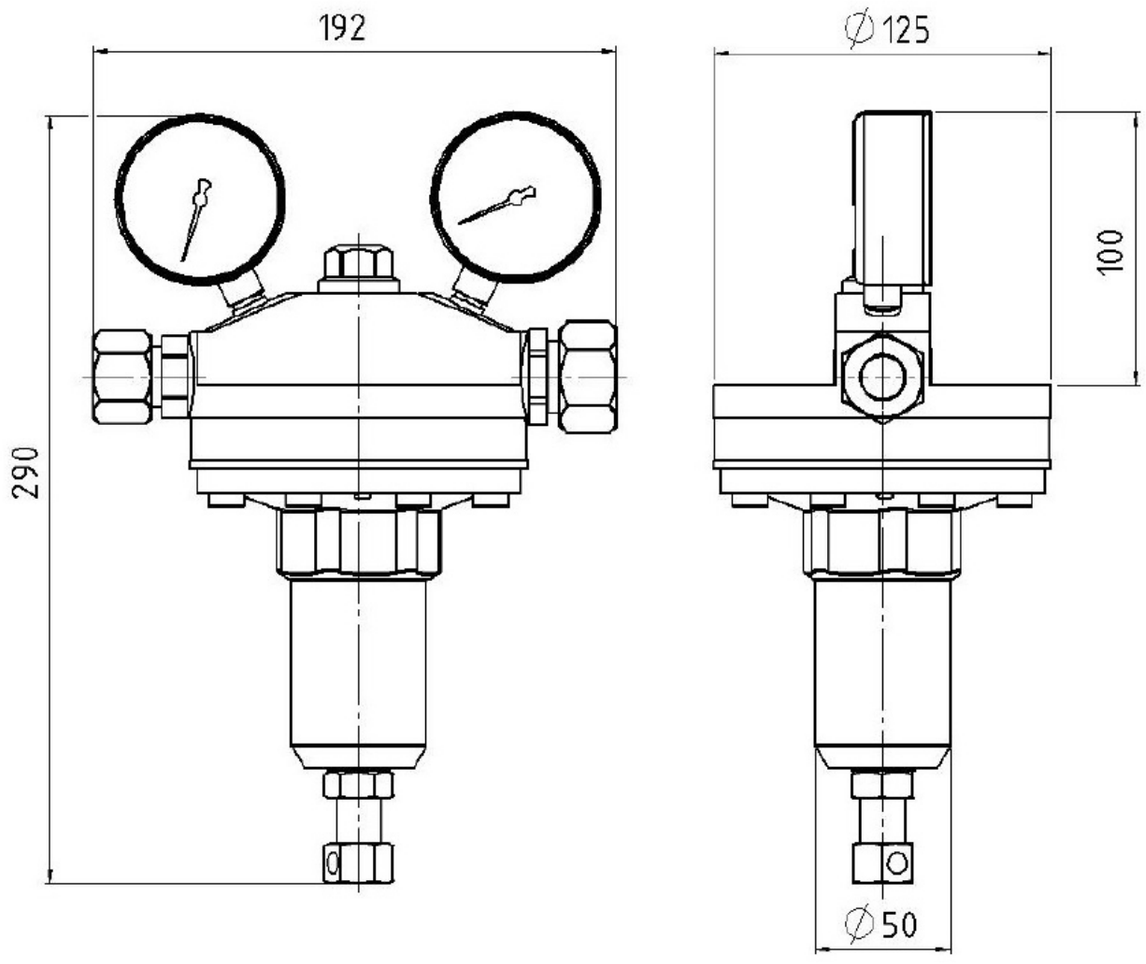
HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

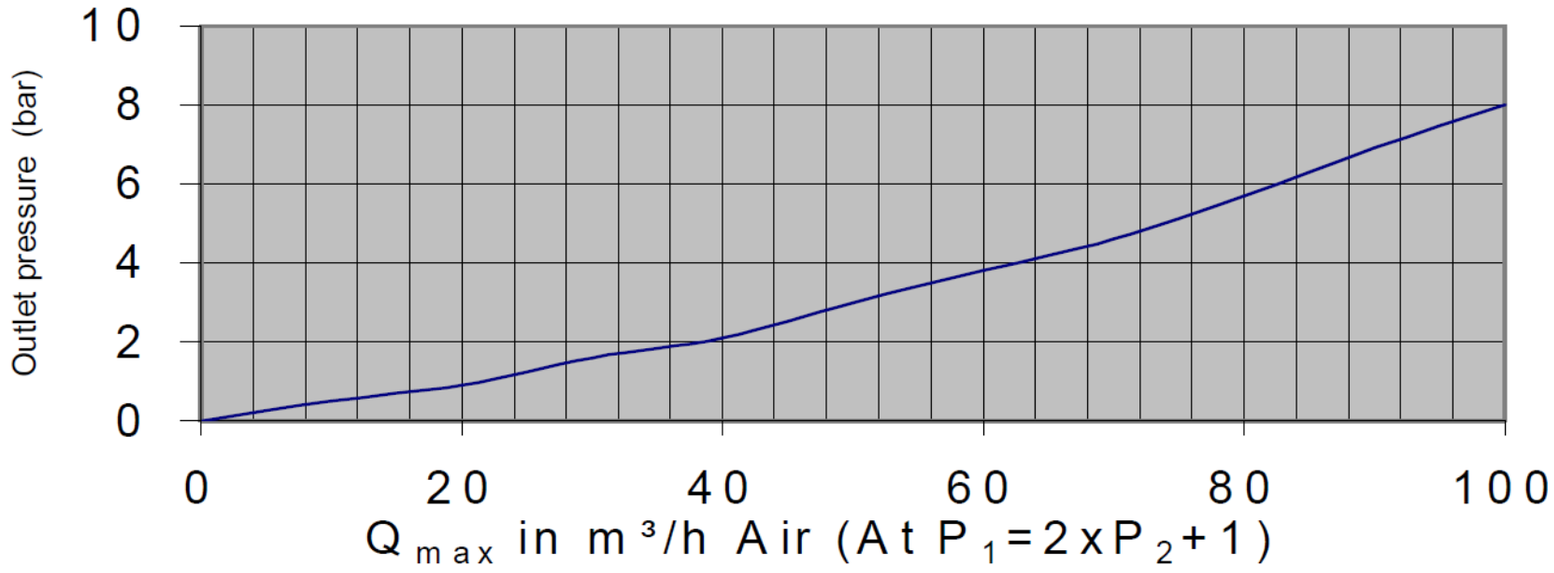
www.hornung.org
info@hornung.org

PFR 7



FLOW PERFORMANCE

Flow performance PFR 7



ORDER DETAILS

Material:
1 = brass
2 = stainless steel

Diaphragm:
1 = EPDM
2 = viton

Gauge:
1 = none
2 = inlet and outlet gauges

Pressure area:
1 = 0,1 - 2,5 bar
2 = 1 - 6 bar
3 = 1 - 10 bar
4 = 1 - 16 bar

Regulator type							
41-	PFR 7	41-	2	2	2	4	Gas type
		Type	Material	Diaphragm	Gauge	Pressure	Gas type

Accessories:

7. Gauges, tube fittings for inlet and outlet und accessories,
8. Safety valve available on request
9. Wall mounting bracket,safety valve available on request.

dated 09/2023

Line pressure regulator HP 350

- single stage for high flow and high outlet pressure (up to 50 bar) – with a balanced poppet

Fittings and gauges optional

TECHNICAL DETAILS		DESCRIPTION	APPLICATION AREA
Body:	Edelstahl 1.4404 elektropoliert bzw. Messing, vernickelt und mattverchromt	Especially for gases with high requirements on purity up to 6.0 and for laboratories and analytics.	The line pressure regulator HP 350 is a single stage pressure regulator with a high flow rate and is designed for pressure reduction of high purity gases.
Seat:	PCTFE	Due to our special cleaning method the cylinder pressure regulator is ECD capable.	The HP 350 reduces the pressure of compressed gases or fluids to a maximum outlet pressure of 50 bar.
Membran:	1.4435		It functions according to the principle guiding the equilibrium of forces between the set spring force and the outlet pressure.
Leakage rate:	10^{-8} (mbar l/s) Heliumlecktest		The line pressure regulator HP 350 is equipped with a balanced poppet and by so doing ensures constancy in operating pressure during the entire gas withdrawal process, and occurring decrease in inlet pressure.
Gas purity:	≤ 6.0		
Max. inlet pressure:	300 bar		
Outlet pressure ranges:	0,1-1,7; 1-3,5; 1-7; 1-12; 1-17; 1-30; 1-50 bar		
Operating temp.:	-20°C to +70°C		
Gauges:	safety version to EN 837-1 KL1.6		
Dimensions (wxhxd):	122 x 123 x 126 mm		
Weight:	1750 g		
Connections:	NPT 3/8“ f / NPT 1/2“ f		

QUALITY STANDARD

The company Hornung is certified to **ISO 9001 and ISO 14001**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

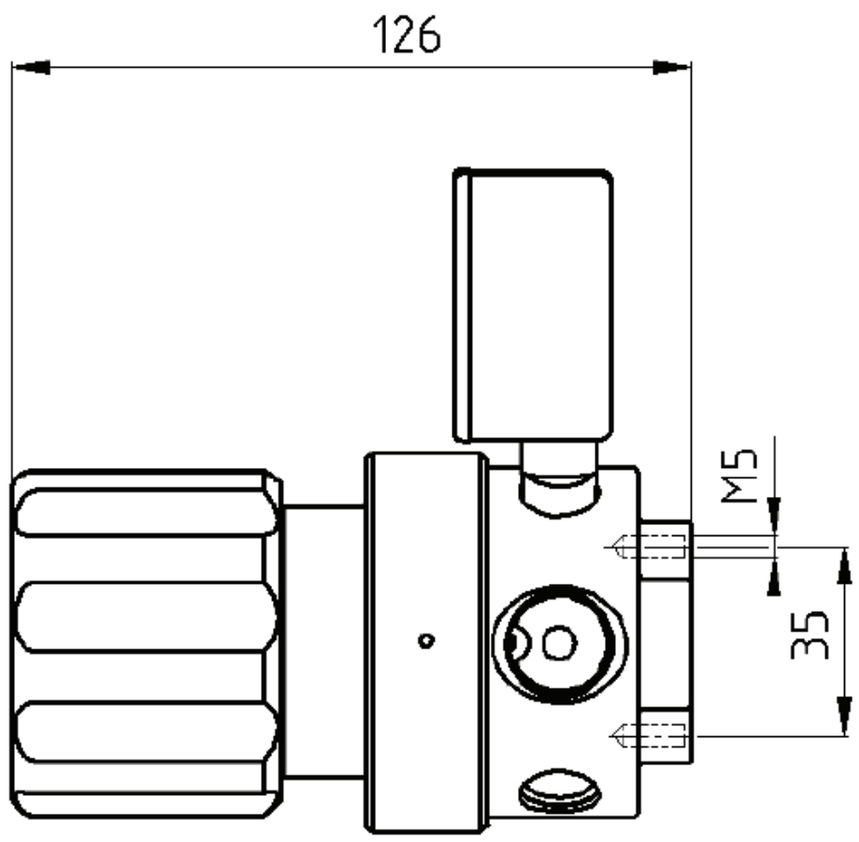
HORNUNG
Präzision made in Germany

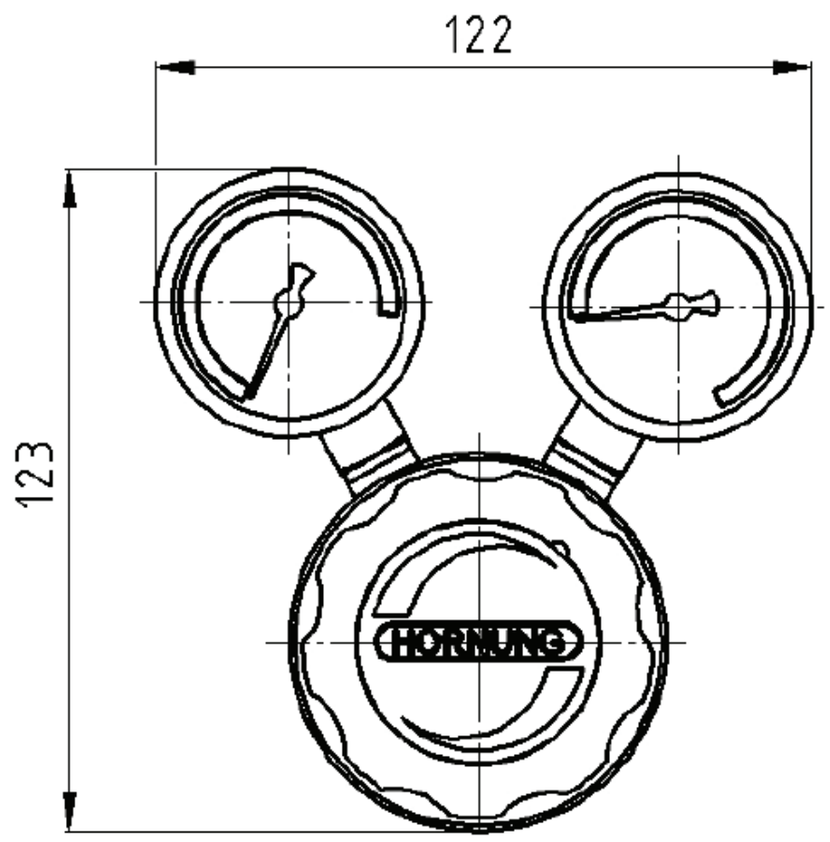
Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

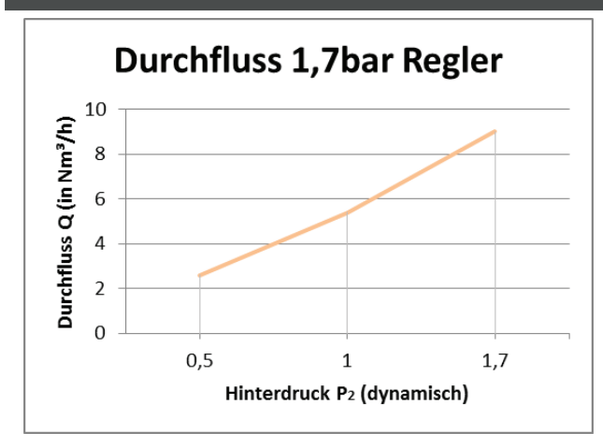
www.hornung.org
info@hornung.org

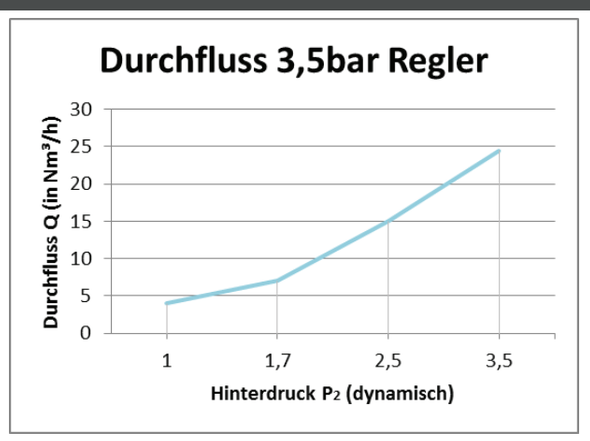
HP 350

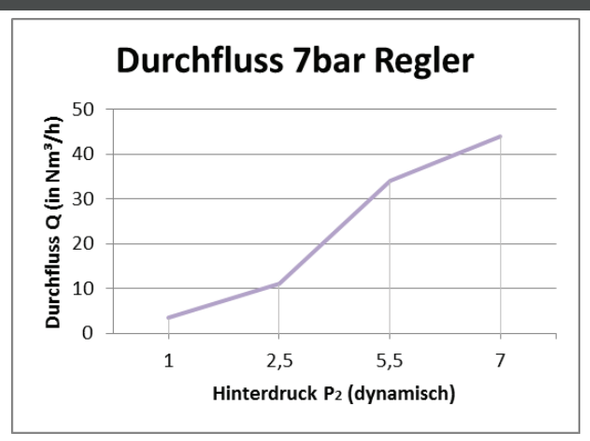


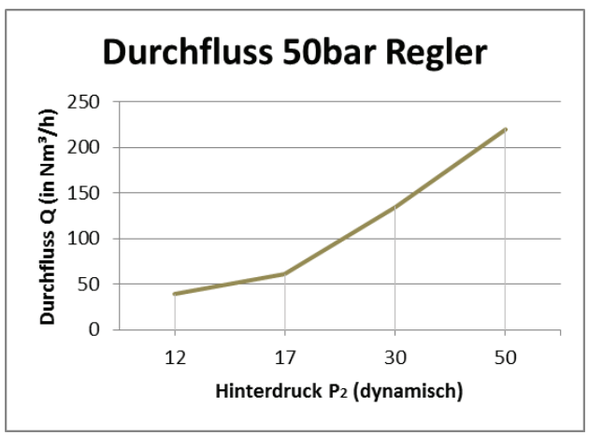


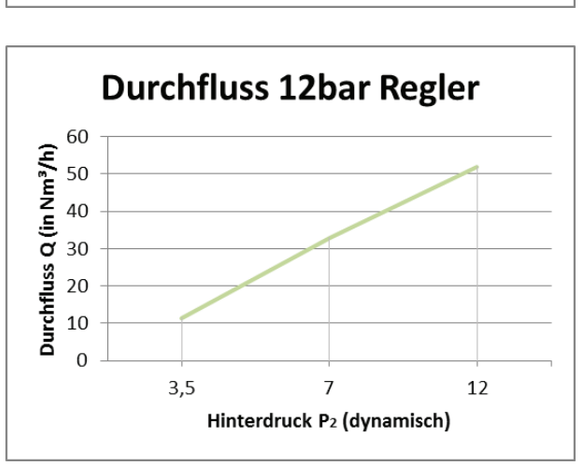
FLOW CURVE

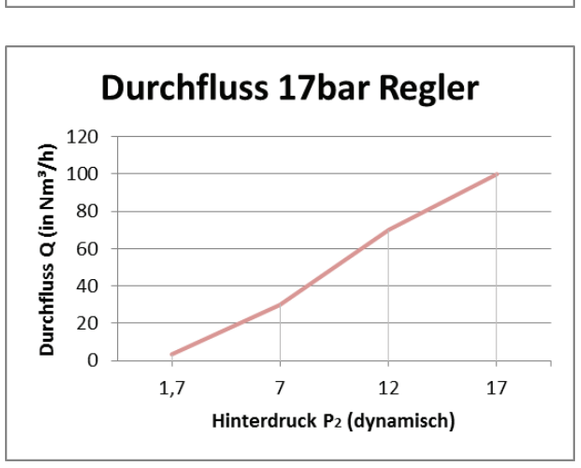


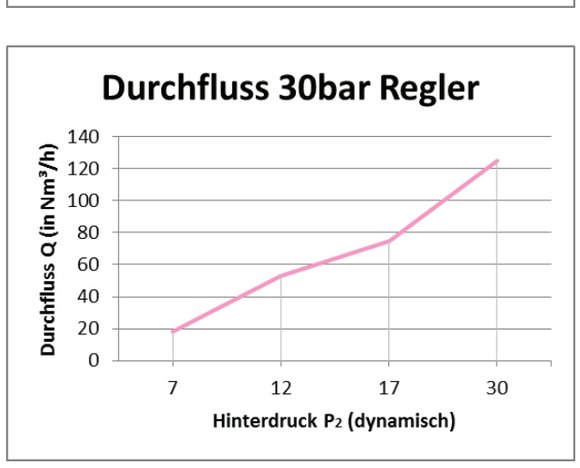












ORDER DETAILS

Material:
1 = Stainless steel
2 = Brass

Inlet:
1 = left to right
2 = right to left

Outlet pressure ranges:
1 = 0,1 - 1,7 bar
2 = 1 - 3,5 bar
3 = 1 - 7 bar
4 = 1 - 12 bar
5 = 1 - 17 bar
6 = 1 - 30 bar
7 = 1 - 50 bar

Gauges:
1 = none
2 = with inlet and outlet gauges

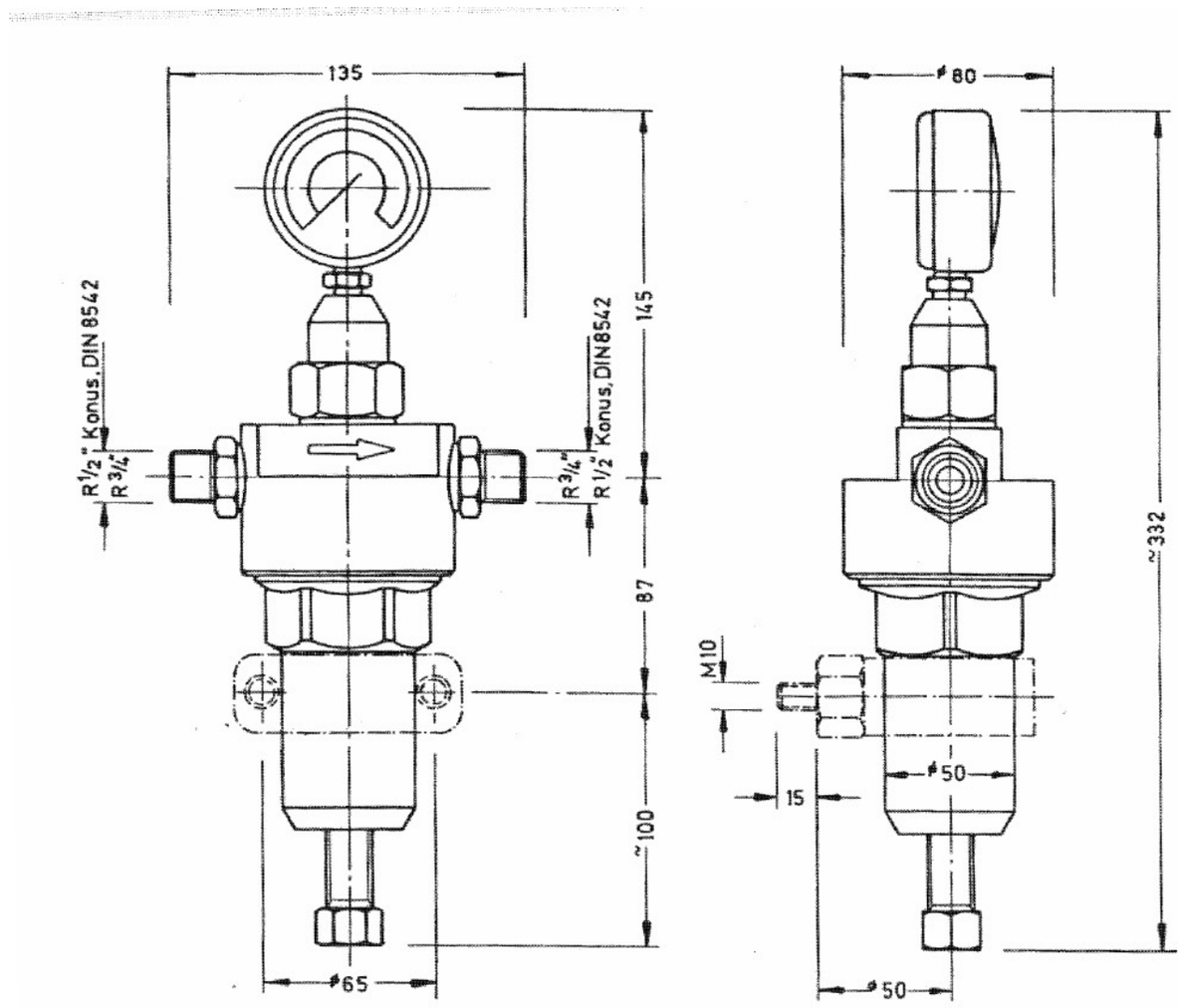
Option on the front and back:
0 = NPT 3/8“ f
1 = NPT 1/2“ f
6 = compression fitting 6 mm
8 = compression fitting 8 mm
10 = compression fitting 10 mm
12 = compression fitting 12 mm
15 = compression fitting 15 mm

HP350-	2	3	2	1	6	Gas type
Type	Material	Inlet	Outlet	Gauge	Option	Gas type

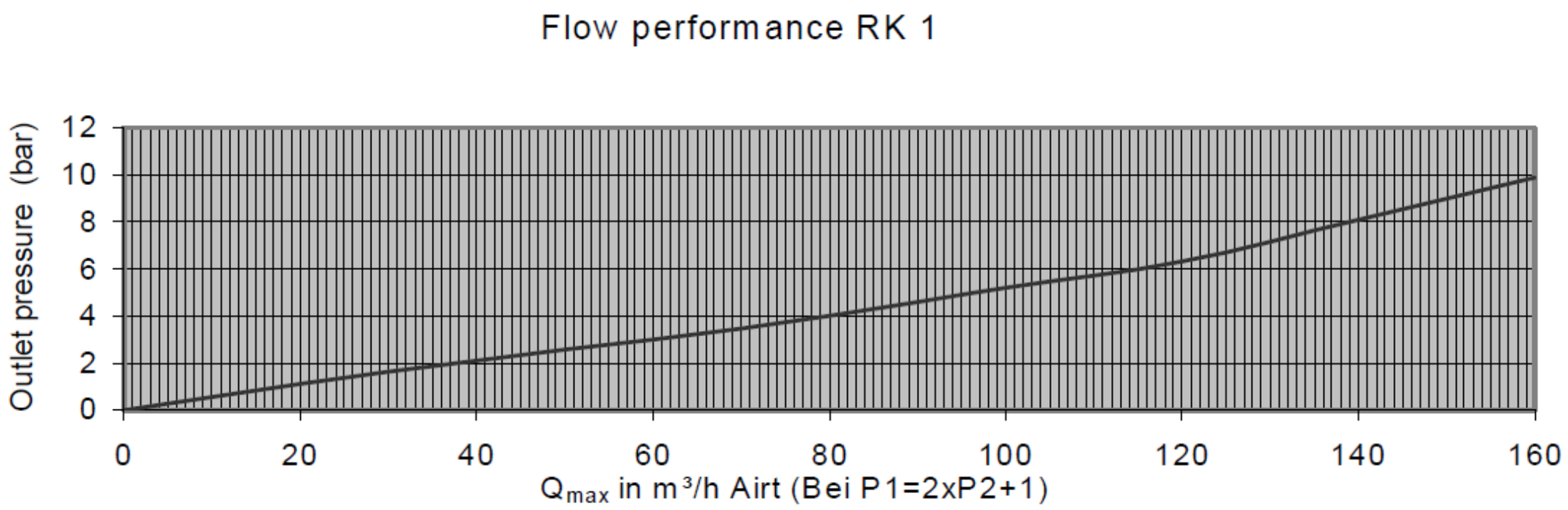
Accessories: see total catalogue segment

7. Gauges, fittings and accessories

Line pressure regulator RK 1



MODEL	GAS	INLET PRESSURE P1	OUTLET PRESSURE P2	FLOW Q1	INLET CONNECTION	OUTLET CONNECTION
RK 1	F, NF, NC, T	max. 35 bar	max. 30 bar	200 m³/h	G 1/2 DIN EN 560	G 1/2 DIN EN 560



The pressure regulator RK 1 is for the installation in line systems with large gas flows. For example flame cutting installations.
The RK 1 is in brass for flammable and non-flammable gases.

The RK 1 regulator can be supplied with an outlet manometer or relief valve. A bracket for wall mounting is also available.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001:2009**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

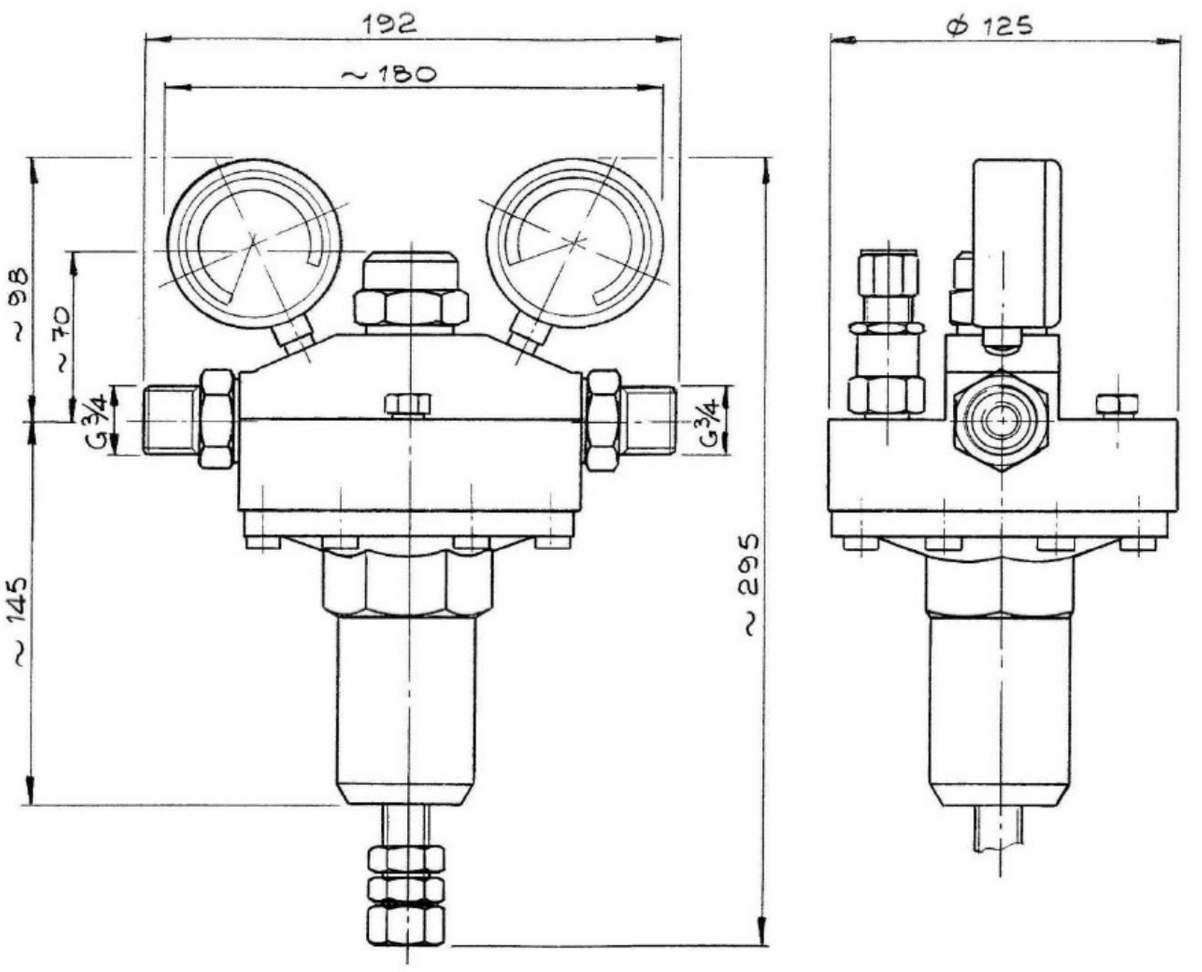
HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

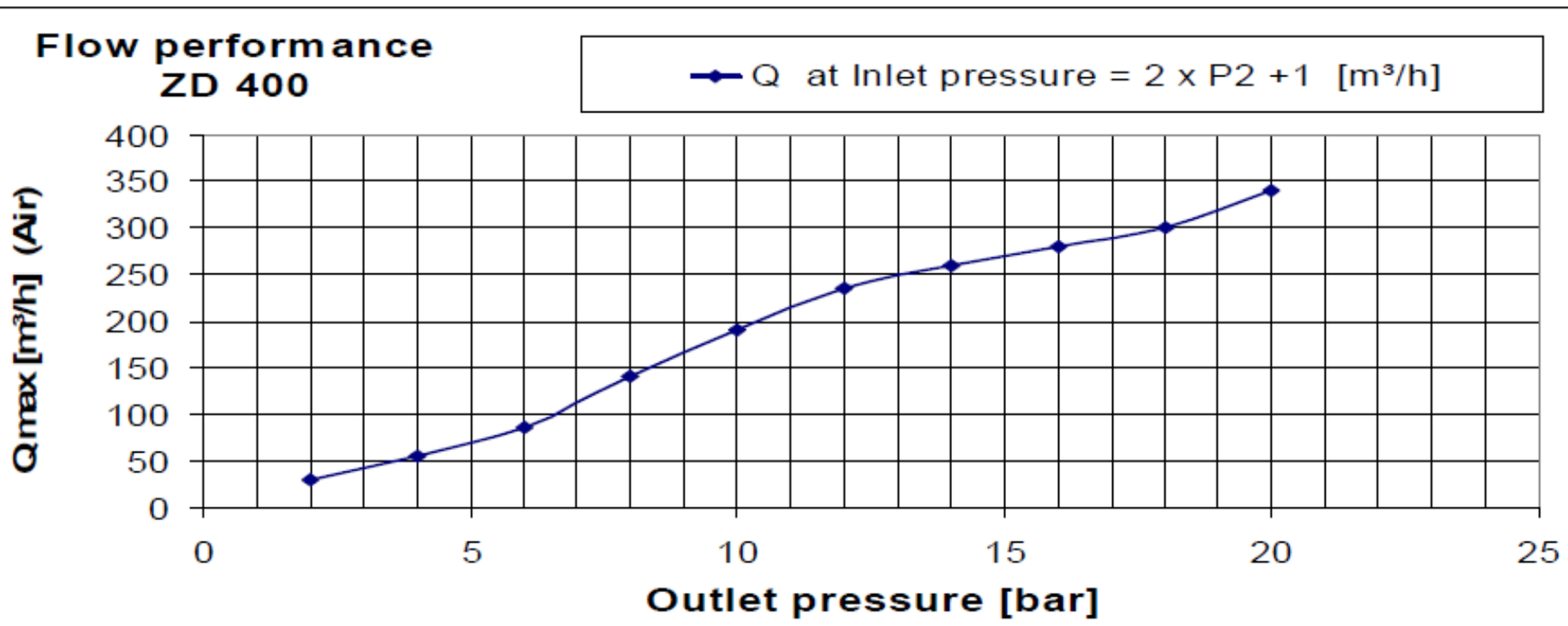
Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

Line pressure regulator ZD 400



MODEL	GAS	INLET PRESSURE P1	OUTLET PRESSURE P2	FLOW Q1	INLET CONNECTION	OUTLET CONNECTION
ZD 400	NF, F, NC	max. 300 bar	max. 0-20 bar	340 m³/h	G 3/4	G 1



The pressure regulator ZD 400 reduces the max. inlet pressure of 300 bar down to a max. outlet pressure of 20 bar.

The ZD 400 is a single stage diaphragm controlled regulator with an inlet pressure compensator.

A specifically constructed piston version assures constancy in pressure. BAM certified for oxygen.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001:2009**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

dated 02/2022

Line pressure regulator **HD 250**

- Inlet pressure max. 440 bar and operating pressures up to 250 bar

Fittings and
gauges optional

TECHNICAL DETAILS

Body:	brass, nickel and matt chrome plated or stainless steel
Seat:	PCTFE
Elastomer:	viton / NBR
Max. inlet pressure:	440 bar
Outlet pressure ranges:	5-250; 1-100; 1-50 bar
Operating temp.:	-20°C to +70°C
Size:	131 x Ø 53 mm
Weight:	865 g
Threads:	in- and outlet NPT 1/4“ f

APPLICATION AREA

· This pressure regulator is designed for use with high inlet and outlet pressures.

· High pressure technology

· Pilot pressure regulator e.g. in controlled systems in connection with dome pressure regulators.

· The high-grade steel construction with elastomer made of viton compound permits the use of aggressive media with HD 250.

DESCRIPTION

The line pressure regulator HD 250 is a single-stage pressure regulator for high pressure applications (in- and outlet).

The HD 250 is designed as a piston pressure regulator and reduces the pressure of compressed gases or liquids to a maximum outlet pressure of 250 bar.

QUALITY STANDARD

The company Hornung is certified to **ISO 9001:2015 und ISO 14001:2015**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

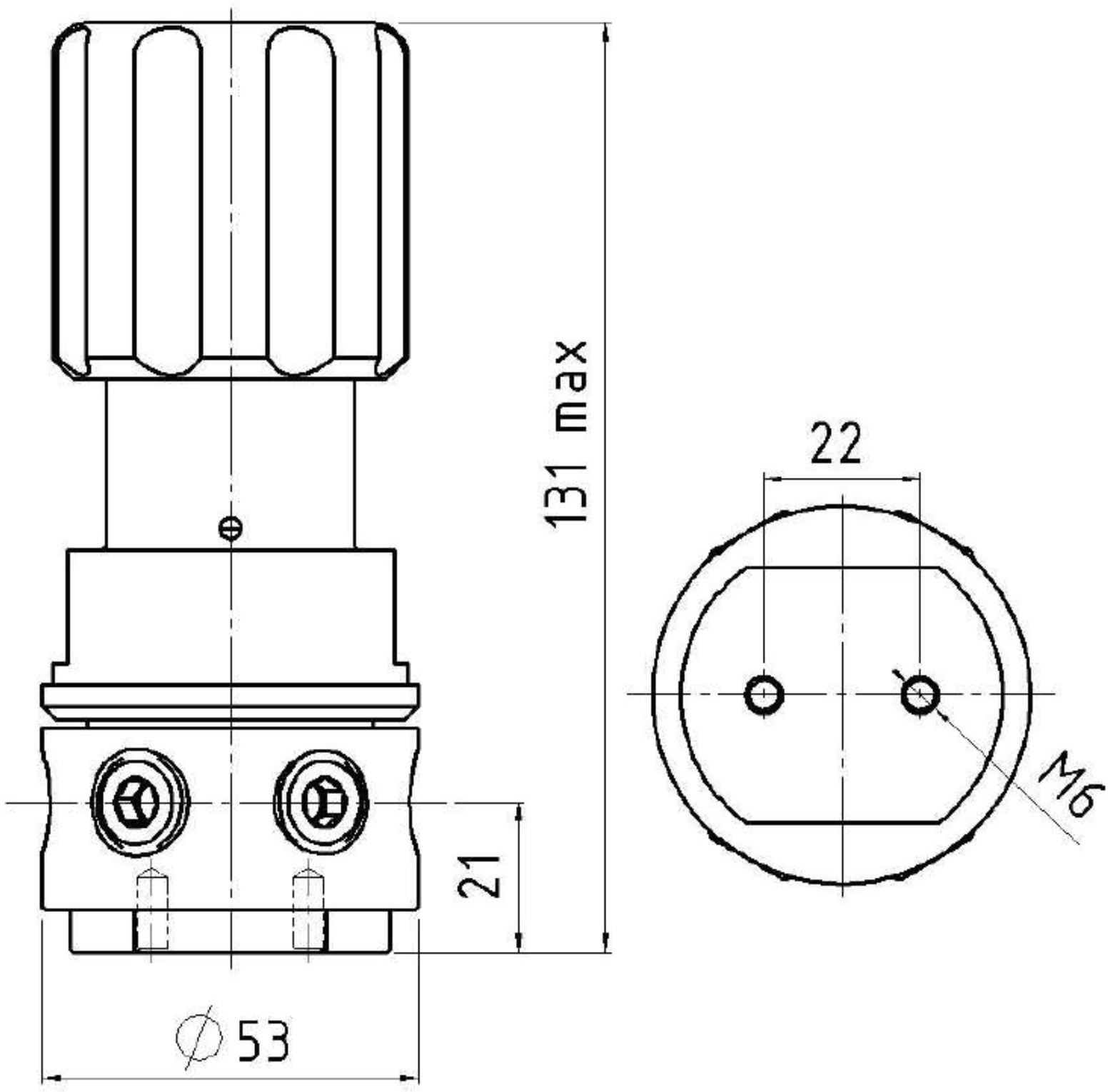
HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

HD 250



ORDER DETAILS

Material:	Elastomer:	Outlet pressure ranges:	Gauge:	Outlet option:
1 = brass, nickel and matt chrome plated	1 = NBR	1 = 5 - 250 bar	1 = without gauges	00 = NPT 1/4“ f
	2 = viton	2 = 1 - 100 bar	2 = outlet pressure gauge	03 = compression fitting 3 mm
2 = stainless steel electropolished		3 = 1 - 50 bar	3 = in- and outlet pressure gauges	06 = compression fitting 6 mm
				08 = compression fitting 8 mm
				10 = compression fitting 10 mm
				12 = compression fitting 12 mm

Regulator type		42-	1	1	3	2	06	Gas type
42	HD 250	Type	Material	Elastomer	Pressure	Gauge	Option	Gas type

Accessories: See total catalogue segment

7. Gauges, screws, compression fittings and other accessories

dated 09/2023

Line pressure regulator **HD 400**

- Inlet pressure max. 440 bar / operating pressures up to 400 bar

Fittings and
gauges optional

TECHNICAL DETAILS		DESIGN	DESCRIPTION
Body:	brass, nickel and matt chrome plated or stainless steel	· This pressure regulator is designed for use with high inlet and outlet pressures. · High pressure technology · Pilot pressure regulator e.g. in controlled systems in connection with dome pressure regulators. · The high-grade steel construction with elastomer made of viton compound permits the use of aggressive media with HD 400.	The line pressure regulator HD 400 is a single-stage pressure regulator for high pressure applications (in- and outlet). The HD 400 is designed as a piston pressure regulator and reduces the pressure of compressed gases or liquids to a maximum outlet pressure of 400 bar.
Seat:	PCTFE		
Elastomer:	viton / NBR		
Max. inlet pressure:	440 bar		
Outlet pressure:	10 - 400 bar		
Operating temp.:	-20°C to +70°C		
Size:	131 x Ø 53 mm		
Weight:	865 g		
Threads:	in- and outlet NPT ¼“ f		

QUALITY STANDARD

The company Hornung is certified to **ISO 9001 und ISO 14001**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

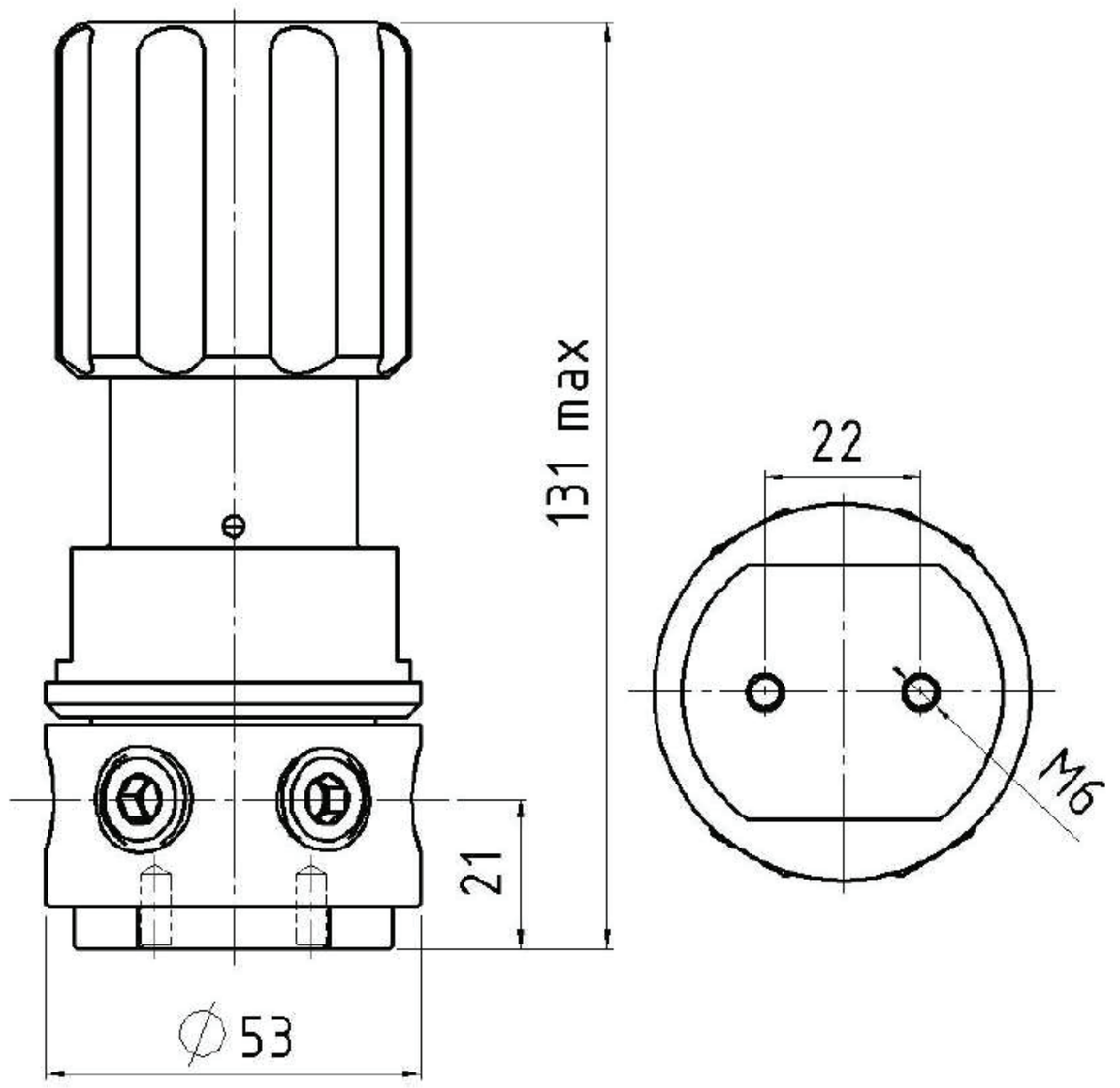
HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

HD 400



APPLICATION AREA

This pressure regulator is used especially for the withdrawal of a less amount of gas at high inlet and outlet pressures.
Due to its small size is this pressure regulator particularly suitable for use as a pilot pressure regulator e.g. in controlled systems in connection with dome pressure regulators.

The stainless steel construction with elastomere made of viton compound permits the use of aggressive media with this pressure regulator.

We urgently recommend the pre-connection of a fine filter, with at least a level of purity of up to 40 µ, as well as the subsequent integration of suitable safety valves against unduly high pressure.

ORDER DETAILS

Material:
1 = brass, nickel and matt chrome plated
2 = stainless steel electropolished

Elastomer:
1 = NBR
2 = viton

Gauge:
1 = without gauges
2 = outlet pressure gauge
3 = in- and outlet pressure gauges

Outlet option:
00 = NPT 1/4“ f
03 = compression fitting 3 mm
06 = compression fitting 6 mm
08 = compression fitting 8 mm
10 = compression fitting 10 mm
12 = compression fitting 12 mm

Regulator type		45-	1	1	3	06	Gas type
45	HD 400	Type	Material	Elastomer	Gauge	Option	Gas type

Accessories: See total catalogue segment — 7. Gauges, compression fittings and accessories

dated 07/2022

High pressure regulator **HD 550**

- Inlet pressure up to 750 bar and operating pressures up to 550 bar

Fittings and
gauges optional

TECHNICAL DETAILS		APPLICATION AREA	DESCRIPTION
Material:	brass or stainless steel 1.4404	To guarantee a good control characteristic of HD 550 even for low pressures piston diameters are different (depending on flow and pressure). The outlet pressure of HD 550 is adjustable without strength even at high working pressures by capture vented construction and a control spindle with axial bearing. HD 550 can be equipped optionally with inlet and outlet gauge.	HD 550 is a single stage high pressure regulator and is designed as a piston pressure regulator and reduces the pressure of compressed gases or liquids to a maximum outlet pressure of 550 bar.
Seat size:	Ø 1,70 Ø 6,35 (balanced)		
Flow capacity:	Cv 0,03 (Ø 1,70) Cv 0,7 (Ø 6,35)		
Seat:	PCTFE		
Elastomer:	EPDM / viton		
Max. inlet pressure:	750 bar		
Outlet pressure ranges:	0,5 - 100 bar 10 - 550 bar		
Operating temp.:	-20°C to +60°C		
Size:	Ø 80 x 186 mm		
Weight:	2,5 kg		
Threads:	in- / outlet NPT 3/8 f gauges NPT 1/4 f		

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

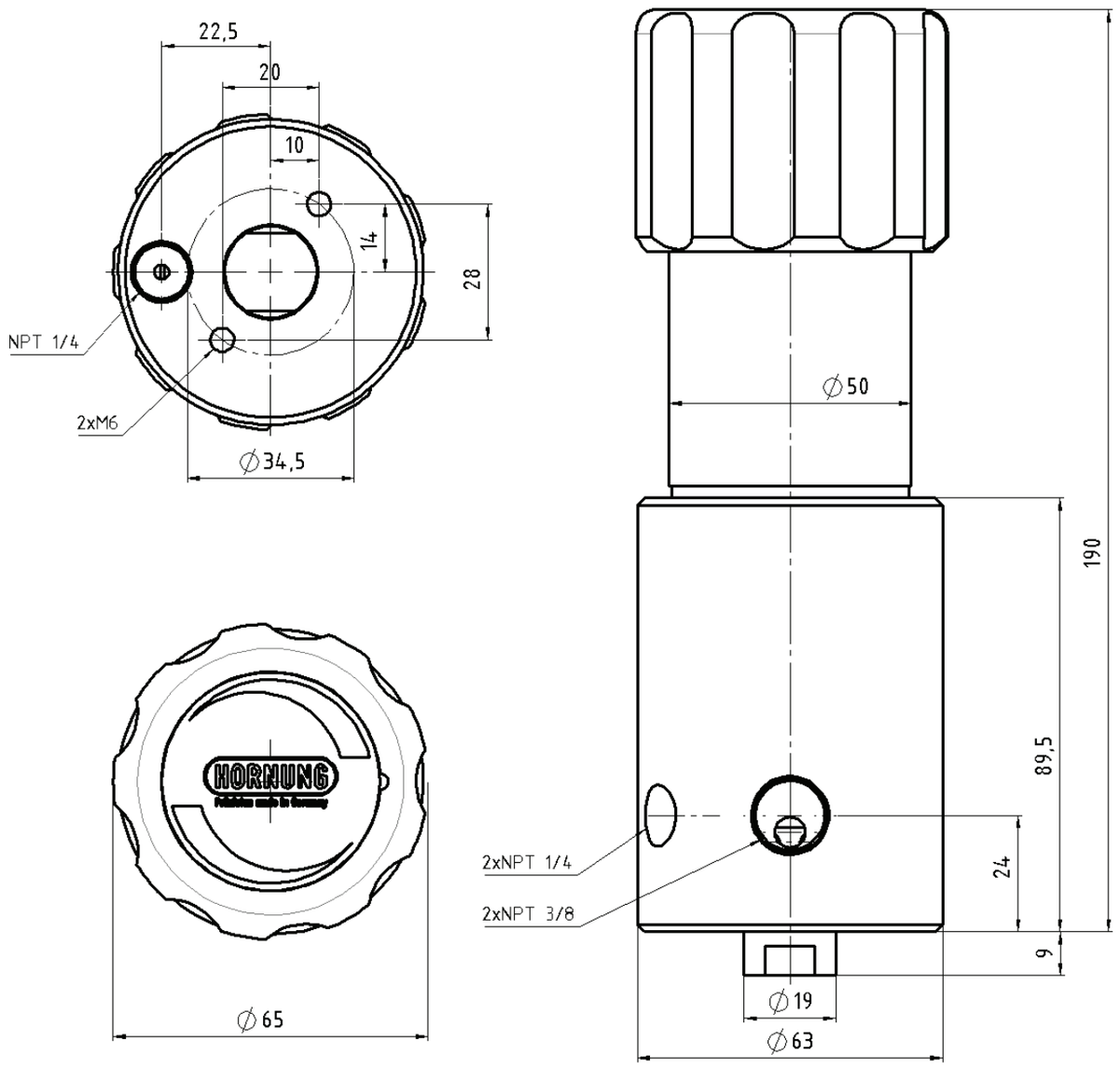
HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

HD 550



APPLICATION AREA

This pressure regulator is constructed for high inand outlet pressures. With its captured vent this pressure regulator is particularly suitable for use as a pilot pressureregulator, e.g. in control systems in connection with dome pressure regulators.

The stainless steel version with elastomere made of viton permits the use for corrosive media with this pressure regulator.
Using the captured vent version, customer has to assure, that venting is connected to customers exhausting system.

It is recommend to integrate a fine filter of at least 40 µ in front of HD 550 and to install relief valve behind HD 550 for protecting customer's equipment/ system.

ORDER DETAILS

Material:	**Seat sizes:**	**Elastomer:**	**Outlet pressure:**	**Capture venting:**	**Gauges:**
1 = brass	1 = Ø 1,70	1 = EPDM	1 = 100 bar	1 = none	1 = none
2 = stainless steel 1.4404	2 = Ø 6,35 (balanced)	2 = viton	2 = 550 bar	2 = with capture venting	2 = with inlet and outlet gauge

Regulator type		46-	1	1	1	1	1	2	Gas type
46	HD 550	Type	Material	Seat	Elastomer	Pressure	Venting	Gauge	Gas type

Accessories: See total catalogue segment

7. Gauges, compression fittings and accessories
8. Flanges, fine filter F1 (see seperate data sheet), safety valves available on request

Line pressure regulator L 1/2

Fittings and gauges optional

TECHNICAL DETAILS

Material:	Brass or stainless steel(1.4404)
Valve seat:	Ø 7 mm
Cv-Wert:	1,05
Seat:	EPDM or FKM
Diaphragm:	EPDM or FKM
Max. inlet pressure:	110 bar
Outlet pressure ranges:	0,5 - 3 bar 0,5 - 6 bar 1 - 10 bar 1 - 20 bar 5 - 70 bar 5 - 100 bar
Operating temp.:	-40°C to +150°C
Dimensions:	Ø 78 x 163 mm
Weight:	3,1 kg
Connections:	Inlet / outlet NPT 1/2“ or G 1/2“ Gauge NPT 1/4“

APPLICATION AREA

Depending on applied materials, this pressure regulator is applicable for different gases and liquids.

We urgently recommend the connection of a fine filter with max. 40 µ at the inlet of the pressure regulator. Subsequent components and plant components must be protected by separate safety valves.

DESCRIPTION

The line pressure regulator L 1/2 is characterised by an accurate regulation and a large throughput.

The spring loaded pressure regulator works according to the principle of the force equilibrium between the adjusted spring force and the outlet pressure.

It can be equipped optionally with an inlet and an outlet gauge.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

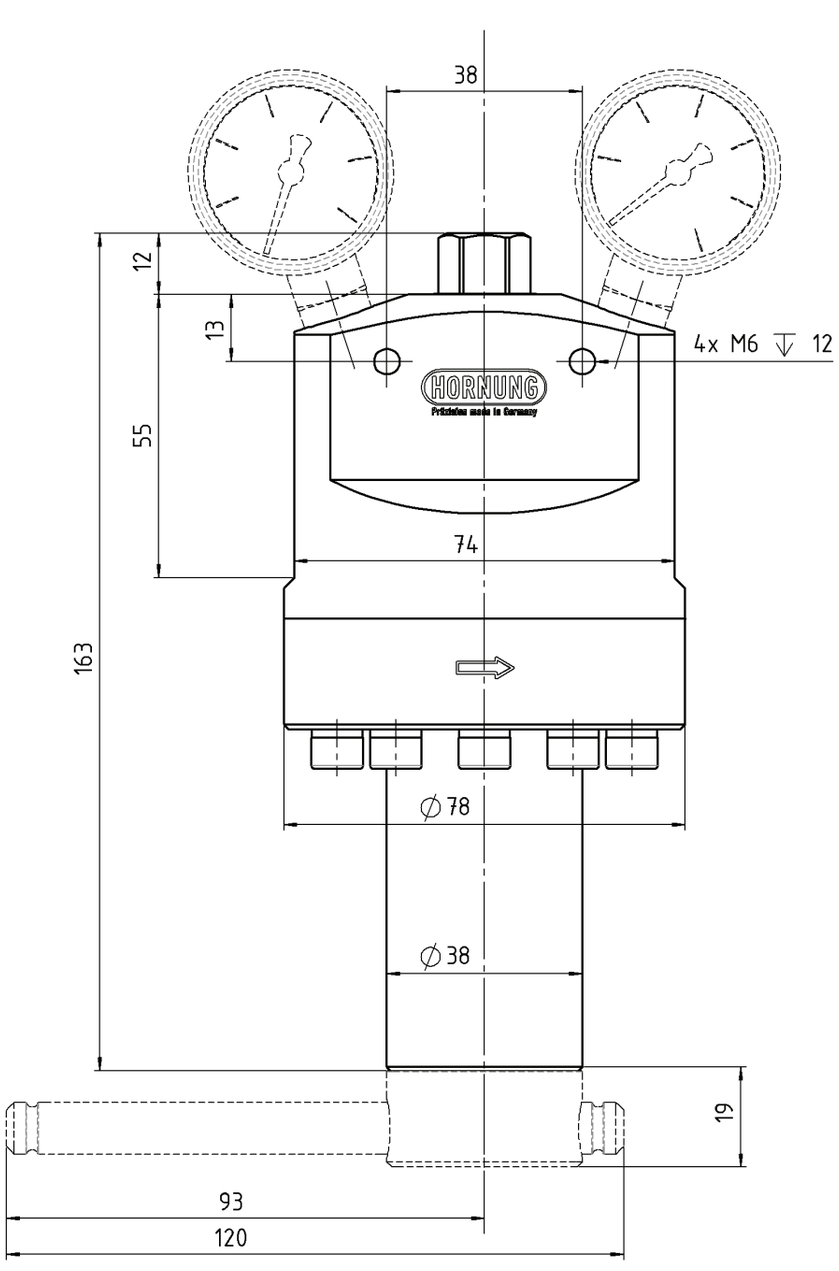
HORNUNG
Präzision made in Germany

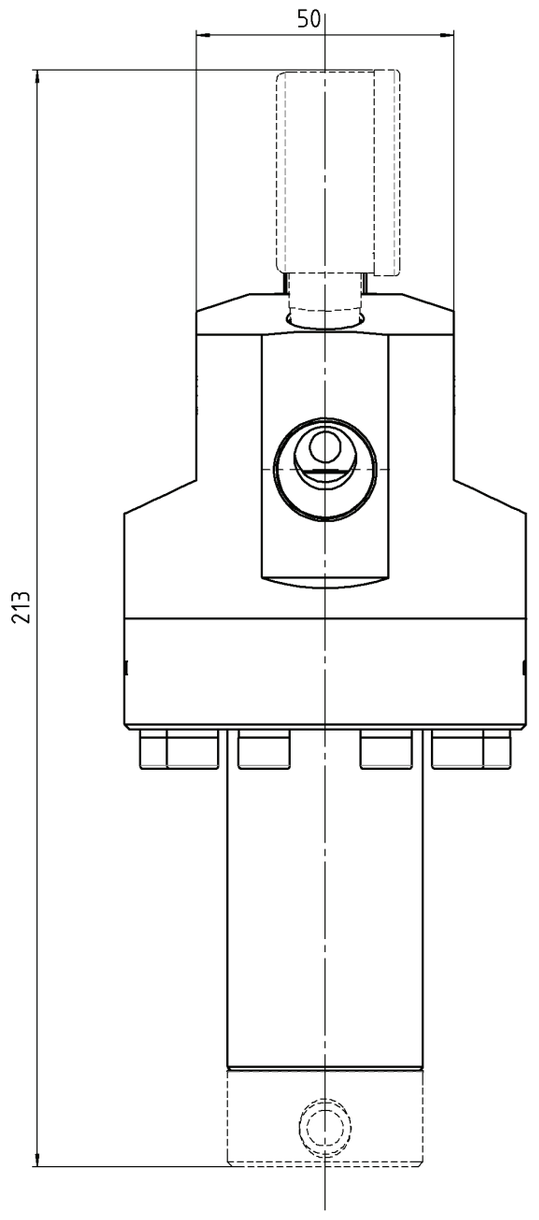
Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

L 1/2





VERSION

A large independence from fluctuation of the inlet pressure is reached with a balanced poppet.

The use of high-grade steel in connection with elastomer made of FKM permits the application of this pressure regulator with aggressive media.

ORDER DETAILS

Material:	**Diaphragm:**	**Outlet preassure:**	**Gauges:**	**Inlet / outlet:**
1 = brass	1 = EPDM	1 = 0,5 - 3 bar	0 = none	0 = G 1/2“ - internal thread
2 = stainless steel	2 = FKM	2 = 0,5 - 6 bar 3 = 1 - 10 bar 4 = 1 - 20 bar 5 = 5 - 70 bar 6 = 5 - 100 bar	1 = with inlet and outlet gauge	1 = NPT 1/2“ - Internal thread

Regulator type								
310-	L 1/2	310- Type	2 Material	1 Diaphragm	1 Pressure	1 Gauges	0 In-/outlet	Gas type Gas type

Accessories: see total catalogue segment

7. Gauges, fittings and accessories
8. Fein filter F1, safety valves available on request

Line pressure regulator LH 1/2

Fittings and gauges optional

TECHNICAL DETAILS

Material:	Brass or stainless steel (1.4404)
Valve seat:	Ø 7 mm
Cv-Wert:	1,05
Seat:	PCTFE
Diaphragm:	EPDM or FKM
Max. inlet pressure:	320 bar brass 420 bar stainless steel
Outlet pressure ranges:	0,5 - 10 bar 1 - 20 bar 5 - 70 bar 5 - 100 bar 10 - 200 bar 10 - 360 bar
Operating temp.:	-40°C to +150°C
Dimensions:	Ø 78 x 163 mm
Weight:	3,1 kg
Connections:	Inlet / outlet NPT 1/2“ or G 1/2“ Gauge NPT 1/4“

APPLICATION AREA

Depending on applied materials, this pressure regulator is applicable for different gases and liquids.

We urgently recommend the connection of a fine filter with max. 40 µ at the inlet of the pressure regulator. Subsequent components and plant components must be protected by separate safety valves.

DESCRIPTION

The line pressure regulator LH 1/2 is characterised by an accurate regulation and a large throughput.

The spring loaded pressure regulator works according to the principle of the force equilibrium between the adjusted spring force and the outlet pressure.

It can be equipped optionally with an inlet and an outlet gauge.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

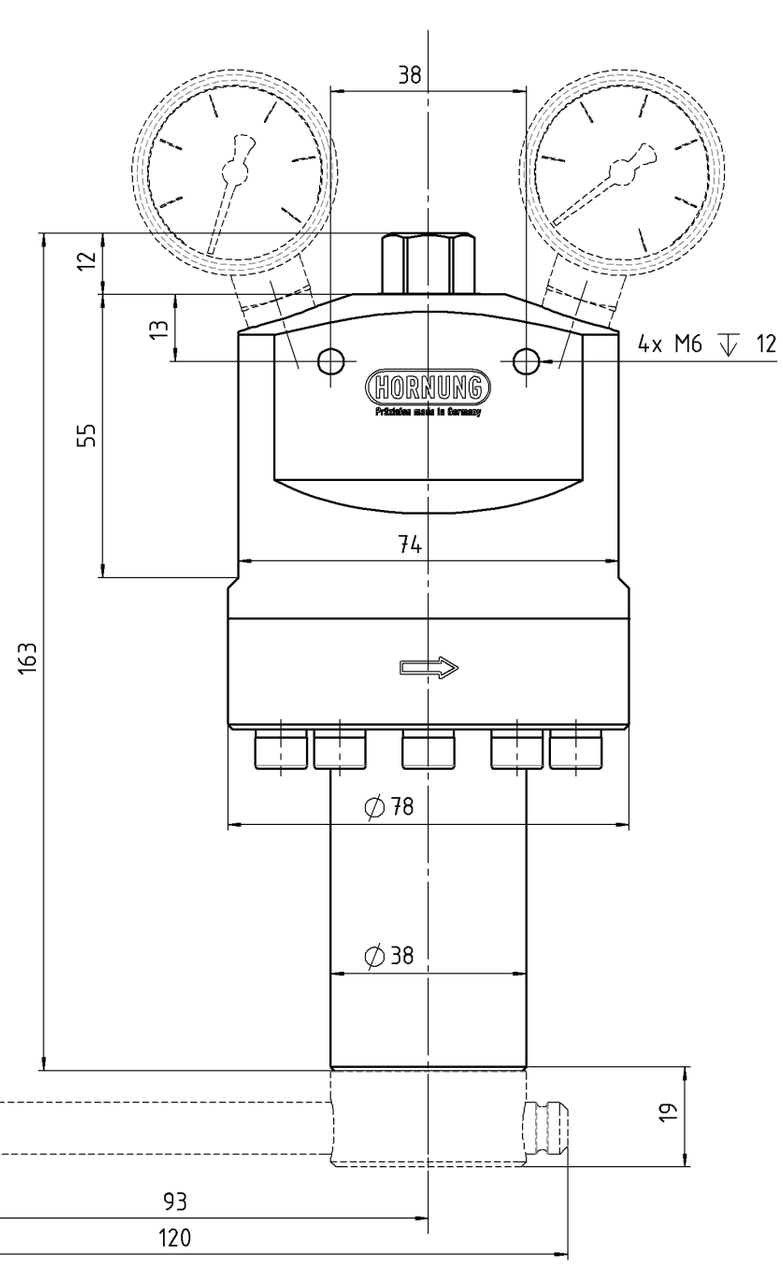
HORNUNG
Präzision made in Germany

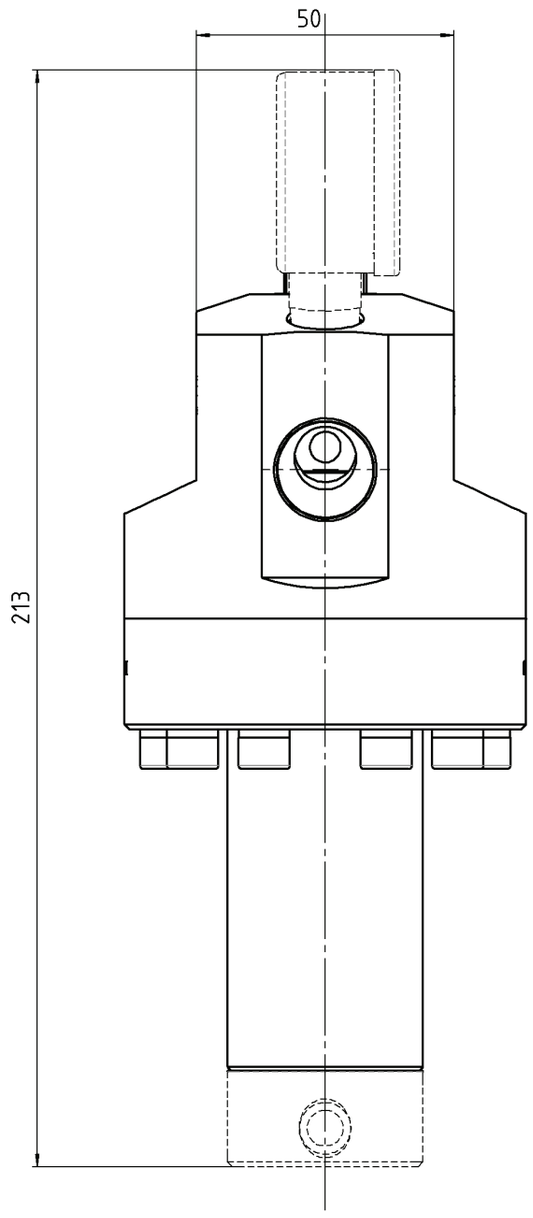
Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

LH 1/2





VERSION

A large independence from fluctuation of the inlet pressure is reached with a balanced poppet.

The use of high-grade steel in connection with elastomer made of FKM permits the application of this pressure regulator with aggressive media.

ORDER DETAILS

Material:
1 = brass
2 = stainless steel

Diaphragm:
1 = EPDM
2 = FKM

Outlet:
3 = 0,5 - 10 bar
4 = 1 - 20 bar
5 = 5 - 70 bar
6 = 5 - 100 bar
7 = 10 - 200 bar
8 = 10 - 360 bar

Gauges:
0 = none
1 = with inlet and outlet gauge

Inlet / outlet:
0 = G 1/2“ - internal thread
1 = NPT 1/2“ - Internal thread

Regulator type								
311-	LH 1/2	311-	2	1	3	1	0	Gas type
		Type	Material	Diaphragm	Pressure	Gauges	In-/outlet	Gas type

Accessories: see total catalogue segment

7. Gauges, fittings and accessories
8. Fein filter F1, safety valves available on request

Line pressure regulator L 3/4

Fittings and gauges optional

TECHNICAL DETAILS

Material:	Brass or stainless steel (1.4404)
Valve seat:	Ø 10
Cv-value:	2,0
Seat:	EPDM or FKM
Diaphragm:	EPDM or FKM
Max. inlet pressure:	110 bar
Outlet pressure ranges:	0,5 - 3 bar 0,5 - 6 bar 1 - 10 bar 1 - 20 bar 5 - 70 bar 5 - 100 bar
Operating temp.:	-40°C to +150°C
Dimensions:	Ø 93 x 186 mm
Weight:	4,8 kg
Connections:	Inlet / outlet G 3/4“ or NPT 3/4“ Gauge NPT 1/4“

APPLICATION AREA

Depending on applied materials, this pressure regulator is applicable for different gases and liquids.

We urgently recommend the connection of a fine filter with max. 40 µ at the inlet of the pressure regulator. Subsequent components and plant components must be protected by separate safety valves.

DESCRIPTION

The line pressure regulator L 3/4 is characterised by an accurate regulation and a large throughput.

The spring loaded pressure regulator works according to the principle of the force equilibrium between the adjusted spring force and the outlet pressure.

It can be equipped optionally with an inlet and an outlet gauge.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001:2015** and **ISO 14001:2015**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

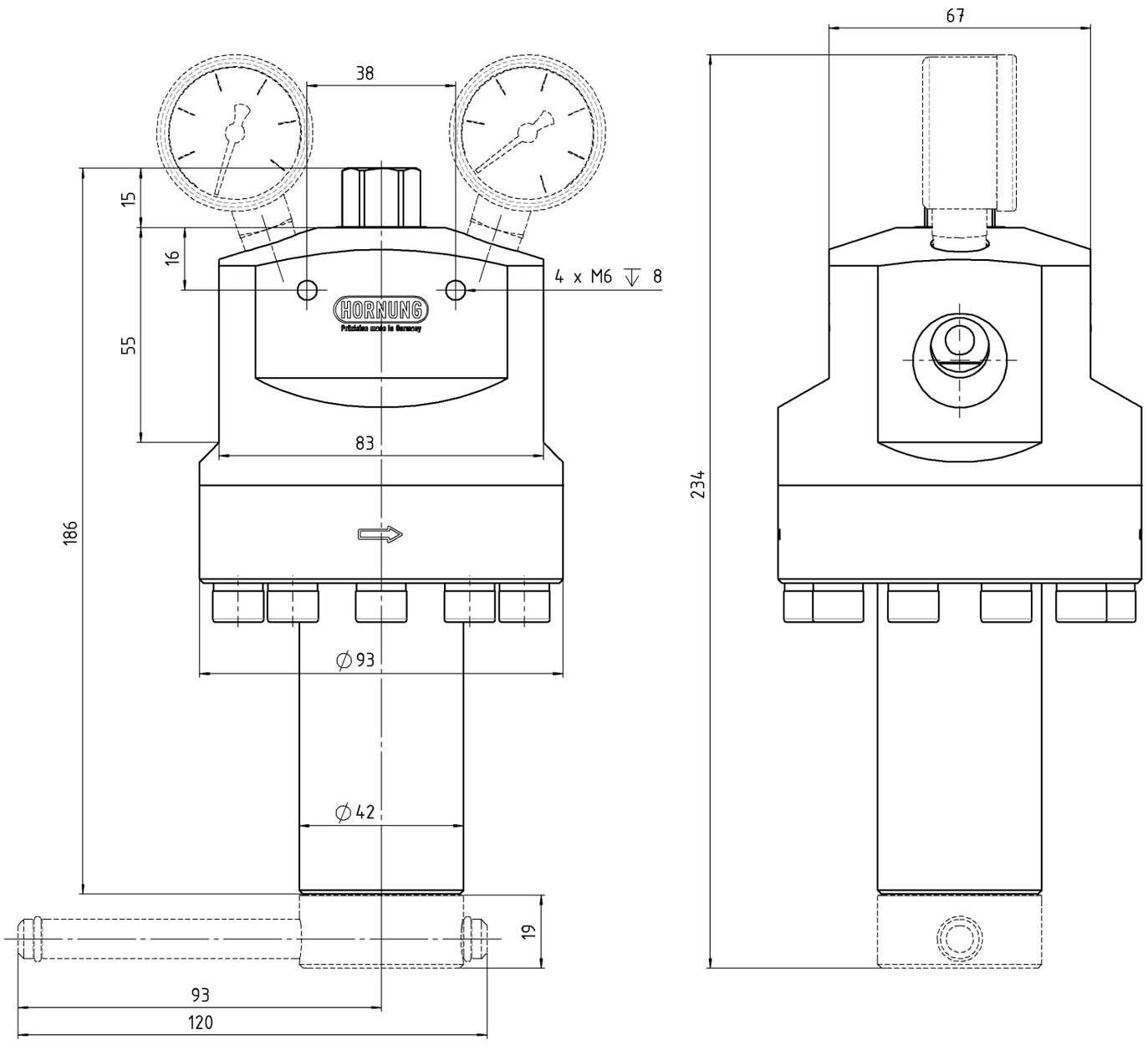
HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

L 3/4



VERSION

A large independence from fluctuation of the inlet pressure is reached with a balanced poppet.

The use of high-grade steel in connection with elastomer made of FKM permits the application of this pressure regulator with aggressive media.

ORDER DETAILS

Material:
1 = brass
2 = stainless steel

Diaphragm:
1 = EPDM
2 = FKM

Outlet pressure P2:
1 = 0,5 - 3 bar
2 = 0,5 - 6 bar
3 = 1 - 10 bar
4 = 1 - 20 bar
5 = 5 - 70 bar
6 = 5 - 100 bar

Gauges:
0 = none
1 = with inlet and outlet gauge

Inlet / outlet:
0 = G 3/4“ - Internal thread
1 = NPT 3/4“ - Internal thread

Regulator type								
330-	L 3/4	330-	2	1	3	1	1	Gas type
		Type	Material	Diaphragm	P2	Gauges	In-/outlet	Gas type

Accessories: see total catalogue segment

7. Gauges, fittings and accessories
8. Fein filter F1, safety valves available on request

Line pressure regulator LH 3/4

Fittings and gauges optional

TECHNICAL DETAILS

Material:	Brass or stainless steel (1.4404)
Valve seat:	Ø 10
Cv-Wert:	2,0
Seat:	PCTFE
Diaphragm:	EPDM or FKM
Max. inlet pressure:	320 bar brass 420 bar stainless steel
Outlet pressure ranges:	0,5 - 10 bar 1 - 20 bar 5 - 70 bar 5 - 100 bar 10 - 200 bar 10 - 360 bar
Operating temp.:	-40°C to +150°C
Dimensions:	Ø 93 x 186 mm
Weight:	4,8 kg
Connections:	Inlet / outlet G 3/4“ or NPT 3/4“ Gauge NPT 1/4“

APPLICATION AREA

Depending on applied materials, this pressure regulator is applicable for different gases and liquids.

We urgently recommend the connection of a fine filter with max. 40 µ at the inlet of the pressure regulator. Subsequent components and plant components must be protected by separate safety valves.

DESCRIPTION

The line pressure regulator LH 3/4 is characterised by an accurate regulation and a large throughput.

The spring-loaded pressure regulator works according to the principle of the force equilibrium between the adjusted spring force and the outlet pressure.

It can be equipped optionally with an inlet and an outlet gauge.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001:2015** and **ISO 14001:2015**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

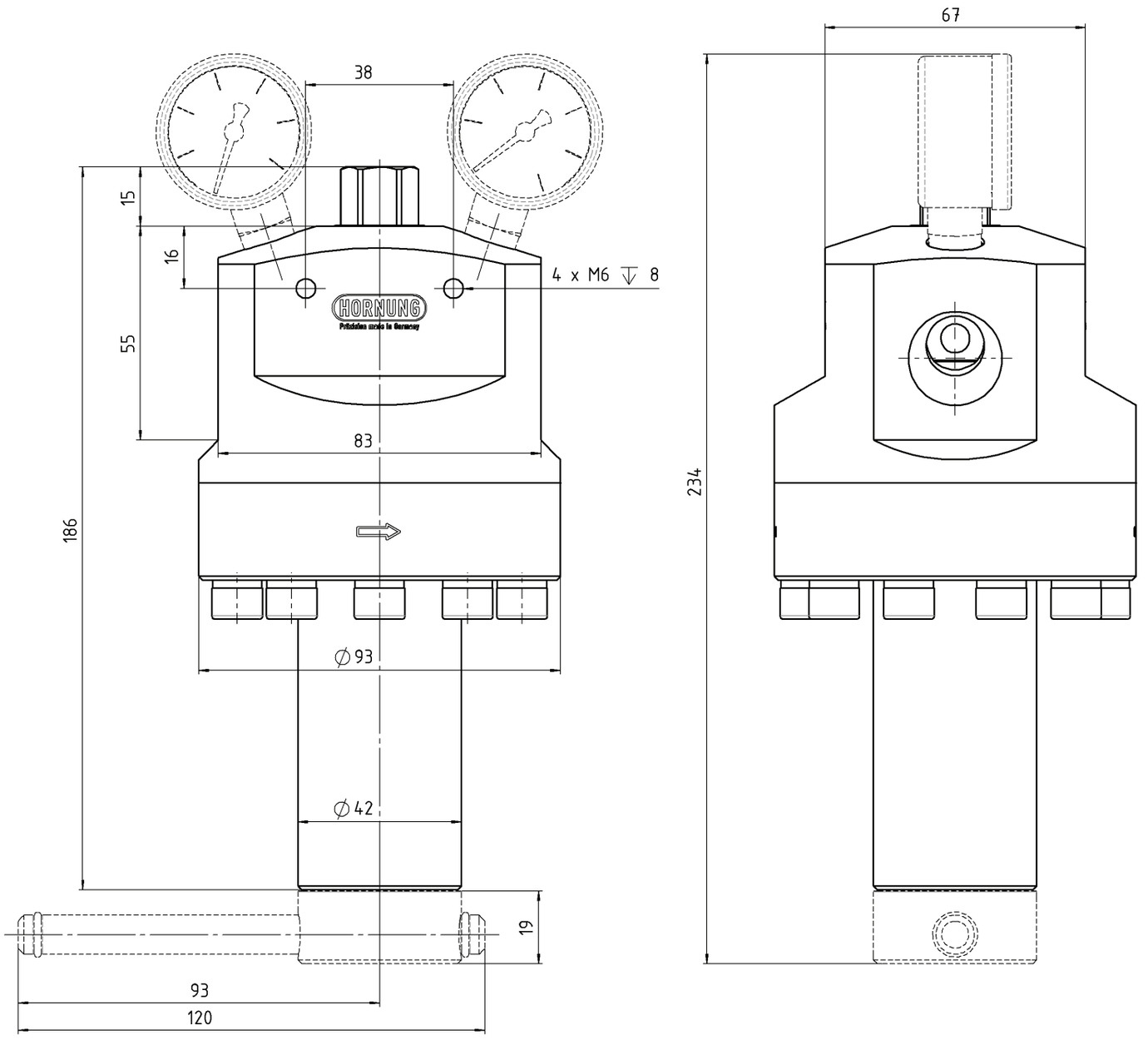
HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

LH 3/4



VERSION

A large independence from fluctuation of the inlet pressure is reached with a balanced poppet.

The use of high-grade steel in connection with elastomer made of FKM permits the application of this pressure regulator with aggressive media.

ORDER DETAILS

Material:
1 = brass
2 = stainless steel

Diaphragm:
1 = EPDM
2 = FKM

Outlet pressure P2:
3 = 0,5 - 10 bar
4 = 1 - 20 bar
5 = 5 - 70 bar
6 = 5 - 100 bar
7 = 10 - 200 bar
8 = 10 - 360 bar

Gauges:
0 = none
1 = with inlet and outlet gauge

Inlet / Outlet:
0 = G 3/4“ - Internal thread
1 = NPT 3/4“ - Internal thread

Regulator type								
331-	LH 3/4	331- Type	2 Material	1 Diaphragm	3 P2	1 Gauges	0 In-/outlet	Gas type Gas type

Accessories: see total catalogue segment

7. Gauges, fittings and accessories
8. Fein filter F1, safety valves available on request

Line pressure regulator L 1

Fittings and gauges optional

TECHNICAL DETAILS

Material:	Brass or stainless steel (1.4404)
Valve seat:	Ø 12,7 (balanced)
Cv-value:	3,0
Seat:	EPDM or FKM
Diaphragm:	EPDM or FKM
Max. inlet pressure:	110 bar
Outlet pressure ranges:	0,5 - 3 bar 0,5 - 6 bar 1 - 10 bar 1 - 20 bar 5 - 70 bar 5 - 100 bar
Operating temp.:	-40°C to +150°C
Dimensions:	Ø 124 x 226 mm
Weight:	10,4 kg
Connections:	Inlet / outlet NPT1“ oder G 1“ Gauges NPT 1/4“

APPLICATION AREA

Depending on applied materials, this pressure regulator is applicable for different gases and liquids.

We urgently recommend the connection of a fine filter with max. 40 µ at the inlet of the pressure regulator. Subsequent components and plant components must be protected by separate safety valves.

DESCRIPTION

The line pressure regulator L 1 is characterised by an accurate regulation and a large throughput.

The spring loaded pressure regulator works according to the principle of the force equilibrium between the adjusted spring force and the outlet pressure.

It can be equipped optionally with an inlet and an outlet gauge.

QUALITY STANDARD

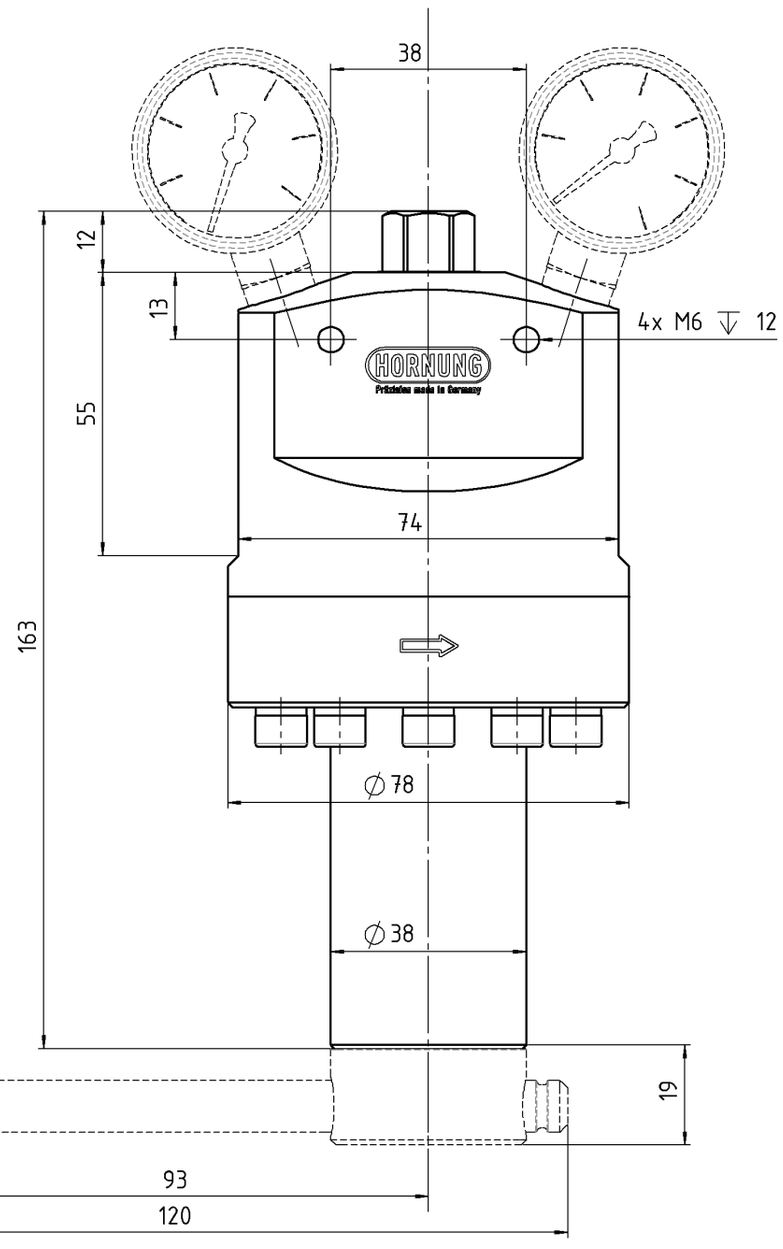
The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

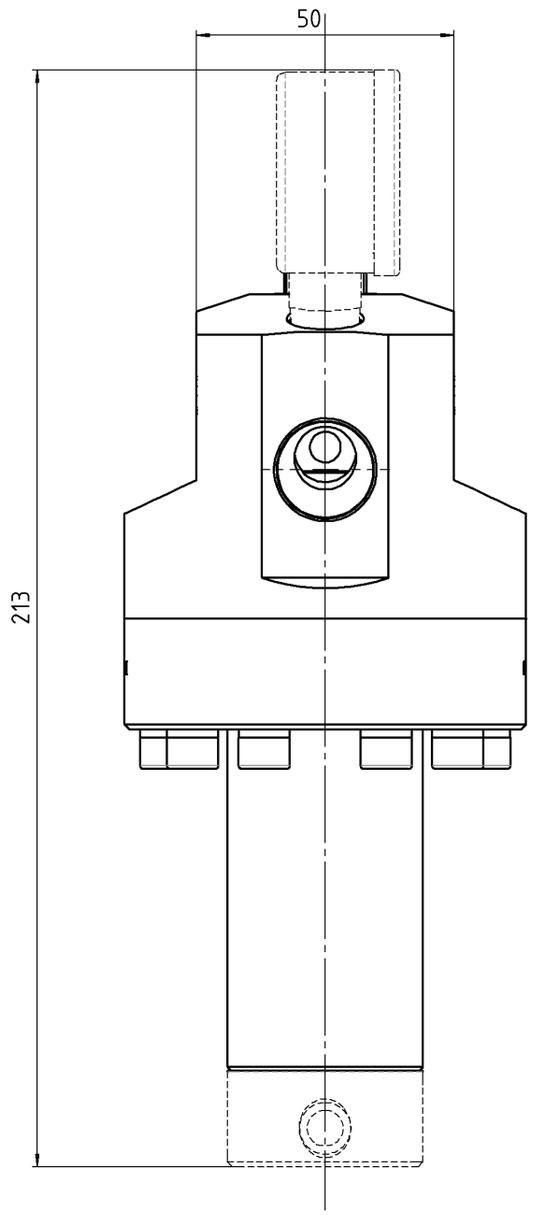
HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org





VERSION

A large independence from fluctuation of the inlet pressure is reached with a balanced poppet.

The use of high-grade steel in connection with elastomer made of FKM permits the application of this pressure regulator with aggressive media.

ORDER DETAILS

Material:
1 = brass
2 = stainless steel

Diaphragm:
1 = EPDM
2 = FKM

Outlet preassure :
1 = 0,5 - 3 bar
2 = 0,5 - 6 bar
3 = 1 - 10 bar
4 = 1 - 20 bar
5 = 5 - 70 bar
6 = 5 - 100 bar

Gauges:
0 = none
1 = with inlet and outlet gauge

Inlet / outlet:
0 = G 1“ - Internal thread
1 = NPT 1“ - Internal thread

Regulator type								
350-	L 1	350-	2	1	2	1	0	Gas type
		Type	Material	Diaphragm	Pressure	Gauges	In-/outlet	Gas type

Accessories: see total catalogue segment

7. Gauges, fittings and accessories
8. Fein filter F1, safety valves available on request

Line pressure regulator LH 1

Fittings and gauges optional

TECHNICAL DETAILS

Material:	Brass or stainless steel(1.4404)
Valve seat:	Ø 12.7 (balanced)
Cv-value:	3,0
Seat:	PCTFE
Diaphragm:	EPDM or FKM
Max. inlet pressure:	320 bar brass 420 bar stainless steel
Outlet pressure ranges:	0,5 - 10 bar 1 - 20 bar 5 - 70 bar 5 - 100 bar 10 - 200 bar 10 - 360 bar
Operating temp.:	-40°C to +150°C
Dimensions:	Ø 124 x 226 mm
Weight:	10,4 kg
Connections:	Inlet / outlet NPT 1“ or G 1“ Gauge NPT 1/4“

APPLICATION AREA

Depending on applied materials, this pressure regulator is applicable for different gases and liquids.

We urgently recommend the connection of a fine filter with max. 40 µ at the inlet of the pressure regulator. Subsequent components and plant components must be protected by separate safety valves.

DESCRIPTION

The line pressure regulator LH 1 is characterised by an accurate regulation and a large throughput.

The spring loaded pressure regulator works according to the principle of the force equilibrium between the adjusted spring force and the outlet pressure.

It can be equipped optionally with an inlet and an outlet gauge.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001:2015** and **ISO 14001:2015**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

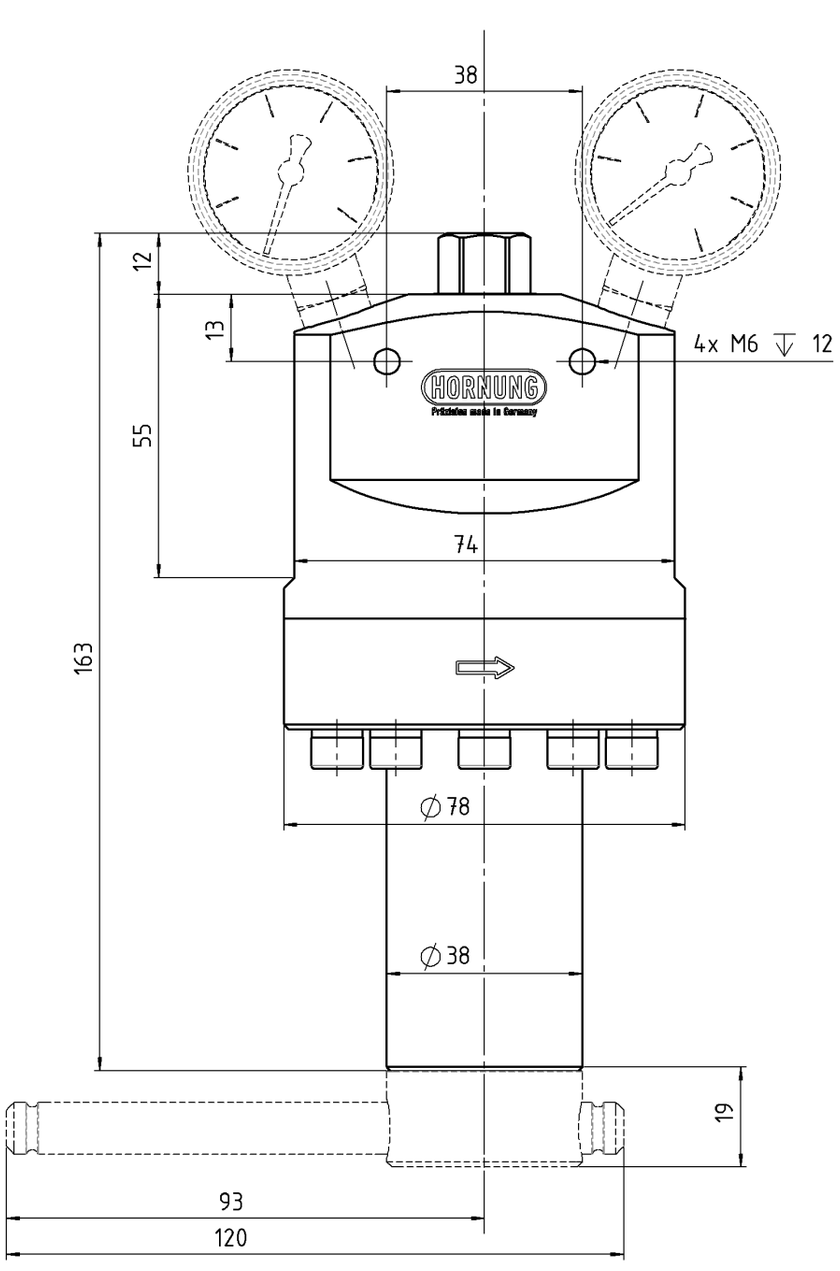
HORNUNG
Präzision made in Germany

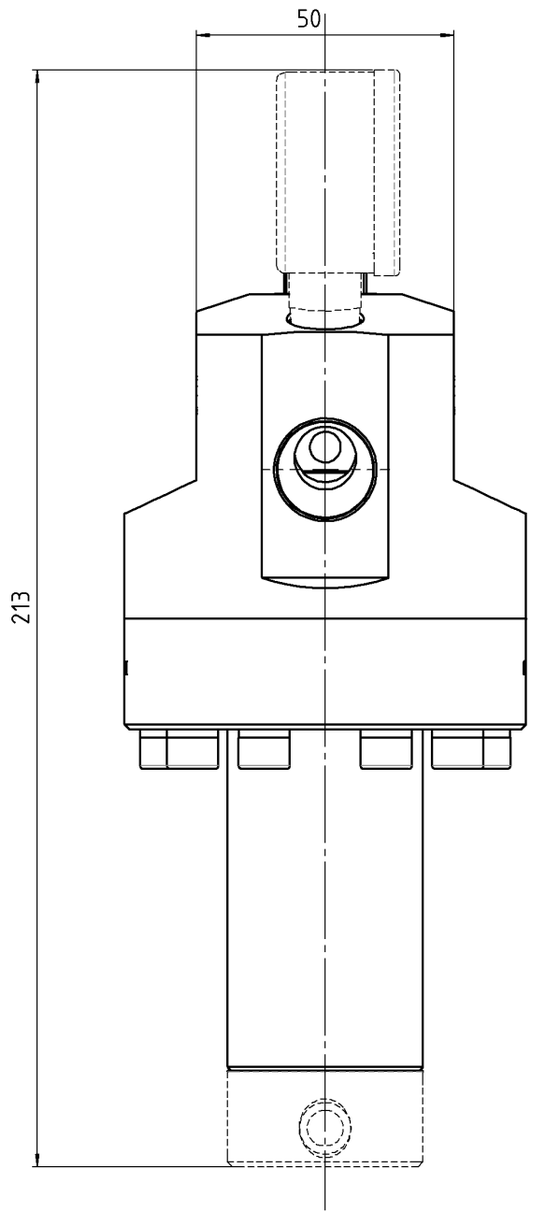
Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

LH 1





VERSION

A large independence from fluctuation of the inlet pressure is reached with a balanced poppet.

The use of high-grade steel in connection with elastomer made of FKM permits the application of this pressure regulator with aggressive media.

ORDER DETAILS

Material:
1 = brass
2 = stainless steel

Diaphragm:
1 = EPDM
2 = FKM

Outlet pressure:
3 = 0,5 - 10 bar
4 = 1 - 20 bar
5 = 5 - 70 bar
6 = 5 - 100 bar
7 = 10 - 200 bar
8 = 10 - 360 bar

Gauges:
0 = none
1 = with inlet and outlet gauge

Inlet / outlet:
0 = G 1“ - Internal thread
1 = NPT 1“ - Internal thread

Regulator type								
351-	LH 1	351-	2	1	3	1	0	Gas type
		Type	Material	Diaphragm	Pressure	Gauges	In-/outlet	Gas type

Accessories: see total catalogue segment

7. Gauges, fittings and accessories
8. Fein filter F1, safety valves available on request

Line pressure regulator L 1 1/2

Gauges optional

TECHNICAL DETAILS

Material:	Brass or stainless steel (1.4404)
Valve seat:	Ø 19
Cv-value:	7,3
Seat:	EPDM or Viton
Diaphragm:	EPDM or Viton
Max. inlet pressure:	110 bar
Outlet pressure ranges:	0,5 - 10 bar 1 - 20 bar 5 - 70 bar
Operating temp.:	-40°C to +150°C
Dimensions:	Ø 150 x 224 mm
Weight:	13,5 kg
Connections:	Inlet / outlet G 1 1/2“ Gauge NPT 1/4“

APPLICATION AREA

Depending on applied materials, this pressure regulator is applicable for different gases and liquids.

We urgently recommend the connection of a fine filter with max. 40 µ at the inlet of the pressure regulator, as well as to protect following components with suitable relief valves against inadmissibly high pressures.

DESCRIPTION

The line pressure regulator L 1 1/2 is characterised by an accurate regulation and a large throughput.

The spring loaded pressure regulator works according to the principle of the force equilibrium between the adjusted spring force and the outlet pressure.

It can be equipped optionally with an inlet and an outlet gauge.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001:2015** and **ISO 14001:2015**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

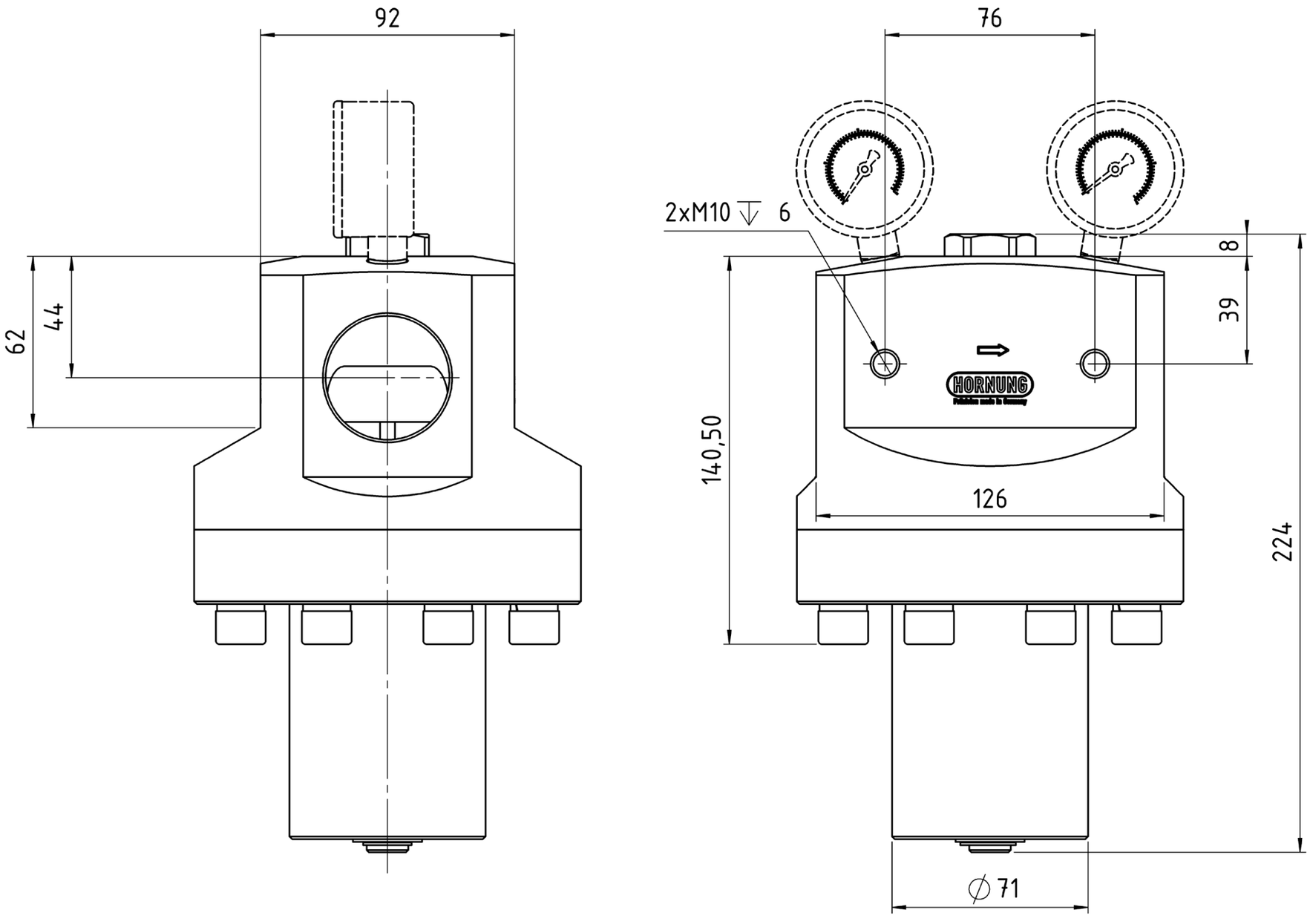
HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

L 1 1/2



VERSION

A large independence from fluctuation of the inlet pressure is reached with a balanced poppet.

The use of high-grade steel in connection with elastomer made of viton permits the application of this pressure regulator with aggressive media.

ORDER DETAILS

Material:
1 = Brass
2 = Stainless steel

Diaphragm:
1 = EPDM
2 = Viton

Outlet pressure:
0 = 10 bar
1 = 20 bar
2 = 70 bar

Gauges:
0 = none
1 = with inlet and outlet gauge

Inlet / Outlet:
0 = G 1 1/2“

Regulator type								
370-	L 1 1/2	370-	2	1	0	1	0	Gas type
		Type	Material	Diaphragm	Pressure	Gauges	In-/outlet	Gas type

Accessories: see total catalogue segment

7. Gauges, fittings and accessories
8. Fein filter F1, safety valves available on request

Line pressure regulator LH 1 1/2

Fittings and gauges optional

TECHNICAL DETAILS		APPLICATION AREA	DESCRIPTION
Material:	stainless steel (1.4404)	Depending on applied materials, this pressure regulator is applicable for different gases and liquids.	The line pressure regulator LH 1 1/2 is characterised by an accurate regulation and a large throughput.
Valve seat:	Ø 19	We urgently recommend the connection of a fine filter with max. 40 µ at the inlet of the pressure regulator, as well as to protect following components with suitable relief valves against inadmissibly high pressures.	The spring loaded pressure regulator works according to the principle of the force equilibrium between the adjusted spring force and the outlet pressure. It can be equipped optionally with an inlet and an outlet gauge.
Cv-value:	7,3		
Seat:	PCTFE		
Diaphragm:	EPDM or Viton		
Max. inlet pressure:	320 bar		
Outlet pressure ranges:	0,5 - 10 bar 1 - 20 bar 5 - 70 bar		
Operating temp.:	-40°C to +150°C		
Dimensions:	Ø 140 x 224 mm		
Weight:	13,5 kg		
Connections:	Inlet / outlet G 1 1/2“ Gauge NPT 1/4“		

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001:2015** and **ISO 14001:2015**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

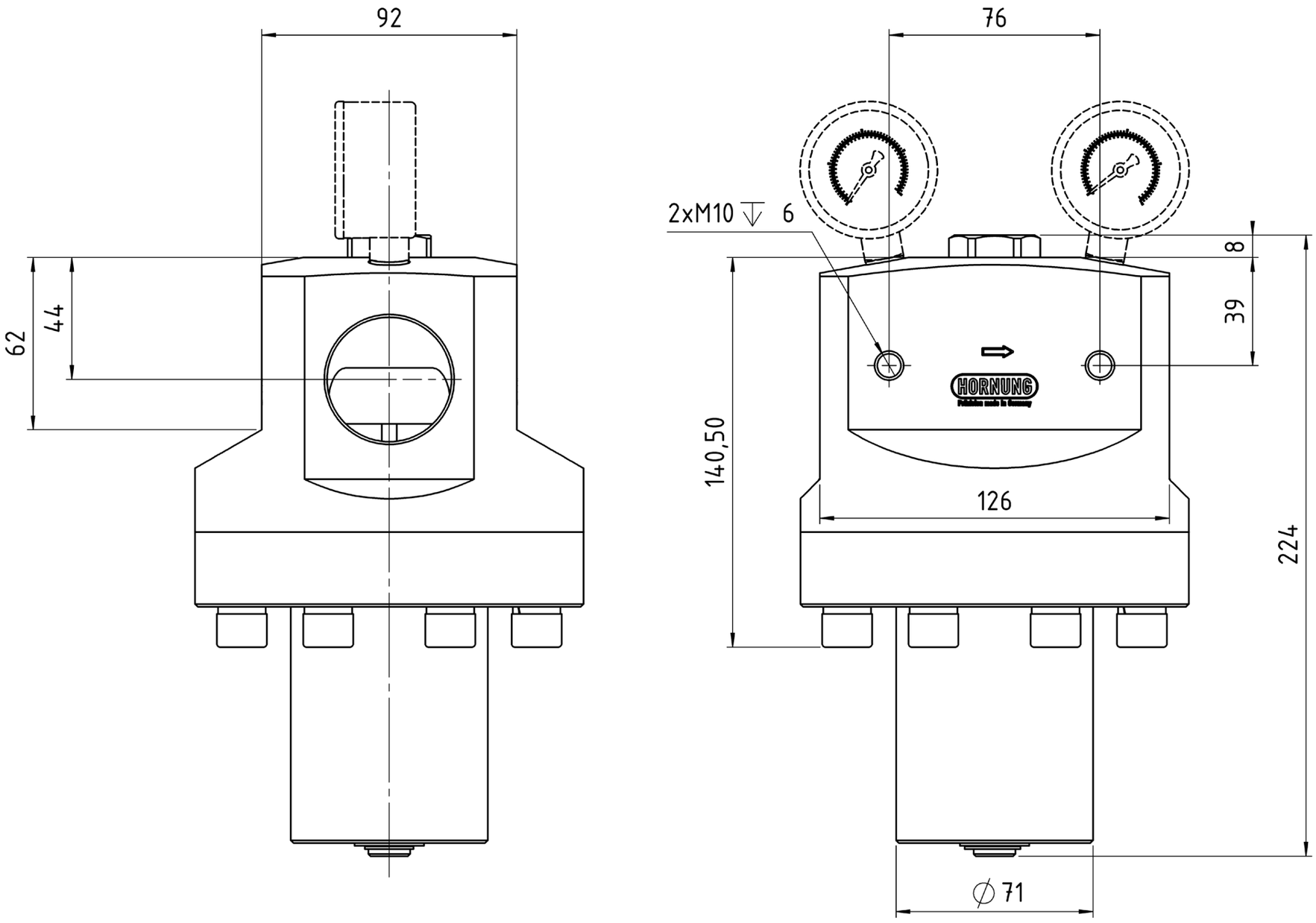
HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

LH 1 1/2



VERSION

A large independence from fluctuation of the inlet pressure is reached with a balanced poppet.

The use of high-grade steel in connection with elastomer made of viton permits the application of this pressure regulator with aggressive media.

ORDER DETAILS

Material:
2 = stainless steel

Diaphragm:
1 = EPDM
2 = Viton

Outlet pressure:
0 = 10 bar
1 = 20 bar
2 = 70 bar

Gauges:
0 = none
1 = with inlet and outlet gauge

Inlet / outlet:
0 = G 1 1/2“

Regulator type								
371-	LH 1 1/2	371- Type	2 Material	1 Diaphragm	0 Pressure	1 Gauges	1 In-/outlet	Gas type Gas type

Accessories: see total catalogue segment

7. Gauges, fittings and accessories
8. Fein filter F1, safety valves available on request

dated 09/2023

Line pressure regulator L 2

Fittings and gauges optional

TECHNICAL DETAILS

Material:	brass or stainless steel (1.4404)
Valve seat:	Ø 26
Cv-value:	13,7
Seat:	EPDM oder FKM
Diaphragm:	EPDM or Viton
Max. inlet pressure:	110 bar
Outlet pressure ranges:	0,5 - 10 bar 1 - 20 bar 5 - 70 bar
Operating temp.:	-40°C to +150°C
Dimensions:	Ø 177 x 276 mm
Weight:	28 kg
Connections:	Inlet / outlet G 2“ Gauge NPT 1/4“

APPLICATION AREA

Depending on applied materials, this pressure regulator is applicable for different gases and liquids.

We urgently recommend the connection of a fine filter with max. 40 µ at the inlet of the pressure regulator, as well as to protect following components with suitable relief valves against inadmissibly high pressures.

DESCRIPTION

The line pressure regulator L 2 is characterised by an accurate regulation and a large throughput.

The spring loaded pressure regulator works according to the principle of the force equilibrium between the adjusted spring force and the outlet pressure.

It can be equipped optionally with an inlet and an outlet gauge.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

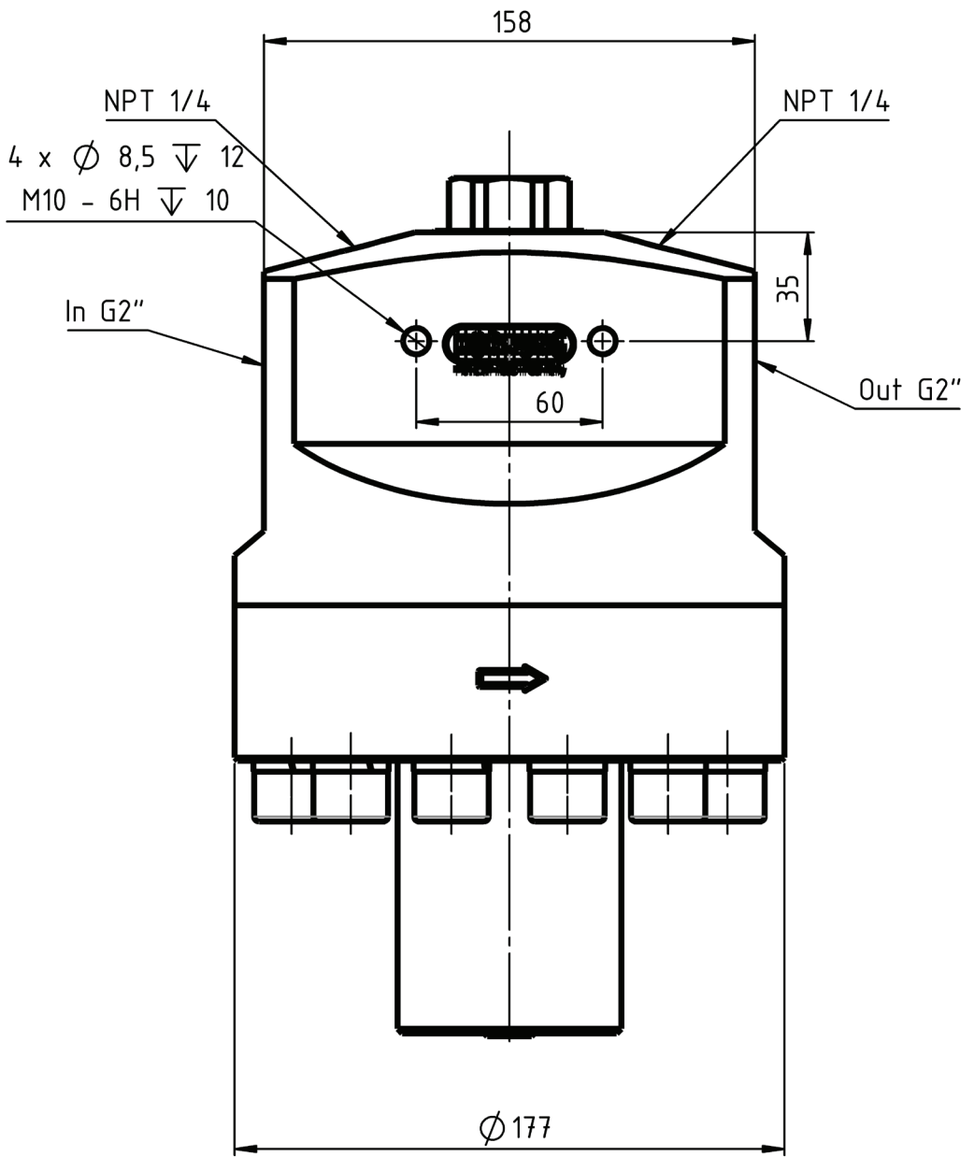
HORNUNG
Präzision made in Germany

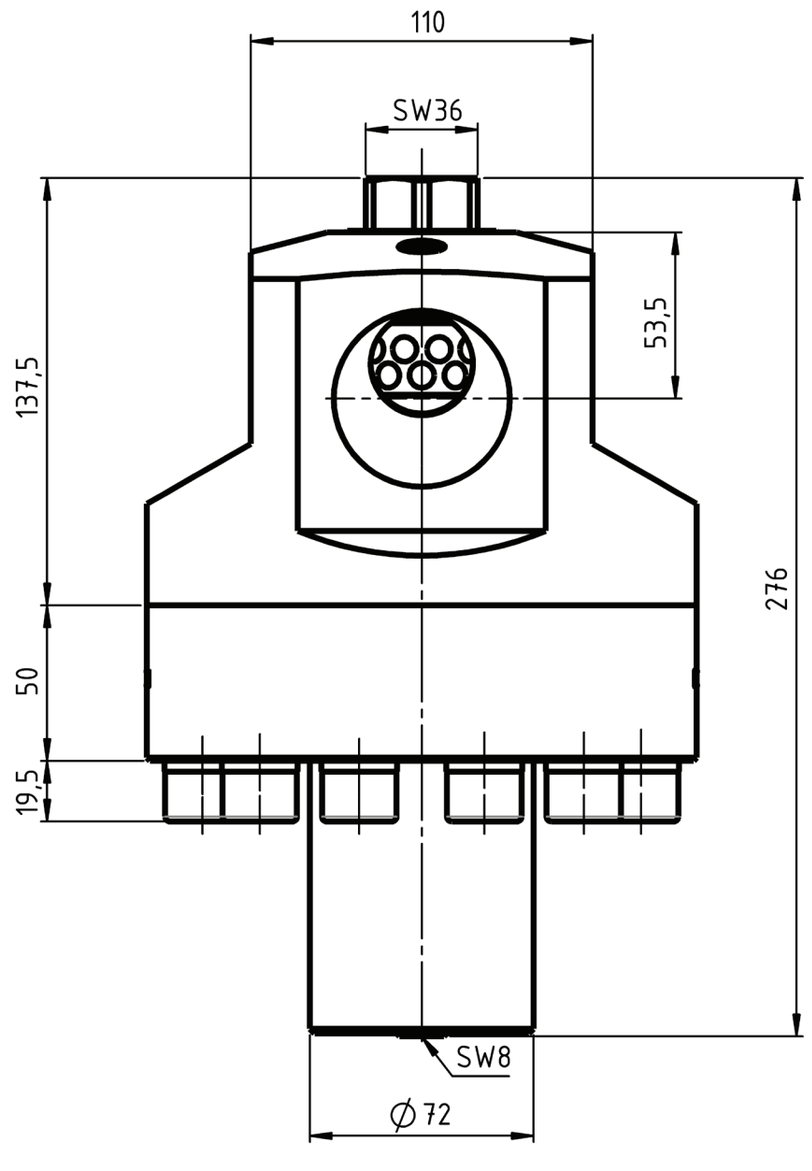
Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

L 2





VERSION

A large independence from fluctuation of the inlet pressure is reached with a balanced poppet.

The use of high-grade steel in connection with elastomer made of viton permits the application of this pressure regulator with aggressive media.

ORDER DETAILS

Material:	**Diaphragm:**	**Outlet pressure:**	**Gauges:**	**Inlet / outlet:**
1 = brass	1 = EPDM	0 = 10 bar	0 = none	0 = G 2“
2 = stainless steel	2 = Viton	1 = 20 bar 2 = 70 bar	1 = with inlet and outlet gauge	

Regulator type									
390-	L 2		390- Type	2 Material	1 Diaphragm	0 Pressure	1 Gauges	1 In-/outlet	Gas type Gas type

Accessories: see total catalogue segment

7. Gauges, fittings and accessories
8. Fein filter F1, safety valves available on request

dated 09/2023

Line pressure regulator LH 2

Fittings and gauges optional

TECHNICAL DETAILS

Material:	stainless steel (1.4404)
Valve seat:	Ø 26
Cv-value:	13,7
Seat:	PCTFE
Diaphragm:	EPDM or Viton
Max. inlet pressure:	320 bar
Outlet pressure ranges:	0,5 - 10 bar 1 - 20 bar 5 - 70 bar
Operating temp.:	-40°C to +150°C
Dimensions:	Ø 177 x 276 mm
Weight:	28 kg
Connections:	Inlet / outlet G 2“ Gauge NPT 1/4“

APPLICATION AREA

Depending on applied materials, this pressure regulator is applicable for different gases and liquids.

We urgently recommend the connection of a fine filter with max. 40 µ at the inlet of the pressure regulator, as well as to protect following components with suitable relief valves against inadmissibly high pressures.

DESCRIPTION

The line pressure regulator LH 2 is characterised by an accurate regulation and a large throughput.

The spring loaded pressure regulator works according to the principle of the force equilibrium between the adjusted spring force and the outlet pressure.

It can be equipped optionally with an inlet and an outlet gauge.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

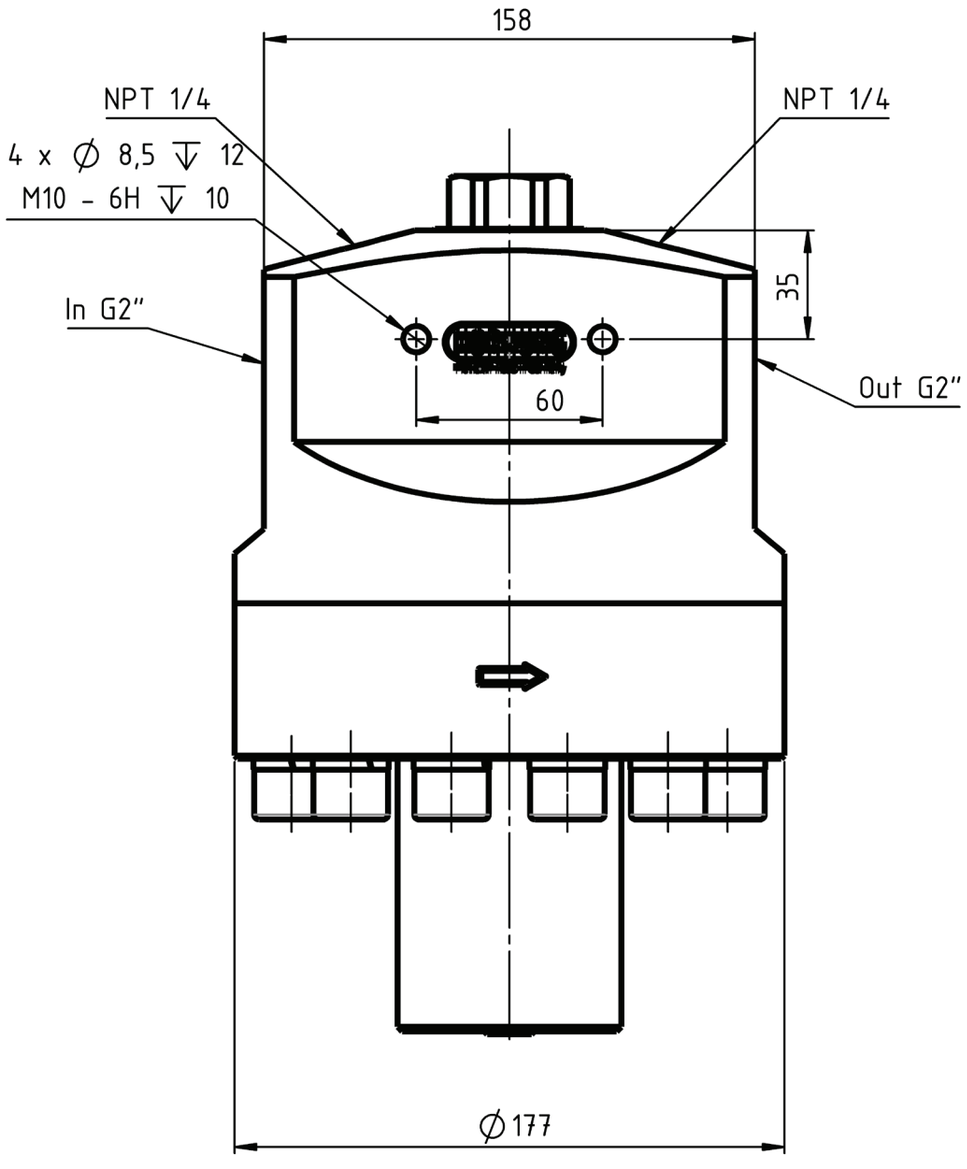
HORNUNG
Präzision made in Germany

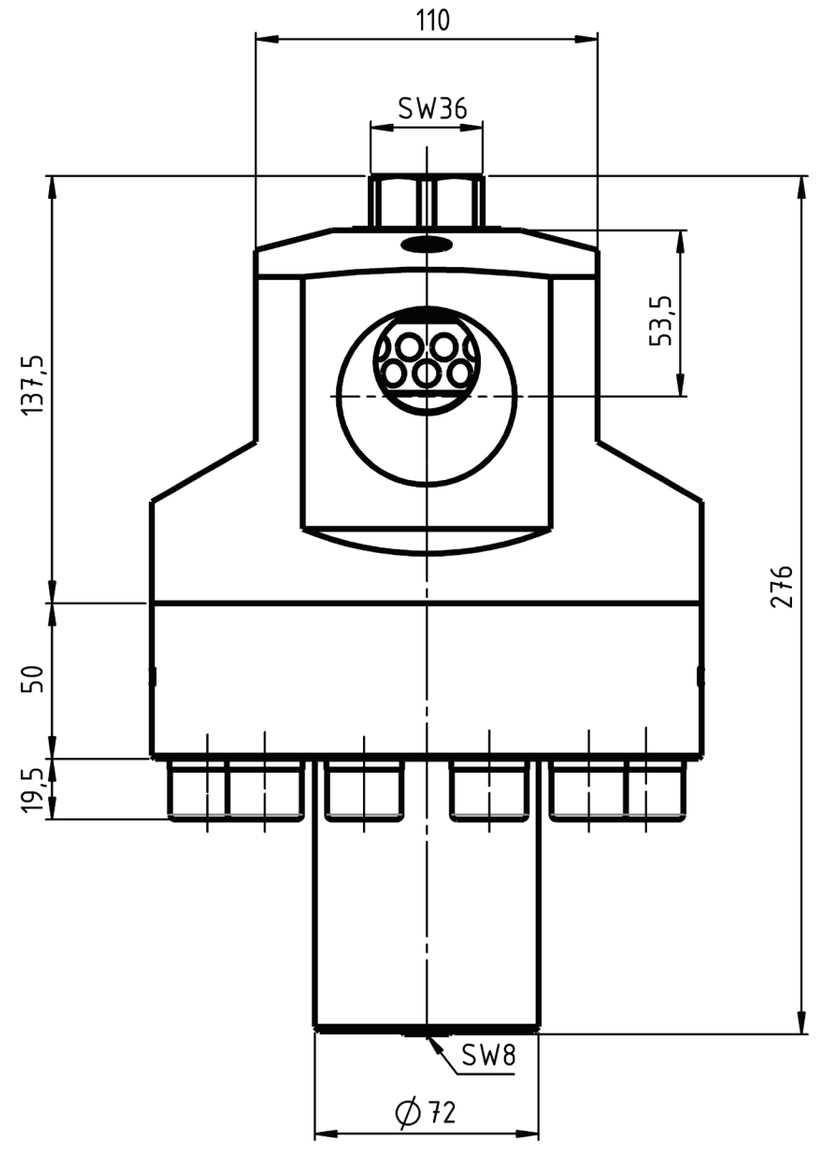
Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

LH 2





VERSION

A large independence from fluctuation of the inlet pressure is reached with a balanced poppet.

The use of high-grade steel in connection with elastomer made of viton permits the application of this pressure regulator with aggressive media.

ORDER DETAILS

Material:	**Diaphragm:**	**Outlet pressure:**	**Gauges:**	**Inlet / outlet:**
2 = stainless steel	1 = EPDM	0 = 10 bar	0 = none	0 = G 2“
	2 = Viton	1 = 20 bar	1 = with inlet and outlet gauge	
		2 = 70 bar		

Regulator type		391-	2	1	0	1	1	Gas type
391-	LH 2	Type	Material	Diaphragm	Pressure	Gauges	In-/outlet	Gas type

Accessories: see total catalogue segment

7. Gauges, fittings and accessories
8. Fein filter F1, safety valves available on request

HORNUNG

Präzision made in Germany

Dome pressure regulators and back pressure regulators

Dome pressure regulators are regulators for use in pipe systems where the gas pressure is reduced over the corresponding system.

Dome pressure regulator

Dome pressure regulator D 1/2

Dome pressure regulator DH 1/2

Dome pressure regulator PID 1/2 with integrated pilot regulator

Dome pressure regulator PIDH 1/2 with integrated pilot regulator

Dome pressure regulator D 3/4

Dome pressure regulator DH 3/4

Dome pressure regulator PID 3/4 with integrated pilot regulator

Dome pressure regulator PIDH 3/4 with integrated pilot regulator

Dome pressure regulator D 1

Dome pressure regulator DH 1

Dome pressure regulator PID 1 with integrated pilot regulator

Dome pressure regulator PIDH 1 with integrated pilot regulator

Dome pressure regulator D 1 1/2

Dome pressure regulator DH 1 1/2

Dome pressure regulator PID 1 1/2 with integrated pilot regulator

Dome pressure regulator PIDH 1 1/2 with integrated pilot regulator

Dome pressure regulator D 2

Dome pressure regulator DH 2

Dome pressure regulator PID 2 with integrated pilot regulator

Dome pressure regulator PIDH 2 with integrated pilot regulator

Back pressure regulators

Back pressure regulator VD 3/4

Back pressure regulator VD 1

Back pressure regulator VDH 1

Back pressure regulator VPID 3/4 with integrated pilot regulator

Back pressure regulator VPID 1 with integrated pilot regulator

Back pressure regulator VPIDH 1 with integrated pilot regulator

Threaded flange complete

HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

Dome pressure regulator D 1/2

Fittings and gauges optional

TECHNICAL DETAILS

Material:	Brass or stainless steel 1.4404
Valve seat:	Ø 7
Cv-value:	1,05
Seat:	EPDM or FKM
Diaphragm:	EPDM or FKM
Max. Vordruck:	110 bar
Outlet pressure ranges:	up to 12 bar up to 100 bar
Operating temp.:	-40°C to +150°C
Dimensions:	Ø 78 x 121 mm
Weight:	3,2 kg
Connections:	Inlet / outlet NPT 1/2“ or G 1/2“ Gauge NPT 1/4“ Dome srew NPT 1/8“

APPLICATION AREA

The dome pressure regulator is used as a line pressure regulator.

Without exchanging parts it is suitable for a large outlet pressure range. Dependent on the used material, the pressure regulator is applicable for different gases and liquids.

We urgently recommend the connection of a fine filter with max. 40 µ at the inlet of the pressure regulator. Subsequent components and plant components must be protected by separate safety valves.

DESCRIPTION

Dome pressure regulators are characterized by an accurate regulation and a large throughput.

The dome pressure regulator works according to the principle of the pressure balance between dome pressure and outlet pressure.

A large independence from fluctuation of the inlet pressure is reached with a balanced poppet.

If the dome pressure regulator is used for the pressure control of gases, the dome pressure can be controlled by needle valves.

For the pressure regulation of liquids and aggressive gases, the dome can be filled with compressed air or nitrogen externally, by means of a pilot pressure regulator.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

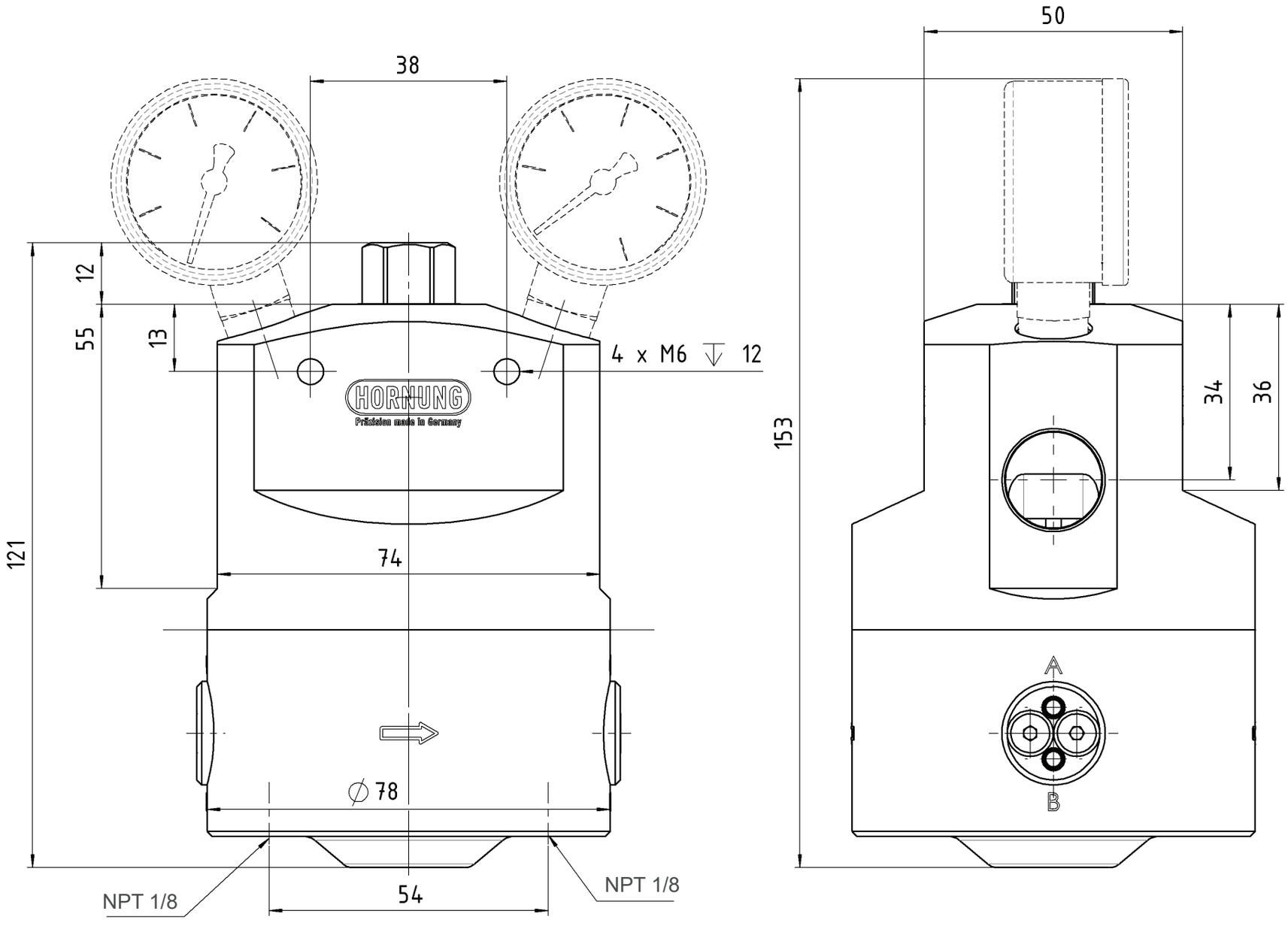
HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

D 1/2



REGULATING WITH PILOT PRESSURE REGULATORS

If the outlet pressure is to be adjusted more frequently, set more precisely or controlled remotely, the use of a control valve is recommended. A control valve is attached instead of the plug at the dome of the pressure regulator.

Control valves are spring loaded pressure regulators, so called pilot regulators. When operating with dome pressure regulators of this size, our special P.I.D.-regulators with integrated pilot regulators or proportional valves are used.

DYNAMIC PRESSURE REGULATION

A dynamic pressure control is reached by means of an integrated needle valve in the dome of the pressure regulator.

By slightly releasing the control medium into the process gas line, the control medium is constantly re-feed.
When using liquids in the pilot regulator, the control medium is slightly released into the atmosphere, which leads to a re-feed of the pilot regulator.

According to this function, the pressure inside of the dome can be held constant even in the event of temperature or flow variations.

ORDER DETAILS

Material/ pressure:
1 = brass 100 bar
2 = stainless steel 100 bar
3 = brass 12 bar
4 = stainless steel 12 bar

Diaphragm:
1 = EPDM
2 = FKM

Gauges:
0 = none
1 = with inlet and outlet gauge

Inlet / outlet:
0 = G 1/2“ - internal thread
1 = NPT 1/2“ - internal thread

Regulator type							
300-	D 1/2	300- Type	2 Material/ pressure	1 Diaphragm	1 Gauges	1 In-/outlet	Gas type Gas type

Accessories: see total catalogue segment

5. Pilot pressure regulators, flanges
7. Gauges, fittings and accessories
8. Fein filter F1, safety valves available on request
9. Wall mounting bracket

dated 08/2023

Dome pressure regulator DH 1/2

Fittings and gauges optional

TECHNICAL DETAILS

Material:	Brass or stainless steel 1.4404
Valve seat:	Ø 7
Cv-value:	1,05
Seat:	PCTFE
Diaphragm:	EPDM or FKM
Max. inlet pressure:	320 bar brass 420 bar stainless steel
Outlet pressure range:	up to 300 bar brass up to 400 bar stainless steel
Operating temp.:	-40°C to +150°C
Dimensions:	Ø 78 x 121 mm
Weight:	3,2 kg
Connections:	Inlet/ outlet NPT 1/2“ or G 1/2“ Gauge NPT 1/4“ Dome screw NPT 1/8“

APPLICATION AREA

The dome pressure regulator is used as a line pressure regulator.

Without exchanging parts it is suitable for a large outlet pressure range. Dependent on the used material, the pressure regulator is applicable for different gases and liquids.

We urgently recommend the connection of a fine filter with max. 40 µ at the inlet of the pressure regulator. Subsequent components and plant components must be protected by separate safety valves.

DESCRIPTION

Dome pressure regulators are characterized by an accurate regulation and a large throughput.

The dome pressure regulator works according to the principle of the pressure balance between dome pressure and outlet pressure.

A large independence from fluctuation of the inlet pressure is reached with a balanced poppet.

If the dome pressure regulator is used for the pressure control of gases, the dome pressure can be controlled by needle valves.

For the pressure regulation of liquids and aggressive gases, the dome can be filled with compressed air or nitrogen externally, by means of a pilot pressure regulator.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

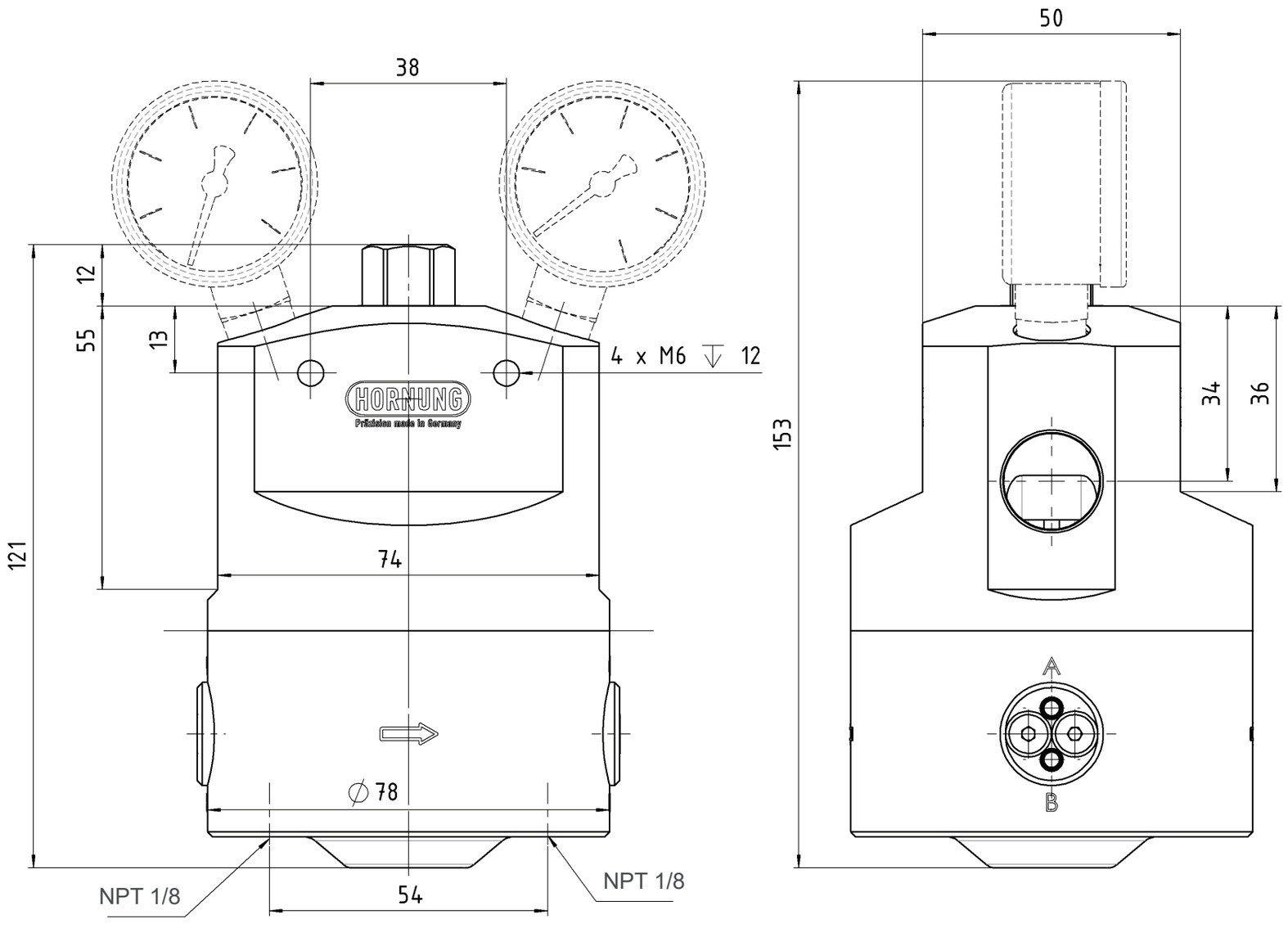
HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

DH 1/2



REGULATING WITH PILOT PRESSURE REGULATORS

If the outlet pressure is to be adjusted more frequently, set more precisely or controlled remotely, the use of a control valve is recommended. A control valve is attached instead of the plug at the dome of the pressure regulator.

Control valves are spring loaded pressure regulators, so called pilot regulators. When operating with dome pressure regulators of this size, our special P.I.D.-regulators with integrated pilot regulators or proportional valves are used.

DYNAMIC PRESSURE REGULATION

A dynamic pressure control is reached by means of an integrated needle valve in the dome of the pressure regulator.

By slightly releasing the control medium into the process gas line, the control medium is constantly re-feed.
When using liquids in the pilot regulator, the control medium is slightly released into the atmosphere, which leads to a re-feed of the pilot regulator.

According to this function, the pressure inside of the dome can be held constant even in the event of temperature or flow variations.

ORDER DETAILS

Material:
1 = brass 300 bar
2 = stainless steel 400 bar

Diaphragm:
1 = EPDM
2 = FKM

Gauges:
0 = none
1 = with inlet and outlet gauge

Option at inlet / outlet:
0 = G 1/2“ - internal thread
1 = NPT 1/2“ - internal thread

Regulator type		301-	1	1	1	0	Gas type
301-	DH 1/2	Type	Material	Diaphragm	Gauges	In-/outlet	Gas type

Accessories: see total catalogue segment

5. Pilot pressure regulators, flanges
7. Gauges, fittings and accessories
8. Fein filter F1, safety valves available on request
9. Wall mounting bracket

dated 08/2023

Dome pressure regulator PID 1/2

- with integrated pilot regulator - P.I.D.

Fittings and gauges optional

TECHNICAL DETAILS

Material:	Brass or stainless steel 1.4404
Valve seat:	Ø 7
Cv-value:	1,05
Seat:	EPDM or FKM
Diaphragm:	EPDM or FKM
Max. inlet pressure:	110 bar
Outlet pressure ranges:	0,5 - 3 bar 1 - 6 bar 1 - 12 bar 1 - 17 bar 5 - 50 bar 5 - 100 bar
Operating temp.:	-40°C to +150°C
Dimensions:	Ø 78 x 209 mm
Weight:	4,3 kg
Connections:	Inlet / outlet NPT 1/2“ or G 1/2“ Gauge NPT 1/4“ Dome screw NPT 1/8“

APPLICATION AREA

The Dome-pressure regulator is used as a line-pressure regulator. Without exchanging parts it is suitable for a large outlet pressure range. Independent of the used material the pressure-regulator is applicable for different gases and liquids.

We urgently recommend the connection of a fine filter with max. 40 µ at the inlet of the pressure regulator. Subsequent components and plant components must be protected by separate safety valves.

DESCRIPTION

Dome-pressure regulators with integrated pilot regulators are characterised by an accurate regulation and a large throughput.

The dome pressure regulator works according to the principle of the pressure balance between dome pressure and outlet pressure.

A large independence from fluctuations is reached with a balanced poppet. If the dome pressure regulator is used for the pressure control of gases, the dome-pressure can controlled with the needle valves on the inlet pressure side.

For the pressure regulation of liquids the dome is filled externally with compressed air or nitrogen by means of a pilot pressure regulator.

Special characteristics:
The P.I.D. combines the advantages of a dome pressure regulator and a pilot regulator in just one complete and compact pressure regulator.

This design is very space saving and easy to assamble and handle.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

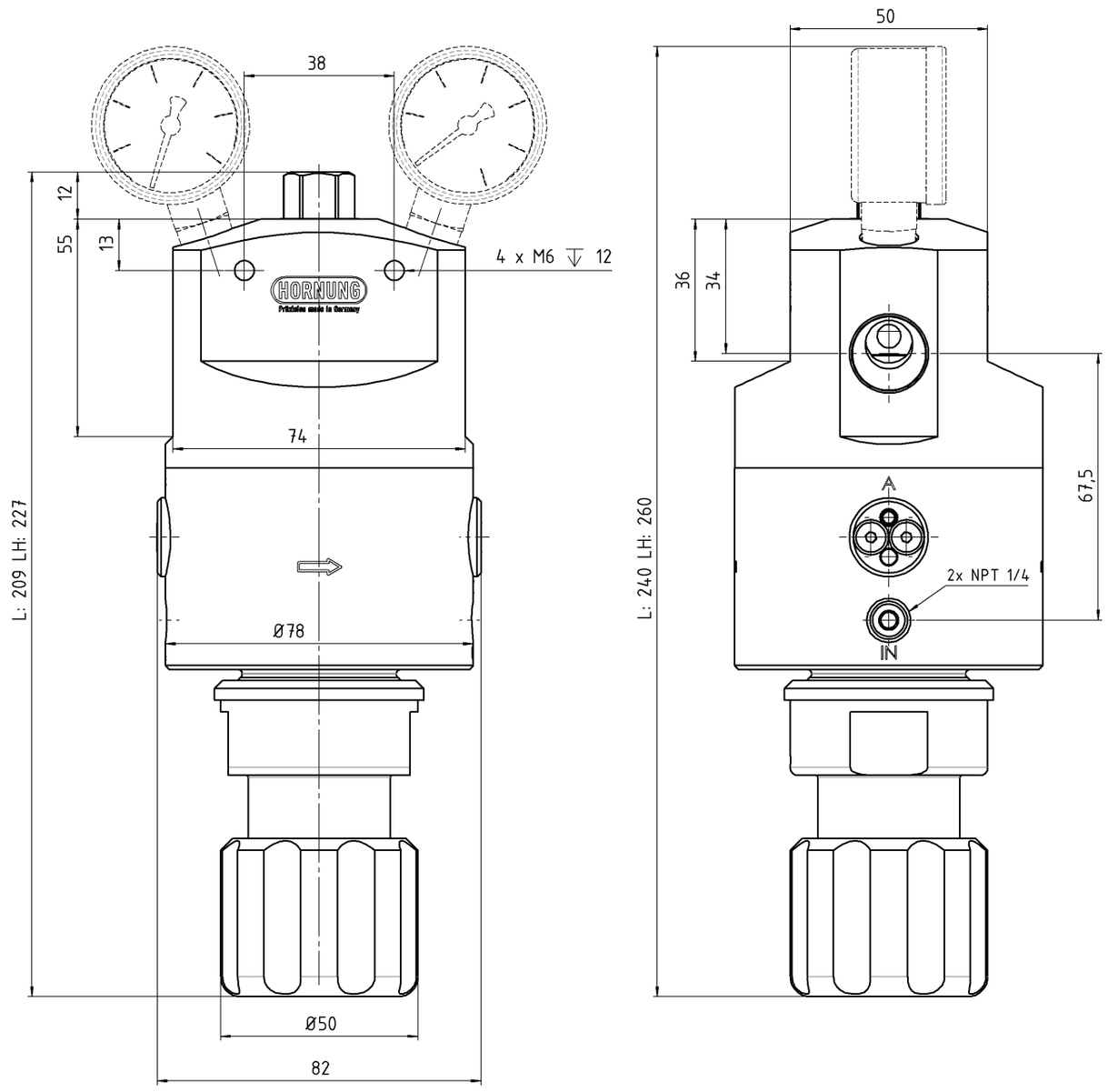
HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

PID 1/2



REGULATING WITH PILOT PRESSURE REGULATORS

If the outlet pressure is to be adjusted more frequently, set more precisely or controlled remotely, the use of a control valve is recommended. A control valve is attached instead of the plug at the dome of the pressure regulator.

Control valves are spring loaded pressure regulators, so called pilot regulators, or proportional valves.

DYNAMIC PRESSURE REGULATION

A dynamic pressure control is reached by means of an integrated needle valve in the dome of the pressure regulator.

By slightly releasing the control medium into the process gas line, the control medium is constantly re-feed.
When using liquids in the pilot regulator, the control medium is slightly released into the atmosphere, which leads to a re-feed of the pilot regulator.

According to this function, the pressure inside of the dome can be held constant even in the event of temperature or flow variations.

ORDER DETAILS

Material/ pressure:
1 = brass 100 bar
2 = stainless steel 100 bar
3 = brass 12 bar
4 = stainless steel 12 bar

Diaphragm:
1 = EPDM
2 = FKM

Outlet pressure P2:
1 = 0,5 - 3 bar
2 = 1 - 6 bar
3 = 1 - 12 bar
4 = 1 - 17 bar
5 = 5 - 50 bar
6 = 5 - 100 bar

Gauges:
0 = none
1 = with inlet and outlet gauge

Option at inlet / outlet:
0 = G 1/2“ - internal thread
1 = NPT 1/2“ - internal thread

Regulator type								
302-	PID 1/2	302-	2	1	2	1	1	Gas type
		Type	Material/ pressure	Diaphragm	P2	Gauges	In-/outlet	Gas type

Accessories: see total catalogue segment

7. Gauges, solenoid valve, fittings and accessories
8. Fein filter F1, safety valves available on request

dated 08/2023

Dome pressure regulator PIDH 1/2

- with integrated pilot regulator - P.I.D.

Fittings and gauges optional

TECHNICAL DETAILS

Material:	Brass or stainless steel (1.4404)
Valve seat:	Ø 7
Cv-value:	1,05
Seat:	PCTFE
Diaphragm:	EPDM or FKM
Max. inlet pressure:	320 bar brass 420 stainless steel
Outlet pressure range:	1 - 12 bar 1 - 17 bar 5 - 50 bar 5 - 100 bar 5 - 250 bar 10 - 400 bar
Operating temp.:	-40°C to +150°C
Dimensions:	Ø 78 x 209 mm
Weight:	4,3 kg
Connections:	Inlet / outlet NPT 1/2“ or G 1/2“ Gauge NPT 1/4“ Dome screw NPT 1/8“

APPLICATION AREA

The dome pressure regulator get used as a line pressure regulator.

Depending of the used matereial the pressure regulator is aplicable for different gases and liquids.

We urgently recommend the connection of a fine filter with max. 40 µ at the inlet of the pressure regulator. Subsequent components and plant components must be protected by separate safety valves.

DESCRIPTION

Dome-pressure regulators with integrated pilot regulators are characterised by an accurate regulation and a large throughput.

The dome pressure regulator works according to the principle of the pressure balance between dome pressure and outlet pressure.

A large independence from fluctuations is reached with a balanced poppet. If the dome pressure regulator is used for the pressure control of gases, the dome-pressure can controlled with the needle valves on the inlet pressure side.

For the pressure regulation of liquids the dome is filled externally with compressed air or nitrogen by means of a pilot pressure regulator.

Special characteristics:
The P.I.D. combines the advantages of a dome pressure regulator and a pilot regulator in just one complete and compact pressure regulator.
This design is very space saving and easy to assamble and handle.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

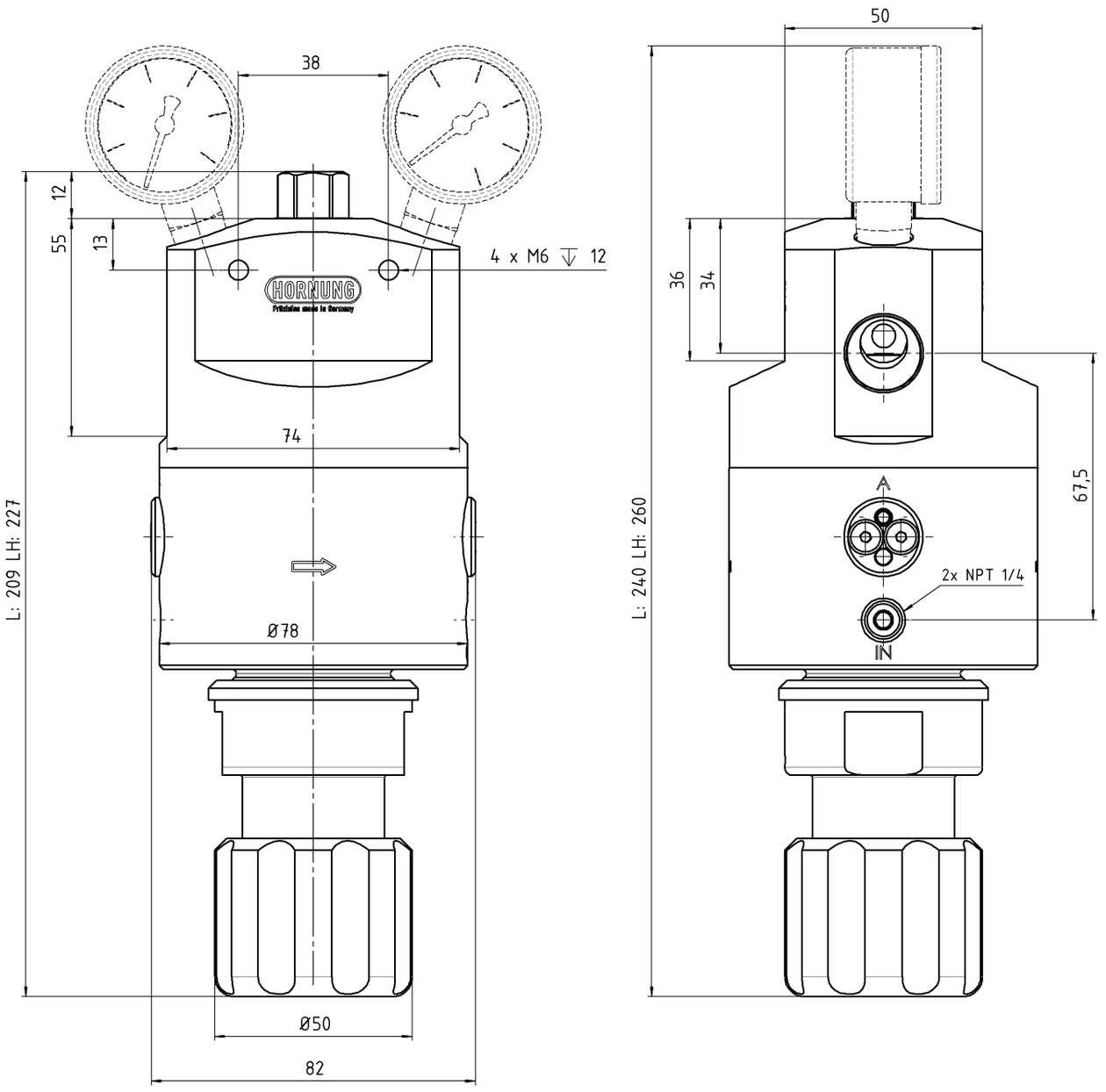
HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

PIDH 1/2



REGULATING WITH PILOT PRESSURE REGULATORS

If the outlet pressure is to be adjusted more frequently, set more precisely or controlled remotely, the use of a control valve is recommended. A control valve is attached instead of the plug at the dome of the pressure regulator.

Control valves are spring loaded pressure regulators, so called pilot regulators, or proportional valves.

DYNAMIC PRESSURE REGULATION

A dynamic pressure control is reached by means of an integrated needle valve in the dome of the pressure regulator.

By slightly releasing the control medium into the process gas line, the control medium is constantly re-feed.
When using liquids in the pilot regulator, the control medium is slightly released into the atmosphere, which leads to a re-feed of the pilot regulator.

According to this function, the pressure inside of the dome can be held constant even in the event of temperature or flow variations.

ORDER DETAILS

Material:
1 = brass 300 bar
2 = stainless steel 400 bar
3 = brass 12 bar
4 = stainless steel 12 bar

Diaphragm:
1 = EPDM
2 = FKM

Outlet pressure P2:
3 = 1 - 12 bar
4 = 1 - 17 bar
5 = 5 - 50 bar
6 = 5 - 100 bar
7 = 5 - 250 bar
8 = 10 - 400 bar stainless steel

Gauges:
0 = none
1 = with inlet and outlet gauge

Option at inlet / outlet:
0 = G 1/2“ - internal thread
1 = NPT 1/2“ - internal thread

Regulator type		303-	2	1	4	1	0	Gas type
303-	PIDH 1/2	Type	Material	Diaphragm	P2	Gauges	In-/outlet	Gas type

Accessories: see total catalogue segment

7. Gauges, fittings and accessories
8. Fine filter F1, safety valves available on request

dated 06/2020

Dome pressure regulator D 3/4

Fittings and gauges optional

TECHNICAL DETAILS

Material:	Brass or stainless steel (1.4404)
Valve seat:	Ø 10
Cv-value:	2,0
Seat:	EPDM or FKM
Diaphragm:	EPDM or FKM
Max. inlet pressure:	110 bar
Outlet pressure ranges:	up to 12 bar up to 100 bar
Operating temp.:	-40°C to +150°C
Dimensions:	Ø 93 x 129 mm
Weight:	4,6 kg
Connections:	Inlet / Outlet G 3/4“ or NPT 3/4“ Gauge NPT 1/4“ Dome screw NPT 1/8“

APPLICATION AREA

The dome pressure regulator is used as a line pressure regulator.

Without exchanging parts it is suitable for a large outlet pressure range. Dependent on the used material, the pressure regulator is applicable for different gases and liquids.

We urgently recommend the connection of a fine filter with max. 40 µ at the inlet of the pressure regulator. Subsequent components and plant components must be protected by separate safety valves.

DESCRIPTION

Dome pressure regulators are characterized by an accurate regulation and a large throughput.

The dome pressure regulator works according to the principle of the pressure balance between dome pressure and outlet pressure.

A large independence from fluctuation of the inlet pressure is reached with a balanced poppet.

If the dome pressure regulator is used for the pressure control of gases, the dome pressure can be controlled by needle valves.

For the pressure regulation of liquids and aggressive gases, the dome can be filled with compressed air or nitrogen externally, by means of a pilot pressure regulator.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001:2015** and **ISO 14001:2015**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

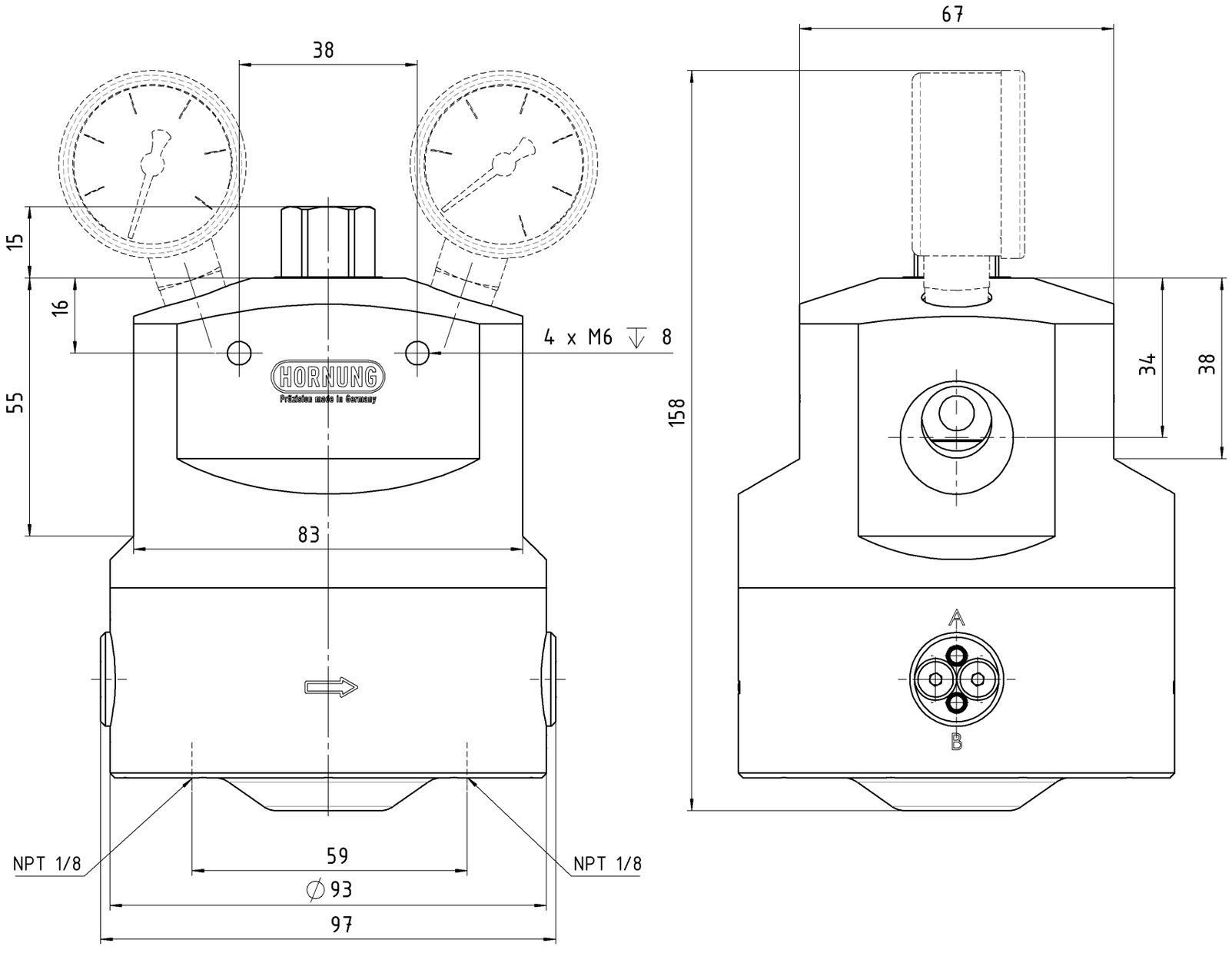
HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

D 3/4



REGULATING WITH PILOT PRESSURE REGULATORS

If the outlet pressure is to be adjusted more frequently, set more precisely or controlled remotely, the use of a control valve is recommended. A control valve is attached instead of the plug at the dome of the pressure regulator.

Control valves are spring loaded pressure regulators, so called pilot regulators. When operating with dome pressure regulators of this size, our special P.I.D.-regulators with integrated pilot regulators or proportional valves are used.

DYNAMIC PRESSURE REGULATION

A dynamic pressure control is reached by means of an integrated needle valve in the dome of the pressure regulator.

By slightly releasing the control medium into the process gas line, the control medium is constantly re-feed.
When using liquids in the pilot regulator, the control medium is slightly released into the atmosphere, which leads to a re-feed of the pilot regulator.

According to this function, the pressure inside of the dome can be held constant even in the event of temperature or flow variations.

ORDER DETAILS

Material/ pressure:
1 = brass 100 bar
2 = stainless steel 100 bar
3 = brass 12 bar
4 = stainless steel 12 bar

Diaphragm:
1 = EPDM
2 = FKM

Gauges:
0 = none
1 = with inlet and outlet gauge

Option at inlet / outlet:
0 = G 3/4“ - internal thread
1 = NPT 3/4“ - internal thread

Regulator type							
320-	D 3/4	320-	2	1	1	0	Gas type
		Type	Material/ pressure	Diaphragm	Gauges	In-/outlet	Gas type

Accessories: see total catalogue segment

5. Pilot pressure regulators, flanges
7. Gauges, fittings and accessories
8. Fein filter F1, safety valves available on request
9. Wall mounting bracket

dated 06/2020

Dome pressure regulator DH 3/4

Fittings and gauges optional

TECHNICAL DETAILS

Material:	Brass or stainless steel (1.4404)
Valve seat:	Ø 10
Cv-value:	2,0
Seat:	PCTFE
Diaphragm:	EPDM or FKM
Max. inlet pressure:	320 bar brass 420 bar stainless steel
Outlet pressure range:	up to 300 bar brass up to 400 bar stainless steel
Operating temp.:	-40°C to +150°C
Dimensions:	Ø 93 x 129 mm
Weight:	4,6 kg
Connections:	Inlet / outlet G 3/4“ or NPT 3/4“ Gauge NPT 1/4“ Dome screw NPT 1/8“

APPLICATION AREA

The dome pressure regulator is used as a line pressure regulator.

Without exchanging parts it is suitable for a large outlet pressure range. Dependent on the used material, the pressure regulator is applicable for different gases and liquids.

We urgently recommend the connection of a fine filter with max. 40 µ at the inlet of the pressure regulator. Subsequent components and plant components must be protected by separate safety valves.

DESCRIPTION

Dome pressure regulators are characterized by an accurate regulation and a large throughput.

The dome pressure regulator works according to the principle of the pressure balance between dome pressure and outlet pressure.

A large independence from fluctuation of the inlet pressure is reached with a balanced poppet.

If the dome pressure regulator is used for the pressure control of gases, the dome pressure can be controlled by needle valves.

For the pressure regulation of liquids and aggressive gases, the dome can be filled with compressed air or nitrogen externally, by means of a pilot pressure regulator.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001:2015** and **ISO 14001:2015**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

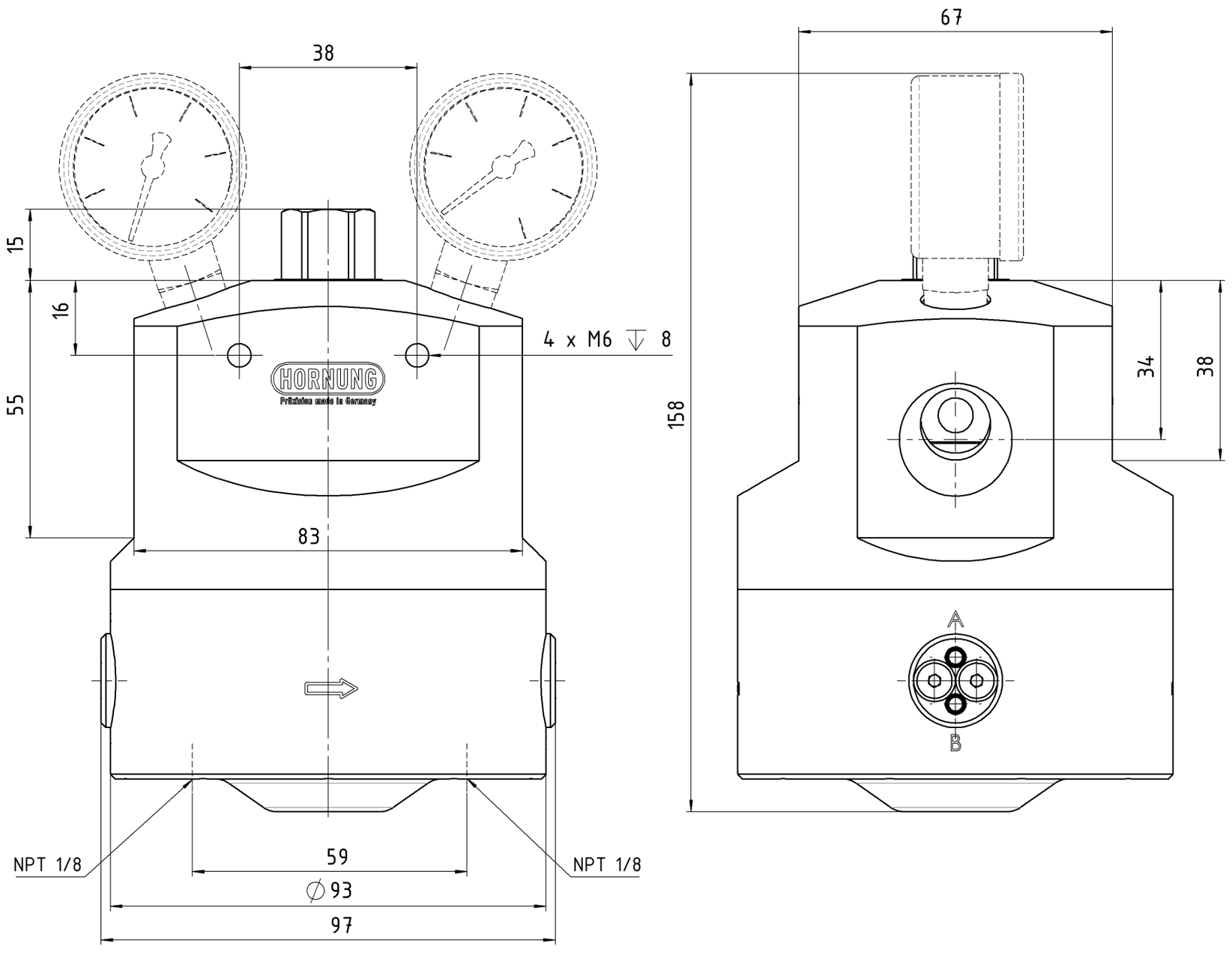
HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

DH 3/4



REGULATING WITH PILOT PRESSURE REGULATORS

If the outlet pressure is to be adjusted more frequently, set more precisely or controlled remotely, the use of a control valve is recommended. A control valve is attached instead of the plug at the dome of the pressure regulator.

Control valves are spring loaded pressure regulators, so called pilot regulators. When operating with dome pressure regulators of this size, our special P.I.D.-regulators with integrated pilot regulators or proportional valves are used.

DYNAMIC PRESSURE REGULATION

A dynamic pressure control is reached by means of an integrated needle valve in the dome of the pressure regulator.

By slightly releasing the control medium into the process gas line, the control medium is constantly re-feed.
When using liquids in the pilot regulator, the control medium is slightly released into the atmosphere, which leads to a re-feed of the pilot regulator.

According to this function, the pressure inside of the dome can be held constant even in the event of temperature or flow variations.

ORDER DETAILS

Material:
1 = brass 300 bar
2 = stainless steel 400 bar

Diaphragm:
1 = EPDM
2 = FKM

Gauges:
0 = none
1 = with inlet and outlet gauge

Option at inlet / outlet:
0 = G 3/4“ - internal thread
1 = NPT 3/4“ - internal thread

Regulator type							
321-	DH 3/4	321-	2	1	1	0	Gas type
		Type	Material	Diaphragm	Gauges	In-/outlet	Gas type

Accessories: see total catalogue segment

5. Pilot pressure regulators, flanges
7. Gauges, fittings and accessories
8. Fein filter F1, safety valves available on request
9. Wall mounting bracket

dated 07/2022

Dome pressure regulator PID 3/4

- with integrated pilot regulator - P.I.D.

Fittings and gauges optional

TECHNICAL DETAILS

Material:	Brass or stainless steel (1.4404)
Valve seat:	Ø 10
Cv-Wert:	2,0
Seat:	EPDM or FKM
Diaphragm:	EPDM or FKM
Max. inlet pressure:	110 bar
Outlet pressure ranges:	0,5 - 3 bar 0,5 - 6 bar 1 - 12 bar 1 - 17 bar 5 - 50 bar 5 - 100 bar
Operating temp.:	-40°C to +150°C
Dimensions:	Ø 93 x 215 mm
Weight:	5,8 kg
Connections:	Inlet / outlet NPT 3/4“ or G 3/4“ Gauge NPT 1/4“ Dome screw NPT 1/8“

APPLICATION AREA

The Dome-pressure regulator is used as a line-pressure regulator.

Without exchanging parts it is suitable for a large outlet pressure range. Independent of the used material the pressure-regulator is applicable for different gases and liquids.

We urgently recommend the connection of a fine filter with max. 40 µ at the inlet of the pressure regulator. Subsequent components and plant components must be protected by separate safety valves.

Description

Dome pressure regulators with integrated pilot regulators are characterised by an accurate regulation and a large throughput.

The dome pressure regulator works according to the principle of the pressure balance between dome pressure and outlet pressure.

A large independence from fluctuations is reached with a balanced poppet. If the dome pressure regulator is used for the pressure control of gases, the dome pressure can controlled with the needle valves on the inlet pressure side.

For the pressure regulation of liquids the Dome is filled externally with compressed air or nitrogen by means of a pilot pressure regulator.

Special characteristics:
The P.I.D. combines the advantages of a dome pressure regulator and a pilot regulator in just one complete and compact pressure regulator.

This design is very space saving and easy to assamble and handle.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

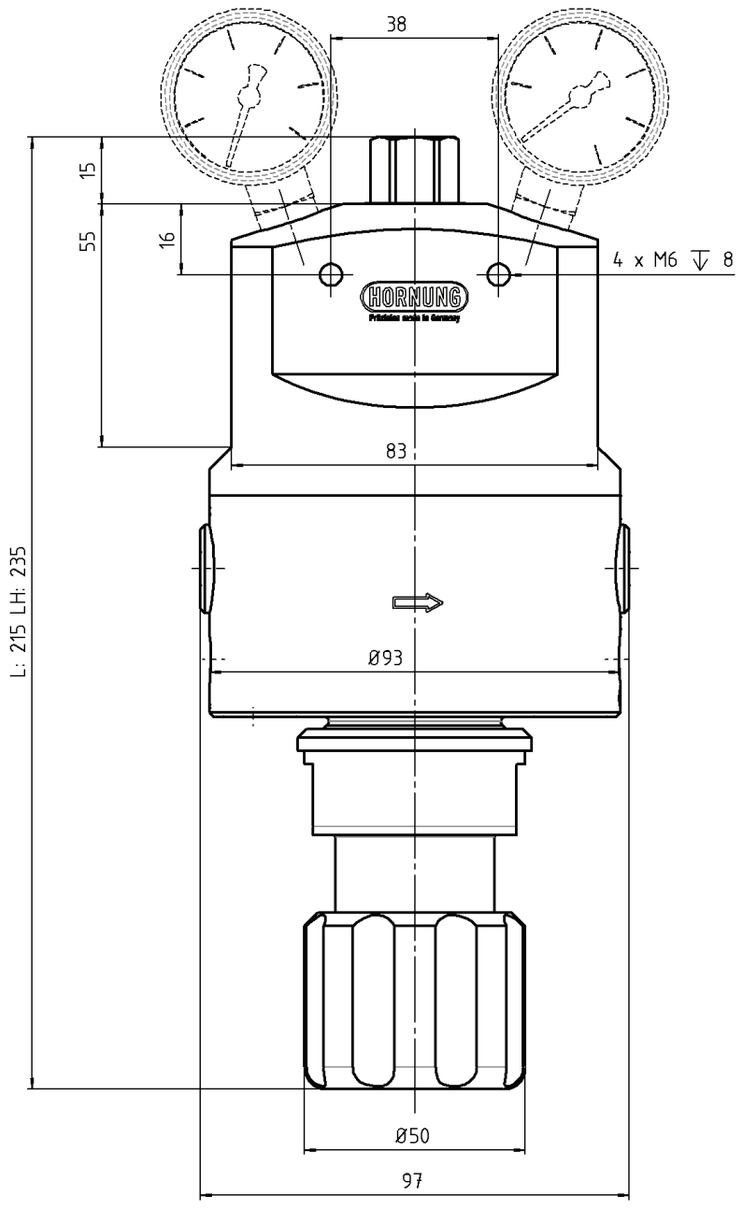
HORNUNG
Präzision made in Germany

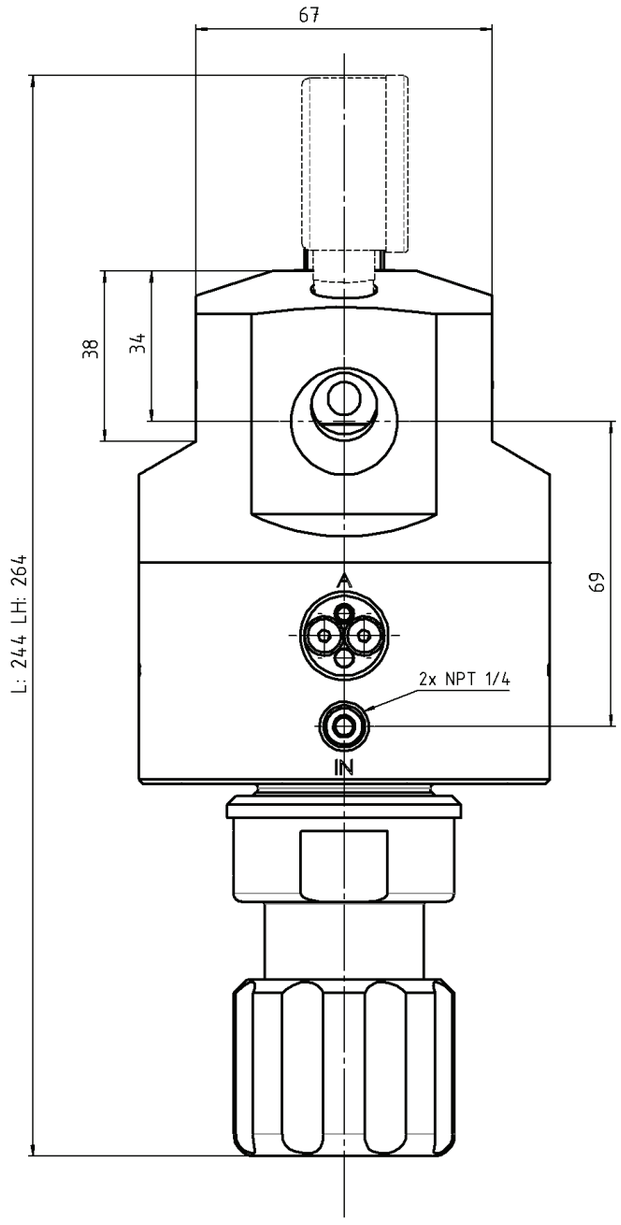
Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

PID 3/4





REGULATING WITH PILOT PRESSURE REGULATORS

If the outlet pressure is to be adjusted more frequently, set more precisely or controlled remotely, the use of a control valve is recommended. A control valve is attached instead of the plug at the dome of the pressure regulator.

Control valves are spring loaded pressure regulators, so called pilot regulators, or proportional valves.

DYNAMIC PRESSURE REGULATION

A dynamic pressure control is reached by means of an integrated needle valve in the dome of the pressure regulator.

By slightly releasing the control medium into the process gas line, the control medium is constantly re-feed.
When using liquids in the pilot regulator, the control medium is slightly released into the atmosphere, which leads to a re-feed of the pilot regulator.

According to this function, the pressure inside of the dome can be held constant even in the event of temperature or flow variations.

ORDER DETAILS

Material/ pressure:
1 = Brass 100 bar
2 = Stainless steel 100 bar
3 = Brass 12 bar
4 = Stainless steel 12 bar

Diaphragm:
1 = EPDM
2 = FKM

Outlet pressure P2:
1 = 0,5 - 3 bar
2 = 0,5 - 6 bar
3 = 1 - 12 bar
4 = 1 - 17 bar
5 = 5 - 50 bar
6 = 5 - 100 bar

Gauges:
0 = none
1 = with inlet and outlet gauge

Inlet / outlet:
0 = G 3/4“ - internal thread
1 = NPT 3/4“ - internal thread

Regulator type		322-	2	1	2	0	0	Gas type
322-	PID 3/4	Type	Material/ pressure	Diaphragm	P2	Gauges	In-/outlet	Gas type

Accessories: see total catalogue segment

7. Gauges, fittings and accessories
8. Fein filter F1, safety valves available on request

Dome pressure regulator PIDH 3/4

- with integrated pilot regulator - P.I.D.

Fittings and gauges optional

TECHNICAL DETAILS

Material:	Brass or stainless steel (1.4404)
Valve seat:	Ø 10
Cv-value:	2,0
Seat:	PCTFE
Diaphragm:	EPDM or FKM
Max. inlet pressure:	320 bar brass 420 bar stainless steel
Outlet pressure range:	1 - 12 bar 1 - 17 bar 5 - 50 bar 5 - 100 bar 5 - 250 bar 10 - 400 bar
Operating temp.:	-40°C to +150°C
Dimensions:	Ø 93 x 215 mm
Weight:	5,8 kg
Connections:	Inlet/ outlet NPT 3/4“ or G 3/4“ Gauge NPT 1/4“ Dome screw NPT 1/8“

APPLICATION AREA

The dome pressure regulator is used as a line pressure regulator. Without exchanging parts it is suitable for a large outlet pressure range.

Independent of the used material the pressure regulator is applicable for different gases and liquids.

We urgently recommend the connection of a fine filter with max. 40 µ at the inlet of the pressure regulator. Subsequent components and plant components must be protected by separate safety valves.

DESCRIPTION

Dome pressure regulators with integrated pilot regulators are characterised by an accurate regulation and a large throughput.

The dome pressure regulator works according to the principle of the pressure balance between dome pressure and outlet pressure.

A large independence from fluctuations is reached with a balanced poppet.

If the dome pressure regulator is used for the pressure control of gases, the dome pressure can controlled with the needle valves on the inlet pressure side.

For the pressure regulation of liquids the Dome is filled externally with compressed air or nitrogen by means of a pilot pressure regulator.

Special characteristics:
The P.I.D. combines the advantages of a dome pressure regulator and a pilot regulator in just one complete and compact pressure regulator.

This design is very space saving and easy to assamble and handle.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

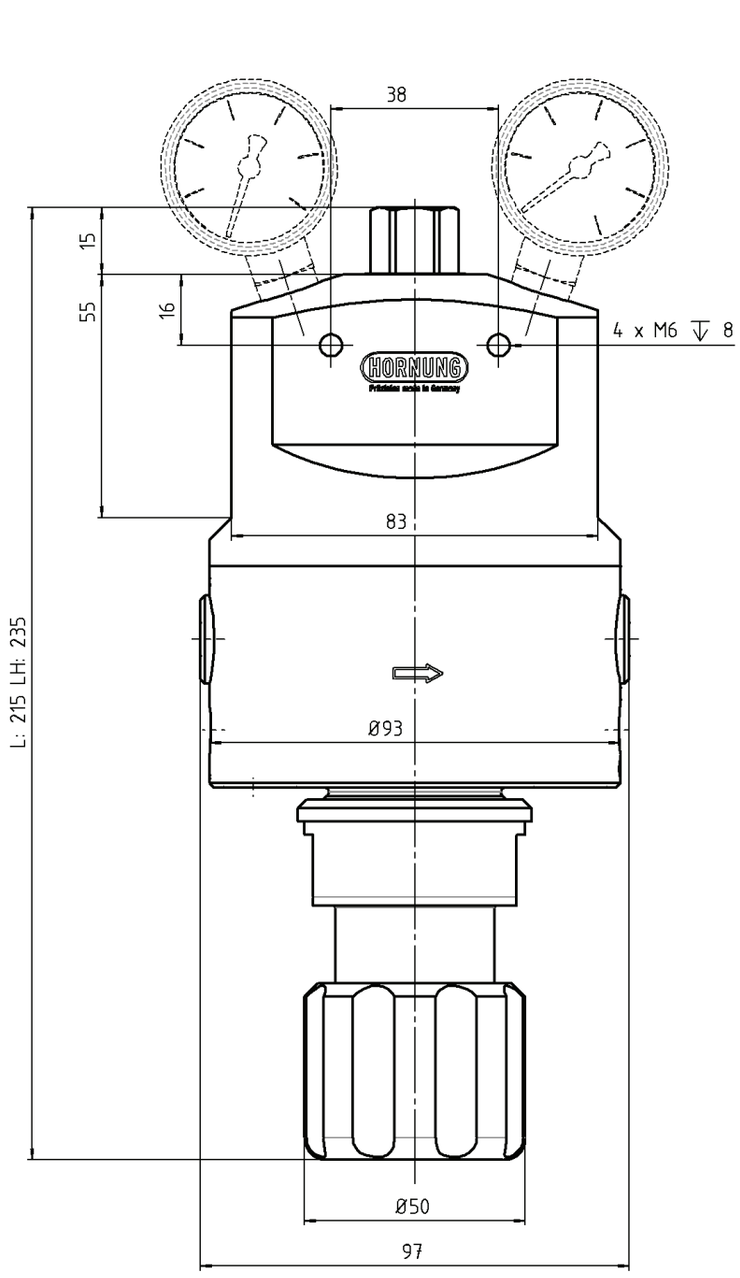
HORNUNG
Präzision made in Germany

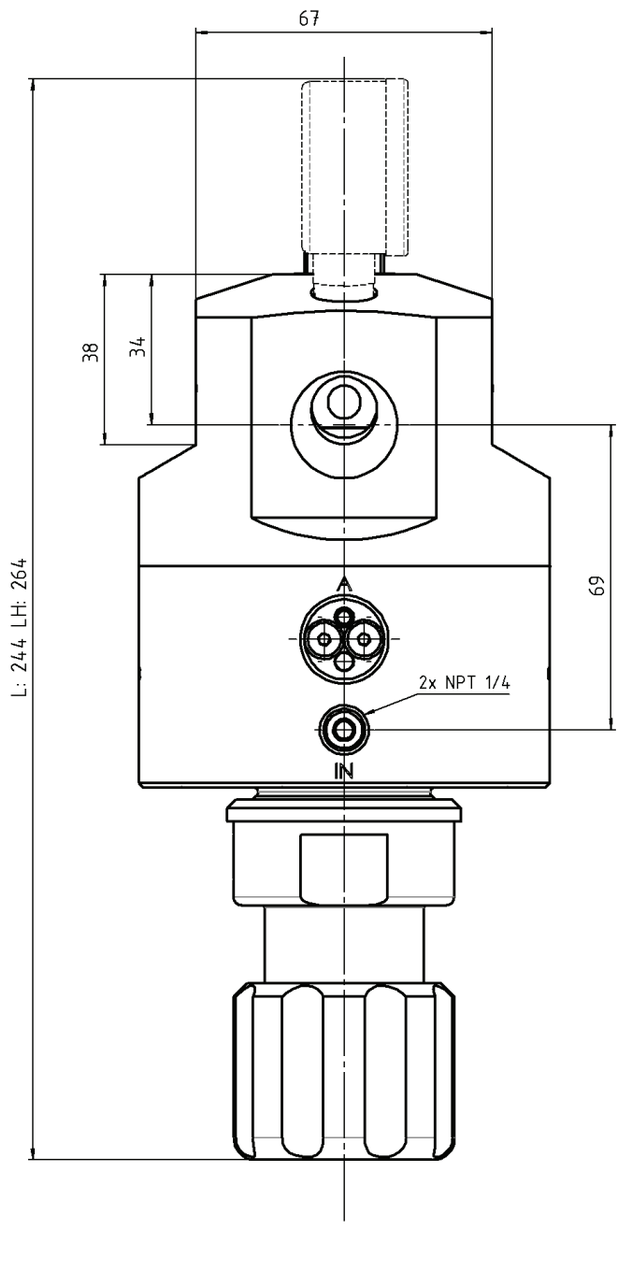
Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

PIDH 3/4





REGULATING WITH PILOT PRESSURE REGULATORS

If the outlet pressure is to be adjusted more frequently, set more precisely or controlled remotely, the use of a control valve is recommended. A control valve is attached instead of the plug at the dome of the pressure regulator.

Control valves are spring loaded pressure regulators, so called pilot regulators, or proportional valves.

DYNAMIC PRESSURE REGULATION

A dynamic pressure control is reached by means of an integrated needle valve in the dome of the pressure regulator.

By slightly releasing the control medium into the process gas line, the control medium is constantly re-feed.
When using liquids in the pilot regulator, the control medium is slightly released into the atmosphere, which leads to a re-feed of the pilot regulator.

According to this function, the pressure inside of the dome can be held constant even in the event of temperature or flow variations.

ORDER DETAILS

Material:
1 = brass 300 bar
2 = stainless steel 400 bar
3 = brass 12 bar
4 = stainless steel 12 bar

Diaphragm:
1 = EPDM
2 = FKM

Outlet pressure P2:
3 = 1 - 12 bar
4 = 1 - 17 bar
5 = 5 - 50 bar
6 = 5 - 100 bar
7 = 5 - 250 bar
8 = 10 - 400 bar stainless steel

Gauges:
0 = none
1 = with inlet and outlet gauge

Inlet / outlet:
0 = G 3/4“ - internal thread
1 = NPT 3/4“ - internal thread

Regulator type		323-	2	1	4	0	0	Gas type
323-	PIDH 3/4	Type	Material	Diaphragm	P2	Gauges	In-/outlet	Gas type

Accessories: see total catalogue segment

7. Gauges, fittings and accessories
8. Fein filter F1, safety valves available on request

Dome pressure regulator **D 1**

Fittings and gauges optional

TECHNICAL DETAILS		APPLICATION AREA	DESCRIPTION
Material:	Brass or stainless steel (1.4404)	The dome pressure regulator is used as a line pressure regulator. Without exchanging parts it is suitable for a large outlet pressure range. Dependent on the used material, the pressure regulator is applicable for different gases and liquids. We urgently recommend the connection of a fine filter with max. 40 µ at the inlet of the pressure regulator. Subsequent components and plant components must be protected by separate safety valves.	Dome pressure regulators are characterized by an accurate regulation and a large throughput. The dome pressure regulator works according to the principle of the pressure balance between dome pressure and outlet pressure. A large independence from fluctuation of the inlet pressure is reached with a balanced poppet. If the dome pressure regulator is used for the pressure control of gases, the dome pressure can be controlled by needle valves. For the pressure regulation of liquids and aggressive gases, the dome can be filled with compressed air or nitrogen externally, by means of a pilot pressure regulator.
Valve seat:	Ø 12,7 (balanced)		
Cv-value:	3,0		
Seat:	EPDM or FKM		
Diaphragm:	EPDM or FKM		
Max. inlet pressure:	110 bar		
Outlet pressure ranges:	up to 12 bar up to 100 bar		
Operating temp.:	-40°C to +150°C		
Size:	Ø 124 x 128 mm		
Weight:	9,3 kg		
Connections:	inlet / outlet NPT 1“ or G 1“ gauge NPT 1/4“ dome-screw NPT 1/4“		

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

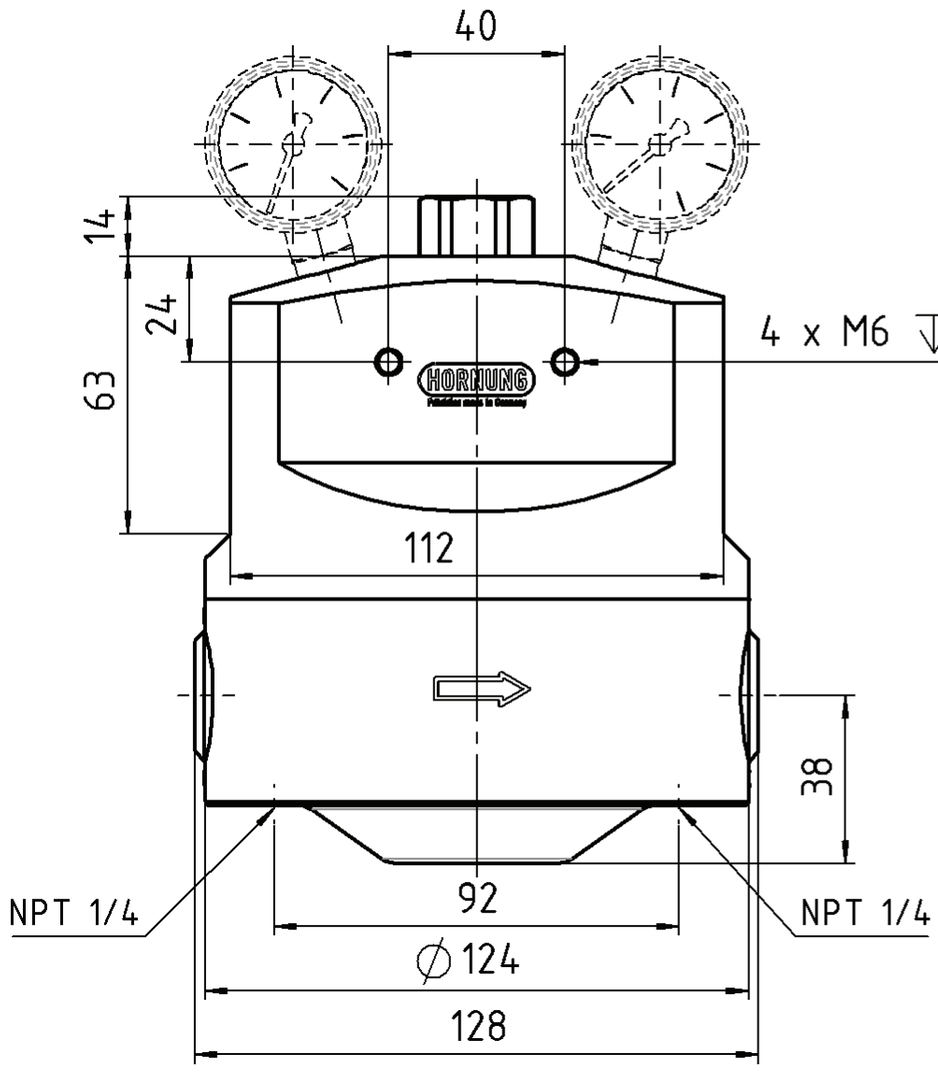
HORNUNG
Präzision made in Germany

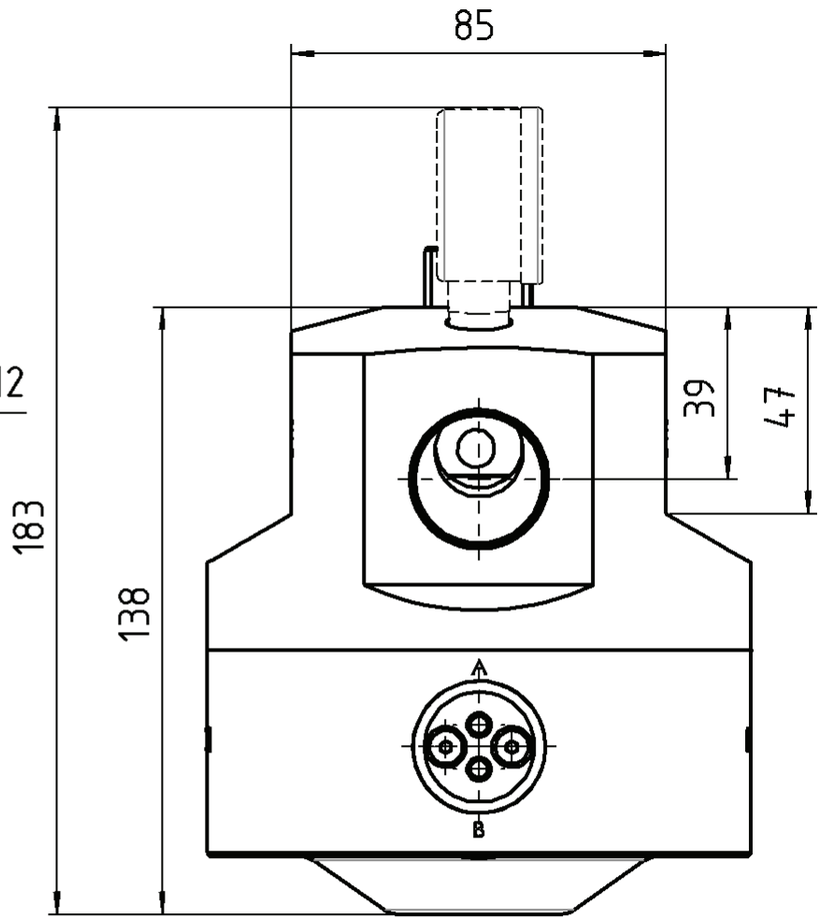
Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

D 1





REGULATING WITH PILOT PRESSURE REGULATORS

If the outlet pressure is to be adjusted more frequently, set more precisely or controlled remotely, the use of a control valve is recommended. A control valve is attached instead of the plug at the dome of the pressure regulator.

Control valves are spring loaded pressure regulators, so called pilot regulators.

When operating with dome pressure regulators of this size, our special P.I.D.-regulators with integrated pilot regulators or proportional valves are used.

DYNAMIC PRESSURE REGULATION

A dynamic pressure control is reached by means of an integrated needle valve in the dome of the pressure regulator.
By slightly releasing the control medium into the process gas line, the control medium is constantly re-feed.
When using liquids in the pilot regulator, the control medium is slightly released into the atmosphere, which leads to a re-feed of the pilot regulator.
According to this function, the pressure inside of the dome can be held constant even in the event of temperature or flow variations.

ORDER DETAILS

Material / pressure:
1 = brass 100 bar
2 = stainless steel 100 bar
3 = brass 12 bar
4 = stainless steel 12 bar

Diaphragm:
1 = EPDM
2 = FKM

Gauges:
0 = none
1 = with inlet and outlet gauge

Option at inlet / outlet
0 = G1“ - internal thread
1 = NPT 1“ - internal thread
2 = flange DN25-PN100-Form C

Regulator type			340-	1	0	1	0	Gas type
340	D 1		Type	Material/ pressure	Diaphragm	Gauge	Option	Gas type

Accessories:

- Pilot regulator, Flanges, gauges, tube ttings und accessories
- Fine filter F1, safety valves available on request
- Wall mounting bracket

Dome pressure regulator **DH 1**

Fittings and gauges optional

TECHNICAL DETAILS		APPLICATION AREA	DESCRIPTION
Material:	Brass or stainless steel (1.4404)	The dome pressure regulator is used as a line pressure regulator. Without exchanging parts it is suitable for a large outlet pressure range. Dependent on the used material, the pressure regulator is applicable for different gases and liquids. We urgently recommend the connection of a fine filter with max. 40 µ at the inlet of the pressure regulator. Subsequent components and plant components must be protected by separate safety valves.	Dome pressure regulators are charactrised by an accurate regulation and a large throughput. The dome pressure regulator works according to the principle of the pressure balance between dome pressure and outlet pressure. A large independence from fluctuation of the inlet pressure is reached with a balanced poppet. If the dome pressure regulator is used for the pressure control of gases, the dome pressure can controlled by needle valves. For the pressure regulation of liquids and aggressive gases, the dome can be filled externally with compressed air or nitrogen by means of a pilot pressure regulator.
Valve seat:	Ø 12,7 (balanced)		
Cv-value:	3,0		
Seat:	PCTFE		
Membran:	EPDM / FKM		
Max. inlet pressure:	320 bar brass 420 bar stainless steel		
Outlet pressure range:	up to 300 bar brass up to 400 bar stainless steel		
Operating temp.:	-40°C to +150°C		
Size:	Ø 124 x 152 mm		
Weight:	9,3 kg		
Connections:	inlet / outlet NPT 1“ or G 1“ gauge NPT 1/4“ dome-screw NPT 1/4“		

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001:2015** and **ISO 14001:2015**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

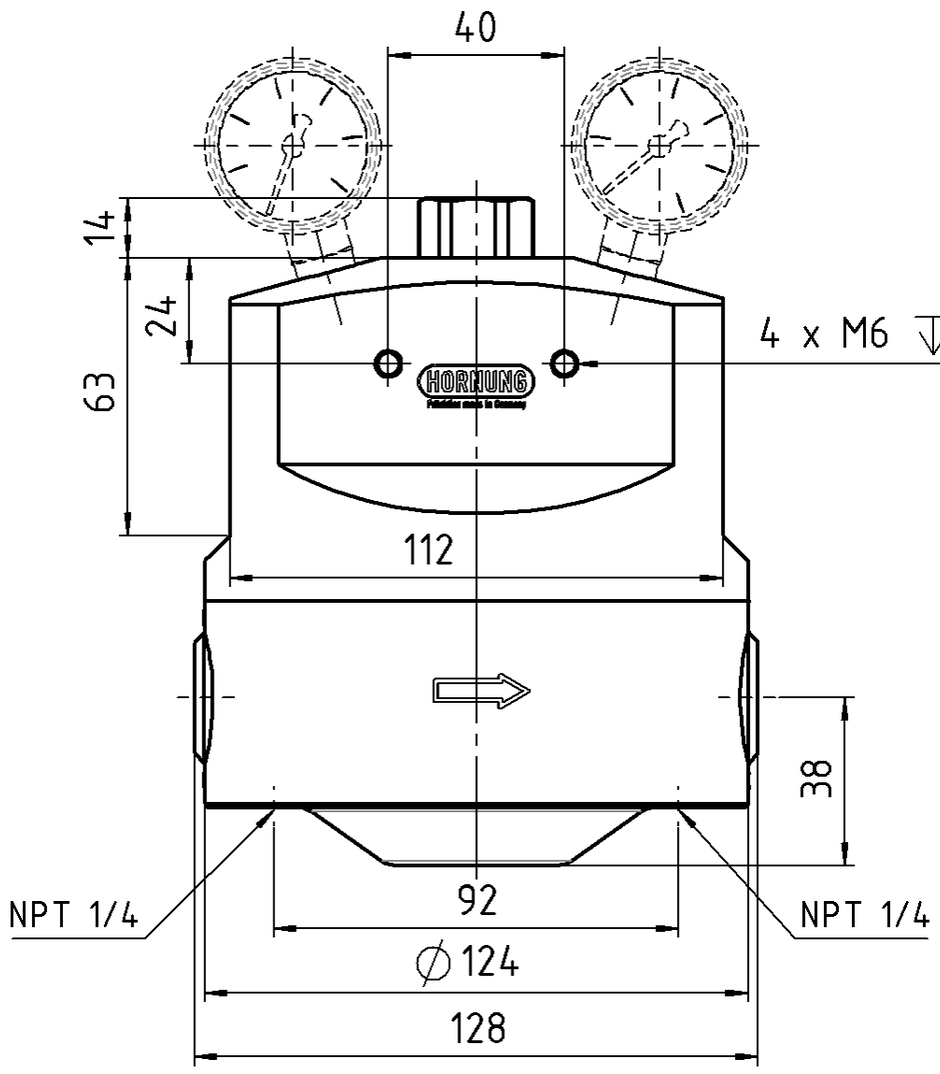
HORNUNG
Präzision made in Germany

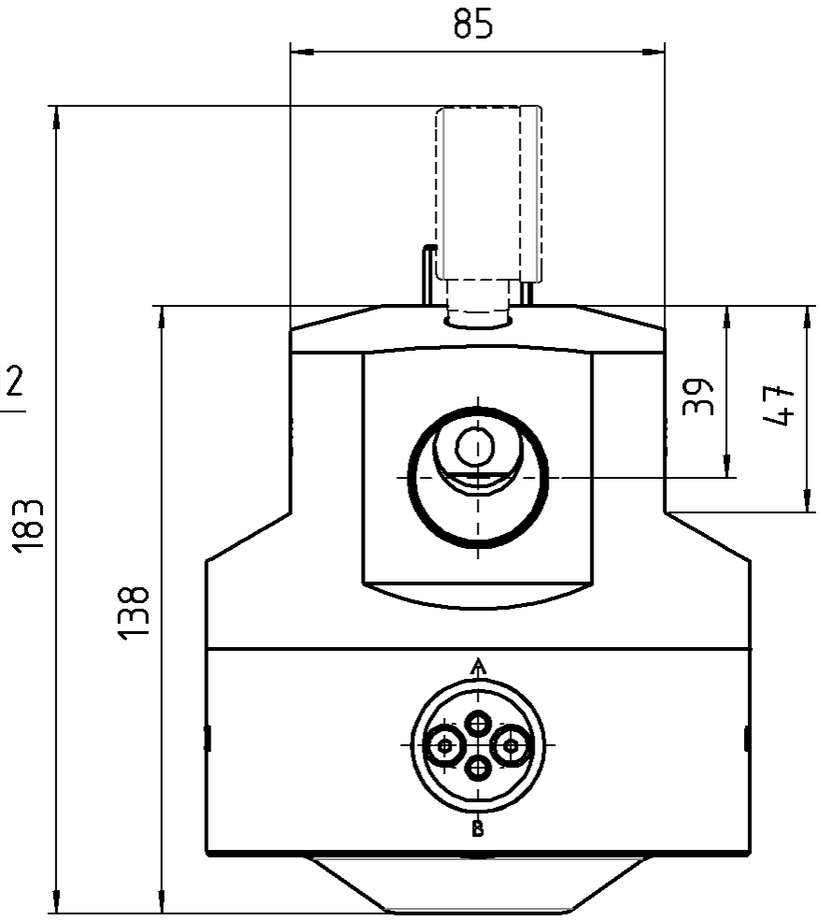
Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

DH 1





REGULATING WITH PILOT PRESSURE REGULATORS

If the outlet pressure is to be adjusted more frequently, set more precisely or controlled remotely, the use of a control valve is recommended. A control valve is attached instead of the plug at the dome of the pressure regulator.

Control valves are spring loaded pressure regulators, so called pilot regulators. When operating with dome pressure regulators of this size, our special P.I.D.-regulators with integrated pilot regulators or proportional valves are used.

DYNAMIC PRESSURE REGULATION

A dynamic pressure control is reached by means of an integrated needle valve in the dome of the pressure regulator.
By slightly releasing the control medium into the process gas line, the control medium is constantly re-feed.

When using liquids in the pilot regulator, the control medium is slightly released into the atmosphere, which leads to a re-feed of the pilot regulator.

According to this function, the pressure inside of the dome can be held constant even in the event of temperature or flow variations.

ORDER DETAILS

Material:
1 = brass 300 bar
2 = stainless steel 400 bar

Diaphragm:
1 = EPDM
2 = FKM

Gauges:
0 = none
1 = with inlet and outlet gauges

Option at inlet / outlet
0 = G1“ - Internal thread
1 = NPT 1“ - Internal thread

Regulator type		341-	1	1	1	0	Gas type
341	DH 1	Typ	Material	Diaphragm	Gauge	Option	Gas type

Accessories:

- Pilot regulator, flanges, gauges, tube fittings und accessories
- Fine filter F1 (see data sheet), safety valves available on request

dated 06/2020

Dome pressure regulator PID 1

- with integrated pilot regulator - P.I.D.

Fittings and gauges optional

TECHNICAL DETAILS		APPLICATION AREA	DESCRIPTION
Material:	Brass or stainless steel (1.4404)	The Dome-pressure regulator is used as a line-pressure regulator. Without exchanging parts it is suitable for a large outlet pressure range. Independent of the used material the pressure-regulator is applicable for different gases and liquids. We urgently recommend the connection of a fine filter with max. 40 µ at the inlet of the pressure regulator. Subsequent components and plant components must be protected by separate safety valves.	Dome pressure regulators with integrated pilot regulators are characterised by an accurate regulation and a large throughput. The dome pressure regulator works according to the principle of the pressure balance between dome pressure and outlet pressure. A large independence from fluctuations is reached with a balanced poppet. If the dome pressure regulator is used for the pressure control of gases, the dome pressure can controlled with the needle valves on the inlet pressure side. For the pressure regulation of liquids the Dome is filled externally with compressed air or nitrogen by means of a pilot pressure regulator. **Special characteristics:** The P.I.D. combines the advantages of a dome pressure regulator and a pilot regulator in just one complete and compact pressure regulator. This design is very space saving and easy to assamble and handle.
Valve seat:	Ø 12,7 mm		
Cv-valve:	3,0		
Seat:	EPDM or FKM		
Diaphragm:	EPDM or FKM		
Max. inlet pressure:	110 bar		
Outlet pressure range:	0,5 - 3 bar 0,5 - 6 bar 1 - 12 bar 1 - 17 bar 5 - 50 bar 5 - 100 bar		
Operating temp.:	-40°C to +150°C		
Size:	Ø 124 x 241 mm		
Weight:	11,6 kg		
Anschlüsse:	In- / outlet G 1“ or NPT 1“ gauge NPT 1/4“ dome-screw NPT 1/4“		

QUALITY STANDARD

The company Hornung is certified to DIN EN **ISO 9001:2015** and **ISO 14001:2015**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

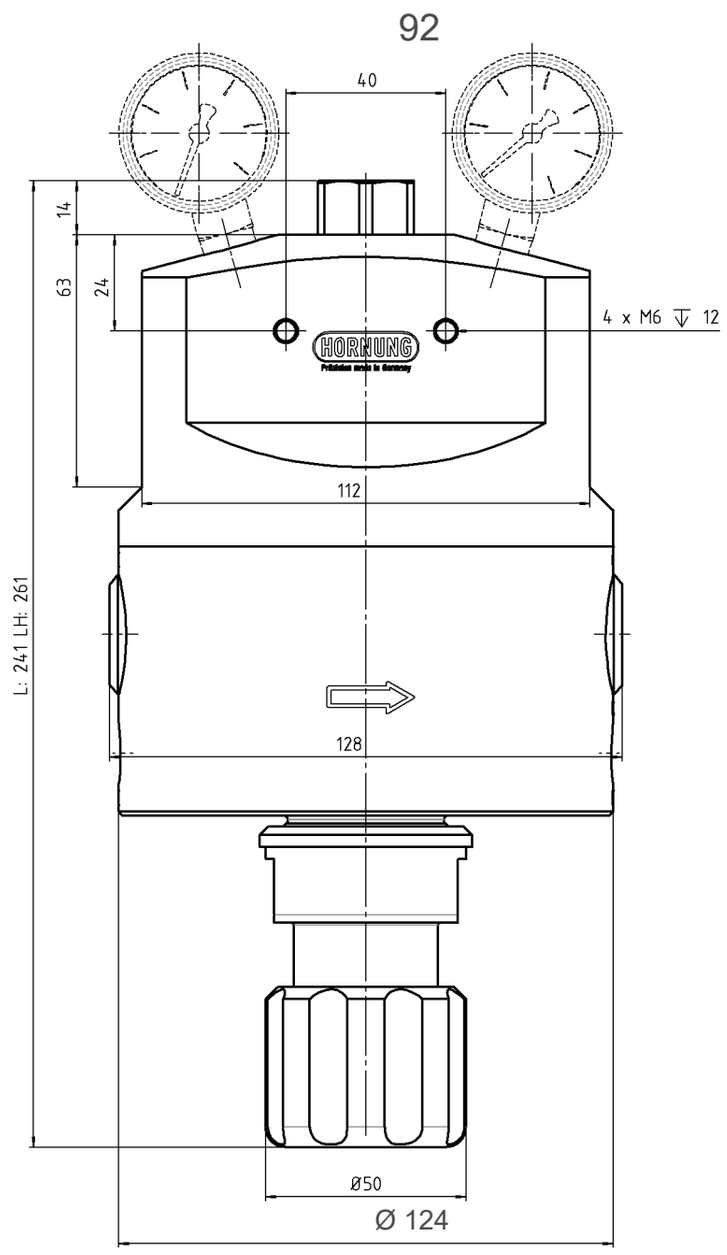
HORNUNG
Präzision made in Germany

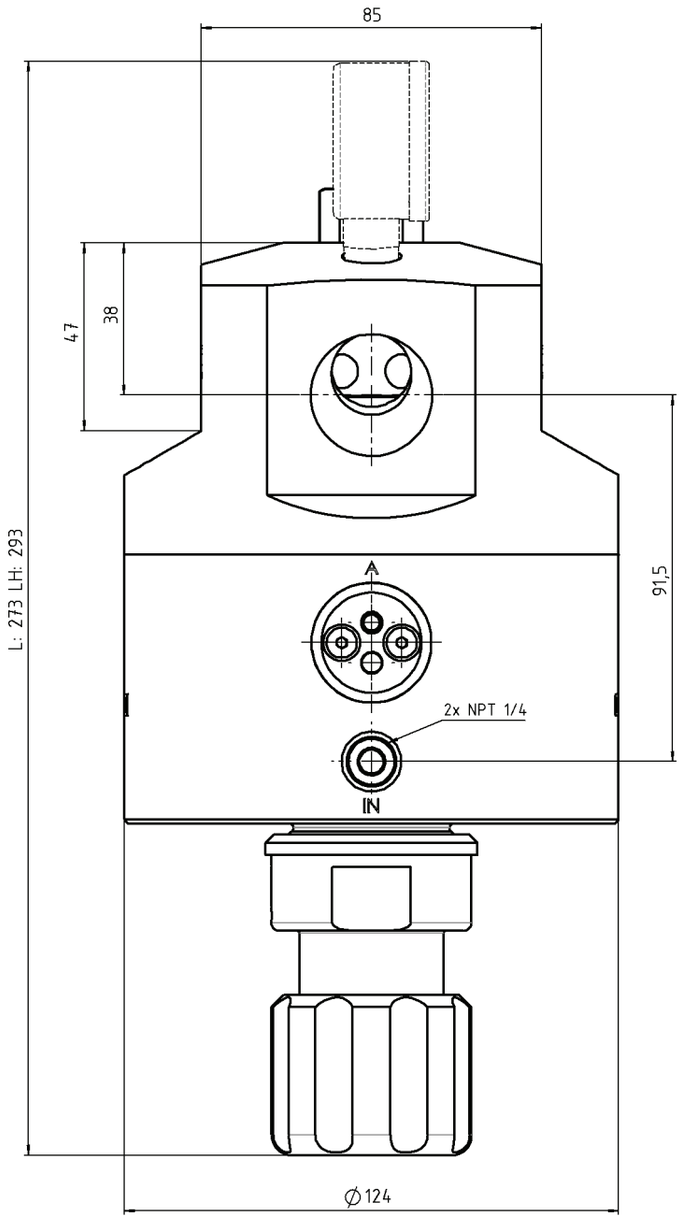
Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

PID 1





REGULATING WITH PILOT PRESSURE REGULATORS

If the outlet pressure is to be adjusted more frequently, set more precisely or controlled remotely, the use of a control valve is

recommended. A control valve is attached instead of the plug at the dome of the pressure regulator.
Control valves are spring loaded pressure regulators, so called pilot regulators, or proportional valves.

DYNAMIC PRESSURE REGULATION

A dynamic pressure control is reached by means of an integrated needle valve in the dome of the pressure regulator.
By slightly releasing the control medium into the process gas line, the control medium is constantly re-feed.

When using liquids in the pilot regulator, the control medium is slightly released into the atmosphere, which leads to a re-feed of the pilot regulator.

According to this function, the pressure inside of the dome can be held constant even in the event of temperature or flow variations.

ORDER DETAILS

Material / pressure:	**Diaphragm:**	**Outlet pressure P2:**	**Gauges:**	**Inlet / Outlet:**
1 = brass 100 bar 2 = stainless steel 100 bar 3 = brass 12 bar 4 = stainless steel 12 bar	1 = EPDM 2 = FKM	1 = 0,5 - 3 bar 2 = 0,5 - 6 bar 3 = 1 - 12 bar 4 = 1 - 17 bar 5 = 5 - 50 bar 6 = 5 - 100 bar	0 = without 1 = with inlet and outlet gauge	0 = G 1“ - internal thread 1 = NPT 1“ - internal thread

Regulator type		342-	2	1	4	1	0	Gas type
342-	PID 1	Type	Material/ pressure	Diaphragm	P2	Gauges	In-/outlet	Gas type

Accessories:

- Flanges, gauges, tube ttings und accessories
- Fine filter F1, safety valves available on request
- Wall mounting bracket

dated 09/2023

Dome pressure regulator PIDH 1

- with integrated pilot regulator - P.I.D.

Fittings and gauges optional

TECHNICAL DETAILS		APPLICATION AREA	DESCRIPTION
Material:	Brass or stainless steel (1.4404)	The dome pressure regulator is used as a line pressure regulator. Without exchanging parts it is suitable for a large outlet pressure range.	Dome pressure regulators with integrated pilot regulators are characterised by an accurate regulation and a large throughput.
Valve seat:	Ø 12,7 mm	Independent of the used material the pressure regulator is applicable for different gases and liquids.	The dome pressure regulator works according to the principle of the pressure balance between dome pressure and outlet pressure.
Cv-valve:	3,0	We urgently recommend the connection of a fine filter with max. 40 µ at the inlet of the pressure regulator. Subsequent components and plant components must be protected by separate safety valves.	A large independence from fluctuations is reached with a balanced poppet. If the dome pressure regulator is used for the pressure control of gases, the dome pressure can controlled with the needle valves on the inlet pressure side.
Seat:	PCTFE		For the pressure regulation of liquids the Dome is filled externally with compressed air or nitrogen by means of a pilot pressure regulator.
Diaphragm:	EPDM or FKM		**Special characteristics:** The P.I.D. combines the advantages of a dome pressure regulator and a pilot regulator in just one complete and compact pressure regulator. This design is very space saving and easy to assamble and handle.
Max. inlet pressure:	320 bar brass 420 bar stainless steel		
Outlet pressure range:	1 - 12 bar 1 - 17 bar 5 - 50 bar 5 - 100 bar 10 - 250 bar 10 - 400 bar		
Operating temp.:	-40°C to +150°C		
Size:	Ø 124 x 241 mm		
Weight:	11,6 kg		
Anschlüsse:	In- / outlet G 1“ or NPT 1“ gauge NPT 1/4“ dome-screw NPT 1/4“		

QUALITY STANDARD

The company Hornung is certified to DIN EN **ISO 9001** and **ISO 14001**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

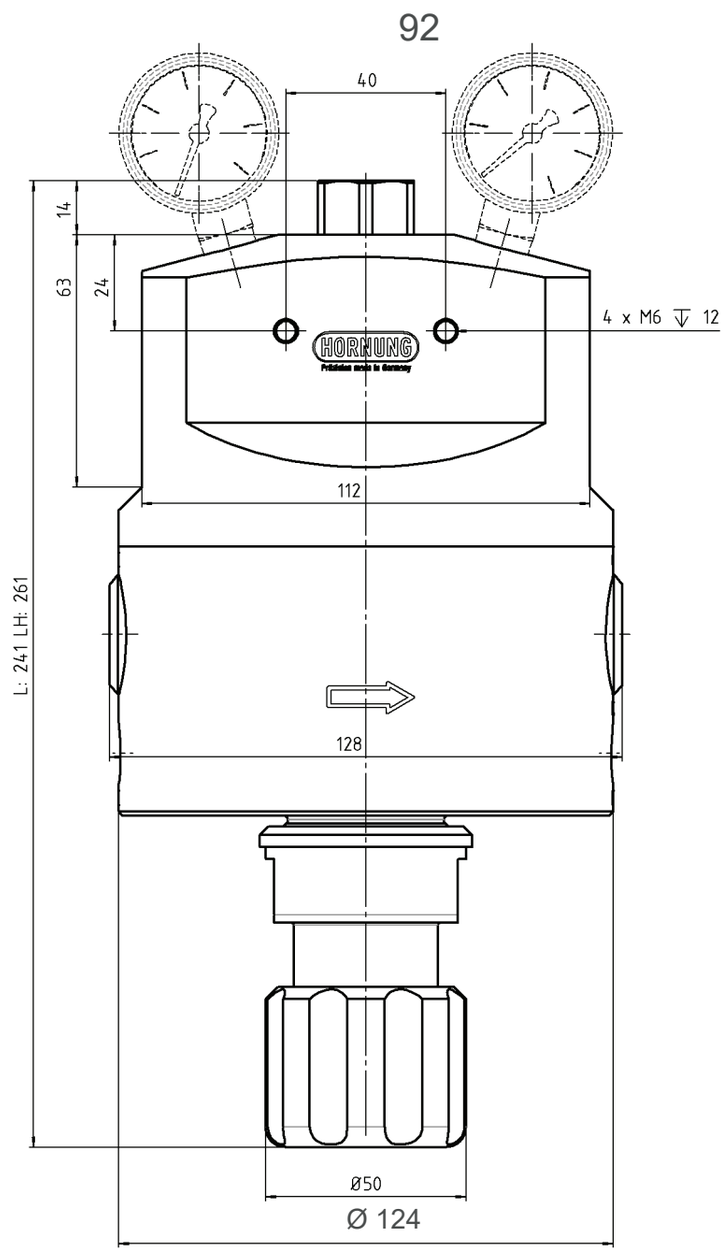
HORNUNG
Präzision made in Germany

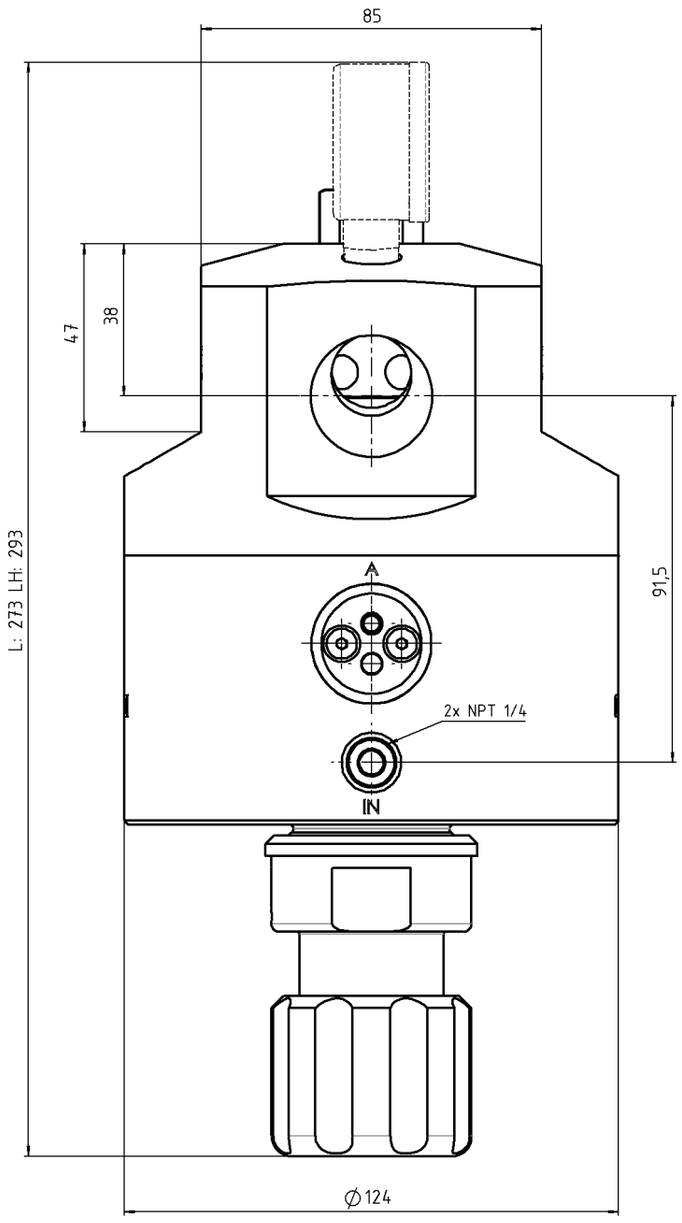
Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

PIDH 1





REGULATING WITH PILOT PRESSURE REGULATORS

If the outlet pressure is to be adjusted more frequently, set more precisely or controlled remotely, the use of a control valve is recommended. A control valve is attached instead of the plug at the dome of the pressure regulator.

Control valves are spring loaded pressure regulators, so called pilot regulators, or proportional valves.

DYNAMIC PRESSURE REGULATION

A dynamic pressure control is reached by means of an integrated needle valve in the dome of the pressure regulator.
By slightly releasing the control medium into the process gas line, the control medium is constantly re-feed.

When using liquids in the pilot regulator, the control medium is slightly released into the atmosphere, which leads to a re-feed of the pilot regulator.

According to this function, the pressure inside of the dome can be held constant even in the event of temperature or flow variations.

ORDER DETAILS

Material / pressure:
1 = brass 300 bar
2 = stainless steel 400 bar
3 = brass 12 bar
4 = staineless steel 12 bar

Diaphragm:
1 = EPDM
2 = FKM

Outlet pressure P2:
3 = 1 - 12 bar
4 = 1 - 17 bar
5 = 5 - 50 bar
6 = 5 - 100 bar
7 = 5 - 250 bar
8 = 10 - 400 bar stainless steel

Gauges:
0 = without
1 = with inlet and outlet gauge

Inlet / Outlet:
0 = G 1“ - internal thread
1 = NPT 1“ - internal thread

Regulator type								
343-	PIDH 1	343-	2	1	4	1	0	Gas type
		Type	Material/ pressure	Diaphragm	P2	Gauges	In-/outlet	Gas type

Accessories:
7. Gauges, fittings and accessories
8. Fine filter F1, safety valves available on request

Dome pressure regulator D 1 1/2

Gauges optional

TECHNICAL DETAILS

Material:	Brass or stainless steel 1.4404
Valve seat:	Ø 19
Cv-value:	7,3
Seat:	EPDM or FKM
Diaphragm:	EPDM or FKM
Max. inlet pressure:	110 bar
Outlet pressure ranges:	up to 12 bar up to 100 bar
Operating temp.:	-40°C to +150°C
Dimensions:	Ø 149 x 190 mm
Weight:	16,7 kg
Connections:	Inlet / outlet G 1 1/2“ Gauge NPT 1/4“ Dome screw NPT 1/4“

APPLICATION AREA

The dome pressure regulator is used as a line pressure regulator.

Without exchanging parts it is suitable for a large outlet pressure range. Dependent on the used material, the pressure regulator is applicable for different gases and liquids.

We urgently recommend the connection of a fine filter with max. 40 µ at the inlet of the pressure regulator. Subsequent components and plant components must be protected by separate safety valves.

DESCRIPTION

Dome pressure regulators are characterized by an accurate regulation and a large throughput.

The dome pressure regulator works according to the principle of the pressure balance between dome pressure and outlet pressure.

A large independence from fluctuation of the inlet pressure is reached with a balanced poppet.

If the dome pressure regulator is used for the pressure control of gases, the dome pressure can be controlled by needle valves.

For the pressure regulation of liquids and aggressive gases, the dome can be filled with compressed air or nitrogen externally, by means of a pilot pressure regulator.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001:2015** and **ISO 14001:2015**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

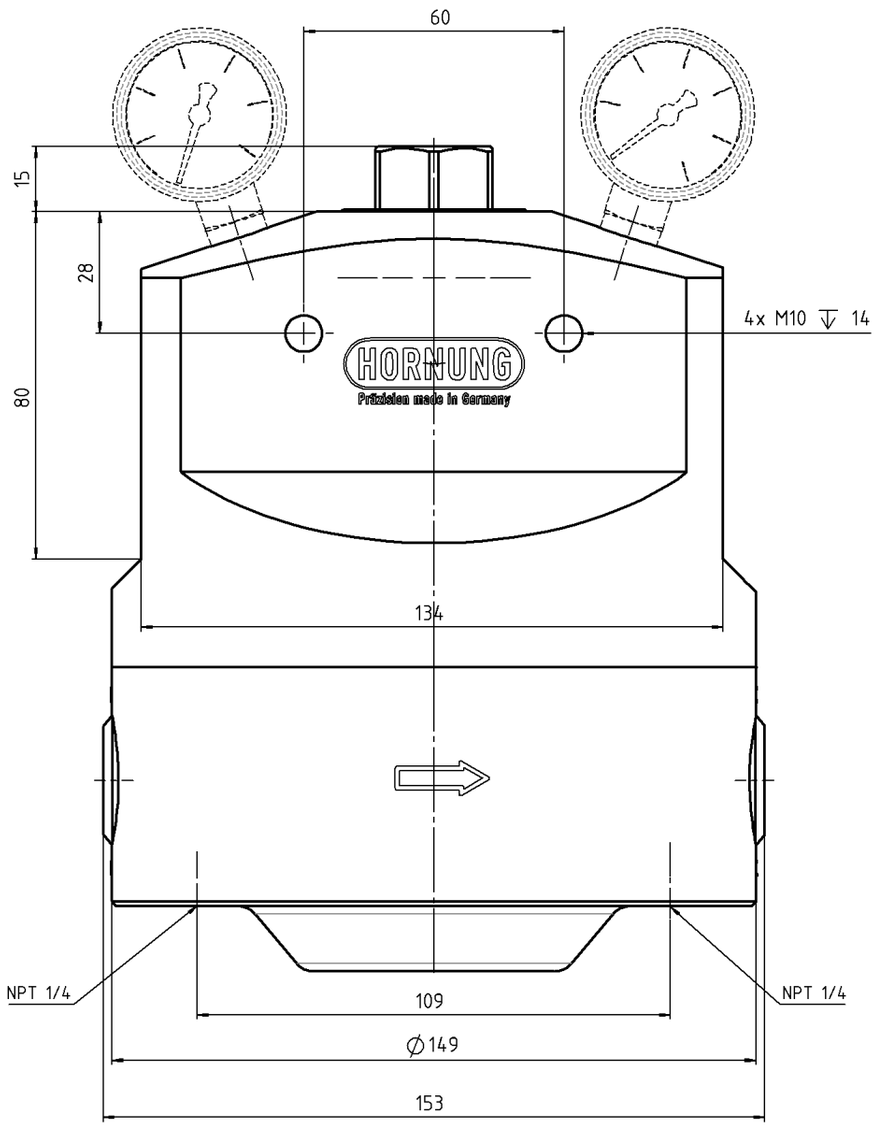
HORNUNG
Präzision made in Germany

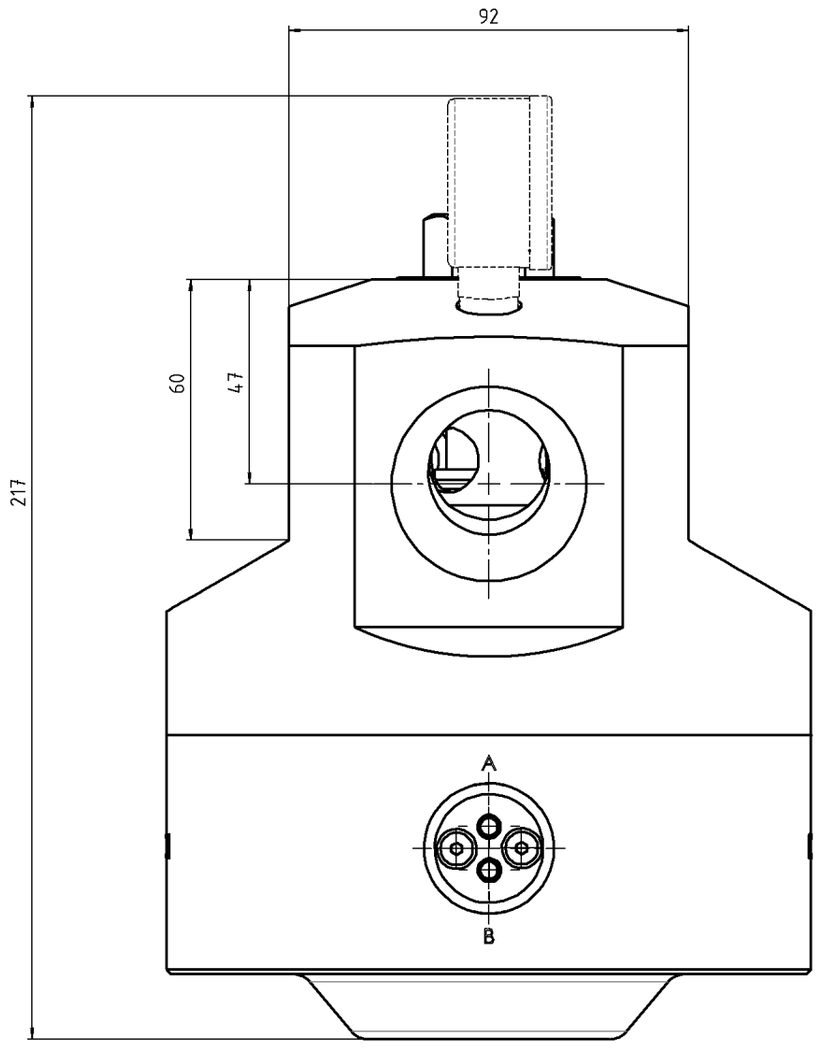
Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

D 1 1/2





REGULATING WITH PILOT PRESSURE REGULATORS

If the outlet pressure is to be adjusted more frequently, set more precisely or controlled remotely, the use of a control valve is recommended. A control valve is attached instead of the plug at the dome of the pressure regulator.

Control valves are spring loaded pressure regulators, so called pilot regulators.When operating with dome pressure regulators of this size, our special P.I.D.-regulators with integrated pilot regulators or proportional valves are used.

DYNAMIC PRESSURE REGULATION

A dynamic pressure control is reached by means of an integrated needle valve in the dome of the pressure regulator.
By slightly releasing the control medium into the process gas line, the control medium is constantly re-feed.

When using liquids in the pilot regulator, the control medium is slightly released into the atmosphere, which leads to a re-feed of the pilot regulator.

According to this function, the pressure inside of the dome can be held constant even in the event of temperature or flow variations.

ORDER DETAILS

Material/ pressure:
1 = brass 100 bar
2 = stainless steel 100 bar
3 = brass 12 bar
4 = stainless steel 12 bar

Diaphragm:
1 = EPDM
2 = FKM

Gauges:
0 = none
1 = with inlet- and outlet gauge

Inlet / Outlet:
0 = G 1 1/2“ - Internal thread

Regulator type							
360-	D 1 1/2	360-	2	1	1	0	Gas type
		Type	Material/ pressure	Diaphragm	Gauges	In-/outlet	Gas type

Accessories: see total catalogue segment

- Flanges, gauges, tube ttings und accessories
- Fine filter F1, safety valves available on request
- Wall mounting bracket

Dome pressure regulator DH 1 1/2

Gauges optional

TECHNICAL DETAILS	
Material:	Stainless steel (1.4404)
Valve seat:	Ø 19
Cv-value:	7,3
Sitzdichtung:	PCTFE
Diaphragm:	EPDM or FKM
Max. inlet pressure:	320 bar
Outlet pressure range:	up to 300 bar
Operating temp.:	-40°C to +150°C
Dimensions:	Ø 150 x 190 mm
Weight:	16,7 kg
Connections:	Inlet/ outlet G 1 1/2“ or NPT 1 1/2“ Gauge NPT 1/4“ Dome srew NPT 1/4“

APPLICATION AREA

The dome pressure regulator is used as a line pressure regulator.

Without exchanging parts it is suitable for a large outlet pressure range. Dependent on the used material, the pressure regulator is applicable for different gases and liquids.

We urgently recommend the connection of a fine filter with max. 40 µ at the inlet of the pressure regulator. Subsequent components and plant components must be protected by separate safety valves.

DESCRIPTION

Dome pressure regulators are characterized by an accurate regulation and a large throughput.

The dome pressure regulator works according to the principle of the pressure balance between dome pressure and outlet pressure. A large independence from fluctuation of the inlet pressure is reached with a balanced poppet.

If the dome pressure regulator is used for the pressure control of gases, the dome pressure can be controlled by needle valves.

For the pressure regulation of liquids and aggressive gases, the dome can be filled with compressed air or nitrogen externally, by means of a pilot pressure regulator.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001:2015** and **ISO 14001:2015**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

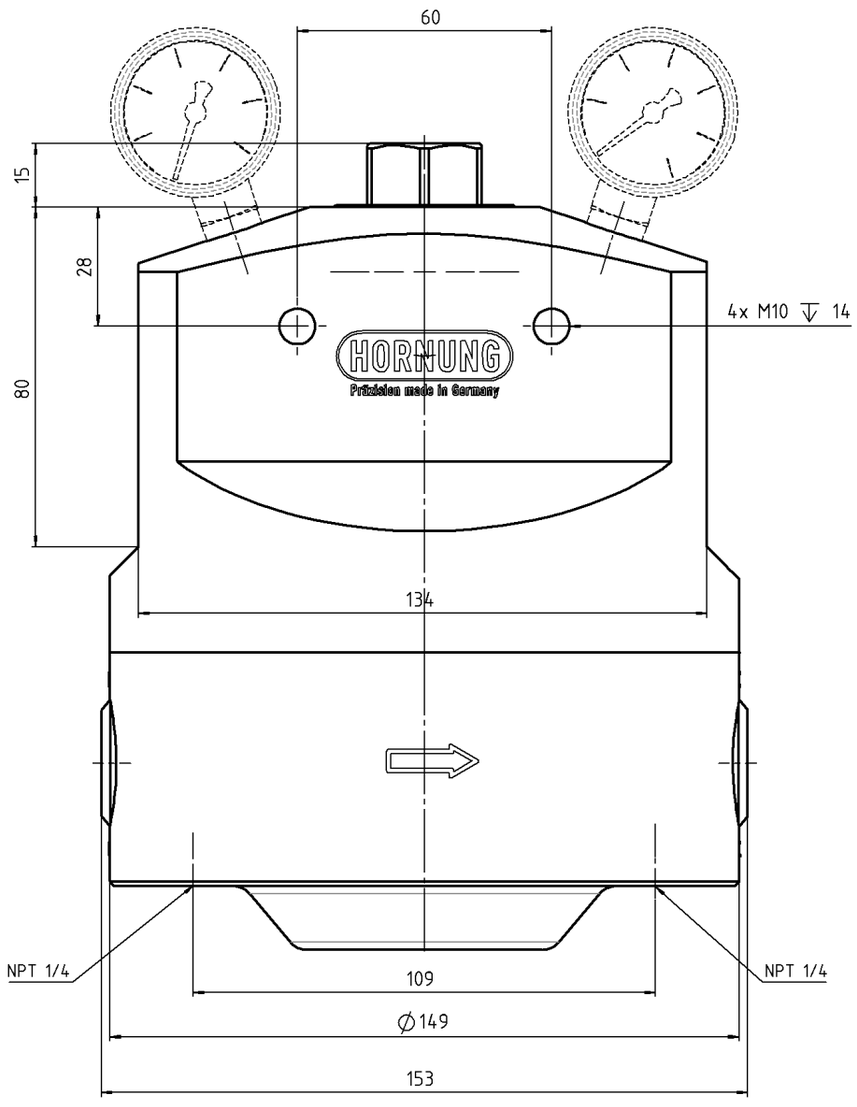
HORNUNG
Präzision made in Germany

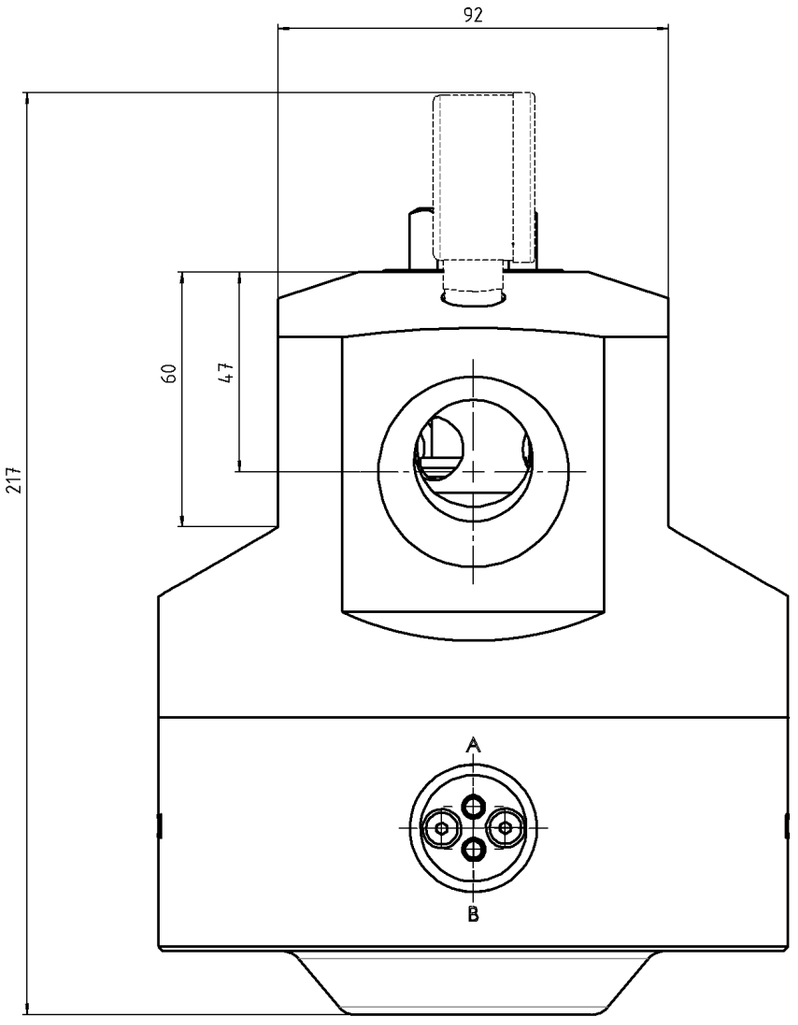
Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

DH 1 1/2





REGULATING WITH PILOT PRESSURE REGULATORS

If the outlet pressure is to be adjusted more frequently, set more precisely or controlled remotely, the use of a control valve is recommended. A control valve is attached instead of the plug at the dome of the pressure regulator.

Control valves are spring loaded pressure regulators, so called pilot regulators. When operating with dome pressure regulators of this size, our special P.I.D.-regulators with integrated pilot regulators or proportional valves are used.

DYNAMIC PRESSURE REGULATION

A dynamic pressure control is reached by means of an integrated needle valve in the dome of the pressure regulator.
By slightly releasing the control medium into the process gas line, the control medium is constantly re-feed.

When using liquids in the pilot regulator, the control medium is slightly released into the atmosphere, which leads to a re-feed of the pilot regulator.

According to this function, the pressure inside of the dome can be held constant even in the event of temperature or flow variations.

ORDER DETAILS

Material:
2 = stainless steel

Diaphragm:
1 = EPDM
2 = FKM

Gauges:
0 = none
1 = with inlet and outlet gauge

Inlet / Outlet:
0 = G 1 1/2“ - Internal thread

Regulator type		361-	2	1	1	1	Gas type
361-	DH 1 1/2	Type	Material	Diaphragm	Gauges	In-/outlet	Gas type

Accessories: see total catalogue segment

- Flanges, gauges, tube fittings und accessories
- Fine filter F1, safety valves available on request
- Wall mounting bracket

dated 07/2020

Dome pressure regulator PID 1 1/2

- with integrated pilot regulator - P.I.D.

Fittings and gauges optional

TECHNICAL DETAILS	
Material:	Brass or stainless steel (1.4404)
Valve seat:	Ø 19 mm
Cv-valve:	7,3
Seat:	EPDM or FKM
Diaphragm:	EPDM or FKM
Max. inlet pressure:	110 bar
Outlet pressure range:	0,5 - 3 bar 0,5 - 6 bar 1 - 12 bar 1 - 17 bar 5 - 50 bar 5 - 100 bar
Operating temp.:	-40°C to +150°C
Size:	Ø 150 x 275 mm
Weight:	17,9 kg
Anschlüsse:	In- / outlet G 1 1/2“ gauge NPT 1/4“ dome-screw NPT 1/4“

APPLICATION AREA

The dome pressure regulator is used as a line pressure regulator. Without exchanging parts it is suitable for a large outlet pressure range.

Independent of the used material the pressure regulator is applicable for different gases and liquids.

We urgently recommend the connection of a fine filter with max. 40 µ at the inlet of the pressure regulator. Subsequent components and plant components must be protected by separate safety valves.

DESCRIPTION

Dome pressure regulators with integrated pilot regulators are characterised by an accurate regulation and a large throughput.

The dome pressure regulator works according to the principle of the pressure balance between dome pressure and outlet pressure.

A large independence from fluctuations is reached with a balanced poppet.
If the dome pressure regulator is used for the pressure control of gases, the dome pressure can controlled with the needle valves on the inlet pressure side.

For the pressure regulation of liquids the Dome is filled externally with compressed air or nitrogen by means of a pilot pressure regulator.

Special characteristics:
The P.I.D. combines the advantages of a dome pressure regulator and a pilot regulator in just one complete and compact pressure regulator.
This design is very space saving and easy to assamble and handle.

QUALITY STANDARD

The company Hornung is certified to DIN EN **ISO 9001:2015** and **ISO 14001:2015**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

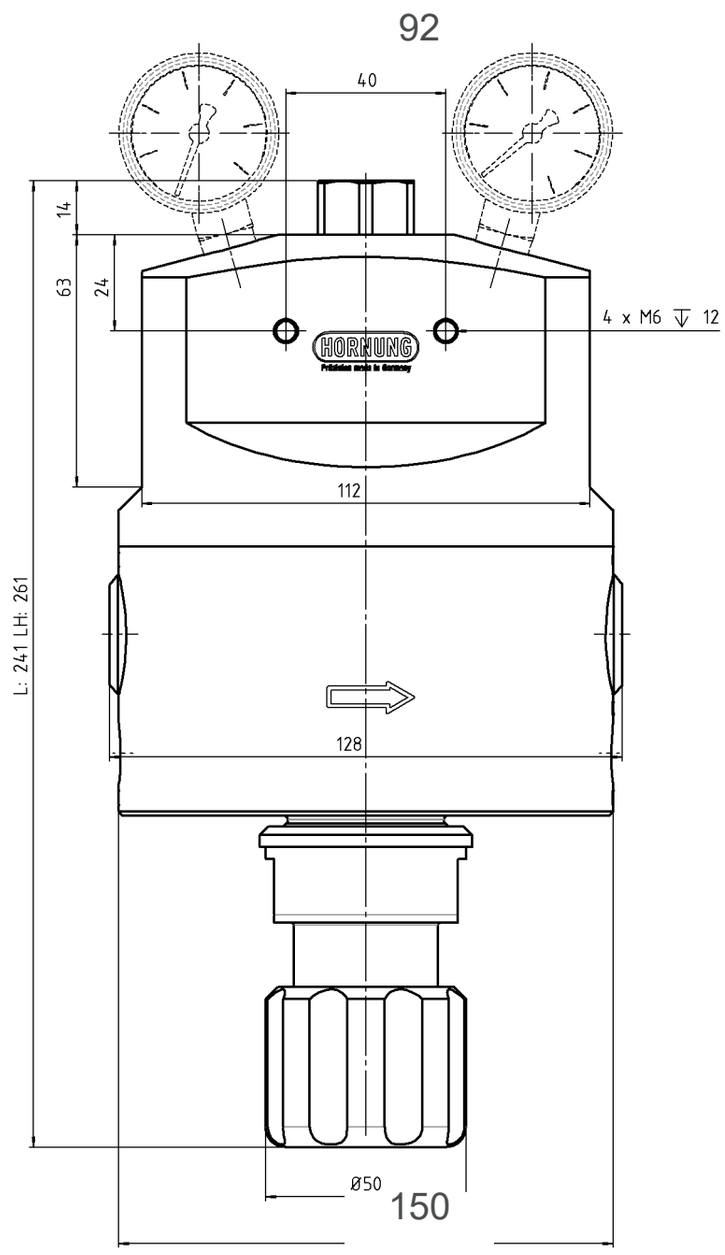
HORNUNG
Präzision made in Germany

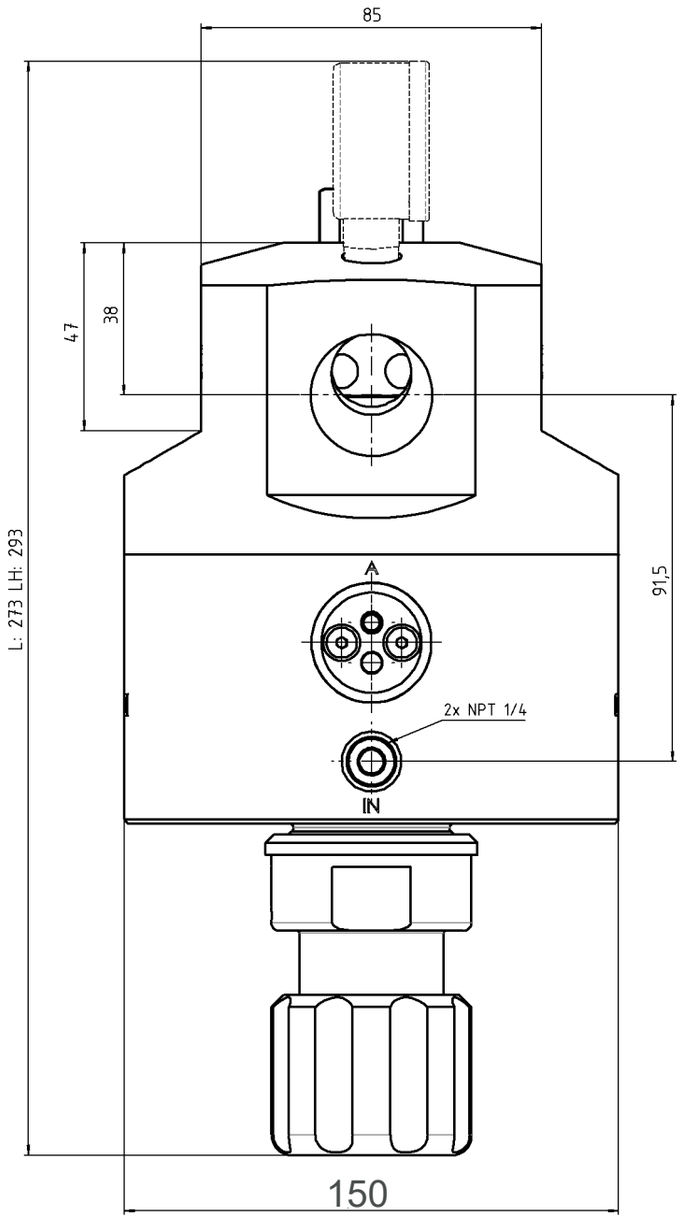
Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

PID 1 1/2





REGULATING WITH PILOT PRESSURE REGULATORS

If the outlet pressure is to be adjusted more frequently, set more precisely or controlled remotely, the use of a control valve is recommended. A control valve is attached instead of the plug at the dome of the pressure regulator.

Control valves are spring loaded pressure regulators, so called pilot regulators, or proportional valves.

DYNAMIC PRESSURE REGULATION

A dynamic pressure control is reached by means of an integrated needle valve in the dome of the pressure regulator.
By slightly releasing the control medium into the process gas line, the control medium is constantly re-feed.

When using liquids in the pilot regulator, the control medium is slightly released into the atmosphere, which leads to a re-feed of the pilot regulator.

According to this function, the pressure inside of the dome can be held constant even in the event of temperature or flow variations.

ORDER DETAILS

Material / pressure:
1 = brass / 100 bar
2 = stainless steel / 100 bar
3 = brass / 12 bar
4 = stainless steel / 12 bar

Diaphragm:
1 = EPDM
2 = FKM

Outlet pressure P2:
1 = 0,5 - 3 bar
2 = 0,5 - 6 bar
3 = 1 - 12 bar
4 = 1 - 17 bar
5 = 5 - 50 bar
6 = 5 - 100 bar

Gauges:
0 = without
1 = with inlet and outlet gauge

Inlet / Outlet:
0 = G 1 1/2“ - internal thread

Regulator type		362-	2	1	4	1	0	Gas type
362-	PID 1 1/2	Type	Material/ pressure	Diaphragm	P2	Gauges	In-/outlet	Gas type

Accessories:

7. Gauges, fittings and accessories
8. Fein filter F1, safety valves available on request

dated 07/2019

Dome pressure regulator PIDH 1 1/2

- with integrated pilot regulator - P.I.D.

Fittings and gauges optional

TECHNICAL DETAILS	
Material:	Brass or stainless steel (1.4404)
Valve seat:	19 mm
Cv-valve:	7,3
Seat:	EPDM or FKM
Diaphragm:	EPDM or FKM
Max. inlet pressure:	320 bar
Outlet pressure range:	1 - 12 bar 1 - 17 bar 5 - 50 bar 5 - 100 bar 10 - 300 bar
Operating temp.:	-40°C to +150°C
Size:	Ø 150 mm
Weight:	17,9 kg
Anschlüsse:	In- / outlet G 1 1/2“ gauge NPT 1/4“ dome-screw NPT 1/4“

APPLICATION AREA

The dome pressure regulator is used as a line pressure regulator. Without exchanging parts it is suitable for a large outlet pressure range.

Independent of the used material the pressure regulator is applicable for different gases and liquids.

We urgently recommend the connection of a fine filter with max. 40 µ at the inlet of the pressure regulator. Subsequent components and plant components must be protected by separate safety valves.

DESCRIPTION

Dome pressure regulators with integrated pilot regulators are characterised by an accurate regulation and a large throughput.

The dome pressure regulator works according to the principle of the pressure balance between dome pressure and outlet pressure.

A large independence from fluctuations is reached with a balanced poppet.
If the dome pressure regulator is used for the pressure control of gases, the dome pressure can controlled with the needle valves on the inlet pressure side.

For the pressure regulation of liquids the Dome is filled externally with compressed air or nitrogen by means of a pilot pressure regulator.

Special characteristics:
The P.I.D. combines the advantages of a dome pressure regulator and a pilot regulator in just one complete and compact pressure regulator.
This design is very space saving and easy to assamble and handle.

QUALITY STANDARD

The company Hornung is certified to DIN EN **ISO 9001:2015** and **ISO 14001:2015**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

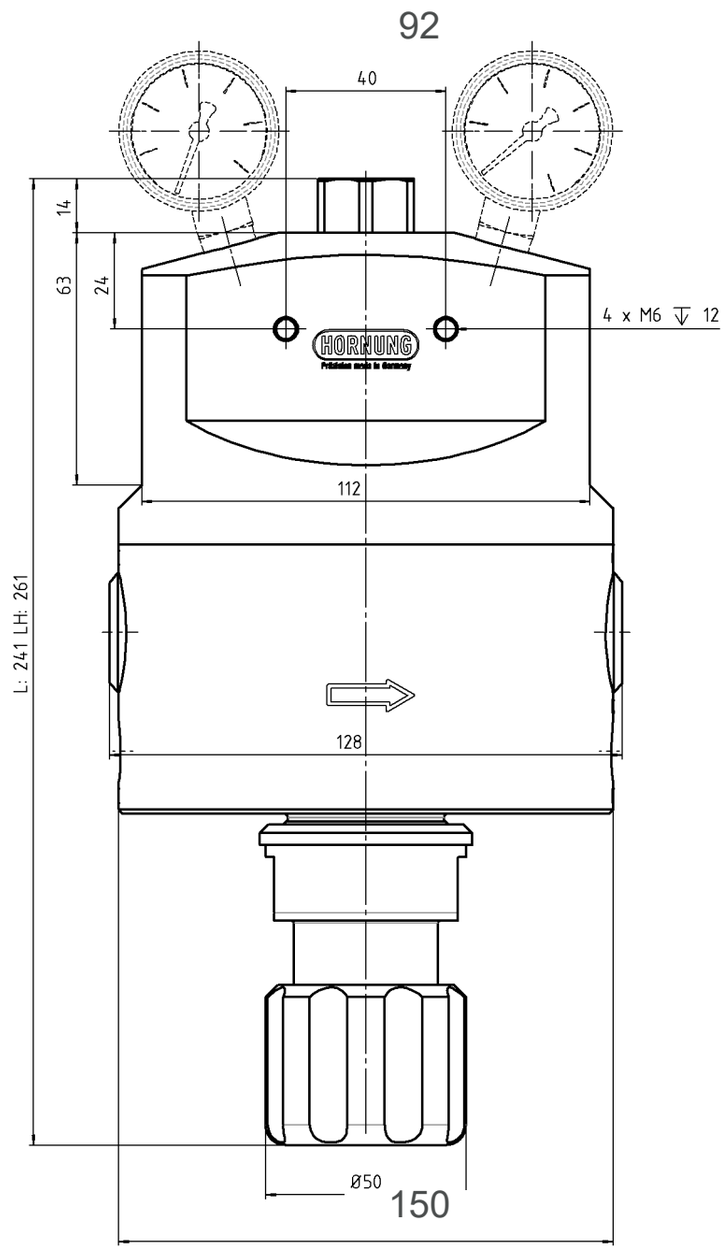
HORNUNG
Präzision made in Germany

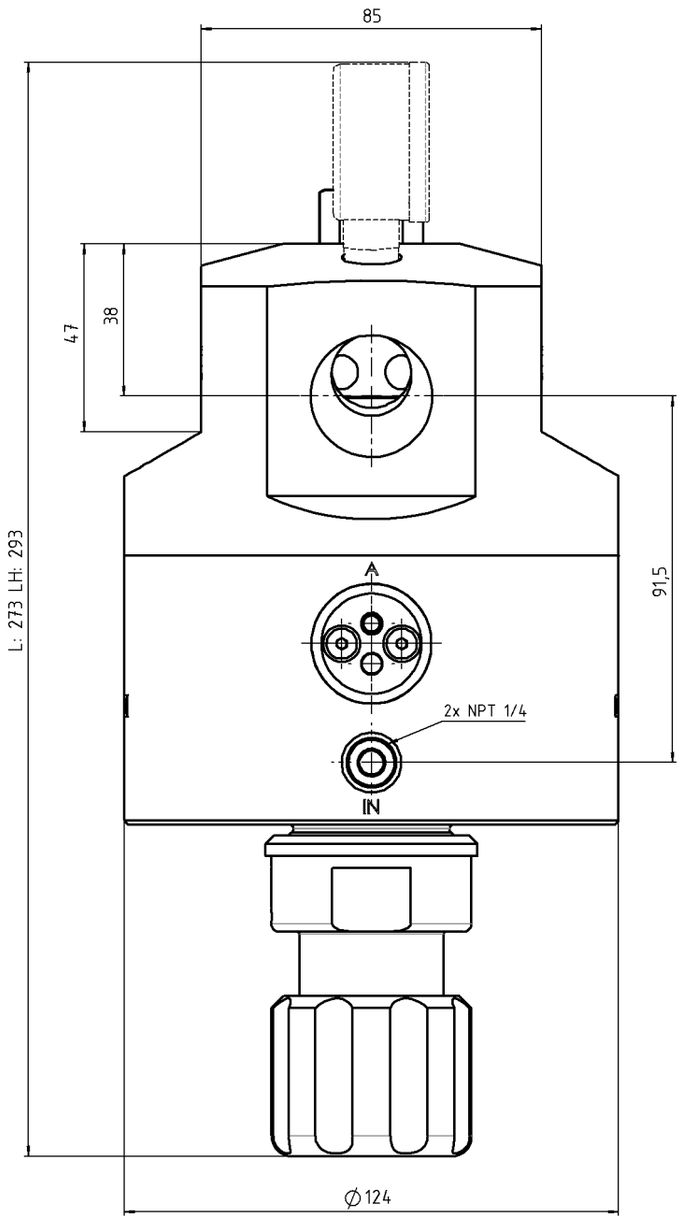
Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

PIDH 1 1/2





REGULATING WITH PILOT PRESSURE REGULATORS

If the outlet pressure is to be adjusted more frequently, set more precisely or controlled remotely, the use of a control valve is recommended. A control valve is attached instead of the plug at the dome of the pressure regulator.

Control valves are spring loaded pressure regulators, so called pilot regulators, or proportional valves.

DYNAMIC PRESSURE REGULATION

A dynamic pressure control is reached by means of an integrated needle valve in the dome of the pressure regulator.
By slightly releasing the control medium into the process gas line, the control medium is constantly re-feed.

When using liquids in the pilot regulator, the control medium is slightly released into the atmosphere, which leads to a re-feed of the pilot regulator.

According to this function, the pressure inside of the dome can be held constant even in the event of temperature or flow variations.

ORDER DETAILS

Material / pressure:
2 = stainless steel 320 bar
4 = stainless steel 12 bar

Diaphragm:
1 = EPDM
2 = FKM

Outlet pressure P2:
3 = 1 - 12 bar
4 = 1 - 17 bar
5 = 5 - 50 bar
6 = 5 - 100 bar
7 = 10 - 300 bar stainless steel

Gauges:
0 = without
1 = with inlet and outlet gauge

Inlet / Outlet:
0 = G 1 1/2“ - internal thread

Regulator type		363-	1	1	4	1	0	Gas type
363-	PIDH 1 1/2	Type	Material/ pressure	Diaphragm	P2	Gauges	In-/outlet	Gas type

Accessories:
7. Gauges, fittings and accessories
8. Fein filter F1, safety valves available on request

Dome pressure regulator D 2

Gauges optional

TECHNICAL DETAILS

Material:	Brass stainless steel (1.4404)
Valve seat:	Ø 26 mm
Cv-value:	13,7
Seat:	EPDM oder FKM
Diaphragm:	EPDM or FKM
Max. inlet pressure:	110 bar
Outlet pressure range:	up to 12 bar up to 100 bar
Operating temp.:	-40°C to +150°C
Dimensions:	Ø 177 x 228 mm
Weight:	27,2 kg
Anschlüsse:	Inlet/ outlet G 2“ Gauge NPT 1/4“ Dome srew NPT 1/4“

APPLICATION AREA

The dome pressure regulator is used as a line pressure regulator.

Without exchanging parts it is suitable for a large outlet pressure range. Dependent on the used material, the pressure regulator is applicable for different gases and liquids.

We urgently recommend the connection of a fine filter with max. 40 µ at the inlet of the pressure regulator. Subsequent components and plant components must be protected by separate safety valves.

DESCRIPTION

Dome pressure regulators are characterized by an accurate regulation and a large throughput.

The dome pressure regulator works according to the principle of the pressure balance between dome pressure and outlet pressure.

A large independence from fluctuation of the inlet pressure is reached with a balanced poppet.

If the dome pressure regulator is used for the pressure control of gases, the dome pressure can be controlled by needle valves.

For the pressure regulation of liquids and aggressive gases, the dome can be filled with compressed air or nitrogen externally, by means of a pilot pressure regulator.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

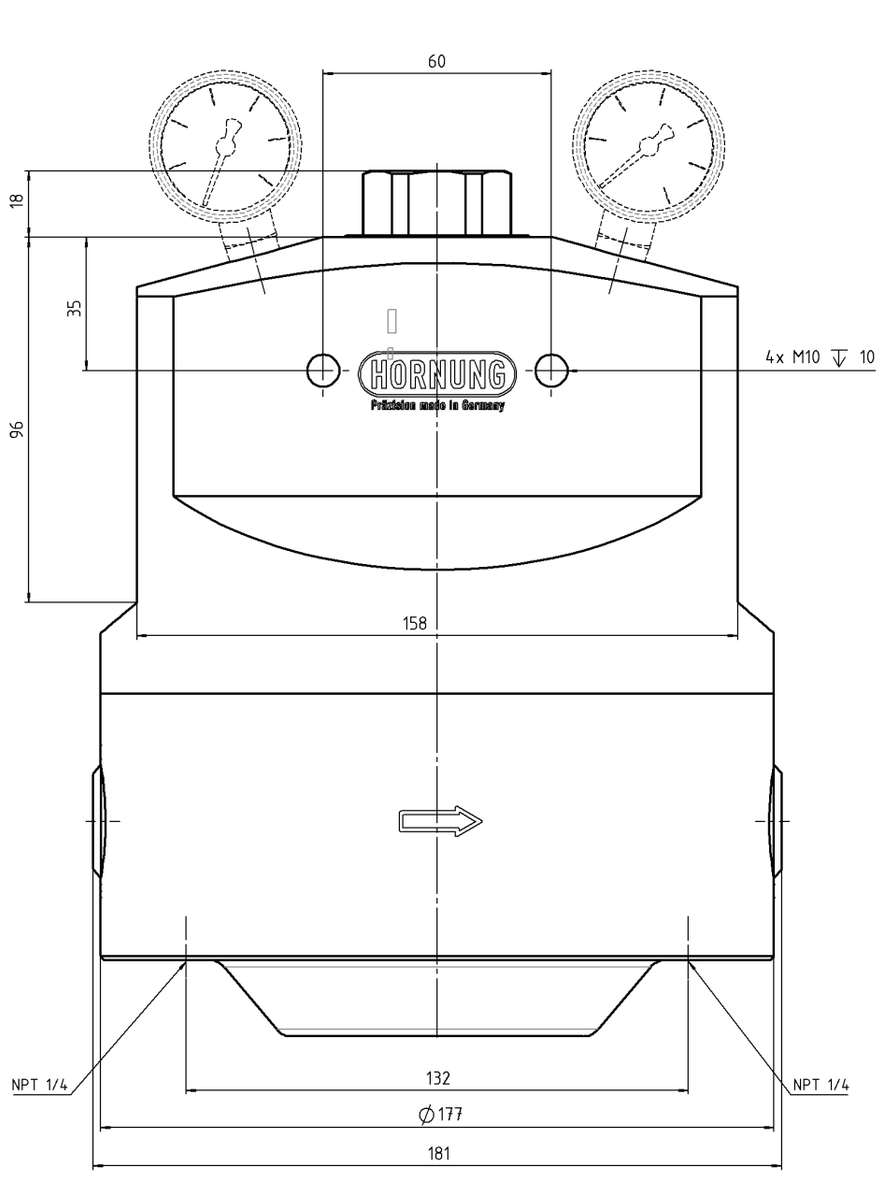
HORNUNG
Präzision made in Germany

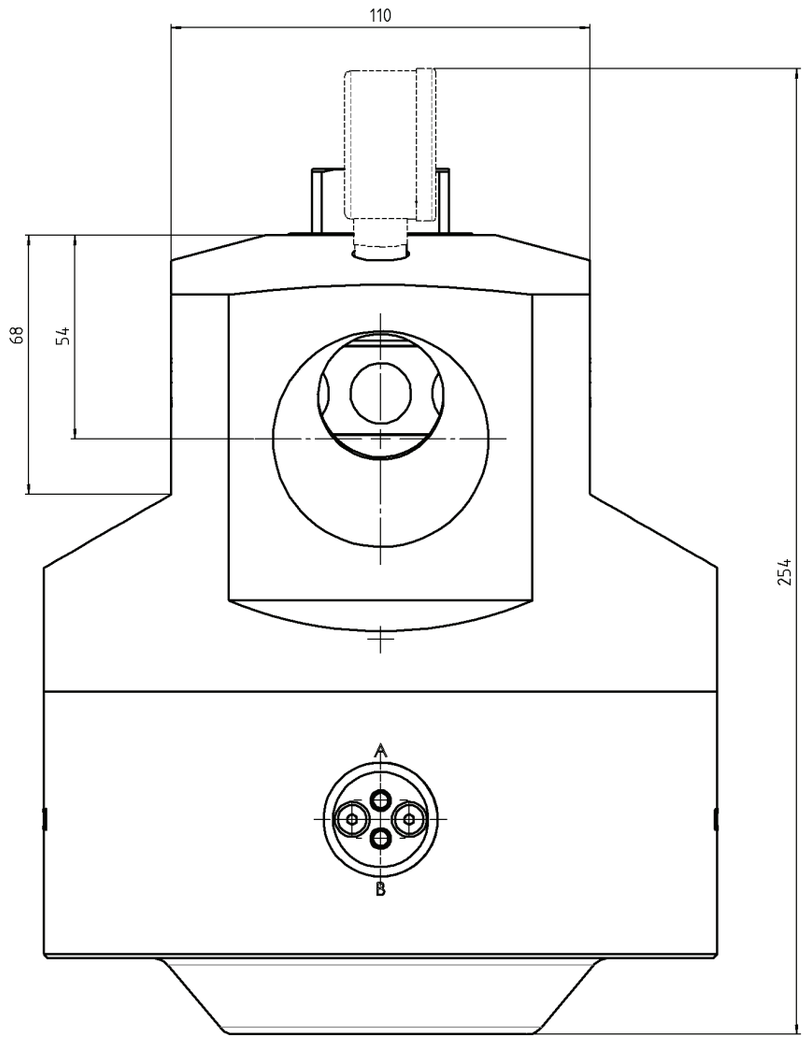
Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

D 2





REGULATING WITH PILOT PRESSURE REGULATORS

If the outlet pressure is to be adjusted more frequently, set more precisely or controlled remotely, the use of a control valve is recommended. A control valve is attached instead of the plug at the dome of the pressure regulator.

Control valves are spring loaded pressure regulators, so called pilot regulators. When operating with dome pressure regulators of this size, our special P.I.D.-regulators with integrated pilot regulators or proportional valves are used.

DYNAMIC PRESSURE REGULATION

A dynamic pressure control is reached by means of an integrated needle valve in the dome of the pressure regulator.

By slightly releasing the control medium into the process gas line, the control medium is constantly re-fed.
When using liquids in the pilot regulator, the control medium is slightly released into the atmosphere, which leads to a re-feed of the pilot regulator.

According to this function, the pressure inside of the dome can be held constant even in the event of temperature or flow variations.

ORDER DETAILS

Material:
1 = Brass 100 bar
2 = Stainless steel 100 bar
3 = Brass 12 bar
4 = Stainless steel 12 bar

Diaphragm:
1 = EPDM
2 = FKM

Gauges:
0 = none
1 = with inlet and outlet gauge

Option at inlet / outlet:
0 = G 2“ - internal thread

Regulator type							
380-	D 2	380-	2	1	1	0	Gas type
		Type	Material	Diaphragm	Gauges	In-/outlet	Gas type

Accessories: see total catalogue segment

5. Pilot regulators, flanges
7. Gauges, fittings and accessories
8. Fein filter F1, safety valves available on request
9. Wall mounting bracket

Dome pressure regulator DH 2

Gauges optional

TECHNICAL DETAILS

Material:	Stainless steel (1.4404)
Valve seat:	Ø 26 mm
Cv-value:	13,7
Seat:	PCTFE
Diaphragm:	EPDM or FKM
Max. inlet pressure:	320 bar
Outlet pressure range:	up to 300 bar
Operating temp.:	-40°C to +150°C
Dimensions:	Ø 177 x 228 mm
Weight:	27,2 kg
Anschlüsse:	Inlet/ outlet G 2“ Gauge NPT 1/4“ Dome srew NPT 1/8“

APPLICATION AREA

The dome pressure regulator is used as a line pressure regulator.

Without exchanging parts it is suitable for a large outlet pressure range. Dependent on the used material, the pressure regulator is applicable for different gases and liquids.

We urgently recommend the connection of a fine filter with max. 40 µ at the inlet of the pressure regulator. Subsequent components and plant components must be protected by separate safety valves.

DESCRIPTION

Dome pressure regulators are characterized by an accurate regulation and a large throughput.

The dome pressure regulator works according to the principle of the pressure balance between dome pressure and outlet pressure.

A large independence from fluctuation of the inlet pressure is reached with a balanced poppet.

If the dome pressure regulator is used for the pressure control of gases, the dome pressure can be controlled by needle valves.

For the pressure regulation of liquids and aggressive gases, the dome can be filled with compressed air or nitrogen externally, by means of a pilot pressure regulator.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001:2015** and **ISO 14001:2015**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

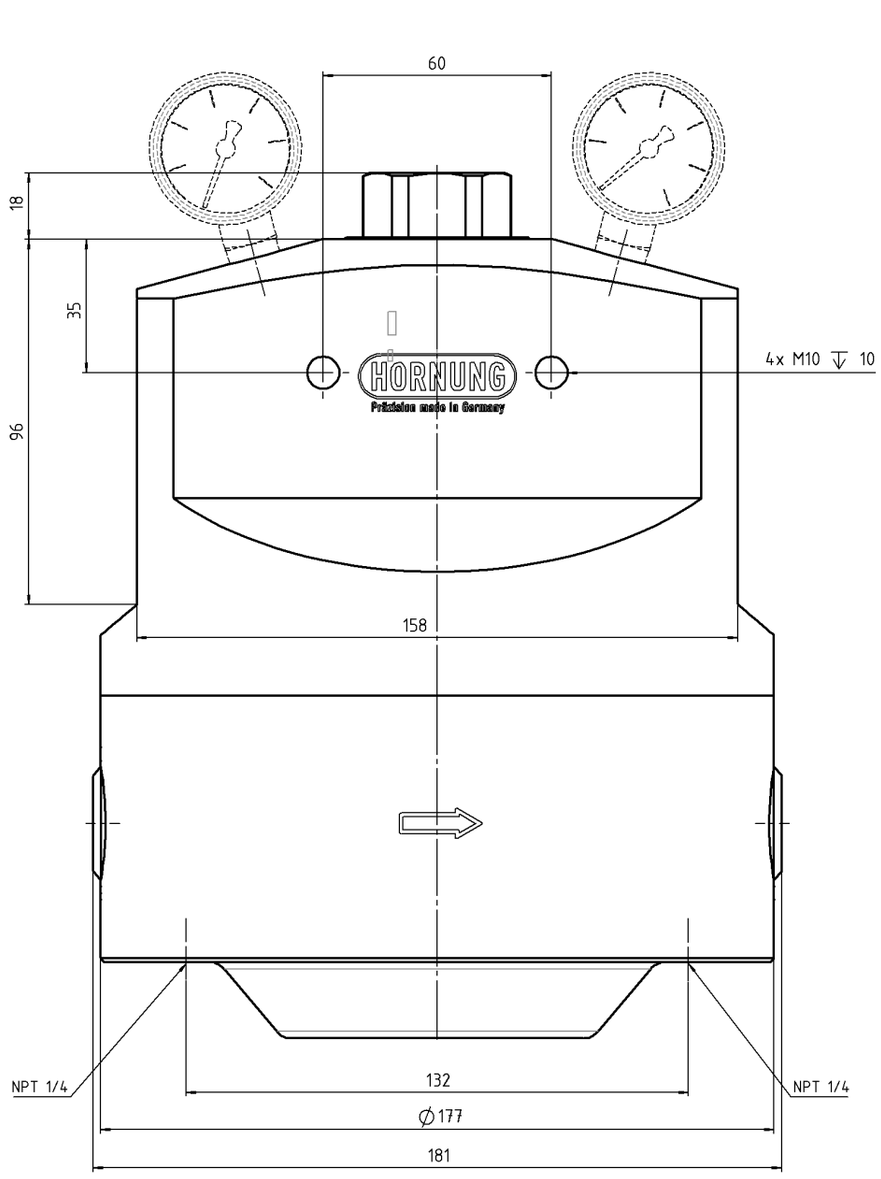
HORNUNG
Präzision made in Germany

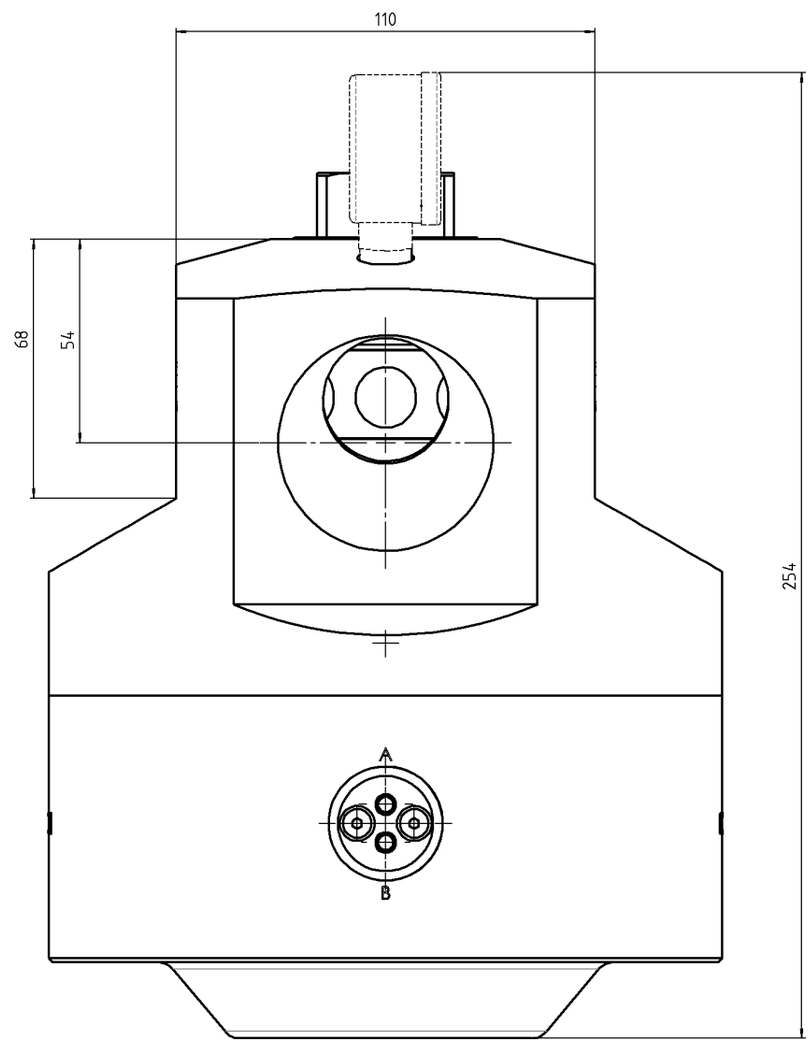
Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

DH 2





REGULATING WITH PILOT PRESSURE REGULATORS

If the outlet pressure is to be adjusted more frequently, set more precisely or controlled remotely, the use of a control valve is recommended. A control valve is attached instead of the plug at the dome of the pressure regulator.

Control valves are spring loaded pressure regulators, so called pilot regulators. When operating with dome pressure regulators of this size, our special P.I.D.-regulators with integrated pilot regulators or proportional valves are used.

DYNAMIC PRESSURE REGULATION

A dynamic pressure control is reached by means of an integrated needle valve in the dome of the pressure regulator.

By slightly releasing the control medium into the process gas line, the control medium is constantly re-fed.
When using liquids in the pilot regulator, the control medium is slightly released into the atmosphere, which leads to a re-feed of the pilot regulator.

According to this function, the pressure inside of the dome can be held constant even in the event of temperature or flow variations.

ORDER DETAILS

Material:
2 = Stainless steel

Diaphragm:
1 = EPDM
2 = FKM

Gauges:
0 = none
1 = with inlet and outlet gauge

Option at inlet / outlet:
0 = G 2“ - internal thread

Regulator type							
381-	DH 2	381-	2	1	1	0	Gas type
		Type	Material	Diaphragm	Gauges	In-/outlet	Gas type

Accessories: see total catalogue segment

5. Pilot regulators, flanges
7. Gauges, fittings and accessories
8. Fein filter F1, safety valves available on request
9. Wall mounting bracket

dated 06/2020

Dome pressure regulator PID 2

- with integrated pilot regulator - P.I.D.

Fittings and gauges optional

TECHNICAL DETAILS

Material:	Brass or stainless steel (1.4404)
Valve seat:	Ø 26 mm
Cv-valve:	13,7
Seat:	EPDM or FKM
Diaphragm:	EPDM or FKM
Max. inlet pressure:	110 bar
Outlet pressure range:	0,5 - 3 bar 0,5 - 6 bar 1 - 12 bar 1 - 17 bar 5 - 50 bar 5 - 100 bar
Operating temp.:	-40°C to +150°C
Size:	Ø 177 x 305 mm
Weight:	22,5 kg
Anschlüsse:	In- / outlet G 2“ gauge NPT 1/4“ dome-screw NPT 1/4“

APPLICATION AREA

The Dome-pressure regulator is used as a line-pressure regulator.

Without exchanging parts it is suitable for a large outlet pressure range. Independent of the used material the pressure-regulator is applicable for different gases and liquids.

We urgently recommend the connection of a fine filter with max. 40 µ at the inlet of the pressure regulator. Subsequent components and plant components must be protected by separate safety valves.

DESCRIPTION

Dome pressure regulators with integrated pilot regulators are characterised by an accurate regulation and a large throughput.

The dome pressure regulator works according to the principle of the pressure balance between dome pressure and outlet pressure.
A large independence from fluctuations is reached with a balanced poppet.

If the dome pressure regulator is used for the pressure control of gases, the dome pressure can controlled with the needle valves on the inlet pressure side.

For the pressure regulation of liquids the Dome is filled externally with compressed air or nitrogen by means of a pilot pressure regulator.

Special characteristics:
The P.I.D. combines the advantages of a dome pressure regulator and a pilot regulator in just one complete and compact pressure regulator.
This design is very space saving and easy to assamble and handle.

QUALITY STANDARD

The company Hornung is certified to DIN EN **ISO 9001:2015** and **ISO 14001:2015**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

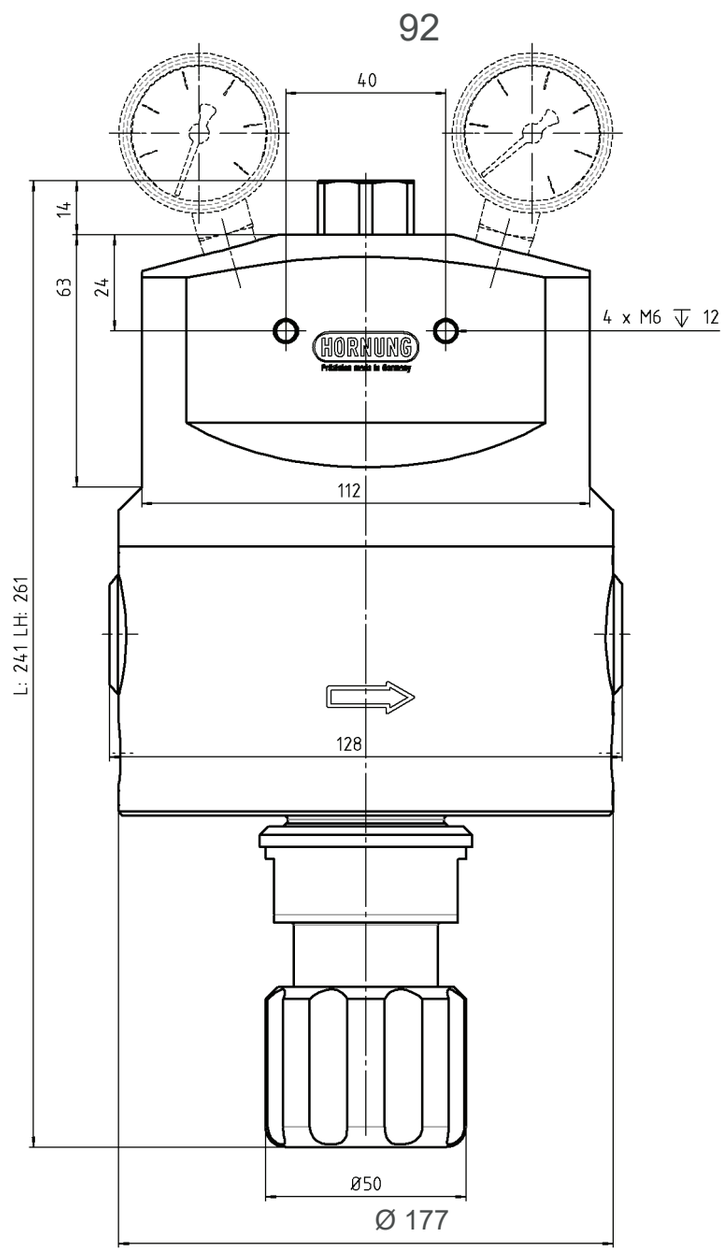
HORNUNG
Präzision made in Germany

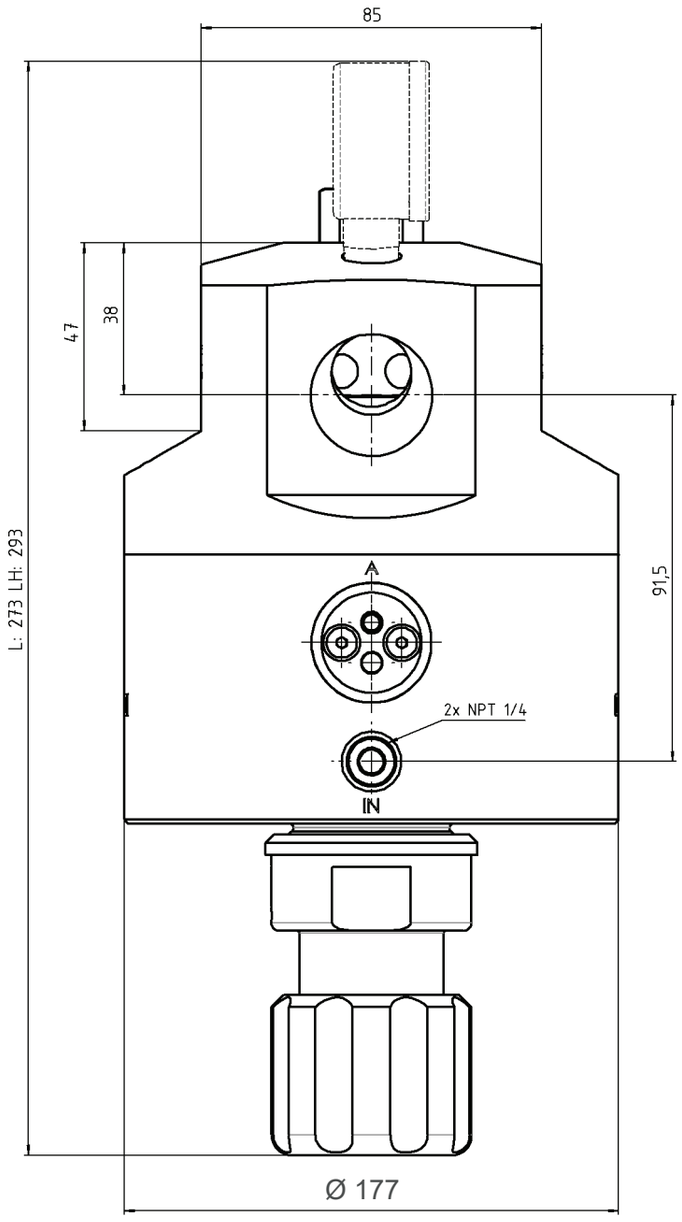
Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

PID 2





REGULATING WITH PILOT PRESSURE REGULATORS

If the outlet pressure is to be adjusted more frequently, set more precisely or controlled remotely, the use of a control valve is

recommended. A control valve is attached instead of the plug at the dome of the pressure regulator.
Control valves are spring loaded pressure regulators, so called pilot regulators, or proportional valves.

DYNAMIC PRESSURE REGULATION

A dynamic pressure control is reached by means of an integrated needle valve in the dome of the pressure regulator.
By slightly releasing the control medium into the process gas line, the control medium is constantly re-feed.

When using liquids in the pilot regulator, the control medium is slightly released into the atmosphere, which leads to a re-feed of the pilot regulator.

According to this function, the pressure inside of the dome can be held constant even in the event of temperature or flow variations.

ORDER DETAILS

Material / pressure:
1 = brass 100 bar
2 = stainless steel 100 bar
3 = brass 12 bar
4 = stainless steel 12 bar

Diaphragm:
1 = EPDM
2 = FKM

Outlet pressure P2:
1 = 0,5 - 3 bar
2 = 0,5 - 6 bar
3 = 1 - 12 bar
4 = 1 - 17 bar
5 = 5 - 50 bar
6 = 5 - 100 bar

Gauges:
0 = without
1 = with inlet and outlet gauge

Inlet / Outlet:
0 = G 2“ - internal thread

Regulator type									
382-	PID 2		382-	2	1	4	1	0	Gas type
			Type	Material/ pressure	Diaphragm	P2	Gauges	In-/outlet	Gas type

Accessories:
- Flanges, gauges, tube ttings und accessories
- Fine filter F1, safety valves available on request
- Wall mounting bracket

dated 09/2022

Dome pressure regulator PIDH 2

- with integrated pilot regulator - P.I.D.

Fittings and gauges optional

TECHNICAL DETAILS	
Material:	Stainless steel (1.4404)
Valve seat:	26 mm
Cv-valve:	13,7
Seat:	PCTFE
Diaphragm:	EPDM or FKM
Max. inlet pressure:	320 bar
Outlet pressure range:	1 - 12 bar 1 - 17 bar 5 - 50 bar 5 - 100 bar 10 - 300 bar
Operating temp.:	-40°C to +150°C
Size:	Ø 177 x 305 mm
Weight:	ca. 28,5 kg
Anschlüsse:	In- / outlet G 2“ gauge NPT 1/4“ dome-screw NPT 1/4“

APPLICATION AREA

The dome pressure regulator is used as a line pressure regulator. Without exchanging parts it is suitable for a large outlet pressure range.

Independent of the used material the pressure regulator is applicable for different gases and liquids.

We urgently recommend the connection of a fine filter with max. 40 µ at the inlet of the pressure regulator. Subsequent components and plant components must be protected by separate safety valves.

DESCRIPTION

Dome pressure regulators with integrated pilot regulators are characterised by an accurate regulation and a large throughput.

The dome pressure regulator works according to the principle of the pressure balance between dome pressure and outlet pressure.

A large independence from fluctuations is reached with a balanced poppet.
If the dome pressure regulator is used for the pressure control of gases, the dome pressure can controlled with the needle valves on the inlet pressure side.

For the pressure regulation of liquids the Dome is filled externally with compressed air or nitrogen by means of a pilot pressure regulator.

Special characteristics:
The P.I.D. combines the advantages of a dome pressure regulator and a pilot regulator in just one complete and compact pressure regulator.
This design is very space saving and easy to assamble and handle.

QUALITY STANDARD

The company Hornung is certified to DIN EN **ISO 9001** and **ISO 14001**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

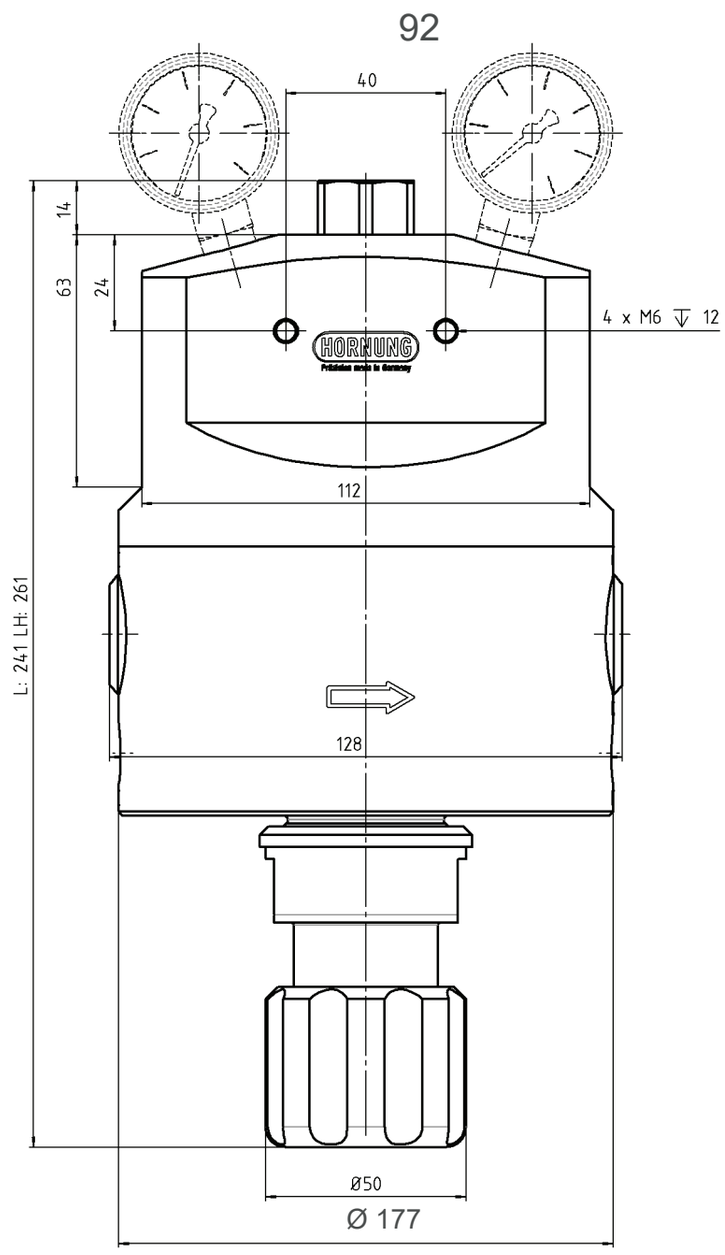
HORNUNG
Präzision made in Germany

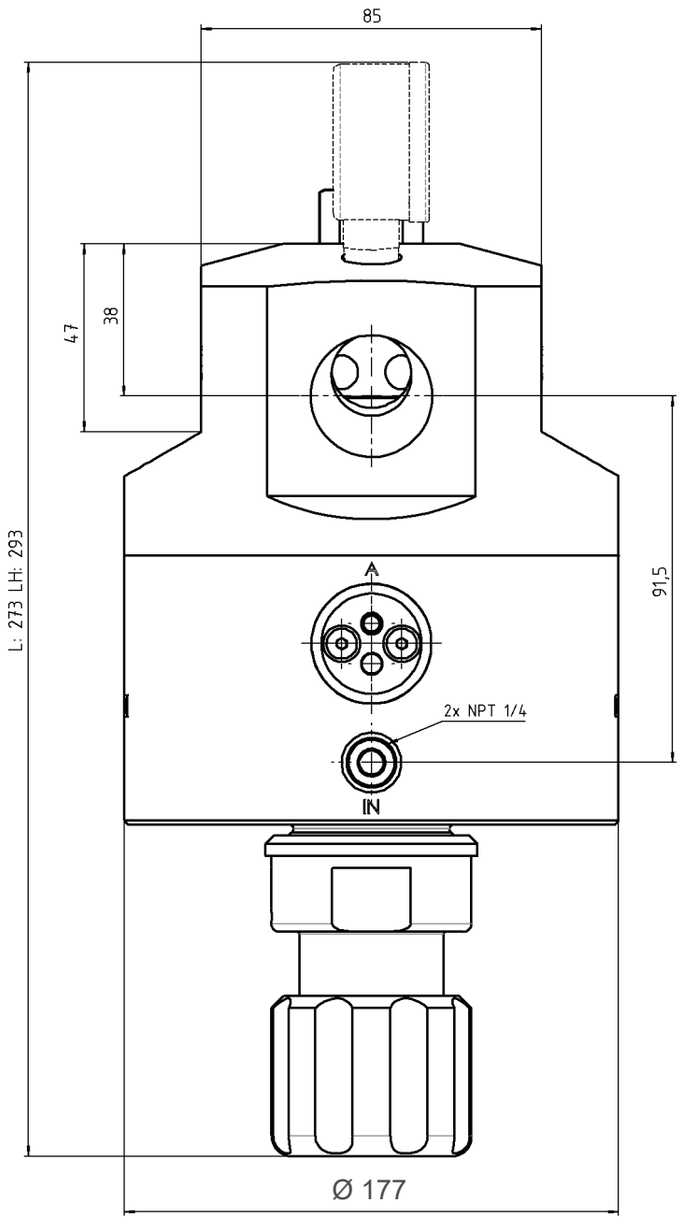
Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

PIDH 2





REGULATING WITH PILOT PRESSURE REGULATORS

If the outlet pressure is to be adjusted more frequently, set more precisely or controlled remotely, the use of a control valve is recommended. A control valve is attached instead of the plug at the dome of the pressure regulator.

Control valves are spring loaded pressure regulators, so called pilot regulators, or proportional valves.

DYNAMIC PRESSURE REGULATION

A dynamic pressure control is reached by means of an integrated needle valve in the dome of the pressure regulator.
By slightly releasing the control medium into the process gas line, the control medium is constantly re-feed.

When using liquids in the pilot regulator, the control medium is slightly released into the atmosphere, which leads to a re-feed of the pilot regulator.

According to this function, the pressure inside of the dome can be held constant even in the event of temperature or flow variations.

ORDER DETAILS

Material / pressure:
2 = stainless steel 320 bar
4 = stainless steel 12 bar

Diaphragm:
1 = EPDM
2 = FKM

Outlet pressure P2:
3 = 1 - 12 bar
4 = 1 - 17 bar
5 = 5 - 50 bar
6 = 5 - 100 bar
7 = 10 - 300 bar stainless steel

Gauges:
0 = without
1 = with inlet and outlet gauge

Inlet / Outlet:
0 = G 2“ - internal thread

Regulator type		383-	2	1	4	1	0	Gas type
383-	PIDH 2	Type	Material/ pressure	Diaphragm	P2	Gauges	In-/outlet	Gas type

Accessories:
7. Gauges, fittings and accessories
8. Fine filter F1, safety valves available on request

dated 07/2023

Back pressure regulator VD 3/4

Dome overflow valve 3/4“

Fittings and gauges optional

TECHNICAL DETAILS

Material:	Brass or stainless steel (1.4404)
Valve seat:	Ø 10
Cv-value:	2,0
Seat:	EPDM or FKM
Membran:	EPDM or FKM
Max. inlet pressure:	110 bar
Operating temp.:	-40°C to +150°C
Dimensions:	Ø 93 x 129 mm
Weight:	4,6 kg
Connections:	Inlet / outlet G 3/4“ or NPT 3/4“ Gauge NPT 1/4“ Dome screw NPT 1/8“

APPLICATION AREA

Back pressure regulators are used in process pressure regulation to keep the pressure in a system constant.
In this case, an excess medium, which would increase the system pressure, is discharged in a controlled manner.

Back pressure regulators are used, for example, to regulate the outlet pressure of a pump in order to protect subsequent valves from inadmissible pressure surges or pulsation.

Another application for the Hornung back pressure regulator is the gas overlay of containers and tanks.
During the filling of a tank, the pressure in the gas chamber of a gas-supported tank increases so that the gas cushion must be ventilated in a controlled manner and kept constant.

Hornung back pressure regulators are used here for a proper ventilation process in compliance with the safety regulations applicable to the entire system.

- Flow control with back pressure regulators
- As a control valve with a large flow range
- Tank overlapping
- For the protection of bursting discs
- Pump pressure-bearing valves
- Pressure bypass valves
- Pulsation attenuation

DESCRIPTION

- Dome back pressure regulator for high precision and reliability
- easy installation and operation and standardized connection options (NPT/G) allow fast integration into the pipeline system
- integrated form control with self-contained medium without external control pressure regulator
- stepless regulation without shut-off valve in the output
- high user safety due to inherent safe construction
- high flow range and high pressures
- minimum pressure difference up to 2% (small hysteresis) between opening and closing
- maximum accuracy, thanks to large-area membrane (EPDM or FKM)

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

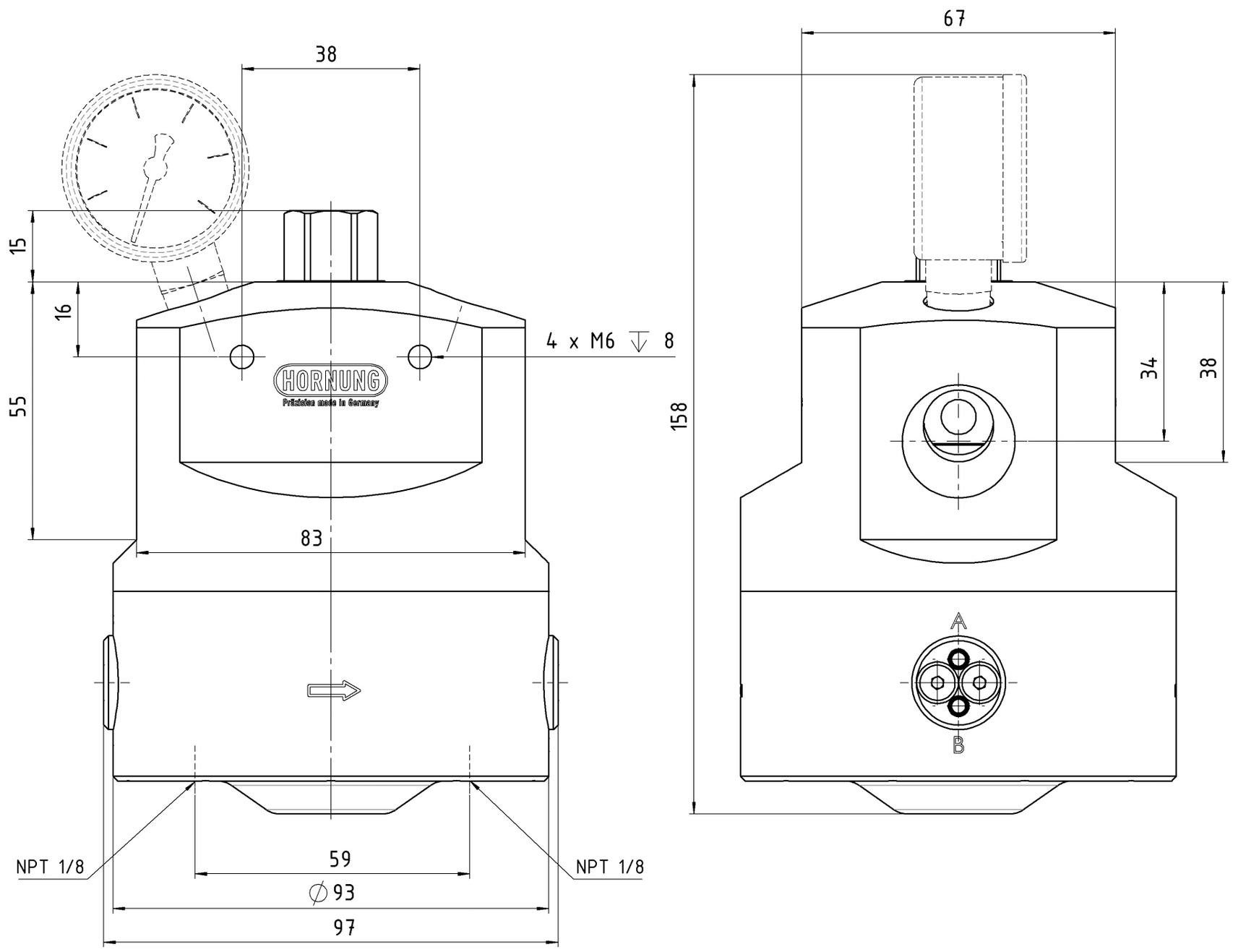
HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

VD 3/4



DESIGN VERSIONS

The back pressure regulator works with the highest precision and reliability. There is the version for low and medium pressures, but also a high-pressure version, each available in brass and stainless steel.

A minimal hysteresis between opening and closing, as well as a high flow coefficient characterize these back pressure regulators. A very high control accuracy is achieved by a large diaphragm.

The sealing materials used, both with EPDM and FKM, allow a temperature range of -40° C to +150° C. An external gas source for filling the dome is not necessary, this offers an extremely user-friendly operability.

DYNAMIC PRESSURE REGULATION

A dynamic pressure control is reached by means of an integrated control pressure regulator reached, see data sheet VPID3/4.

By slightly escaping the control medium in the output line, is continuously fed control medium.

As a result, a high pressure consistency is achieved in the dome of the pressure regulator even in the event of temperature fluctuations and changes in the flow rate.

ORDER DETAILS

Material / pressure:
1 = brass 100 bar
2 = stainless steel 100 bar
3 = brass 12 bar
4 = stainless steel 12 bar

Diaphragm:
1 = EPDM
2 = FKM

Gauges:
0 = without
1 = with gauge

Option at inlet / outlet:
0 = G 3/4“ internal thread
1 = NPT 3/4“ internal thread

Regulator type		335-	1	0	1	0	Gas type
335	VD3/4	Type	Material/ pressure	Diaphragm	Gauges	In-/outlet	Gas type

Accessories: see total catalogue segment

5. Pilot pressure regulators, flanges
7. Gauges, fittings and accessories
8. Fine filter IF3/4, safety valves available on request
9. Wall bracket

Stand 09/2022

Back pressure regulator VD 1

Dome overflow valve 1“

Fittings and gauges optional

TECHNICAL DETAILS		APPLICATION AREA	DESCRIPTION
Material:	Brass or stainless steel (1.4404)	Back pressure regulators are used in process pressure regulation to keep the pressure in a system constant.	• Dome back pressure regulator for high precision and reliability
Valve seat:	Ø 12,7	In this case, an excess medium, which would increase the system pressure, is discharged in a controlled manner.	• easy installation and operation and standardized connection options (NPT/G) allow fast integration into the pipeline system
Cv-value:	3,0	Back pressure regulators are used, for example, to regulate the outlet pressure of a pump in order to protect subsequent valves from inadmissible pressure surges or pulsation.	• integrated form control with self-contained medium without external control pressure regulator
Seat:	EPDM or FKM	Another application for the Hornung back pressure regulator is the gas overlay of containers and tanks. During the filling of a tank, the pressure in the gas chamber of a gas-supported tank increases so that the gas cushion must be ventilated in a controlled manner and kept constant.	• stepless regulation without shut-off valve in the output
Membran:	EPDM or FKM	Hornung back pressure regulators are used here for a proper ventilation process in compliance with the safety regulations applicable to the entire system.	• high user safety due to inherent safe construction
Max. inlet pressure:	110 bar	• Flow control with back pressure regulators • As a control valve with a large flow range • Tank overlapping • For the protection of bursting discs • Pump pressure-bearing valves • Pressure bypass valves • Pulsation attenuation	• high flow range and high pressures
Operating temp.:	-40°C to +150°C		• minimum pressure difference up to 2% (small hysteresis) between opening and closing
Dimensions:	Ø 124 x 128 mm		• maximum accuracy, thanks to large-area membrane (EPDM or FKM)
Weight:	9,5 kg		
Connections:	Inlet / outlet G 1“ or NPT 1“ Gauge NPT 1/4“ Dome screw NPT 1/4“		

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

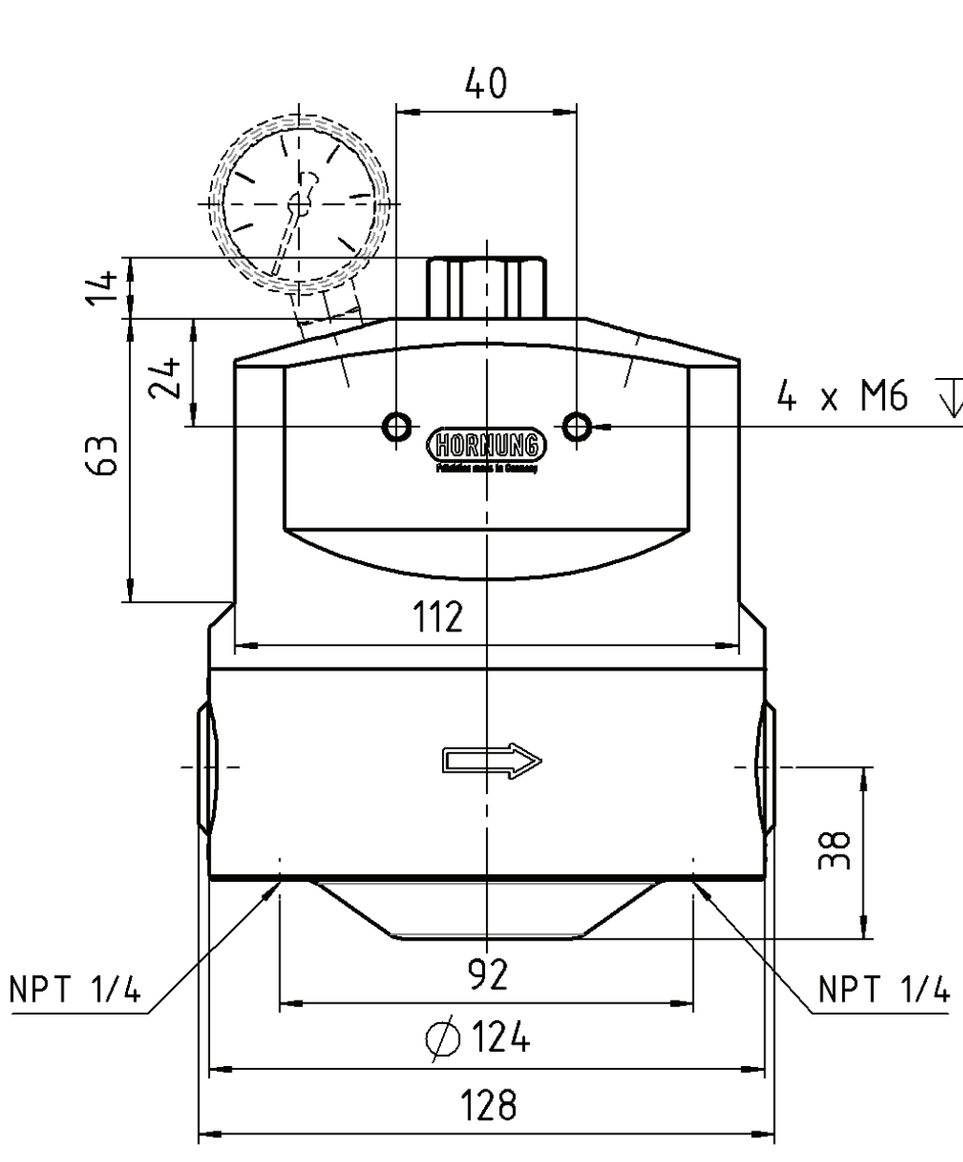
HORNUNG
Präzision made in Germany

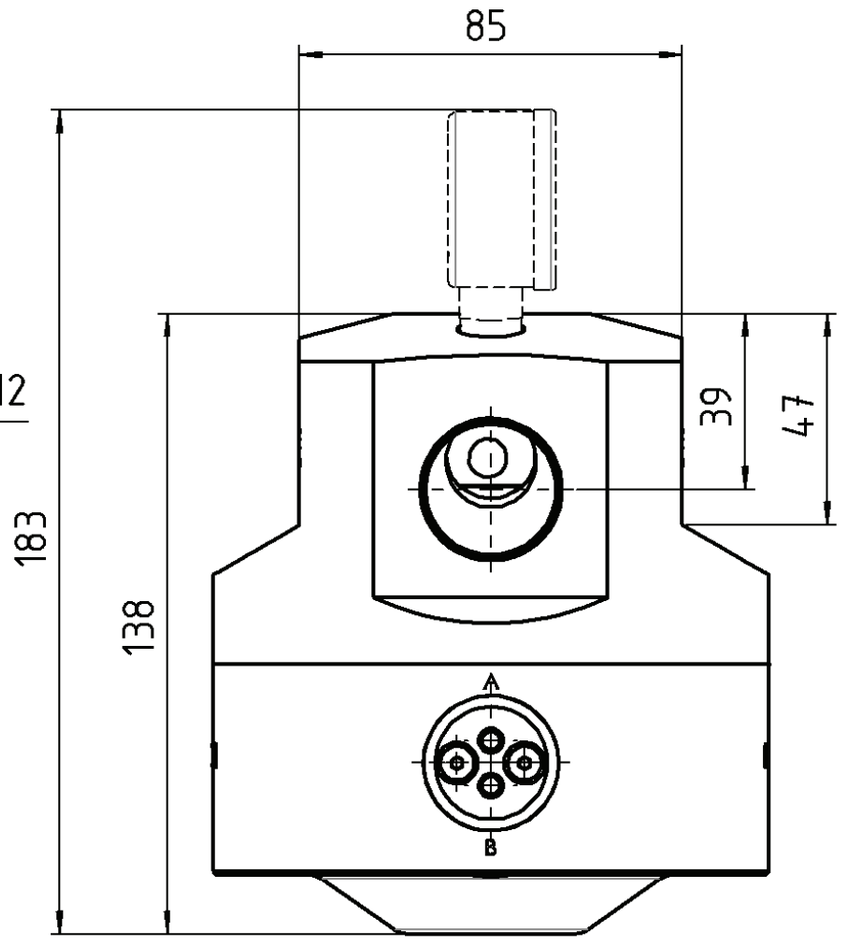
Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

VD 1





DESIGN VERSIONS

The back pressure regulator works with the highest precision and reliability. There is the version for low and medium pressures, but also a high-pressure version, each available in brass and stainless steel.

A minimal hysteresis between opening and closing, as well as a high flow coefficient characterize these back pressure regulators. A very high control accuracy is achieved by a large diaphragm.

The sealing materials used, both with EPDM and FKM, allow a temperature range of -40° C to +150° C. An external gas source for filling the dome is not necessary, this offers an extremely user-friendly operability.

DYNAMIC PRESSURE REGULATION

A dynamic pressure control is reached by means of an integrated control pressure regulator reached, see data sheet VPID1.

By slightly escaping the control medium in the output line, is continuously fed control medium.

As a result, a high pressure consistency is achieved in the dome of the pressure regulator even in the event of temperature fluctuations and changes in the flow rate.

ORDER DETAILS

Material / pressure:
1 = brass 100 bar
2 = stainless steel 100 bar
3 = brass 12 bar
4 = stainless steel 12 bar

Diaphragm:
1 = EPDM
2 = FKM

Gauges:
0 = Ohne
1 = Mit Manometer

Option at inlet / outlet:
0 = G 1“ internal thread
1 = NPT 1“ internal thread
2 = Flanges DN25-PM100-Form C

Regulator type			355-	1	0	1	0	Gas type
355	VD1		Type	Material/ pressure	Diaphragm	Gauges	In-/outlet	Gas type

Accessories: see total catalogue segment

5. Pilot pressure regulators, flanges
7. Gauges, fittings and accessories
8. Fine filter IF1/F1, safety valves available on request
9. Wall bracket

Stand 09/2022

Back pressure regulator VDH 1

Dome overflow valve 1“

Fittings and gauges optional

TECHNICAL DETAILS		APPLICATION AREA	DESCRIPTION
Material:	Brass or stainless steel (1.4404)	Back pressure regulators are used in process pressure regulation to keep the pressure in a system constant.	• Dome back pressure regulator for high precision and reliability
Valve seat:	Ø 12,7	In this case, an excess medium, which would increase the system pressure, is discharged in a controlled manner.	• easy installation and operation and standardized connection options (NPT/G) allow fast integration into the pipeline system
Cv-value:	3,0	Back pressure regulators are used, for example, to regulate the outlet pressure of a pump in order to protect subsequent valves from inadmissible pressure surges or pulsation.	• integrated form control with self-contained medium without external control pressure regulator
Seat:	PCTFE	Another application for the Hornung back pressure regulator is the gas overlay of containers and tanks. During the filling of a tank, the pressure in the gas chamber of a gas-supported tank increases so that the gas cushion must be ventilated in a controlled manner and kept constant.	• stepless regulation without shut-off valve in the output
Membran:	EPDM or FKM	Hornung back pressure regulators are used here for a proper ventilation process in compliance with the safety regulations applicable to the entire system.	• high user safety due to inherent safe construction
Max. inlet pressure:	320 bar brass 420 bar stainless steel	• Flow control with back pressure regulators • As a control valve with a large flow range • Tank overlapping • For the protection of bursting discs • Pump pressure-bearing valves • Pressure bypass valves • Pulsation attenuation	• high flow range and high pressures
Operating temp.:	-40°C to +150°C		• minimum pressure difference up to 2% (small hysteresis) between opening and closing
Dimensions:	Ø 124 x 128 mm		• maximum accuracy, thanks to large-area membrane (EPDM or FKM)
Weight:	9,5 kg		
Connections:	Inlet / outlet G 1“ or NPT 1“ Gauge NPT 1/4“ Dome screw NPT 1/4“		

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

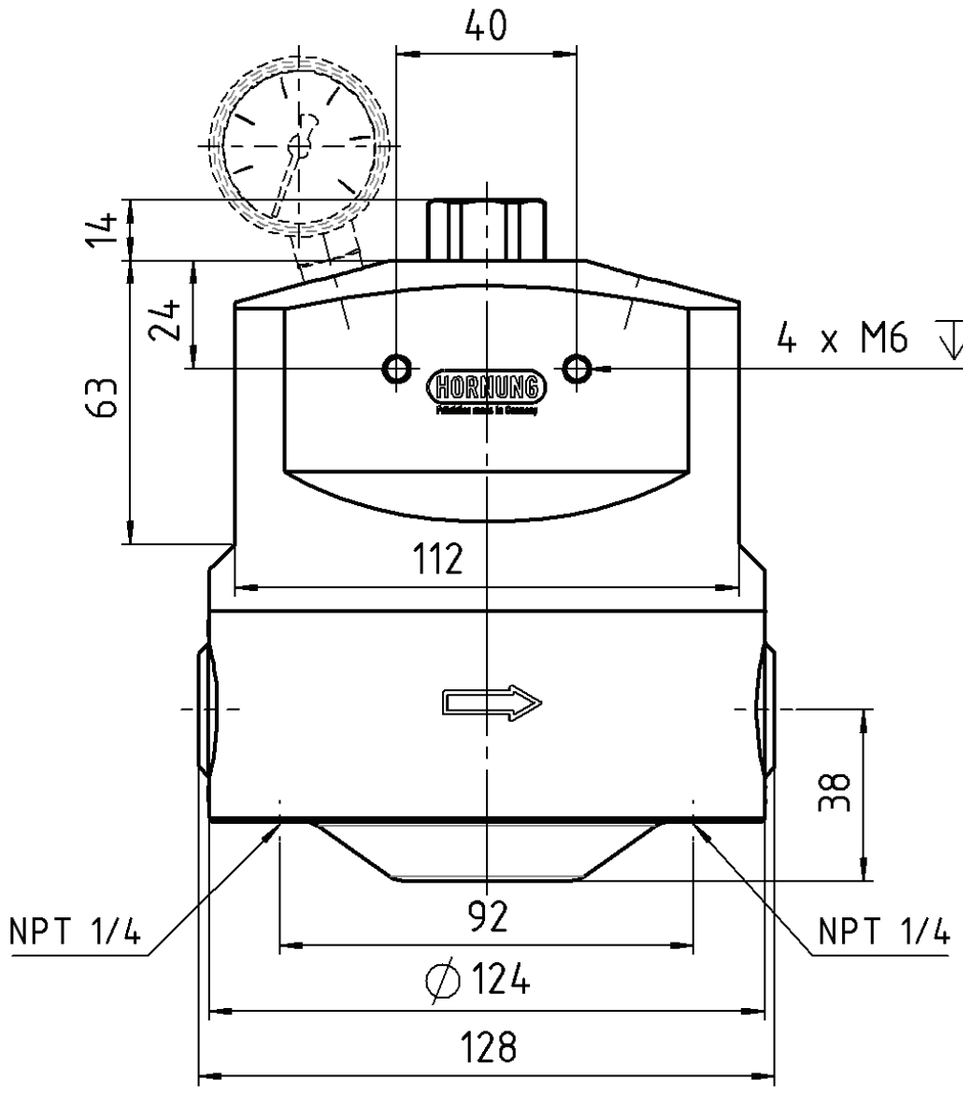
HORNUNG
Präzision made in Germany

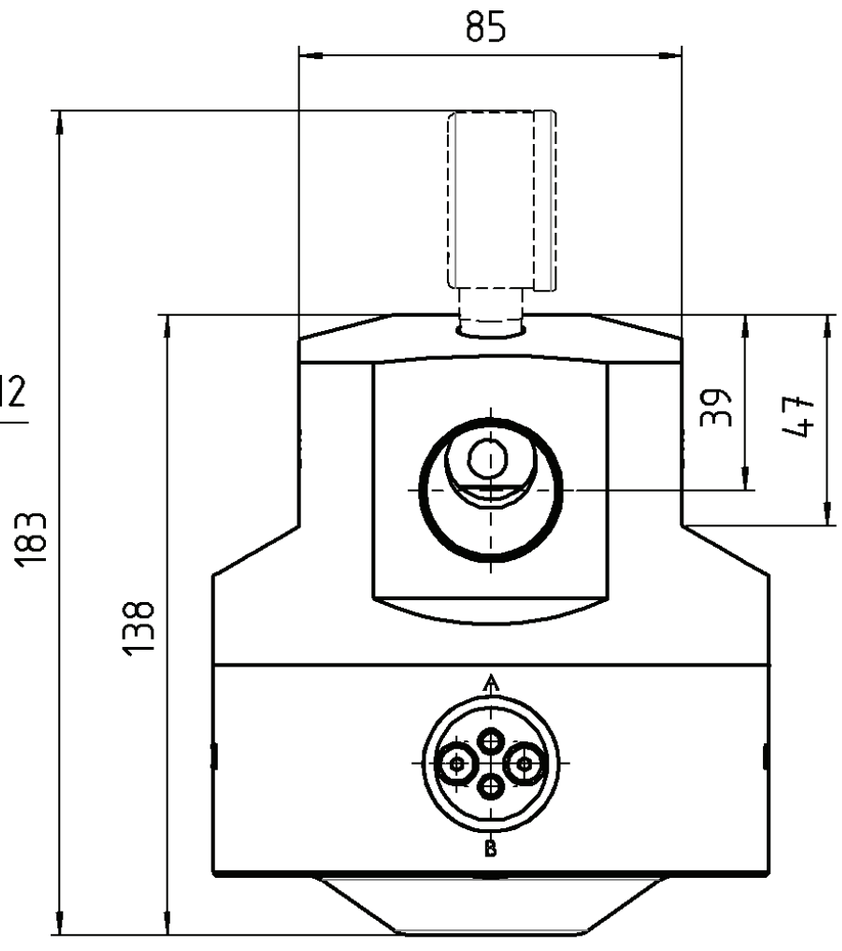
Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

VDH 1





DESIGN VERSIONS

The back pressure regulator works with the highest precision and reliability. There is the version for low and medium pressures, but also a high-pressure version, each available in brass and stainless steel.

A minimal hysteresis between opening and closing, as well as a high flow coefficient characterize these back pressure regulators. A very high control accuracy is achieved by a large diaphragm.

The sealing materials used, both with EPDM and FKM, allow a temperature range of -40° C to +150° C. An external gas source for filling the dome is not necessary, this offers an extremely user-friendly operability.

DYNAMIC PRESSURE REGULATION

A dynamic pressure control is reached by means of an integrated control pressure regulator reached, see data sheet VPIDH1.

By slightly escaping the control medium in the output line, is continuously fed control medium.

As a result, a high pressure consistency is achieved in the dome of the pressure regulator even in the event of temperature fluctuations and changes in the flow rate.

ORDER DETAILS

Material / pressure:
1 = brass 300 bar
2 = stainless steel 400 bar

Diaphragm:
1 = EPDM
2 = FKM

Gauges:
0 = Ohne
1 = Mit Manometer

Inlet / outlet:
0 = G 1“ internal thread
1 = NPT 1“ internal thread

Regulator type		356-	1	0	1	0	Gas type
356	VDH1	Type	Material/ pressure	Diaphragm	Gauges	In-/outlet	Gas type

Accessories: see total catalogue segment

5. Pilot pressure regulators, flanges
7. Gauges, fittings and accessories
8. Fine filter IF1/F1, safety valves available on request
9. Wall bracket

Stand 07/2023

Back pressure regulator VPID 3/4

Dome overflow valve 3/4“ with integrated pilot regulator - P.I.D.

Fittings and gauges optional

TECHNICAL DETAILS	
Material:	Brass or stainless steel (1.4404)
Valve seat:	Ø 10
Cv-value:	2,0
Seat:	EPDM or FKM
Membran:	EPDM or FKM
Max. inlet pressure:	110 bar
Outlet pressure range:	0,5 - 3 bar 0,5 - 6 bar 1 - 12 bar 1 - 17 bar 5 - 50 bar 5 - 100 bar
Operating temp.:	-40°C to +150°C
Dimensions:	Ø 93 x 215 mm
Weight:	5,8 kg
Connections:	Inlet / outlet G 3/4“ or NPT 3/4“ Gauge NPT 1/4“ Dome screw NPT 1/4“

APPLICATION AREA

Back pressure regulators are used in process pressure regulation to keep the pressure in a system constant.
In this case, an excess medium, which would increase the system pressure, is discharged in a controlled manner.

Back pressure regulators are used, for example, to regulate the outlet pressure of a pump in order to protect subsequent valves from inadmissible pressure surges or pulsation.

Another application for the Hornung back pressure regulator is the gas overlay of containers and tanks.
During the filling of a tank, the pressure in the gas chamber of a gas-supported tank increases so that the gas cushion must be ventilated in a controlled manner and kept constant.

Hornung back pressure regulators are used here for a proper ventilation process in compliance with the safety regulations applicable to the entire system.

- Flow control with back pressure regulators
- As a control valve with a large flow range
- Tank overlapping
- For the protection of bursting discs
- Pump pressure-bearing valves
- Pressure bypass valves
- Pulsation attenuation

DESCRIPTION

- Dome back pressure regulator for high precision and reliability
- easy installation and operation and standardized connection options (NPT/G) allow fast integration into the pipeline system
- integrated form control with self-contained medium without external control pressure regulator
- stepless regulation without shut-off valve in the output
- high user safety due to inherent safe construction
- high flow range and high pressures
- minimum pressure difference up to 2% (small hysteresis) between opening and closing
- maximum accuracy, thanks to large-area membrane (EPDM or FKM)

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

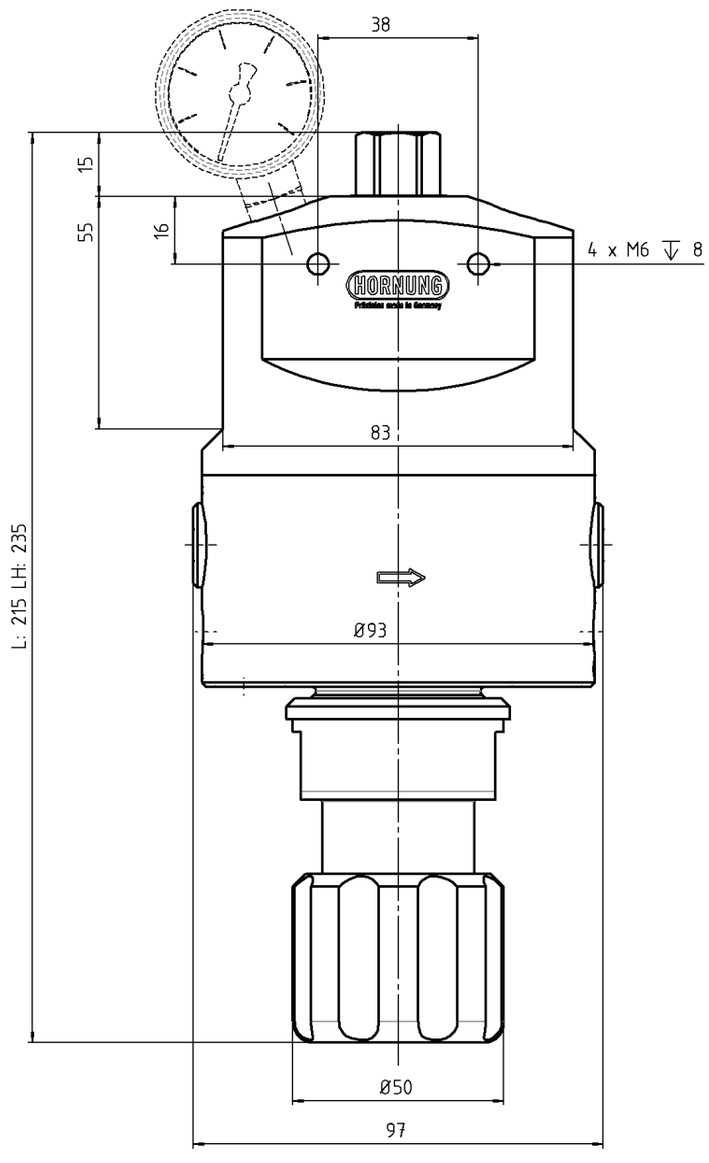
HORNUNG
Präzision made in Germany

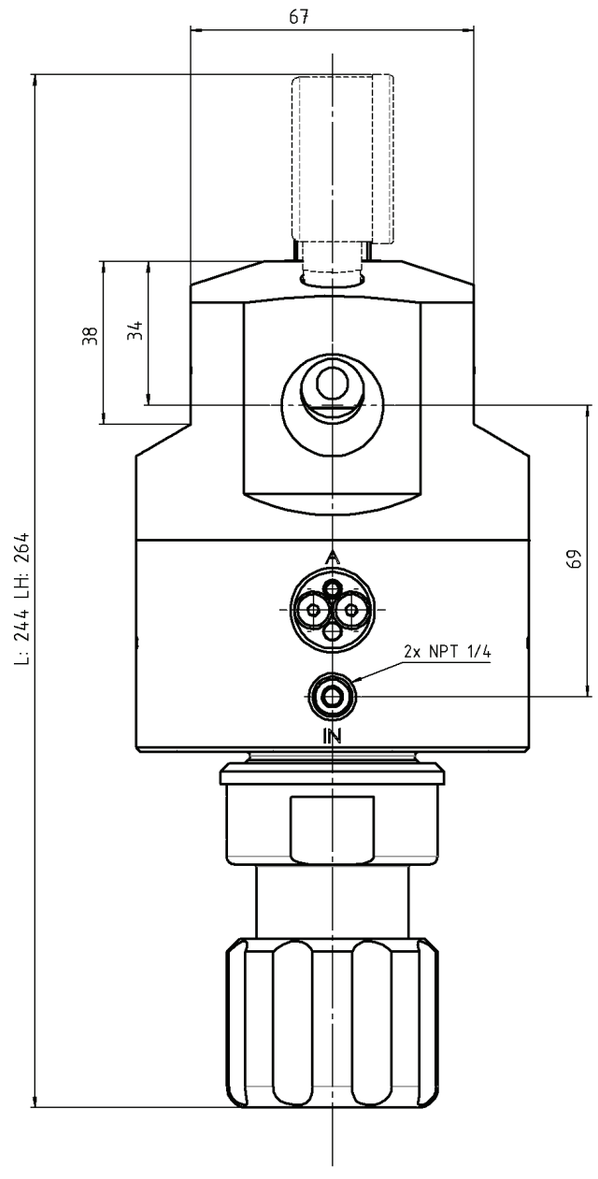
Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

VPID 3/4





DESIGN VERSIONS

The back pressure regulator works with the highest precision and reliability. There is the version for low and medium pressures, but also a high-pressure version, each available in brass and stainless steel.

A minimal hysteresis between opening and closing, as well as a high flow coefficient characterize these back pressure regulators. A very high control accuracy is achieved by a large diaphragm.

The sealing materials used, both with EPDM and FKM, allow a temperature range of -40° C to +150° C. An external gas source for filling the dome is not necessary, this offers an extremely user-friendly operability.

DYNAMIC PRESSURE REGULATION

A dynamic pressure control is reached by means of an integrated control pressure regulator reached.

By slightly escaping the control medium in the output line, is continuously fed control medium.

As a result, a high pressure consistency is achieved in the dome of the pressure regulator even in the event of temperature fluctuations and changes in the flow rate.

ORDER DETAILS

Material / pressure:
1 = brass 100 bar
2 = stainless steel 100 bar
3 = brass 12 bar
4 = stainless steel 12 bar

Diaphragm:
1 = EPDM
2 = FKM

Pressure range P2:
1 = 0,5 - 3 bar
2 = 0,5 - 6 bar
3 = 1 - 12 bar
4 = 1 - 17 bar
5 = 5 - 50 bar
6 = 5 - 100 bar

Gauges:
0 = Ohne
1 = Mit Manometer

Option at inlet / outlet:
0 = G 3/4“ internal thread
1 = NPT 3/4“ internal thread

Regulator type		337-	1	0	4	1	0	Gas type
337	VPID3/4	Type	Material/ pressure	Diaphragm	P2	Gauges	In-/outlet	Gas type

Accessories: see total catalogue segment

5. Pilot pressure regulators, flanges
7. Gauges, fittings and accessories
8. Fine filter IF1/F1, safety valves available on request
9. Wall bracket

Stand 07/2020

Back pressure regulator VPID 1

Dome overflow valve 1“ with integrated pilot regulator - P.I.D.

Fittings and gauges optional

TECHNICAL DETAILS

Material:	Brass or stainless steel (1.4404)
Valve seat:	Ø 12,7
Cv-value:	3,0
Seat:	EPDM or FKM
Membran:	EPDM or FKM
Max. inlet pressure:	110 bar
Outlet pressure range:	0,5 - 3 bar 0,5 - 6 bar 1 - 12 bar 1 - 17 bar 5 - 50 bar 5 - 100 bar
Operating temp.:	-40°C to +150°C
Dimensions:	Ø 124 x 241 mm
Weight:	11,6 kg
Connections:	Inlet / outlet G 1“ or NPT 1“ Gauge NPT 1/4“ Dome screw NPT 1/4“

APPLICATION AREA

Back pressure regulators are used in process pressure regulation to keep the pressure in a system constant.
In this case, an excess medium, which would increase the system pressure, is discharged in a controlled manner.

Back pressure regulators are used, for example, to regulate the outlet pressure of a pump in order to protect subsequent valves from inadmissible pressure surges or pulsation.

Another application for the Hornung back pressure regulator is the gas overlay of containers and tanks.
During the filling of a tank, the pressure in the gas chamber of a gas-supported tank increases so that the gas cushion must be ventilated in a controlled manner and kept constant.

Hornung back pressure regulators are used here for a proper ventilation process in compliance with the safety regulations applicable to the entire system.

- Flow control with back pressure regulators
- As a control valve with a large flow range
- Tank overlapping
- For the protection of bursting discs
- Pump pressure-bearing valves
- Pressure bypass valves
- Pulsation attenuation

DESCRIPTION

- Dome back pressure regulator for high precision and reliability
- easy installation and operation and standardized connection options (NPT/G) allow fast integration into the pipeline system
- integrated form control with self-contained medium without external control pressure regulator
- stepless regulation without shut-off valve in the output
- high user safety due to inherent safe construction
- high flow range and high pressures
- minimum pressure difference up to 2% (small hysteresis) between opening and closing
- maximum accuracy, thanks to large-area membrane (EPDM or FKM)

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001:2015** and **ISO 14001:2015**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

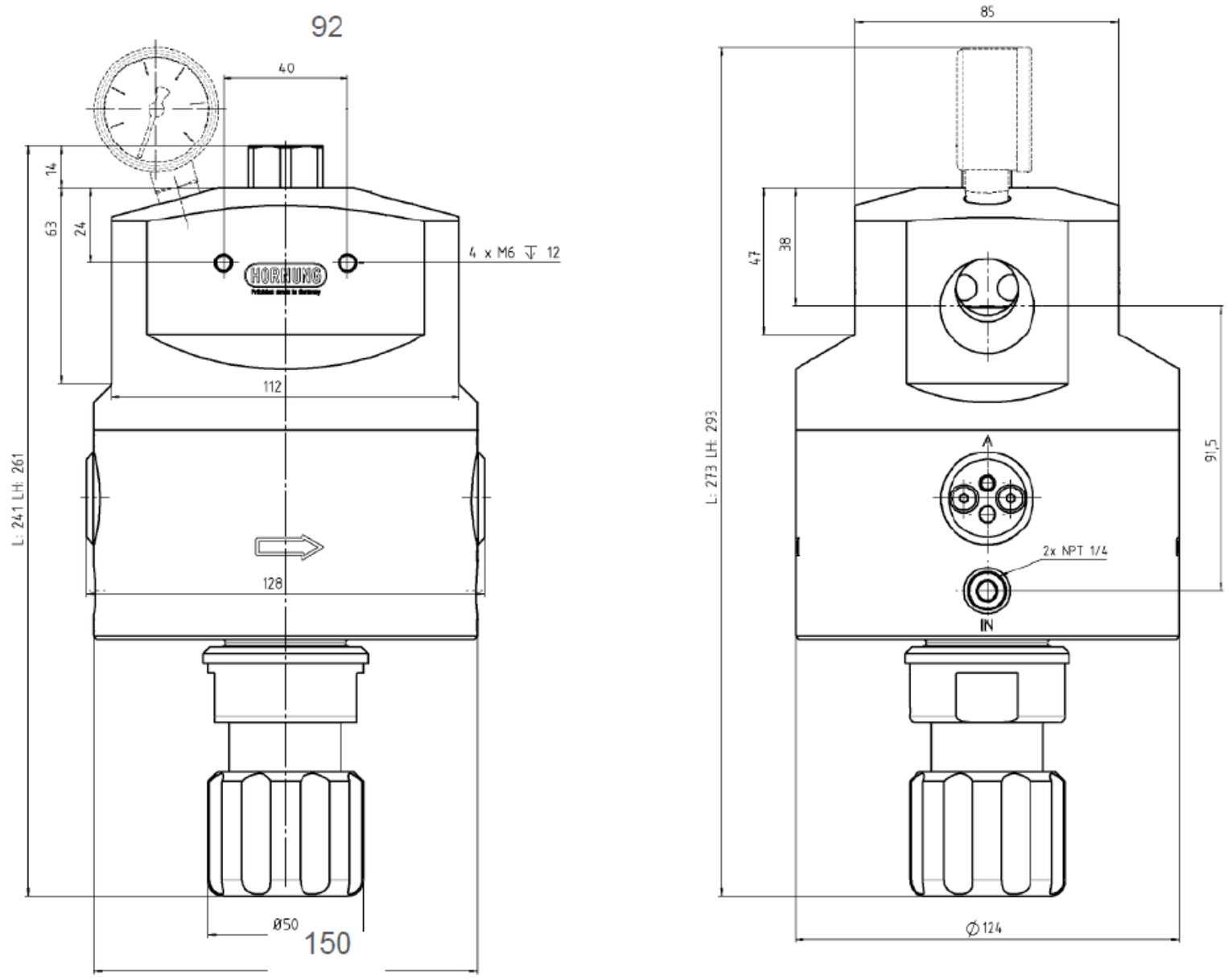
HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

VPID 1



DESIGN VERSIONS

The back pressure regulator works with the highest precision and reliability. There is the version for low and medium pressures, but also a high-pressure version, each available in brass and stainless steel.

A minimal hysteresis between opening and closing, as well as a high flow coefficient characterize these back pressure regulators. A very high control accuracy is achieved by a large diaphragm.

The sealing materials used, both with EPDM and FKM, allow a temperature range of -40° C to +150° C. An external gas source for filling the dome is not necessary, this offers an extremely user-friendly operability.

DYNAMIC PRESSURE REGULATION

A dynamic pressure control is reached by means of an integrated control pressure regulator reached.

By slightly escaping the control medium in the output line, is continuously fed control medium.

As a result, a high pressure consistency is achieved in the dome of the pressure regulator even in the event of temperature fluctuations and changes in the flow rate.

ORDER DETAILS

Material / pressure:
1 = brass 100 bar
2 = stainless steel 100 bar
3 = brass 12 bar
4 = stainless steel 12 bar

Diaphragm:
1 = EPDM
2 = FKM

Pressure range P2:
1 = 0,5 - 3 bar
2 = 0,5 - 6 bar
3 = 1 - 12 bar
4 = 1 - 17 bar
5 = 5 - 50 bar
6 = 5 - 100 bar

Gauges:
0 = Ohne
1 = Mit Manometer

Option at inlet / outlet:
0 = G 1“ internal thread
1 = NPT 1“ internal thread
2 = Flanges DN25-PM100-Form C

Regulator type									
357	VPID1	357-Type	1 Material/ pressure	0 Diaphragm	4 P2	1 Gauges	0 In-/outlet	Gas type Gas type

Accessories: see total catalogue segment

5. Pilot pressure regulators, flanges
7. Gauges, fittings and accessories
8. Fine filter IF1/F1, safety valves available on request
9. Wall bracket

Stand 07/2020

Back pressure regulator VPIDH 1

Dome overflow valve 1“ with integrated pilot regulator - P.I.D.

Fittings and gauges optional

TECHNICAL DETAILS

Material:	Brass or stainless steel (1.4404)
Valve seat:	Ø 12,7
Cv-value:	3,0
Seat:	PCTFE
Membran:	EPDM or FKM
Max. inlet pressure:	320 bar brass 420 bar stainless steel
Outlet pressure range:	1 - 12 bar 1 - 17 bar 5 - 50 bar 5 - 100 bar 5 - 250 bar 10 - 400 bar
Operating temp.:	-40°C to +150°C
Dimensions:	Ø 124 x 241 mm
Weight:	11,6 kg
Connections:	Inlet / outlet G 1“ or NPT 1“ Gauge NPT 1/4“ Dome screw NPT 1/4“

APPLICATION AREA

Back pressure regulators are used in process pressure regulation to keep the pressure in a system constant.
In this case, an excess medium, which would increase the system pressure, is discharged in a controlled manner.

Back pressure regulators are used, for example, to regulate the outlet pressure of a pump in order to protect subsequent valves from inadmissible pressure surges or pulsation.

Another application for the Hornung back pressure regulator is the gas overlay of containers and tanks.
During the filling of a tank, the pressure in the gas chamber of a gas-supported tank increases so that the gas cushion must be ventilated in a controlled manner and kept constant.

Hornung back pressure regulators are used here for a proper ventilation process in compliance with the safety regulations applicable to the entire system.

- Flow control with back pressure regulators
- As a control valve with a large flow range
- Tank overlapping
- For the protection of bursting discs
- Pump pressure-bearing valves
- Pressure bypass valves
- Pulsation attenuation

DESCRIPTION

- Dome back pressure regulator for high precision and reliability
- easy installation and operation and standardized connection options (NPT/G) allow fast integration into the pipeline system
- integrated form control with self-contained medium without external control pressure regulator
- stepless regulation without shut-off valve in the output
- high user safety due to inherent safe construction
- high flow range and high pressures
- minimum pressure difference up to 2% (small hysteresis) between opening and closing
- maximum accuracy, thanks to large-area membrane (EPDM or FKM)

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001:2015** and **ISO 14001:2015**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

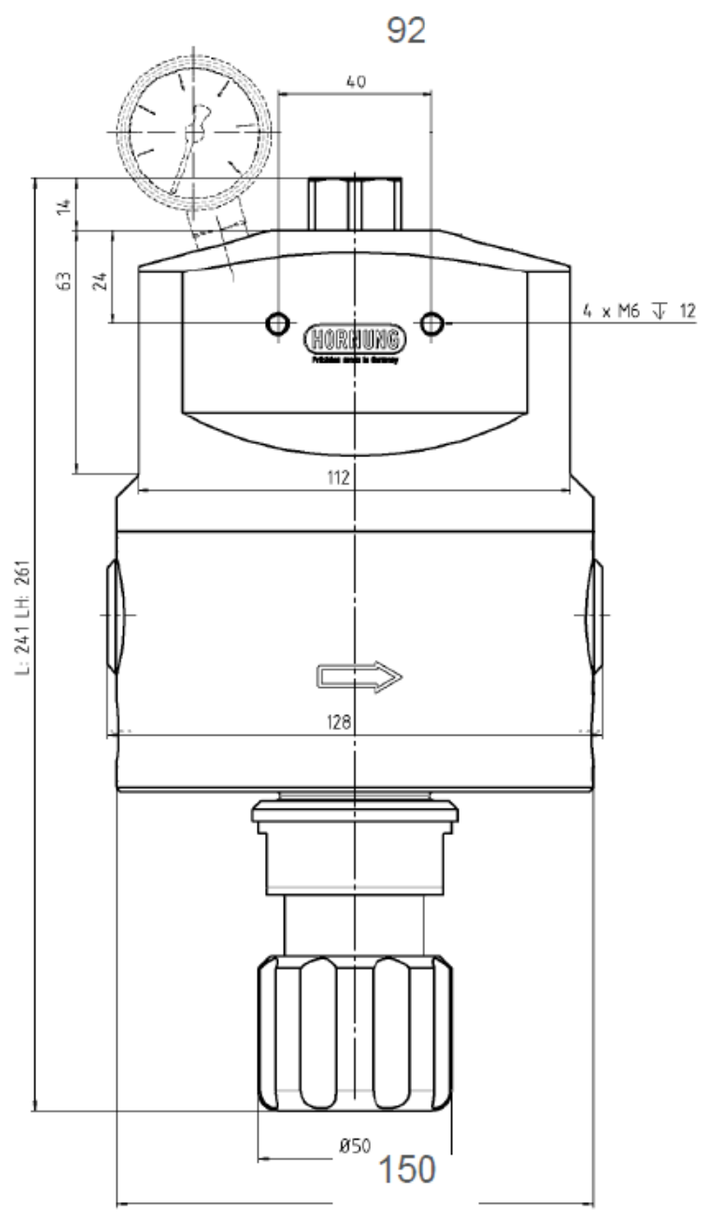
HORNUNG
Präzision made in Germany

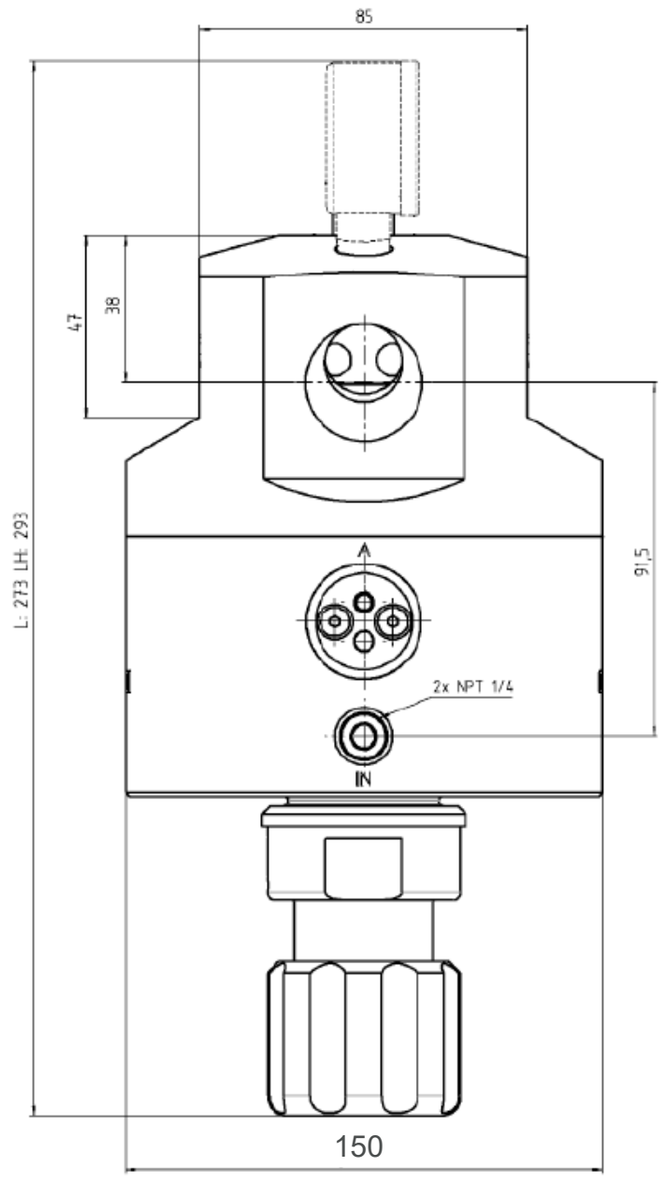
Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

VPIDH 1





DESIGN VERSIONS

The back pressure regulator works with the highest precision and reliability. There is the version for low and medium pressures, but also a high-pressure version, each available in brass and stainless steel.

A minimal hysteresis between opening and closing, as well as a high flow coefficient characterize these back pressure regulators. A very high control accuracy is achieved by a large diaphragm.

The sealing materials used, both with EPDM and FKM, allow a temperature range of -40° C to +150° C. An external gas source for filling the dome is not necessary, this offers an extremely user-friendly operability.

DYNAMIC PRESSURE REGULATION

A dynamic pressure control is reached by means of an integrated control pressure regulator reached.

By slightly escaping the control medium in the output line, is continuously fed control medium.

As a result, a high pressure consistency is achieved in the dome of the pressure regulator even in the event of temperature fluctuations and changes in the flow rate.

ORDER DETAILS

Material / pressure:
1 = brass 300 bar
2 = stainless steel 400 bar

Diaphragm:
1 = EPDM
2 = FKM

Pressure range P2:
3 = 1 - 12 bar
4 = 1 - 17 bar
5 = 5 - 50 bar
6 = 5 - 100 bar
7 = 5 - 250 bar
8 = 10 - 400 bar stainless steel

Gauges:
0 = Ohne
1 = Mit Manometer

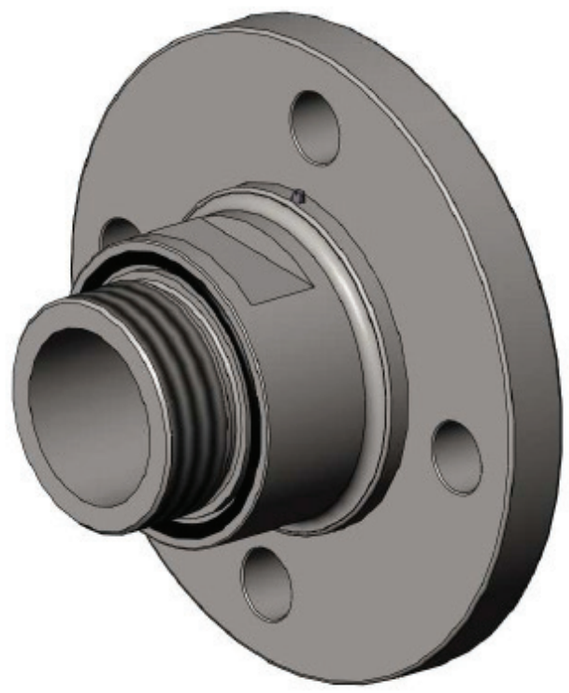
Option at inlet / outlet:
0 = G 1“ internal thread
1 = NPT 1“ internal thread

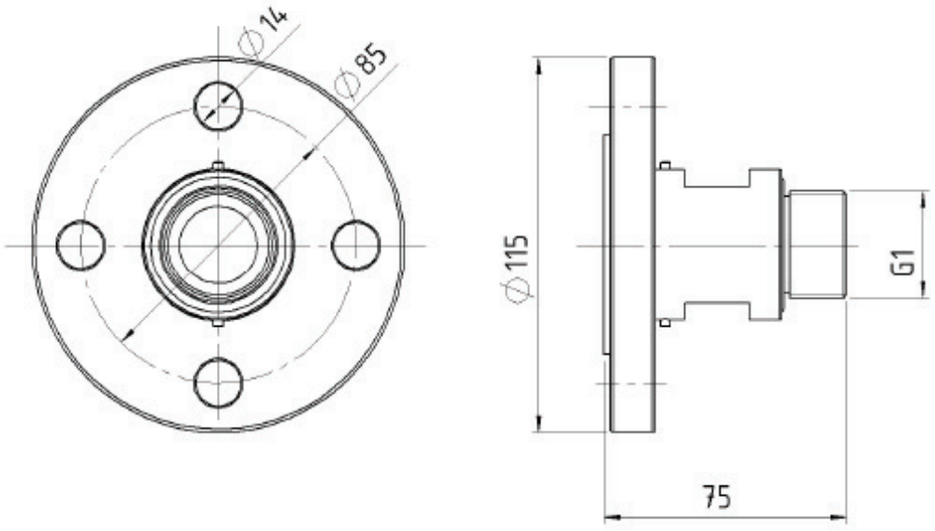
Regulator type									
358	VPIDH1		358-Type	1 Material/ pressure	0 Diaphragm	4 P2	1 Gauges	0 In-/outlet	Gas type Gas type

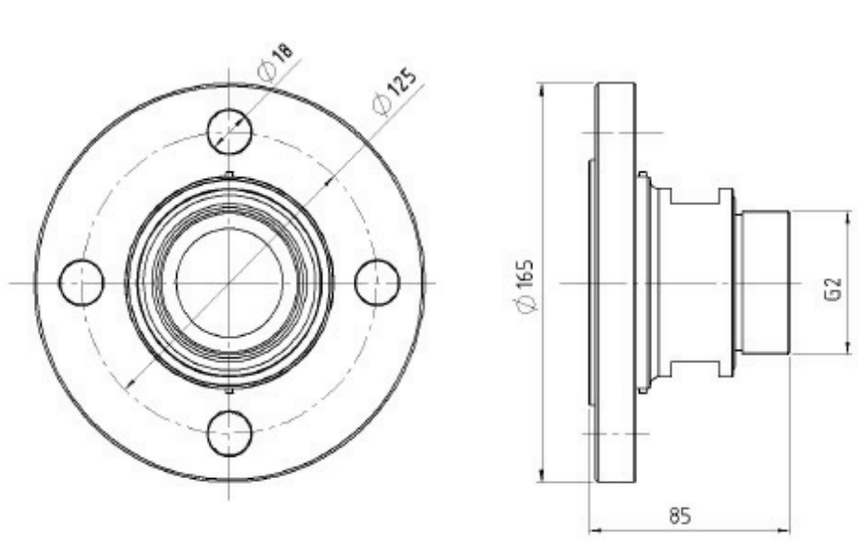
Accessories: see total catalogue segment

5. Pilot pressure regulators, flanges
7. Gauges, fittings and accessories
8. Fine filter IF1/F1, safety valves available on request
9. Wall bracket

Threaded flange complete **1“ and 2“**







Threaded flanges enable the connection of our products within the dome-series with your mountings or systems.

You will find connection adaptors with the most common coupling threads in our assortment. We recommend a grooved steel gasket with PTFE-layers on rust-resistant steel according to the AD 2000-instruction sheet B7.

ORDER NUMBER	DESIGN	MATERIAL	CONNECTION
B-3067	Threaded flange DN25/PS100/Type B1 Seal face EN 1092-1,B1(without welding collars)	brass (MC)	G1”
B-3067/1	Threaded flange DN25/PS100/Type B1 Seal face EN 1092-1,B1(without welding collars)	stainless steel (SS)	G1”
B-3066	Threaded flange DN50/PS100/Type B1 Seal face EN 1092-1,B1(without welding collars)	brass (MC)	G2“
B-3066/1	Threaded flange DN50/PS100/Type B1 Seal face EN 1092-1,B1(without welding collars)	stainless steel (SS)	G2“

TECHNICAL DETAILS

Material: stainless steel brass
Operating temp.: -40°C to +150°C

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001:2015** and **ISO 14001:2015**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

Precision pressure regulators

In many applications it is not possible to use the pressure regulators from our standardised production series. Other fundamental criteria such as extreme ranges of temperature, corrosive external environment, have to be observed. Here can the appropriate regulator be used.

Contents:

HORNUNG

Präzision made in Germany

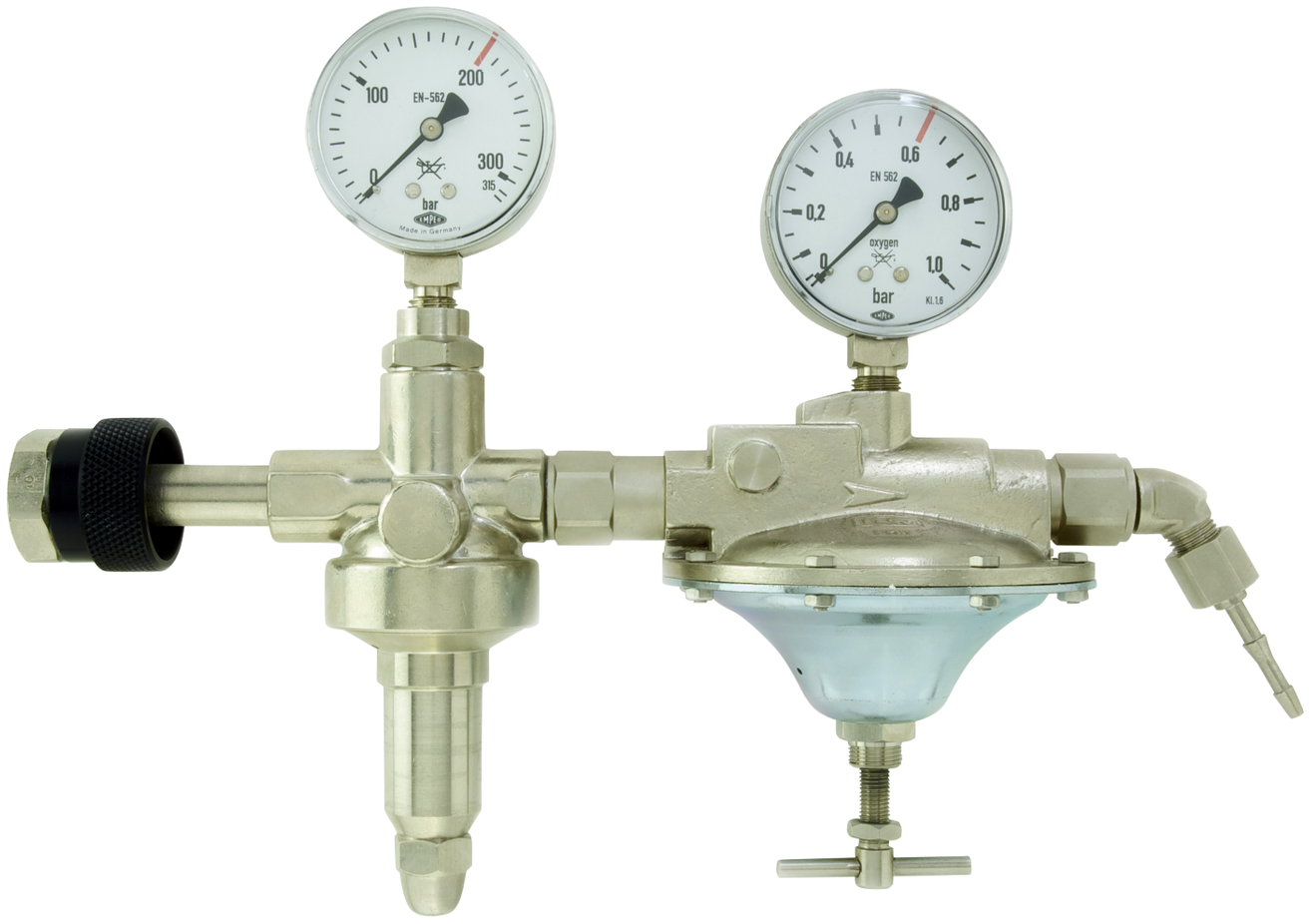
Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

Precision cylinder pressure regulator **VDS-FHR 3 / VDS-FHR 4**

- dual stage for mbar operating pressures in brass, or nickel plated



TECHNICAL DETAILS		APPLICATION AREA	DESCRIPTION
Body:	brass or brass, nickel plated	Especially for mbar applications: · Laboratories and industries · Science and research · Instrumentation · Glass- and lamp industries · Process enginiering.	Dual stage precision regulator with a large diaphragm for mbar applications integrated into the second stage (FHR). For non corrosive gases up to 5.0 purity.
Seat:	3 mm or 4 mm		
Gaskets:	NBR		
Diaphragm:	NBR		
Max. inlet pressure:	300 bar		
Outlet pressure ranges:	5 mbar - 1 bar		
Operating temp.:	-20 up to +70°C		
Dimensions (wxhxd):	292 x 124 x 110 mm		
Connections:	inlet thread: DIN 477-1 and -5 (others on request) outlet thread: G 1/4“ -DIN 3852		

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001:2009**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

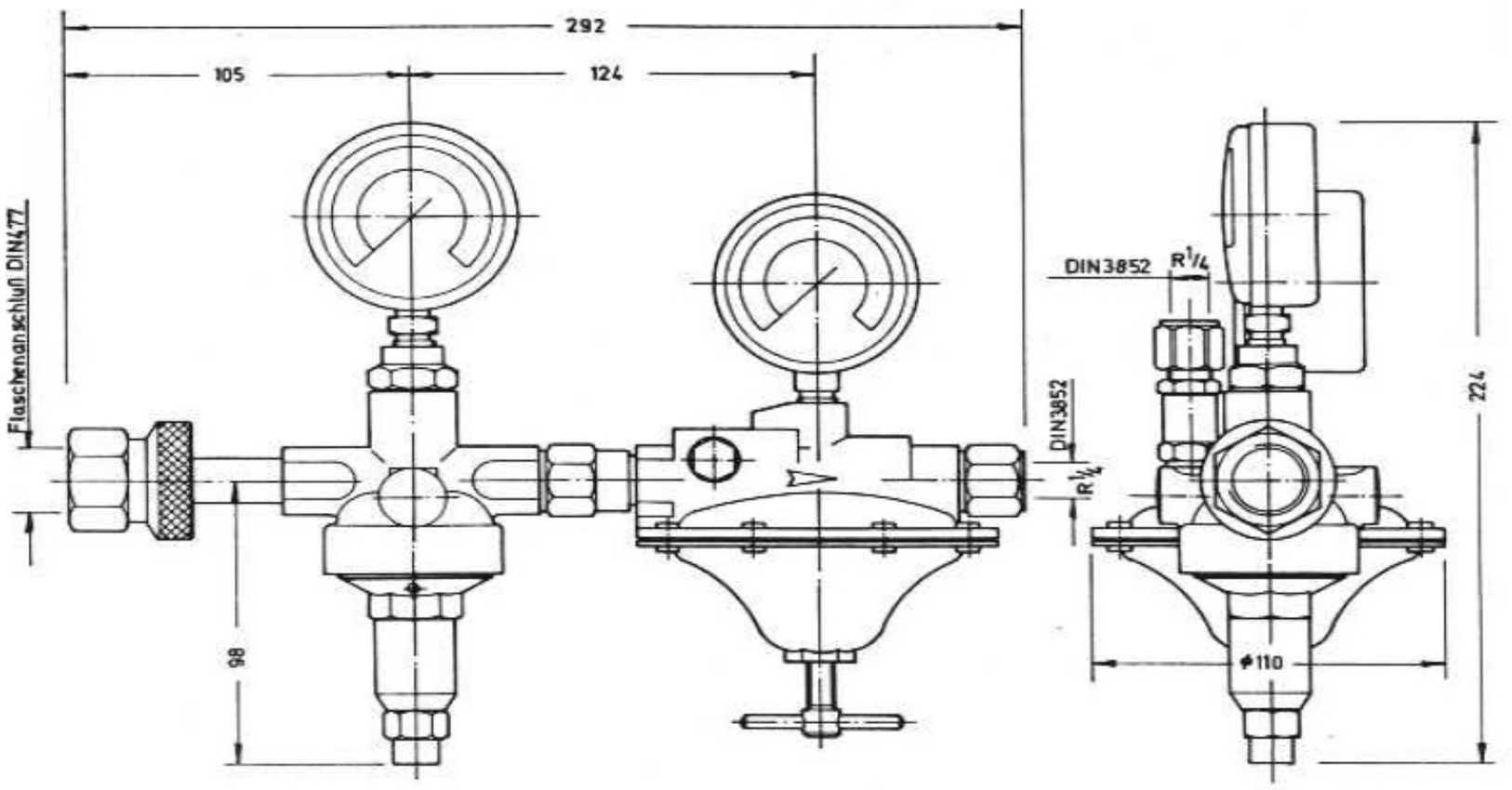
HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

VDS-FHR 3/ VDS-FHR 4



Flow performance VDS-FHR 4

Flow performance VDS-FHR 3

ORDER DETAILS

Material:
1 = brass
2 = brass, nickel plated, hand connected

Inlet pressure:
1 = 200 bar
2 = 300 bar

Seat:
1 = 3 mm
2 = 4 mm

Outlet pressure ranges:
1 = up to 30 mbar
2 = up to 50 mbar
3 = up to 70 mbar
4 = up to 100 mbar
5 = up to 200 mbar
6 = up to 300 mbar
7 = up to 500 mbar
8 = up to 700 mbar
9 = up to 1000 mbar

Regulator type							
	2-stage						
VDS-FHR 3 / FHR 4	precision regulator	17-	2	2	2	1	Gas type
		Type	Material	Inlet	Seat	Outlet	Gas type

Accessories: See total catalogue segment

7. Gauges, screws, compression fittings, cylinder retainers and accessories

dated 09/2023

Precision pressure regulator **FR 1**

- single stage with balanced main valve for mbar applications and instrumentation

Fittings and
gauges optional

TECHNICAL DETAILS		APPLICATION AREA	DESCRIPTION
Body:	aluminium anodised or stainless steel	The precision pressure regulator FR1 is used particularly in the following areas: • Gas analysis • Gas chromatography • Instrumentation • Process engineering • Metallurgy • Laboratory applications • mbar applications	The FR 1 is a single-stage precision pressure regulator with balanced main valve. The FR 1 is for installation in piping systems, for installation in control panels or for integrating in instruments (instrumentation). The Integrated balanced poppet ensures that even when inlet pressure drops down a constant operating pressure is guaranteed (dual stage effect). An easily replaceable sinter metal filter element is integrated into the pressure regulator as standard.
Valve seat:	stainless steel		
Gaskets:	viton / NBR		
Diaphragm:	viton / NBR / stainless steel		
Max. inlet pressure:	12 bar		
Outlet pressure range:	50 mbar - 7,0 bar		
Operating temp.:	-20 to +70°C		
Dimensions:	106 x 48 mm		
Weight:	240 g		
Threads:	in- / outlet NPT 1/8“ f		

QUALITY STANDARD

The company Hornung is certified to **ISO 9001 and ISO 14001**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

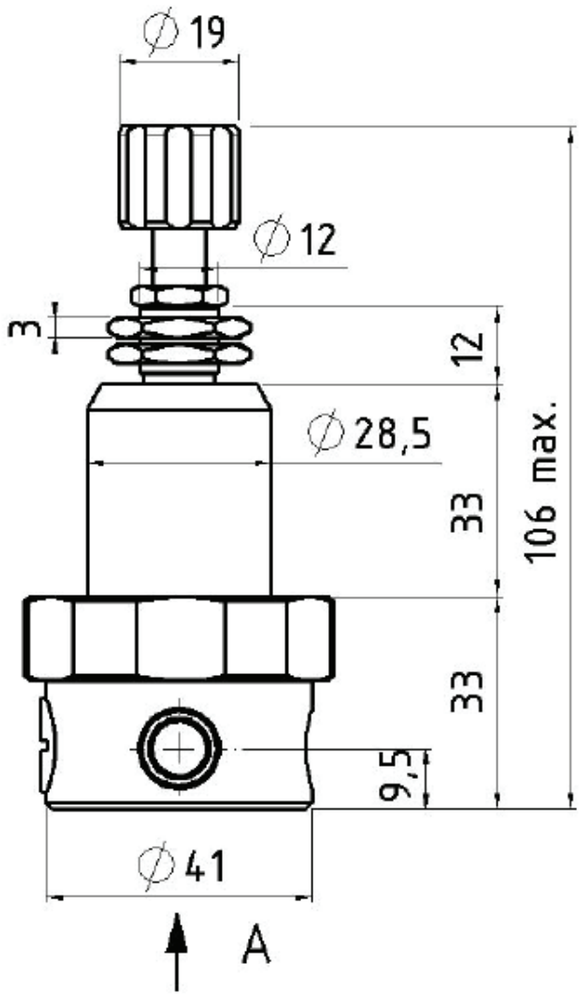
HORNUNG
Präzision made in Germany

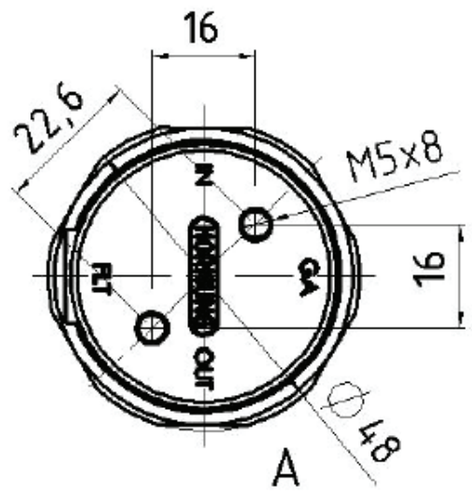
Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

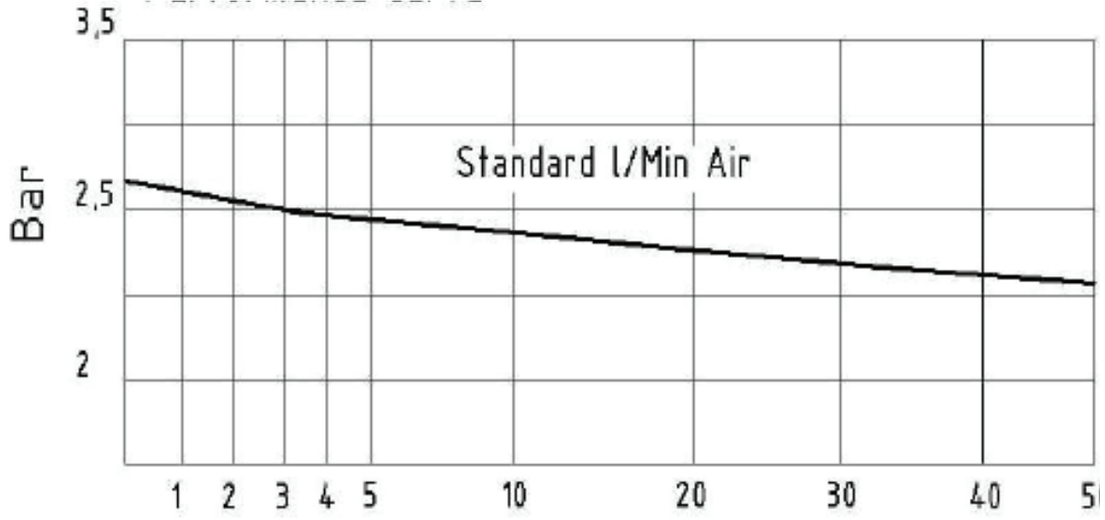
www.hornung.org
info@hornung.org

FR 1

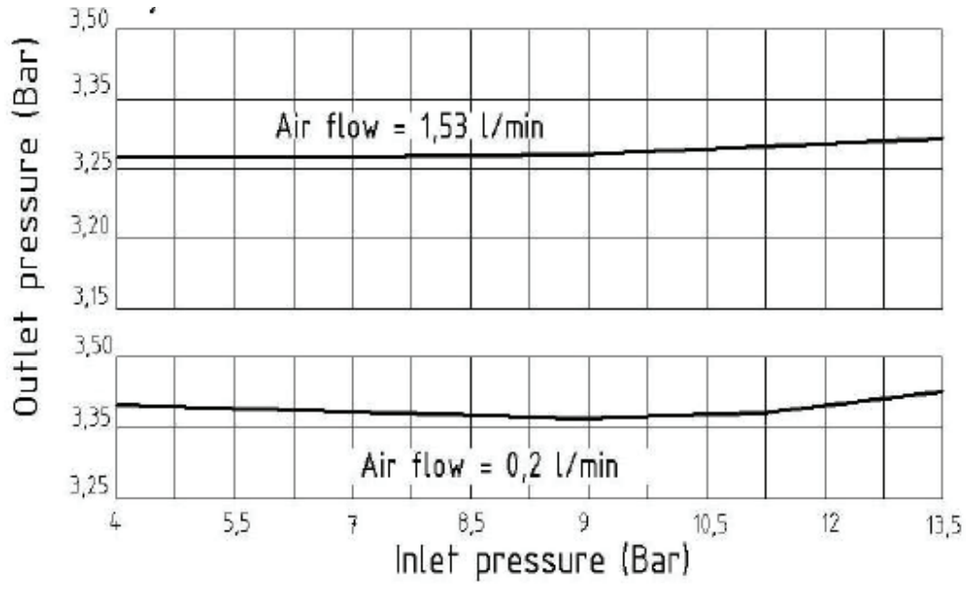




PERFORMANCE CURVE



FLOW DIAGRAM



ORDER DETAILS

Material:
1 = aluminium
2 = stainless steel (1.4404)

Diaphragm:
1 = NBR
2 = viton
3 = stainless steel (1.4435)
4 = hastelloy (2.4610)

Gaskets:
1 = NBR
2 = viton

Gauge:
0 = none
1 = outlet gauge

Pressure ranges:
1 = up to 170 mbar
2 = up to 350 mbar
3 = up to 500 mbar
4 = up to 700 mbar
5 = up to 2,1 bar
6 = up to 4,2 bar
7 = up to 7,0 bar

Regulator type		27-	2	3	2	1	4	Gas type
27	FR 1	Type	Material	Diaphragm	Gaskets	Gauge	Pressure	Gas type

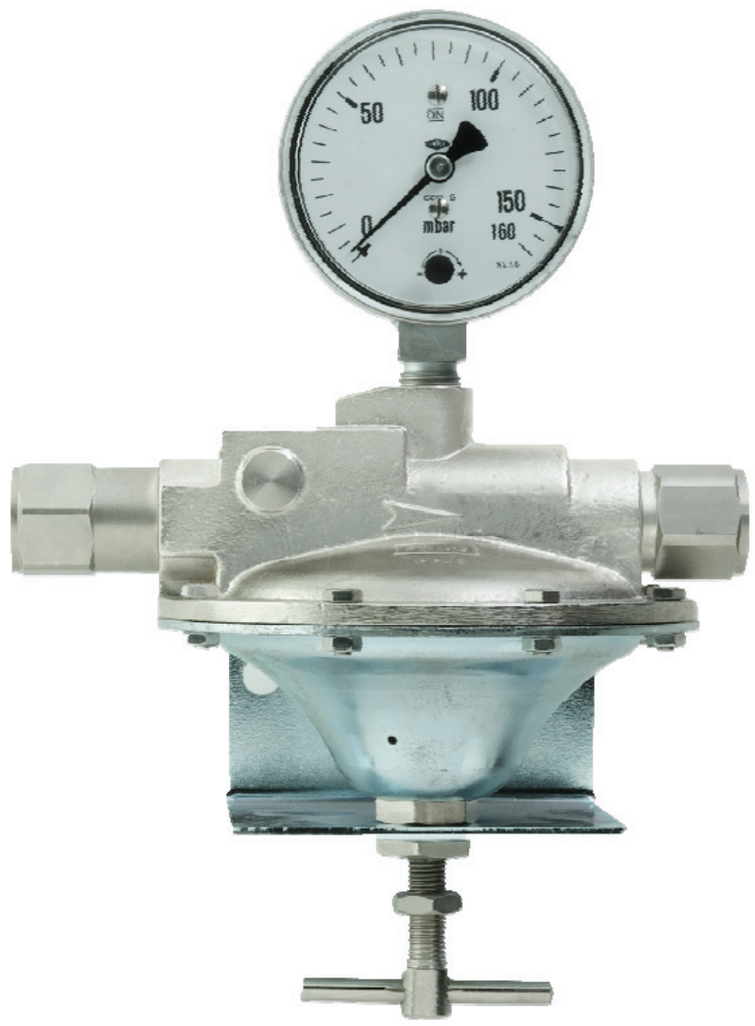
Accessories: See total catalogue segment

7. Gauges, compression fittings and accessories
9. Console

dated 02/2022

Precision pressure regulator FHR 3 / FHR 4

- single stage for mbar applications



TECHNISCHE DATEN

Body:	brass, or brass nickel plated
Seat:	3 mm or 4 mm
Diaphragm:	NBR
Gas purity:	≤ 5.0
Max. inlet pressure:	16 bar
Outlet pressure range:	5 mbar - 1 bar
Operating temp.:	-20°C to +70°C
Gauge: (optional)	safety specification according EN 837-1 KL 1,6
Threads:	in- and outlet: G 1/4 f

ANWENDUNG

- For mbar applications
- For laboratories
- For instrumentation and process engineering
- For gases up to 5.0 (99.9999 Vol.%) purity
- For lamp production and glass shops

BESCHREIBUNG

FHR 3 und FHR 4 are single stage regulators for mbar gas control applications and inlet pressures not higher than 16 bar.

The excellent gas control characteristics of FHR 3 and FHR 4 are based on the wide and flexible diaphragm construction.

As an option this regulator type can also be delivered with a wall mounting bracket.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9015** and **ISO 14001:2015**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

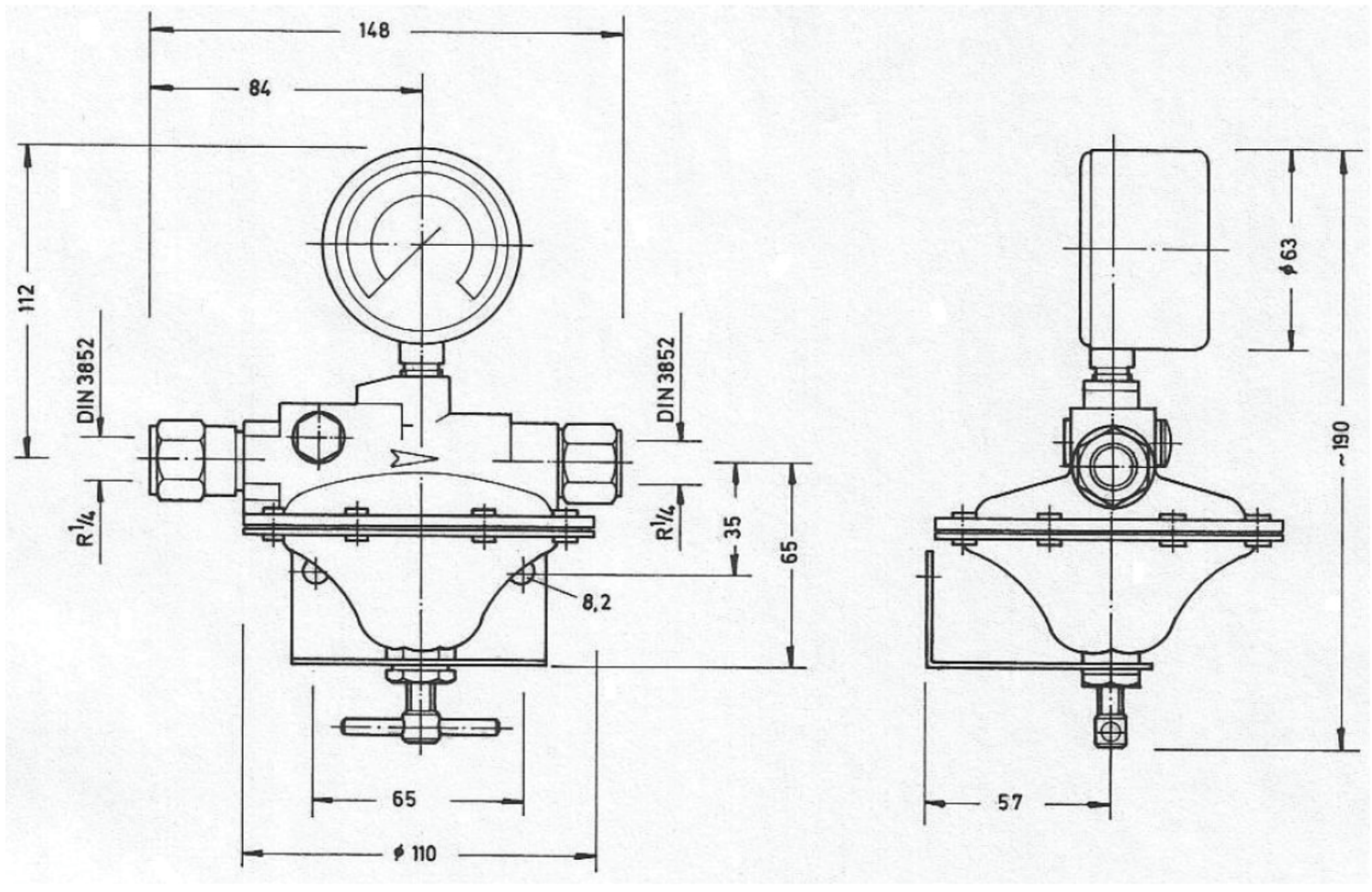
HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

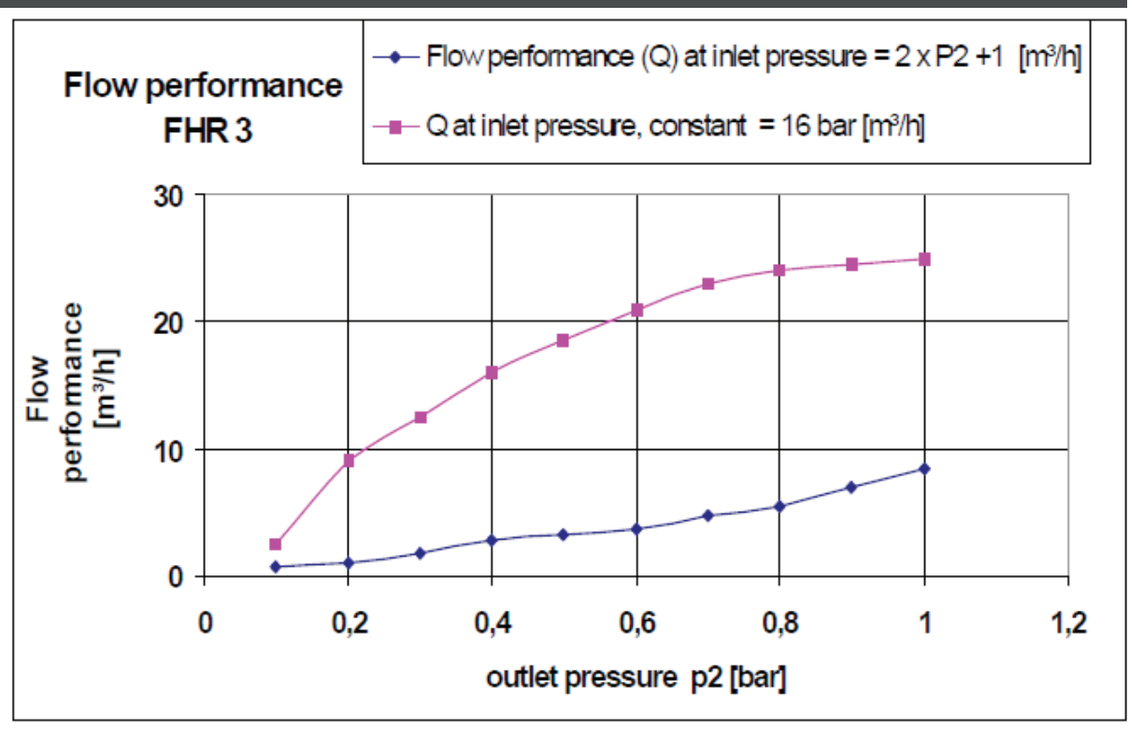
Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

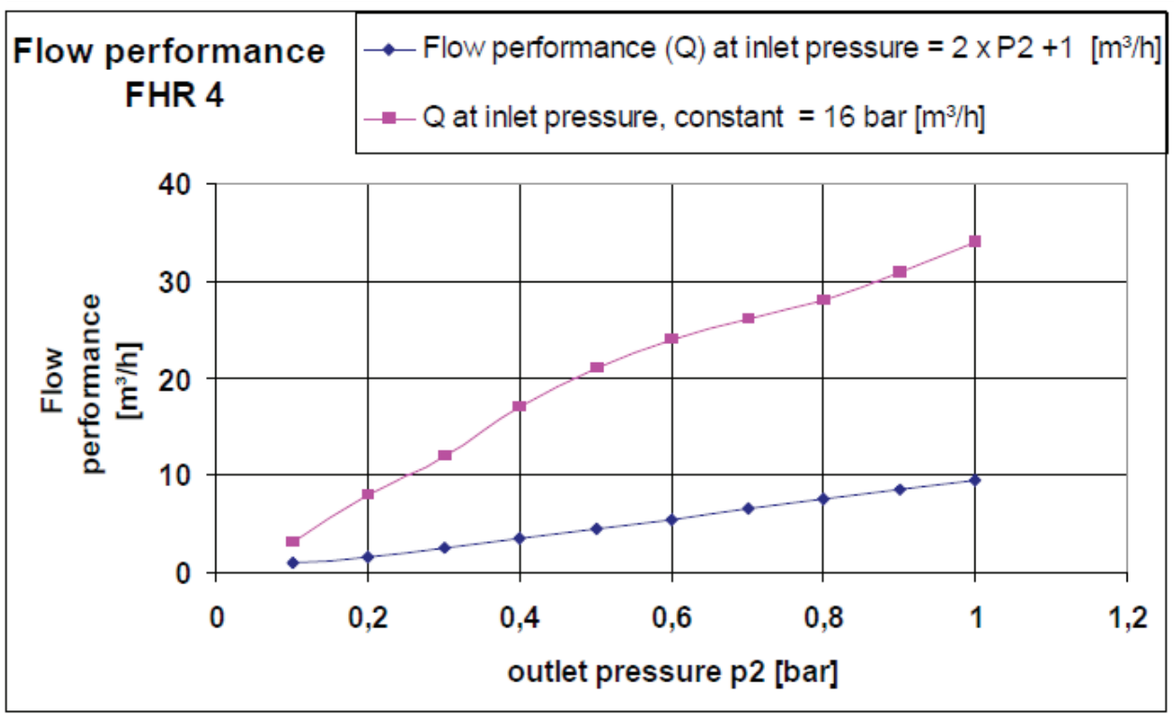
EHR 3 / EHR 4



Flow performance FHR 3



Flow performance FHR 4



ORDER DETAILS

Material:
1 = brass
2 = brass, nickel plated

Seat:
1 = 3 mm
2 = 4 mm

Outlet pressure ranges:
1 = 30 mbar
2 = 50 mbar
3 = 70 mbar
4 = 100 mbar
5 = 200 mbar
6 = 300 mbar
7 = 500 mbar
8 = 700 mbar
9 =1000 mbar

17-	1	1	7	Gas type
Type	Material	Seat	Pressure	Gas type

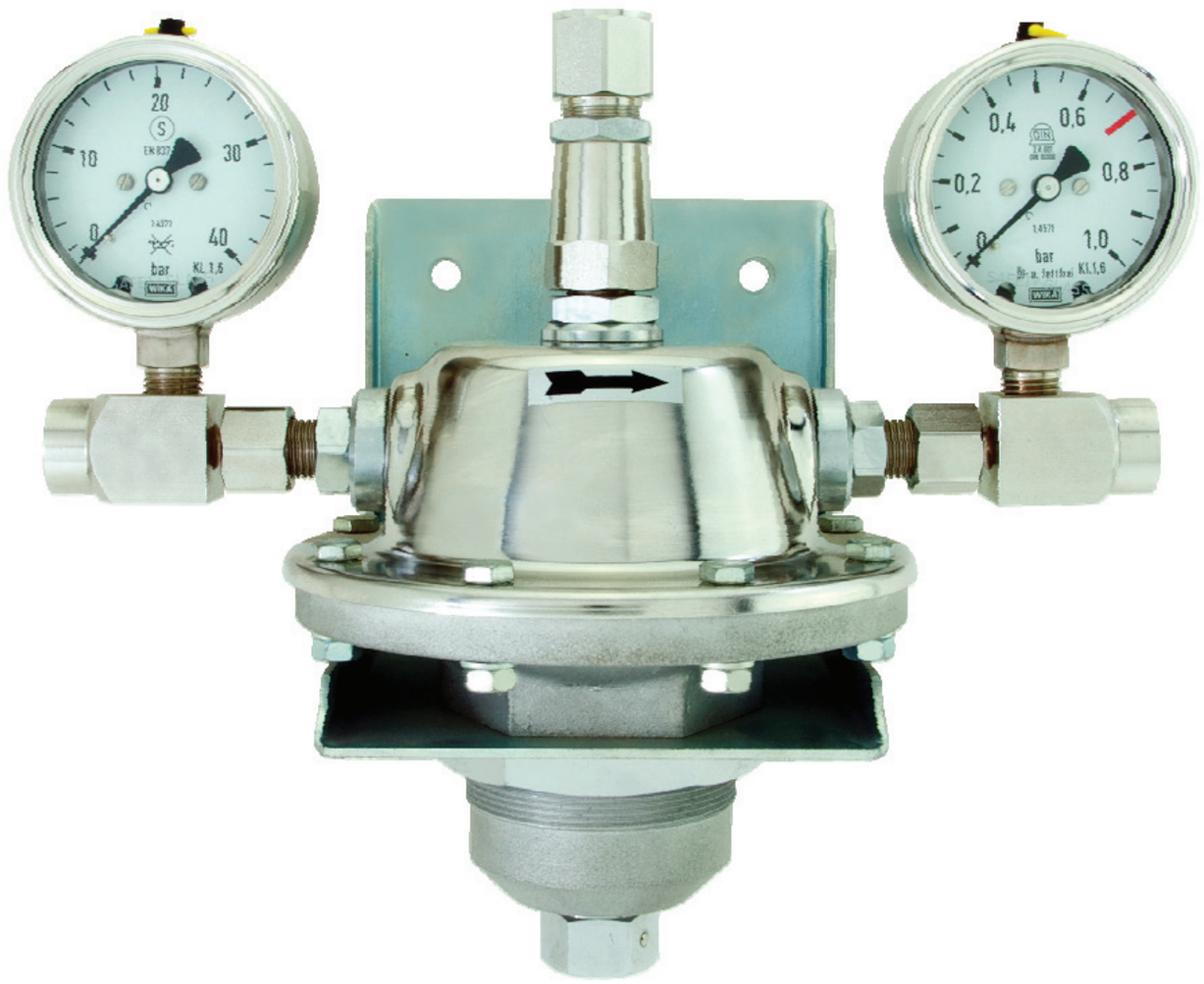
Accessories: See total catalogue segment

- Gauges, screw connections and accessories

dated 07/2022

Precision pressure regulator **PHR**

- single stage for mbar applications



TECHNICAL DETAILS		APPLICATION AREA	DESCRIPTION
Body:	brass or stainless steel electropolished	The precision pressure regulator PHR is used particularly in the following areas: · Laboratories and industries · Science and research · Gas analysis · Gaschromatography · Process engineering	The excellent gas control characteristics of PHR - even in the mbar area starting with 10 mbar is based on the wide and flexible diaphragm construction. As an option the PHR regulator can be delivered with in- and outlet pressure indicators or with a wall mounting bracket.
Seat:	viton		
Diaphragm:	viton		
Gas purity:	≤ 5.0		
Max. inlet pressure:	16 bar		
Outlet pressure range:	10 mbar - 2 bar		
Flow rate:	10 m³/h air		
Operating temp.:	-20°C to +70°C		
Gauge: (optional)	safety classification according EN 837-1 KL 1,6		
Threads:	inlet NPT 1/4 f outlet NPT 1/4 f		

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

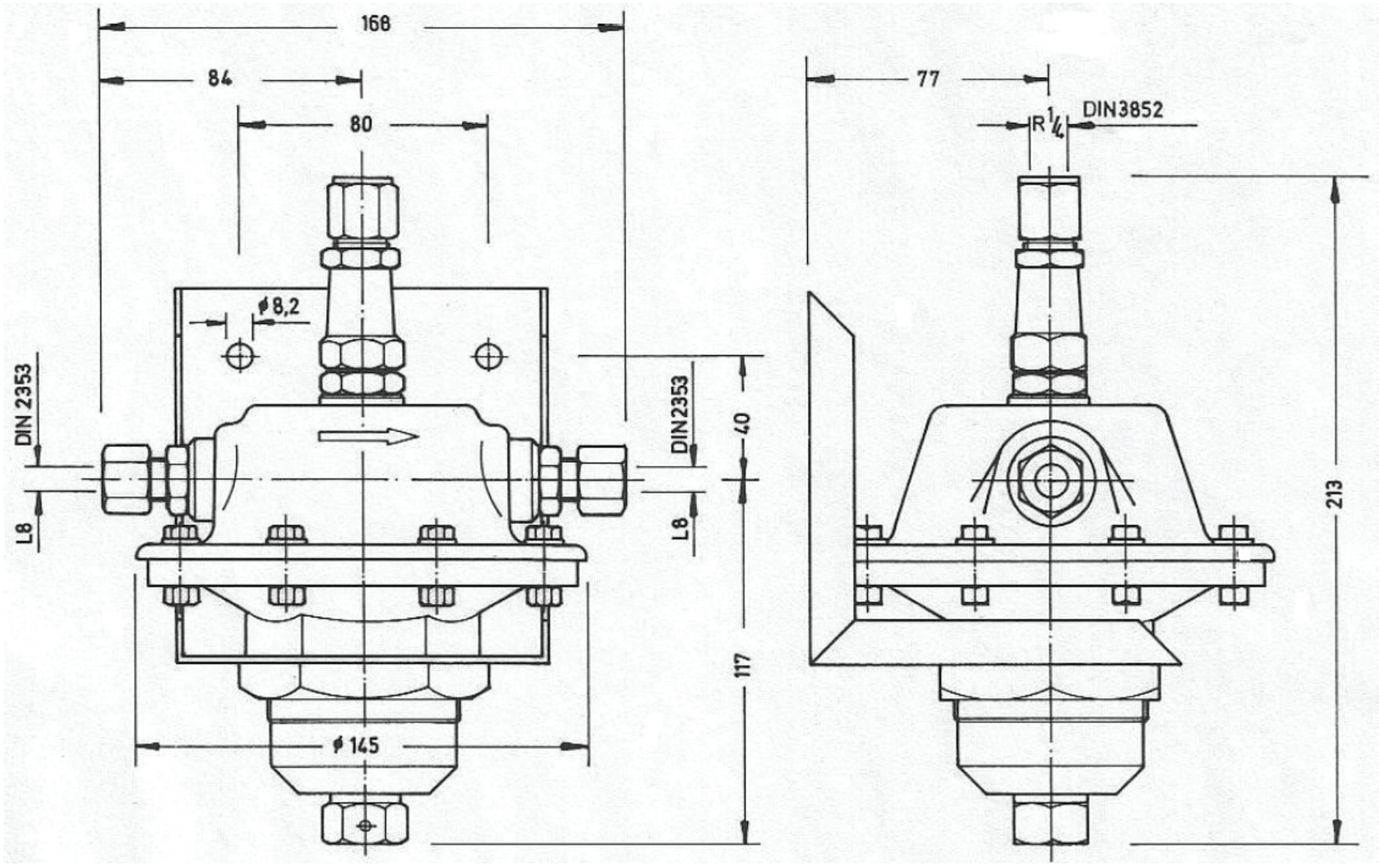
HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

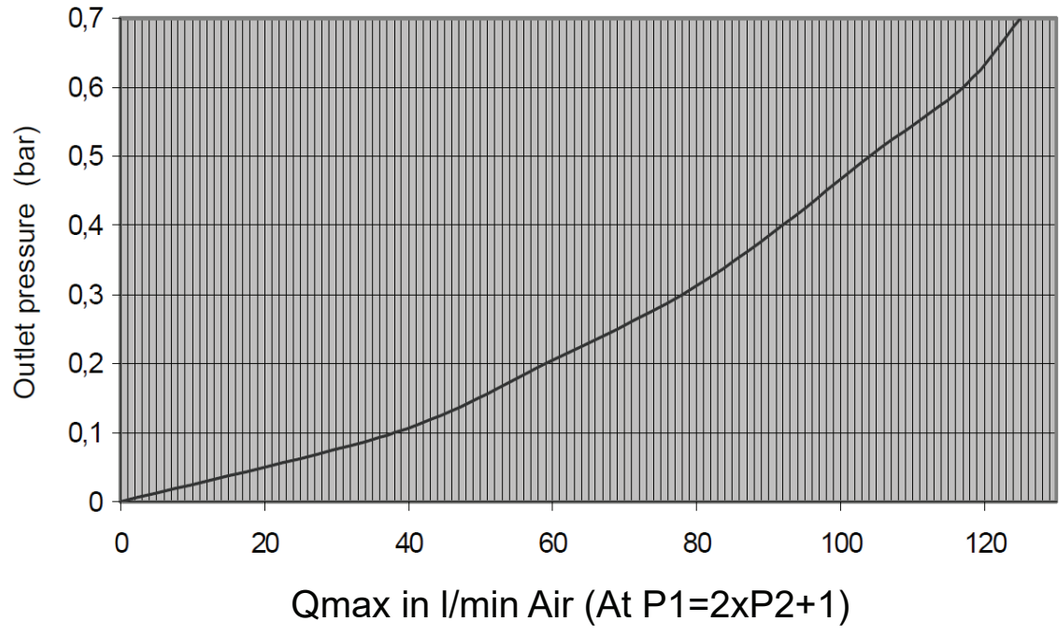
Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

PHR



FLOW PERFORMANCE PHR



ORDER DETAILS

Material:
1 = brass
2 = stainless steel electropolished

Outlet pressure ranges:
1 = 30 mbar
2 = 50 mbar
3 = 70 mbar
4 = 100 mbar
5 = 200 mbar
6 = 300 mbar
7 = 500 mbar
8 = 700 mbar
9 = 1000 mbar
10 = 1500 mbar
11 = 2000 mbar

Gauge:
1 = without
2 = with working pressure indicator
3 = in- and outlet pressure gauges

Options for in- and outlet:
00 = NPT 1/4“ f
03 = compression fitting 3 mm
06 = compression fitting 6 mm
08 = compression fitting 8 mm
10 = compression fitting 10 mm
12 = compression fitting 12 mm

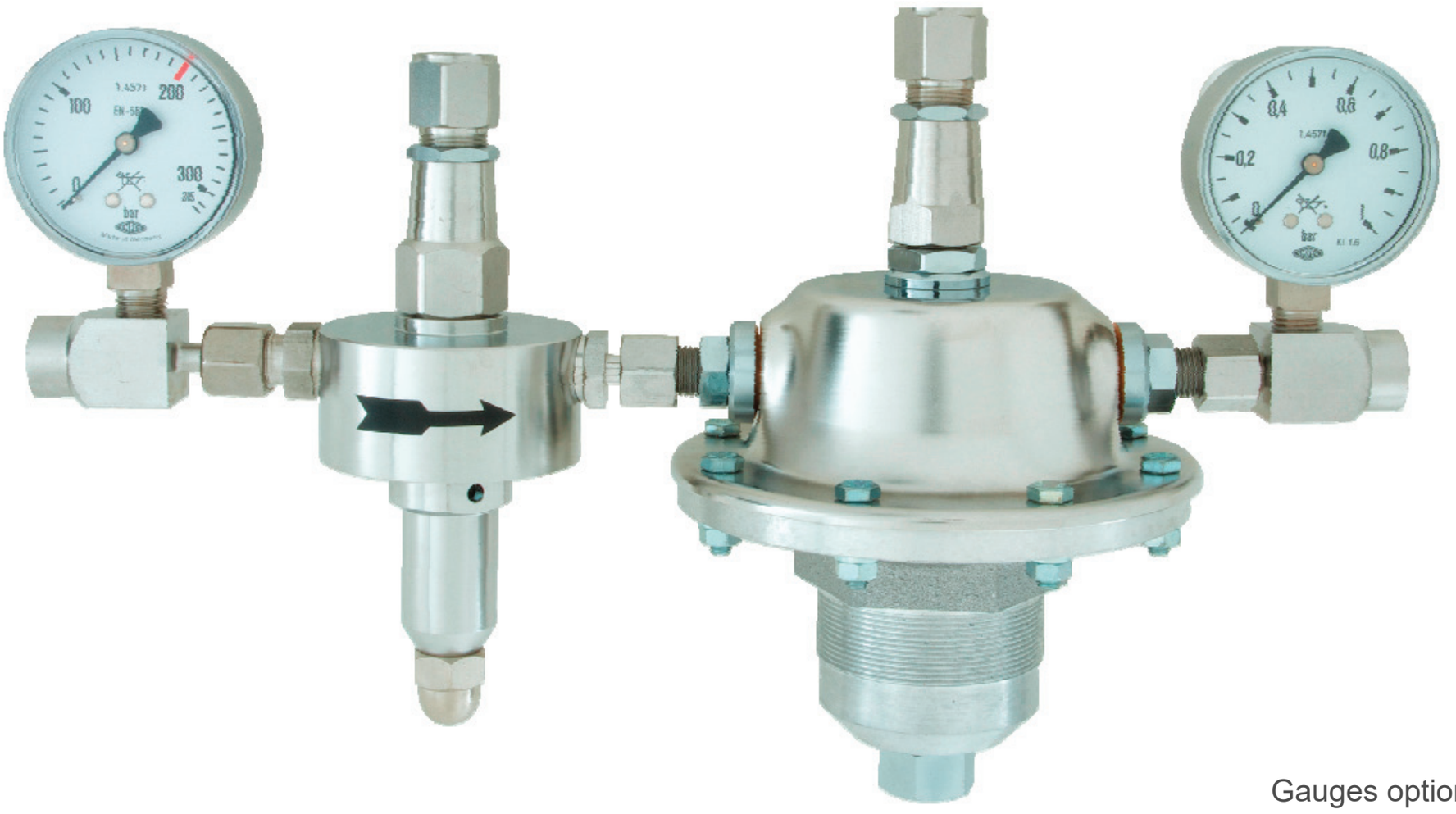
28-	2	2	2	08	12	Gas type
Type	Material	Pressure	Gauge	Inlet	Outlet	Gas type

Accessories: See total catalogue segment - Gauges, screw connections and accessories

dated 07/2022

Precision pressure regulator **VDS-PHR**

- dual stage for mbar applications inlet pressures up to 300 bar



Gauges optional

TECHNICAL DETAILS		APPLICATION AREA	DESCRIPTION
Body:	brass, nickel and matt chrome plated or stainless steel	· mbar applications with high inlet pressures up to 300 bar · Instrumentation and process engineering · Laboratories · Gas purities up to 5.0 (99.999 Vol.%) purity	VDS PHR is a dual stage precision pressure regulator with a wide and flexible diaphragm surface for mbar operating pressures and is often used at science and research institutes or process engineering. Due to dual stage construction it is possible to work with absolutely stable outlet pressure even if there are high inlet pressures and even if the inlet pressure drops down significantly. For wall mounting of VDS PHR is as an option a bracket available.
Seat:	viton		
Diaphragm:	viton		
Gas purity:	≤ 5.0		
Max. inlet pressure	300 bar		
Outlet pressure range:	10 mbar - 2 bar		
Flow:	10 m³/h air		
Operating temp.:	-20°C to +70°C		
Gauge: (optional)	safety version according EN 837-1 KL 1,6		
Threads:	in- and outlet G 1/4 f		

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

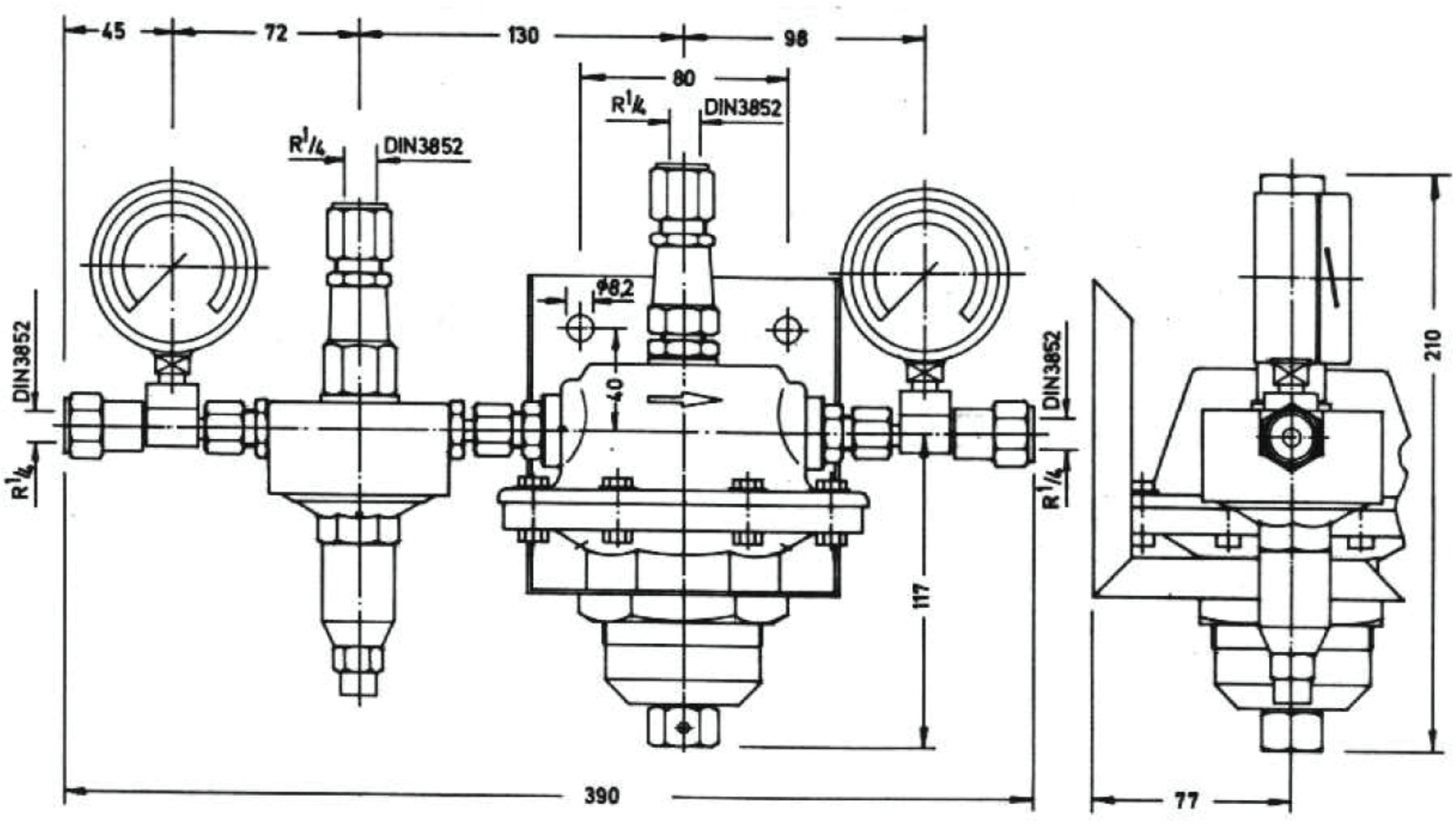
HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

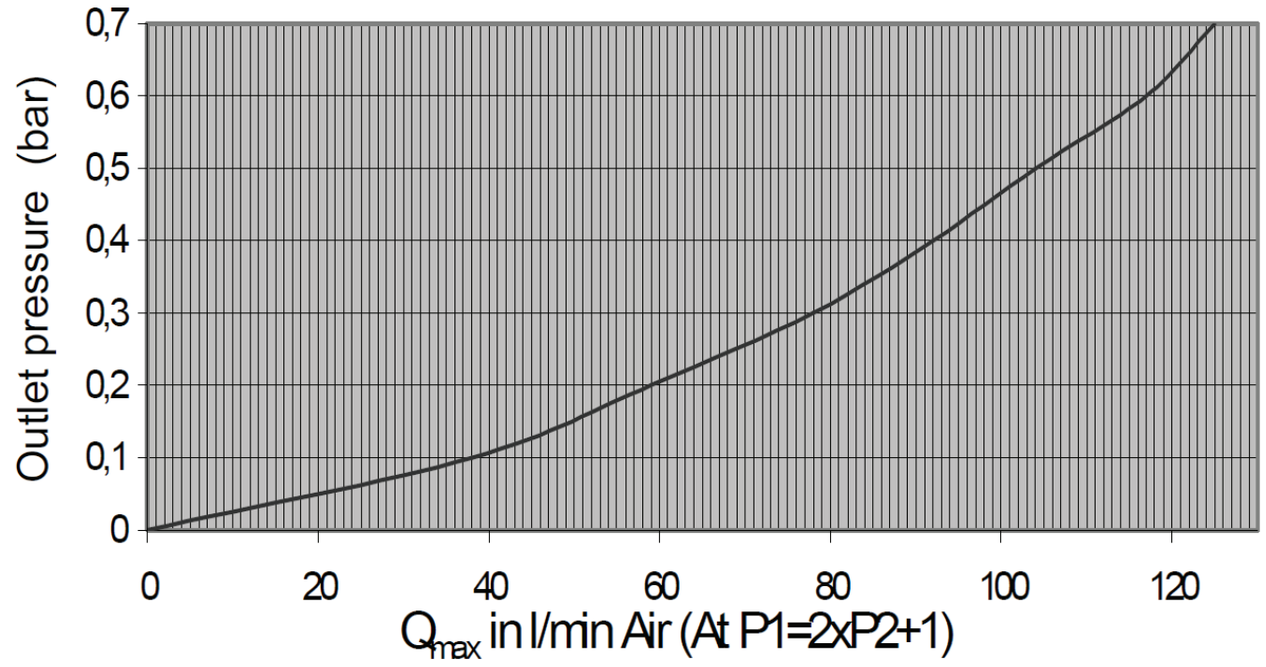
Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

VDS-PHR



FLOW PERFORMANCE VDS-PHR



ORDER DETAILS

Material:
1 = brass
2 = stainless steel electropolished

Outlet pressure ranges:
1 = 30 mbar
2 = 50 mbar
3 = 70 mbar
4 = 100 mbar
5 = 200 mbar
6 = 300 mbar
7 = 500 mbar
8 = 700 mbar
9 = 1000 mbar
10 = 1500 mbar
11 = 2000 mbar

Gauges :
1 = without
2 = with working pressure indicator
3 = with in- and outlet pressure indicator

Options for in- and outlet:
00 = G 1/4“ f
03 = compression fitting 3 mm
06 = compression fitting 6 mm
08 = compression fitting 8 mm
10 = compression fitting 10 mm
12 = compression fitting 12 mm

29-	2	2	2	08	12	Gas type
Type	Material	Pressure	Gauge	Inlet	Outlet	Gas type

Accessories: See total catalogue segment - Gauges, screw connections and accessories

dated 02/2022

Precision pressure regulator **FHR 125**

TECHNICAL DETAILS		APPLICATION AREA	DESCRIPTION
Body:	aluminium	The particular area of application of these pressure control valves are where high requirements are required in accuracy, stable regulation, as well as durable building quality. Through different valve seat diameters, as well as various adjusting springs, these pressure control valves can be individually adjusted to the requirements needed e.g. as tank ventilation regulators and burning and heating gasregulation.	The precision pressure regulator FHR 125 serves the pressure reduction of air and neutral gases down to pressures within the mbar range. This is reached by a very thin diaphragm from strengthened synthetic rubber, as well as a cantilever transmission for the actuation of the valve piston. The diaphragm housing can be rotated step-lessly against the tubing ports. Thus a horizontal adjustment of the diaphragm is possible in all installation positions. An optionally installed blow-off valve is in the position to regulate excessive pressure on the outlet pressure side.
Valve seat:	aluminium Ø 3,5 to Ø 10		
Seat gasket:	NBR		
Diaphragm:	NBR		
Max. inlet pressure:	1,7 / 2,5 / 5 / 10 bar		
Outlet pressure range:	5 mbar to 700 mbar		
Operating temp.:	-20°C to +80°C		
Size:	233 x 161 x 156 mm		
Weight:	1800 g		
Connections:	in- / outlet G 1“		

QUALITY STANDARD

The company Hornung is certified to **ISO 9001:2015 and ISO 14001:2015**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

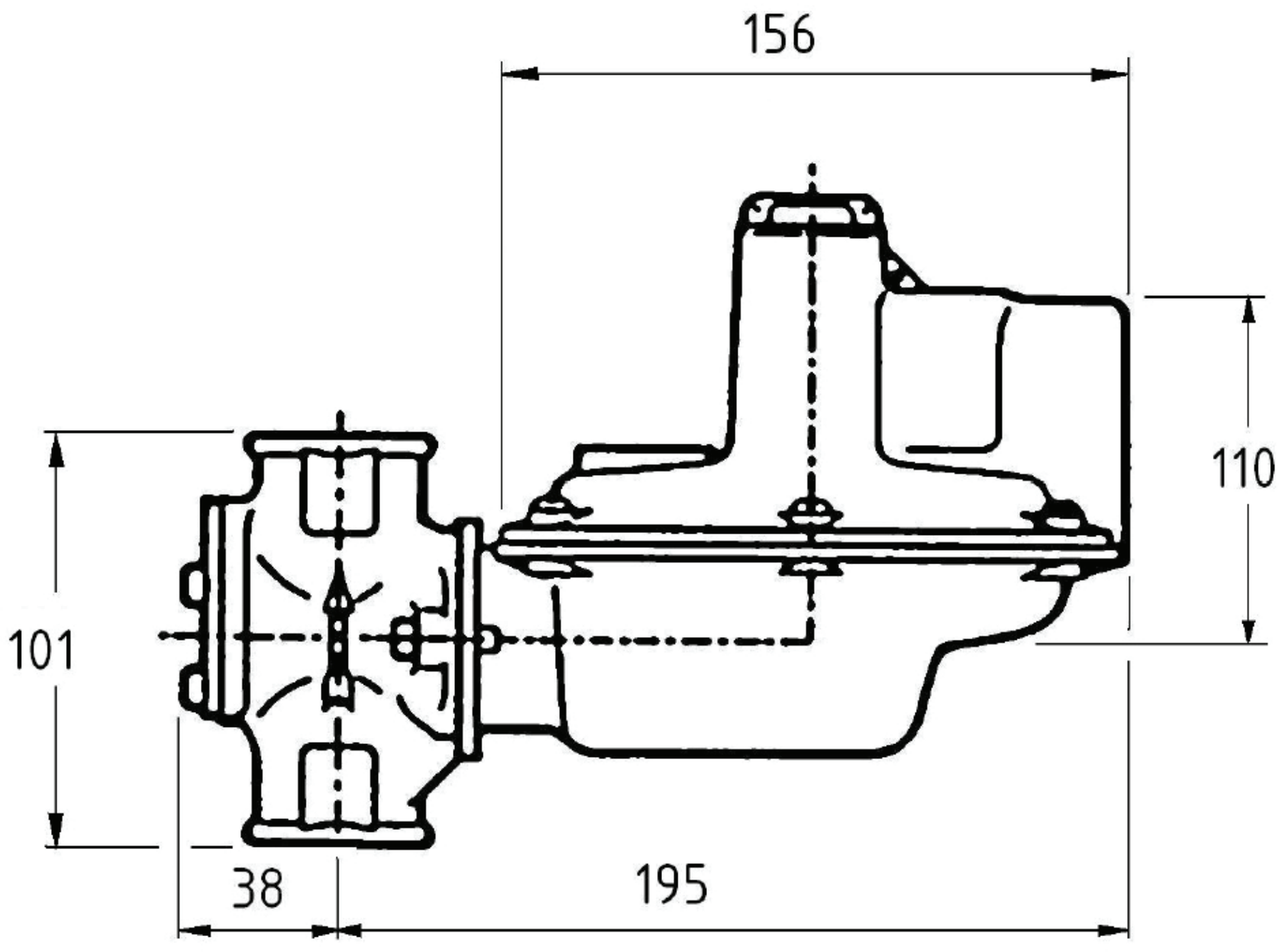
HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

FHR 125



PERFORMANCE DIAGRAM

FHR 125

See data sheet / sides 3 and 4

The following performance diagrams are the maximum throughput with completely opened valve depending on seat size with given in and outlet pressures.

To achieve a good controlling action of the pressure regulator, no more than 90 % of the indicated flow rate should be used.

ORDER DETAILS

Seat size:
1 = 3,5 mm
2 = 5,0 mm
3 = 8,0 mm
4 = 10,0 mm

Outlet pressure range:
1 = 5 - 15 mbar
2 = 12 - 25 mbar
3 = 22 - 35 mbar
4 = 32 - 50 mbar
5 = 45 - 75 mbar
6 = 70 - 140 mbar
7 = 100 - 300 mbar
8 = 250 - 700 mbar

Blow-off valve:
S1 = without blow-off valve
S2 = with blow-of valve

Regulator type		18	-1	2	S2	Gas type
18	FHR 125	Type	Seat	Pressure	Valve	Gas type

Accessories: - Flanges DN 25 / PN 10 / Form C

Flow rate in Nm³/h (Air) for **FHR 125**

The following performance diagrams are the maximum throughput with completely opened valve depending on seat size with given in and outlet pressures.
To achieve a good controlling action of the pressure regulator, no more than 90 % of the indicated flow rate should be used.

Seat / Nozzle 3,5 mm; Inlet pressure max. 10 bar

Spring range (mbar)	**5 - 15**	**12 - 25**	**22 - 50**	**32 - 50**	**45 - 75**	**70 - 140**	**100 - 300**	**250 - 700**
Setting pressure (mbar)	**10**	**20**	**30**	**40**	**60**	**100**	**200**	**300**
Inlet pressure (bar)	**Nm³/h**	**Nm³/h**	**Nm³/h**	**Nm³/h**	**Nm³/h**	**Nm³/h**	**Nm³/h**	**Nm³/h**
0,25	5	4	5	5	5	5	5	--
0,50	7	6	7	8	8	7	6	8,5
0,75	9	9	10	10	10	10	9	10
1,00	12	11	11	11	11	12	12	12
1,25	13	13	13	13	14	13	13	14
1,50	15	15	14	14	14	14	14	15
2,00	18	17	16	16	16	18	17	20
2,50	21	20	20	19	19	20	20	23
3,00	23	23	22	22	22	23	22	24
3,50	27	26	25	25	25	26	25	25
4,00	29	29	28	28	28	28	29	29
5,00	35	35	35	35	35	34	34	34
6,00	41	41	41	41	41	41	41	42
7,00	47	47	47	47	47	47	41	50
8,00	53	53	53	53	53	53	53	55
10,00	54	54	54	54	54	54	54	62

Seat / Nozzle 5,0 mm; Inlet pressure max. 5 bar

Spring range (mbar)	**5 - 15**	**12 - 25**	**22 - 35**	**32 - 50**	**45 - 75**	**70 - 140**	**100 - 300**	**250 - 700**
Setting pressure (mbar)	**10**	**20**	**30**	**40**	**60**	**100**	**200**	**300**
Inlet pressure (bar)	**Nm³/h**	**Nm³/h**	**Nm³/h**	**Nm³/h**	**Nm³/h**	**Nm³/h**	**Nm³/h**	**Nm³/h**
0,25	67	8	8	8	8	7	8	--
0,50	15	13	14	13	13	12	12	17
0,75	20	18	19	17	18	15	16	20
1,00	23	23	23	23	22	21	22	23
1,25	26	26	26	26	26	25	25	27
1,50	29	29	28	29	29	28	28	29
2,00	35	35	34	34	34	33	34	35
2,50	41	40	40	40	41	40	40	41
3,00	47	46	46	46	47	46	46	44
3,50	53	52	51	52	52	51	53	52
4,00	58	58	57	58	58	58	58	58
5,00	67	69	69	69	69	69	68	67

HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

Flow rate in Nm³/h (Air) for **FHR 125**

Seat / Nozzle 8,0 mm; Inlet pressure max. 2,5 bar

Spring range (mbar)	**5 - 15**	**12 - 25**	**22 - 35**	**32 - 50**	**45 - 75**	**70 - 140**	**100 - 300**	**250 - 700**
Setting pressure (mbar)	**10**	**20**	**30**	**40**	**60**	**100**	**200**	**700**
Inlet pressure (bar)	**Nm³/h**	**Nm³/h**	**Nm³/h**	**Nm³/h**	**Nm³/h**	**Nm³/h**	**Nm³/h**	**Nm³/h**
0,10	11	10	10	9	8	--	--	--
0,25	12	17	17	17	17	12	--	--
0,50	29	31	31	29	28	23	23	26
0,75	42	43	42	40	40	33	30	38
1,00	51	50	50	50	51	38	39	44
1,25	60	58	62	59	61	45	44	53
1,50	65	63	70	67	67	53	51	58
2,00	95	90	97	97	93	87	87	65
2,50	95	90	97	97	93	87	87	68

Seat / Nozzle 10,0 mm; Inlet pressure max. 1,7 bar

Spring range (mbar)	**5 - 15**	**12 - 25**	**22 - 35**	**32 - 50**	**45 - 75**	**70 - 140**	**100 - 300**	**250 - 700**
Setting pressure (mbar)	**10**	**20**	**30**	**40**	**60**	**100**	**200**	**700**
Inlet pressure (bar)	**Nm³/h**	**Nm³/h**	**Nm³/h**	**Nm³/h**	**Nm³/h**	**Nm³/h**	**Nm³/h**	**Nm³/h**
0,05	11	7	6	--	--	--	--	--
0,10	12	11	10	10	8	--	--	--
0,25	21	21	22	21	21	18	--	--
0,50	35	35	36	35	34	28	21	34
0,75	50	50	53	50	50	42	31	42
1,00	61	66	65	61	59	58	50	50
1,25	73	76	75	73	70	72	65	56
1,50	82	91	85	86	93	76	74	59
1,70	91	91	94	92	92	83	76	61

HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

Precision pressure regulator **FHR 250**

TECHNICAL DETAILS		APPLICATION AREA	DESCRIPTION
Casing:	aluminium	The particular area of application of these pressure control valves are where high requirements are required in accuracy, stable regulation, as well as durable building quality. Through different valve seat diameters, as well as various adjusting springs, these pressure control valves can be individually adjusted to the requirements needed e.g. as tank ventilation regulators and burning and heating gas regulation.	The precision pressure regulator FHR 250 serves the pressure reduction of air and neutral ases down to pressures within the mbar range. This is reached by a very thin diaphragm from strengthened synthetic rubber, as well as a Cantilever transmission for the actuation of the valve piston. The diaphragm housing can be rotated steplessly against the tubing ports. Thus a horizontal adjustment of the diaphragm is possible in all installation positions. An optionally installed blow-off valve is in the position to regulate excessive pressure on the outlet pressure side.
Valve seat:	aluminium Ø 6,3 to 32 mm		
Seat:	NBR		
Diaphragm:	NBR		
Max. inlet pressure:	1,4 / 2 / 2,75 / 5,5 / 7 / 10 bar		
Outlet pressure range:	8 mbar to 345 mbar		
Operating temp.:	-20°C to +80°C		
Dimensions:	420 x 335 x 305 mm		
Weight:	4200 g		
Connections:	in- / outlet G 2“		

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001:2009**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

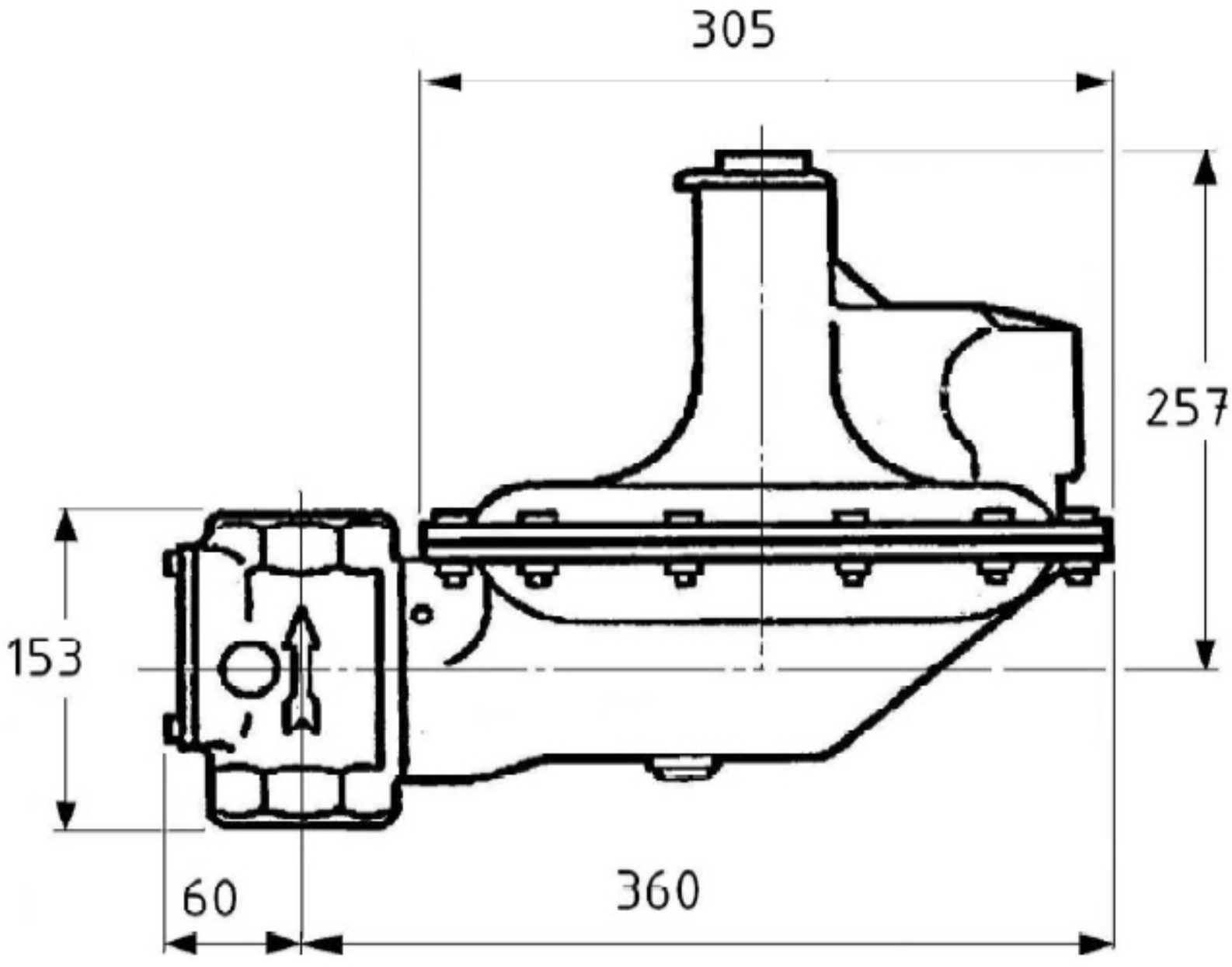
HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

FHR 250



PERFORMANCE CURVE

FHR 250

See data sheet / sides 3 and 4

The following performance diagrams are the maximum throughput with completely opened valve depending on seat size with given in and outlet pressures.

To achieve a good controlling action of the pressure regulator, no more than 90 % of the indicated flow rate should be used.

ORDER DETAILS

Seat size:
1 = 6,3 mm
2 = 9,5 mm
3 = 12,7 mm
4 = 16,0 mm
5 = 19,0 mm
6 = 22,0 mm
7 = 25,0 mm
8 = 32,0 mm

Outlet pressure ranges:
1 = 8 - 15 mbar
2 = 14 - 20 mbar
3 = 20 - 35 mbar
4 = 35 - 70 mbar
5 = 70 - 140 mbar
6 = 100 - 170 mbar
7 = 140 - 210 mbar
8 = 210 - 345 mbar

Blow-off valve:
S1 = without blow-off valve
S2 = with blow-of valve

Regulator type		19	-1	2	S2	Gas type
19	FHR 250	Type	Seat	Pressure	Valve	Gas type

Accessories: · Flansche DN 50 / PN 10 / Form C

Flow rate in Nm³/h (Air) for **FHR 250**

Seat / Nozzle 6,3 mm; inlet pressure max. 10 bar

Spring range (mbar) Setting pressure (mbar) Inlet pressure (bar)	**8 - 15** **15** **Nm³/h**	**14 - 20** **17,5** **Nm³/h**	**20 - 35** **35** **Nm³/h**	**35 - 70** **70** **Nm³/h**	**70 - 140** **140** **Nm³/h**	**100 - 170** **170** **Nm³/h**	**140 - 210** **210** **Nm³/h**	**210 - 345** **345** **Nm³/h**
0,350	28	28	28	30	20	21	18	--
0,690	36	40	40	37	32	30	36	28
1,000	48	48	48	48	44	45	44	44
1,500	60	64	56	64	60	60	56	60
2,000	68	72	76	72	76	76	72	76
3,000	100	100	96	96	96	96	88	92
4,000	124	120	124	124	116	124	112	120
5,000	128	132	140	140	136	144	136	140
6,000	144	148	144	148	144	152	144	148
8,000	184	184	192	184	184	192	172	180

Seat / Nozzle 9,5 mm; inlet pressure max. 7 bar

Spring range (mbar) Setting pressure (mbar) Inlet pressure (bar)	**8 - 15** **15** **Nm³/h**	**14 - 20** **17,5** **Nm³/h**	**20 - 35** **35** **Nm³/h**	**35 - 70** **70** **Nm³/h**	**70 - 140** **140** **Nm³/h**	**100 - 170** **170** **Nm³/h**	**140 - 210** **210** **Nm³/h**	**210 - 345** **345** **Nm³/h**
0,070	24	24	20	--	--	--	--	--
0,140	32	32	28	--	--	--	--	--
0,200	40	40	36	36	--	--	--	--
0,350	56	56	48	52	40	44	44	--
0,690	80	80	72	80	72	72	76	60
1,000	100	100	96	100	84	92	100	80
1,500	124	124	124	112	108	120	128	108
2,000	148	152	152	152	132	152	152	136
3,000	196	200	200	204	184	200	204	184
4,000	248	252	252	252	240	252	252	240
5,000	264	268	272	276	268	268	272	268
7,000	--	--	--	324	320	324	332	328

Seat / Nozzle 12,7 mm; inlet pressure max. 5,5 bar

Spring range (mbar) Setting pressure (mbar) Inlet pressure (bar)	**8 - 15** **15** **Nm³/h**	**14 - 20** **17,5** **Nm³/h**	**20 - 35** **35** **Nm³/h**	**35 - 70** **70** **Nm³/h**	**70 - 140** **140** **Nm³/h**	**100 - 170** **170** **Nm³/h**	**140 - 210** **210** **Nm³/h**	**210 - 345** **345** **Nm³/h**
0,050	20	24	20	--	--	--	--	--
0,070	24	28	24	--	--	--	--	--
0,140	40	44	36	40	--	--	--	--
0,200	56	60	48	52	32	32	--	--
0,350	80	88	68	80	68	56	64	--
0,690	120	128	104	116	84	92	108	72
1,000	152	160	132	152	108	120	144	104
1,500	196	204	180	200	144	164	192	144
2,000	236	244	296	244	180	204	240	180
3,000	304	328	312	344	252	284	336	252
4,000	344	368	412	432	352	384	424	348
5,000	--	--	464	464	432	440	464	428

Seat / Nozzle 16,0 mm; inlet pressure max. 5,5 bar

Spring range (mbar) Setting pressure (mbar) Inlet pressure (bar)	**8 - 15** **15** **Nm³/h**	**14 - 20** **17,5** **Nm³/h**	**20 - 35** **35** **Nm³/h**	**35 - 70** **70** **Nm³/h**	**70 - 140** **140** **Nm³/h**	**100 - 170** **170** **Nm³/h**	**140 - 210** **210** **Nm³/h**	**210 - 345** **345** **Nm³/h**
0,050	28	30	--	--	--	--	--	--
0,070	36	38	24	--	--	--	--	--
0,140	60	64	44	--	--	--	--	--
0,200	72	76	52	68	40	--	--	--
0,350	104	108	76	96	56	64	64	--
0,690	164	168	120	152	92	108	108	92
1,000	208	212	164	192	116	148	148	132
1,500	268	276	228	256	156	196	204	184
2,000	304	320	288	320	204	252	256	236
3,000	356	376	420	444	296	364	372	336
4,000	--	--	536	564	416	480	484	436
5,000	--	--	--	--	--	560	560	512

HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

Shut-off and dosage valves

Shut-off valves are required where gas or liquid mediums are used. Here we have the possibility stop the flow at any position in the piping system. Often it is required that a certain dosage of the medium is needed.

This is done through changing the cross-section between the spindle and cone.

Contents:

HORNUNG

Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

Shut-off valve **AV 6 / AV 6 F**

DESCRIPTION

For the safe gas shut-off for ranges up to 300 bar.

Applicable for left and right side of the cylinder manifold.

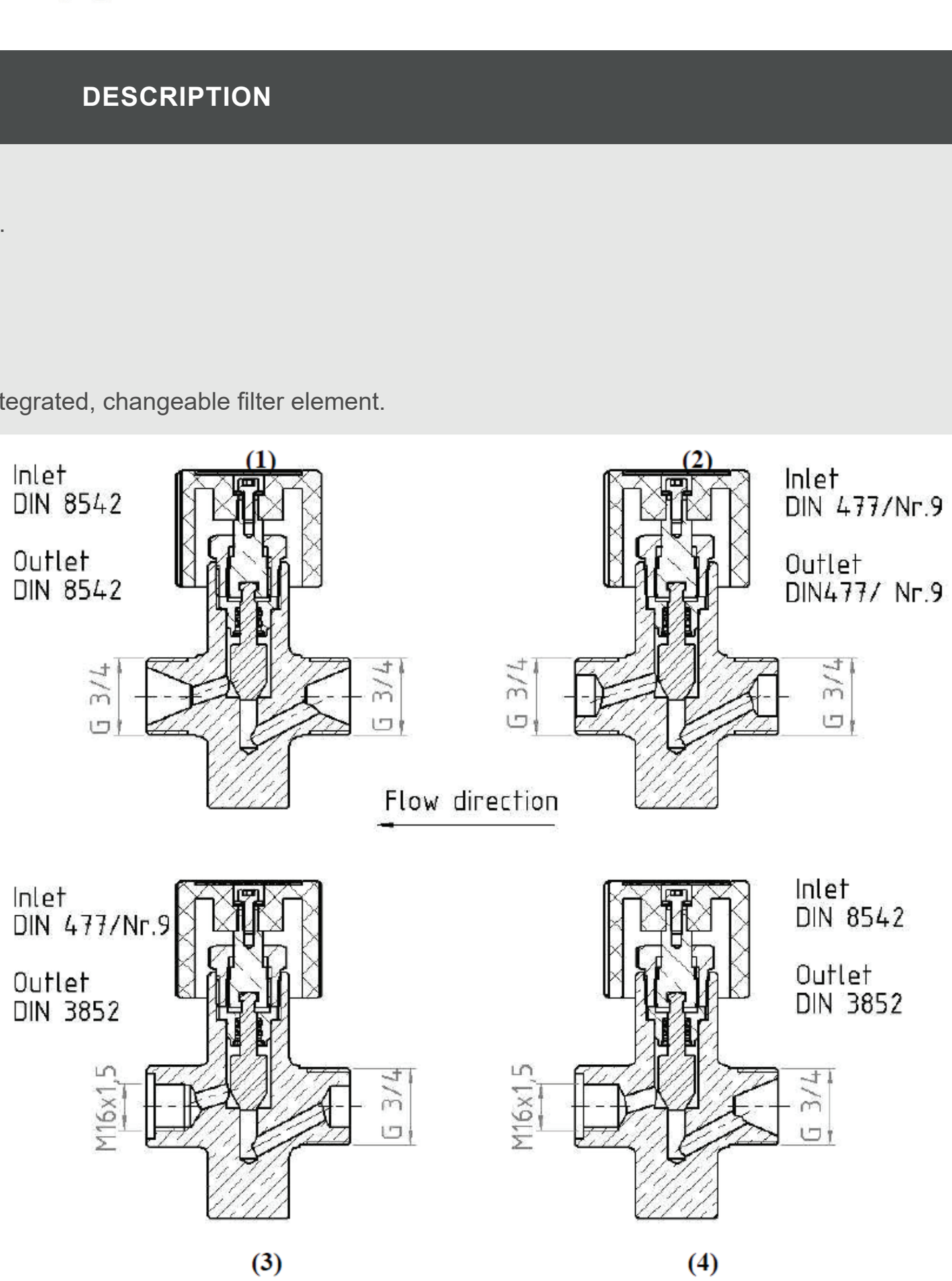
Oxygen compatibility certified by BAM Berlin.

Functional parts exchangeable

Also available with different housing connections and integrated, changeable filter element.

Housing connection options

The AV 6 / AV 6 F are available with the following inlet and outlet connections:



QUALITY SATANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001:2009**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

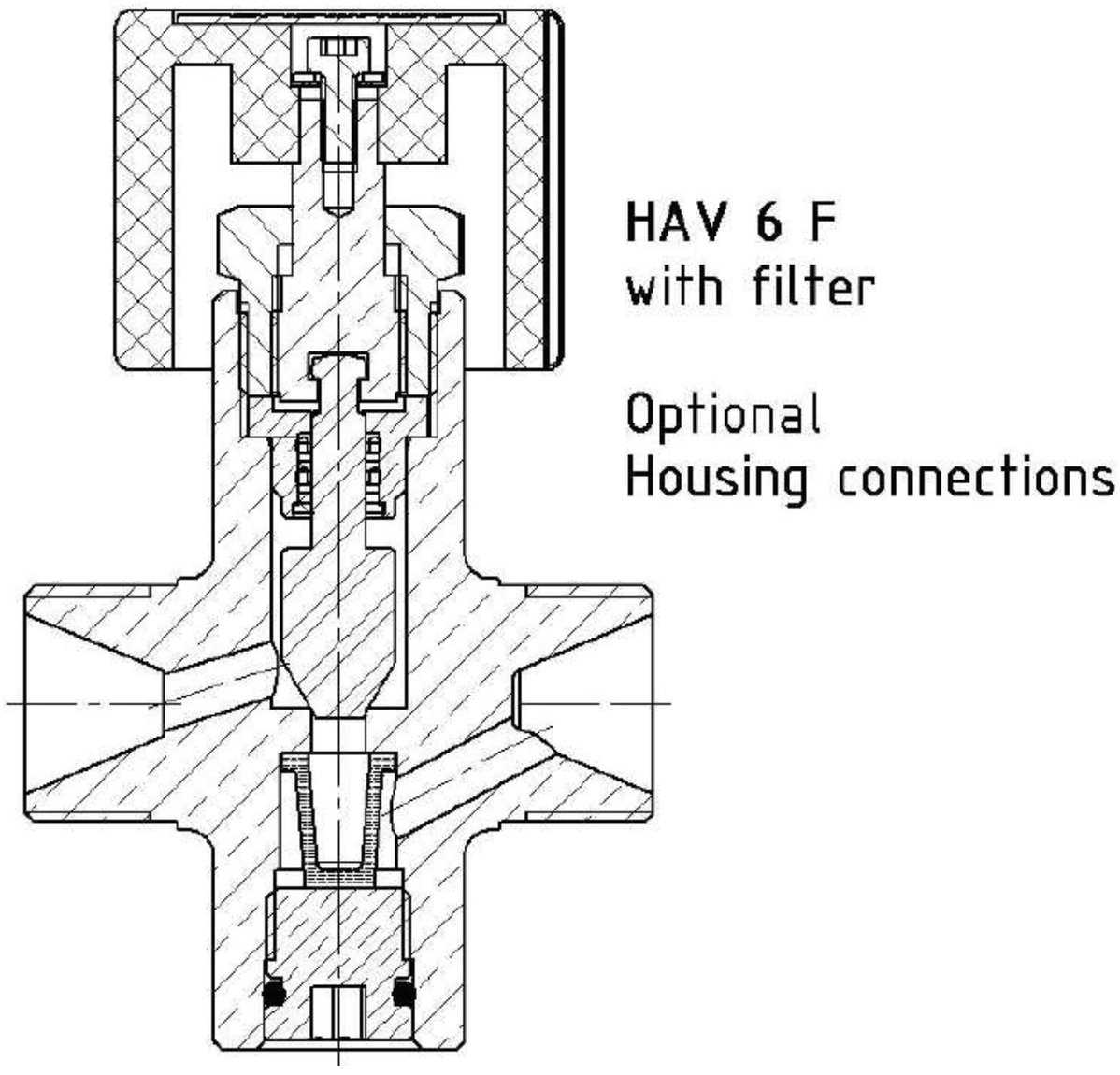
HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

AV 6 / AV 6F



Parallel to our basis type AV 6 we also have a AV 6F on offer with integrated, easily changeable sinter metal – filter element.

The assembled filter element holds back fixed particles of up to 80 Micron and permits only cleansed gases to flow to the following equipment.

The type of in and outlet connections are also available in the housing connection choices.

TECHNICAL DETAILS

Material:	brass	Size:	70 x 120 x 50
Gaskets:	viton	Weight:	640 g
max. pressure:	300 bar	Connections:	inlet / outlet
Pore size:	80µm (bronze)		as chosen
Bore:	6 mm		
Operating temp.:	-20°C to +70°C		

ORDER DETAILS

Housing connections:

1 = inlet/ outlet DIN 8542, G3/4

2 = inlet/ outlet DIN 477 / Nr. 9,G3/4

3 = inlet: DIN 477 / Nr.9 , G3/4
outlet: DIN 3852, M16x1,5

4 = inlet: DIN 8542 ,G3/4
outlet: DIN 3852, M16x1,5

5 = inlet: DKOS-S16 / M24x1,5
outlet: DKOS-S16 / M24x1,5

6 = inlet: M16x1,5 Innengewinde
outlet: DKOS-S16 / M24x1,5

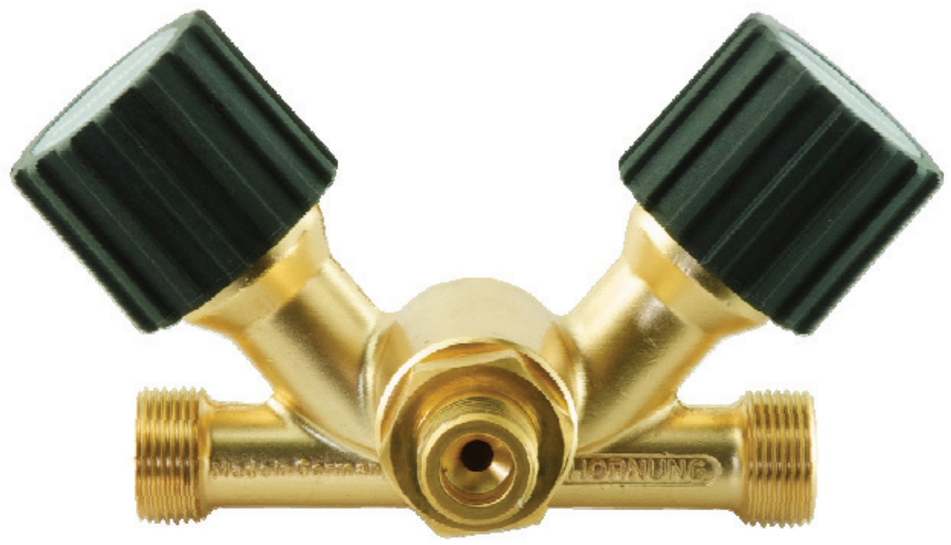
Filter element

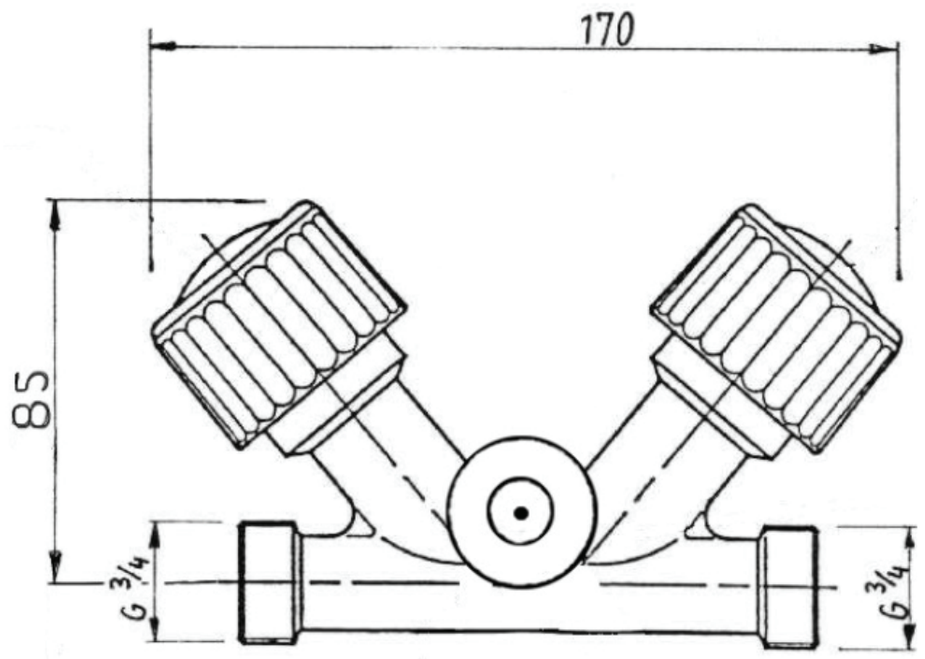
0 = without filter
1 = with filter [= AV 6 F]

Valve type					
62	AV 6 (F)	62	-3	1	Gas type
		Typ	Connection	Filter element	Gas type

dated 04/2019

Double shut-off valve DV 5





MODEL	GAS TYPE	INLET PRESSURE P1	NOMINALDIAMETER	INLETCONNECTION	OUTLET CONNECTION
DV 5	F, NF, NC	max. 200 bar	Ø 5 mm	2 x G 3/4 DIN 477	W 21, 8 x 1/14 DIN 477-1
DV 5	F, NF, NC	max. 300 bar	Ø 5 mm	2 x S16 DIN 2353	W 30 x 2 DIN 477-5

With the double shut-off valve the gas supply can be manually changed from empty to full bottles without interrupting the gas supply.

Suitable for non-aggressive, flammable and non-flammable gases.

Made of brass. A bracket can be supplied for wall mounting.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9015** and **ISO 14001:2015**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

HORNUNG

Präzision made in Germany

dated 05/2017

Shut-off valve AV 4

- 2-port or 4-port version

2-port Version

4-port Version (chromium-plated)

TECHNICAL DETAILS		APPLICATION AREA	DESCRIPTION
Material:	Brass and chrome plated	When oxygen is used, it is ensured by an selection of a metallic sealing piston. The AV 4 shut-off valve is availeble in an angle and through-feed, or in 4 port version. The shut-off valve is suitable for applications with flammable, non-flammable and toxic gases. Shut-off valves are applicable as system components in central high purity gas supply at low as well as high pressure.	The shut-off valve AV 4 is different through its compact structure and replaceability of its functioning components. Its shut-off function guarantees a safe application in low and high pressure ranges. It ensures a safe gas supply shut-off at a pressure range of up to 300 bar.
Piston:	PCTFE		
Max. inlet pressure:	300 bar		
Gas purity:	≤ 5.0		
Nominal diameter:	Ø 4 mm		
Operating temp.:	-20°C to +70°C		
Dimensions (wxhxd):	depends on version		
Weight:	approx. 325 g		

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001:2008** and **ISO 14001:2009**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

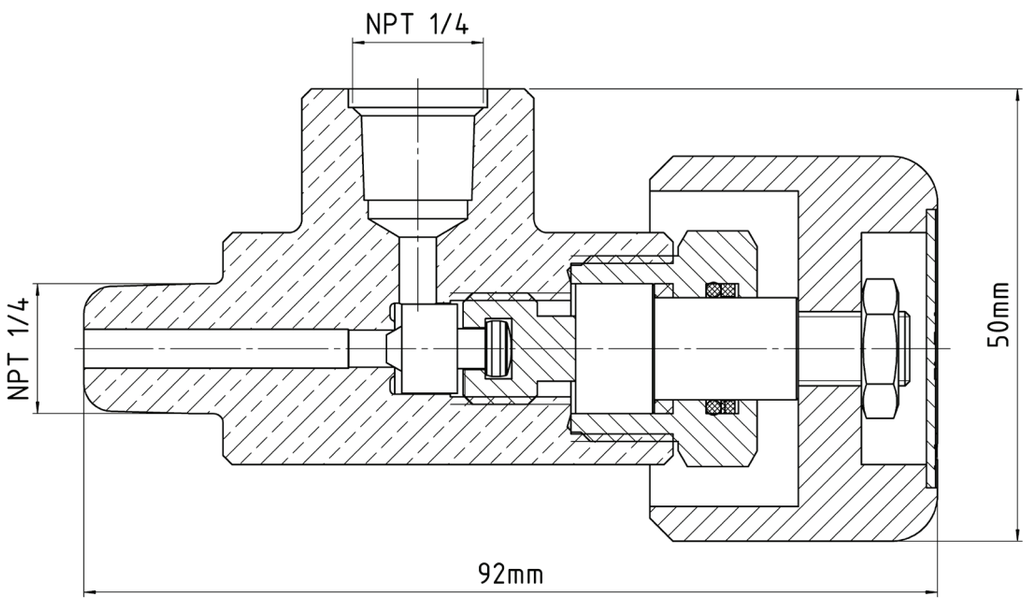
www.hornung.org
info@hornung.org

AV 4

SELECTION

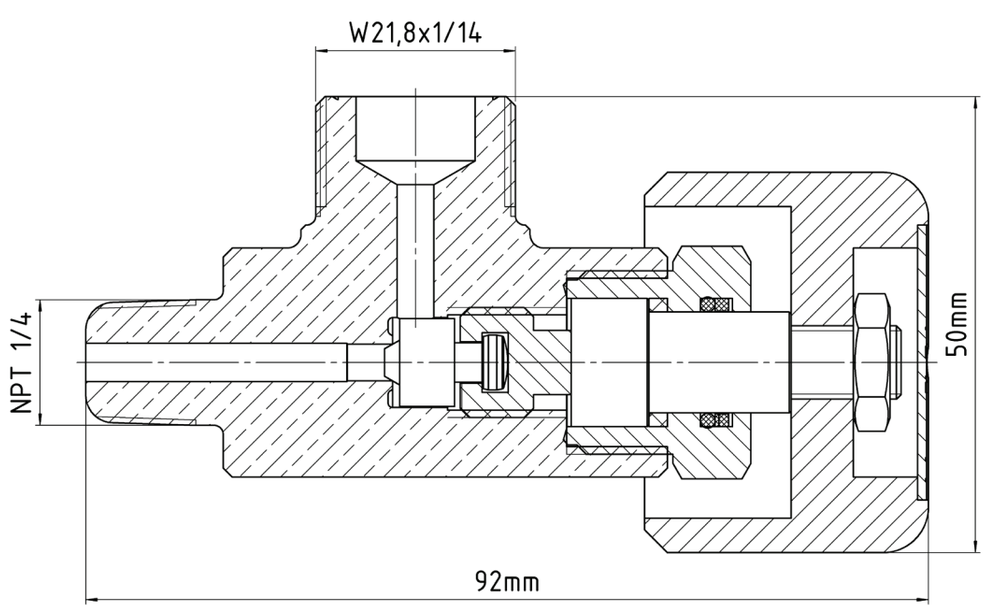
Main dimensions and selection criteria of the AV 4 according to illustrations on the front page.

Version (1) [2-port]



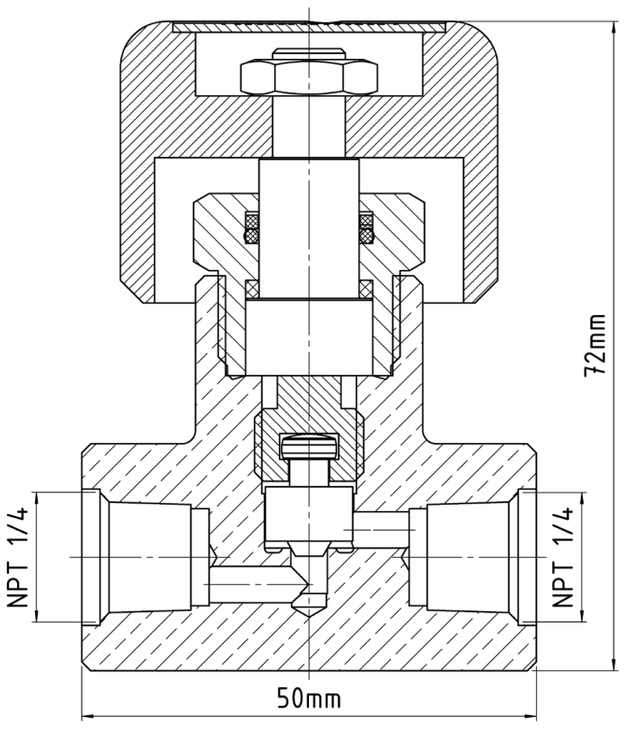
inlet NPT 1/4 m | outlet NPT 1/4 f

Version (2) [2-port]



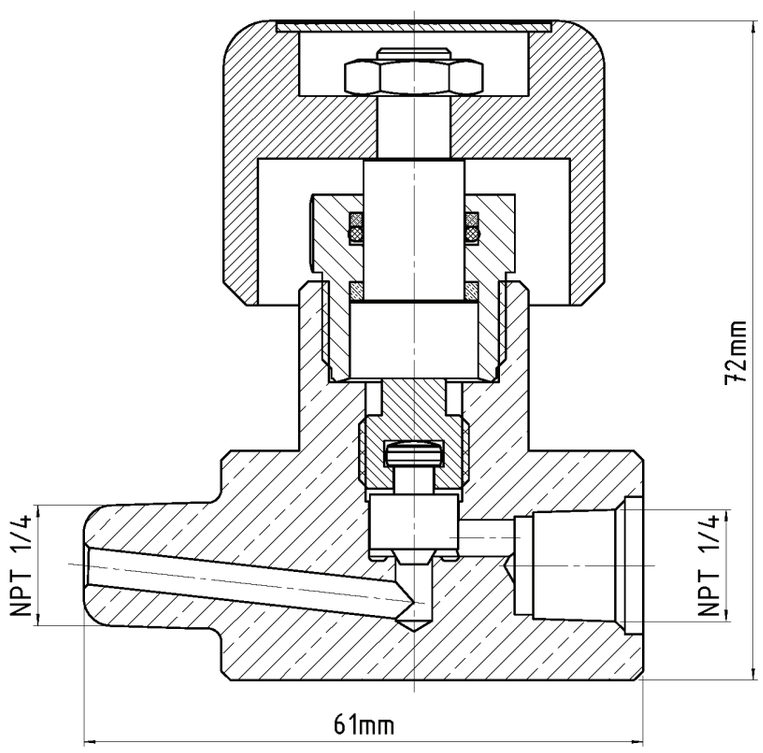
inlet NPT 1/4 m | outlet W21,80x1/14

Version (3) [2-port]



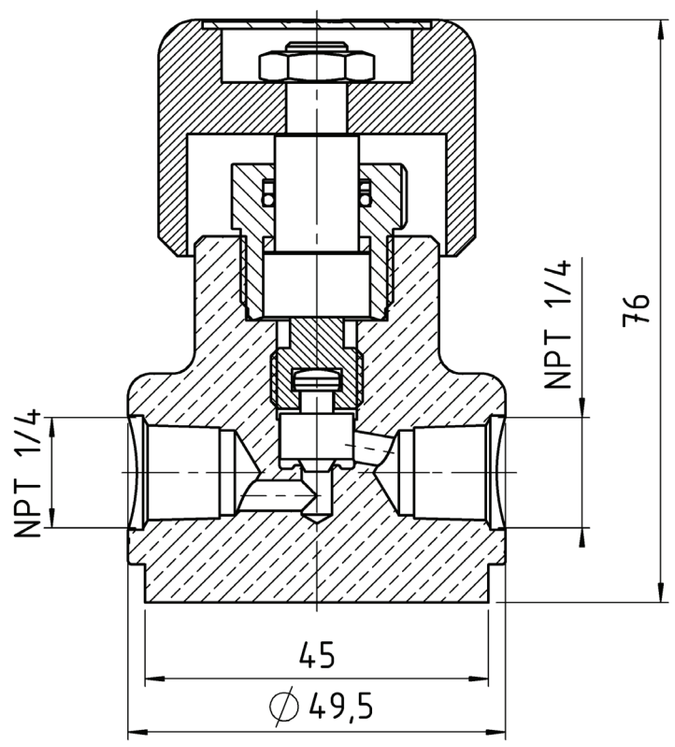
inlet NPT 1/4 f
outlet NPT 1/4 f

Version (4) [2-port]



inlet NPT 1/4 m
outlet NPT 1/4 f

Version (5 u. 6) [4-port]



1x inlet NPT 1/4 m
3x outlet NPT 1/4 f
or
3x inlet NPT 1/4 m
1x outlet NPT 1/4 f

ORDER DETAILS

Material:
1 = Brass

Version: Selection according to illustrations
1 = Inlet NPT 1/4 m | outlet NPT 1/4 f
2 = Inlet NPT 1/4 m | outlet W21,80x1/14
3 = Inlet NPT 1/4 f | outlet NPT 1/4 f
4 = Inlet NPT 1/4 m | outlet NPT 1/4 f
5 = 1x inlet NPT 1/4 f | 3x outlet NPT 1/4 f
6 = 3x inlet NPT 1/4 f | 1x outlet NPT 1/4 f

Piston:
1 = PCTFE
2 = Metal sealing

Shut-off valve	AV 4-	1	1	1	Gas type
AV 4	Type	Material	Version	Piston	Medium

dated 05/2017

Shut-off valve AV 5 / 4-port

- with 1 or 3 inlets

TECHNICAL DETAILS		APPLICATION AREA	DESCRIPTION
Material:	Brass, nickel and chrome plated or stainless steel 1.4404	The shut-off valve is suitable for applications with flammable, non-flammable and toxic gases. Shut-off valves are applicable as system components in central high purity gas supply at low as well as high pressure.	The AV 5 shut-off valve as a 4-port version is designed for use in high purity supply systems. It is available with either three inlet ports or three outlet ports. Thread holes on the backside allow a direct mounting onto a wall bracket which is available as an extra accessory.
Piston:	PCTFE		
Max. inlet pressure:	300 bar		
Nominal diameter:	Ø 5 mm		
Leakage rate:	10^{-6} mbar l/s He		
Gas purity:	≤ 5.0		
Operating temp.:	-20°C to +70°C		
Weight:	approx. 880 g		
Connections:	NPT 1/4“ f		

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001:2008** and **ISO 14001:2009**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

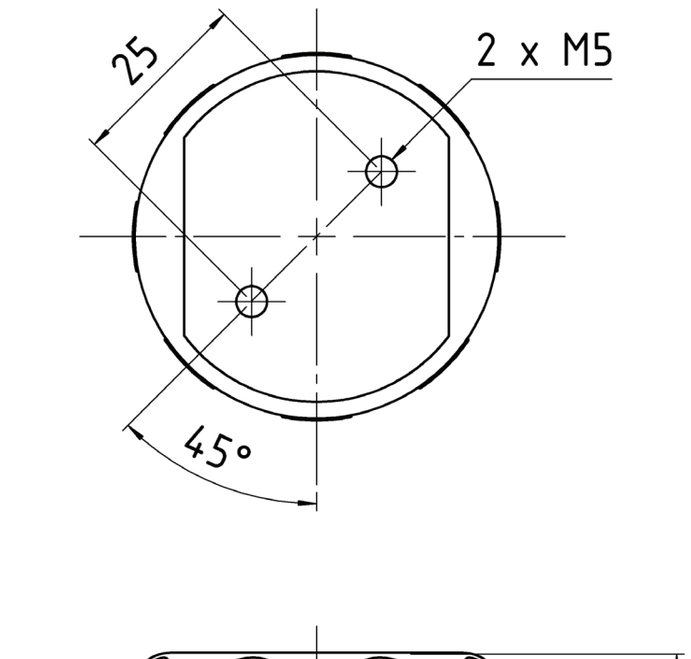
HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

AV 5



SELECTION

Main dimensions and selection criteria of the AV 5 / 4-port:

The shut-off valve AV 5 / 4-port is available with 1 inlet / 3 outlets or with 3 outlets / 1 inlet.

ODER DETAILS

Material:
1 = Brass

Version:
1 = 3 inlets / 1 outlet
1 = 1 inlet / 3 outlets

Shut-off valve AV 5	AV 5- Type	1 Material	1 Version	Gas type Gas type

Accessories: Filter element, O-rings

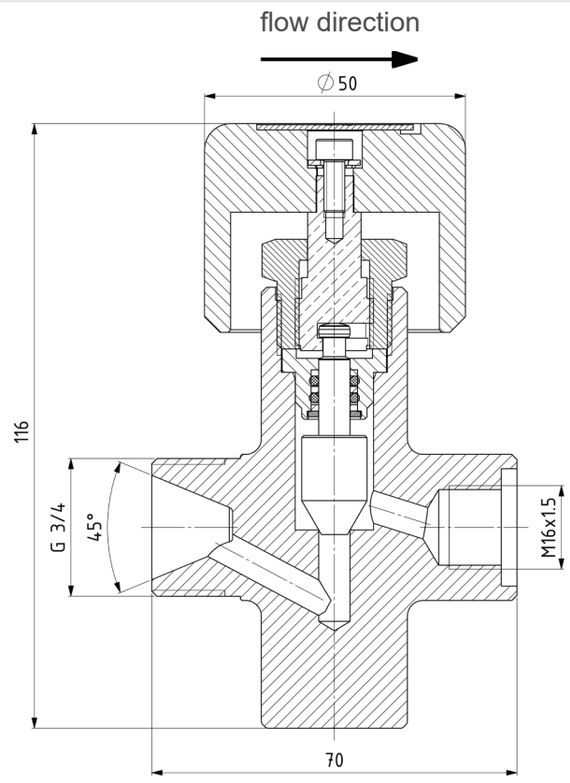
Shut-off valve AV 6

DESCRIPTION

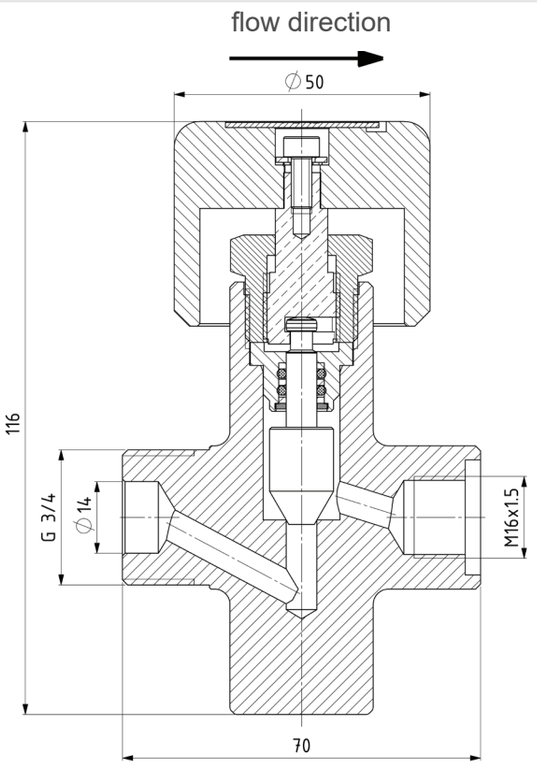
- For the safe gas shut-off for ranges up to 300 bar
- Applicable for left and right side of the cylinder battery
- Oil and grease-free, ready for Oxygen use
- Functional parts exchangeable
- Also available with different housing connections and integrated, changeable filter element.

SELECTION:

Selection according to illustrations



Version 1: G 3/4“ ball in cone X M16x1.5



Version 2: G 3/4“ DIN 477 X M16x1.5

TECHNICAL DETAILS

Material:	Brass	Operating temp.:	-20°C to +70°C
Elastomer:	Viton®	Dimensions (wxhxd):	70 x 116 x 53 mm
Max. inlet pressure:	300 bar	Weight:	743 g
Nominal diameter:	Ø 6 mm	Connections:	Inlet G 3/4“ ball in cone or G 3/4“ DIN 477 outlet M16x1.5

ORDER DETAILS

Connections:

1 = Inlet: G 3/4“ ball in cone
Outlet : M16x1.5

2 = Inlet: G 3/4“ DIN 477
Outlet: M16x1.5

Order sample: Shut-off valve type 62- AV 6 Type 62- 2 Connections Gas type Gas type

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001:2008** and **ISO 14001:2009**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

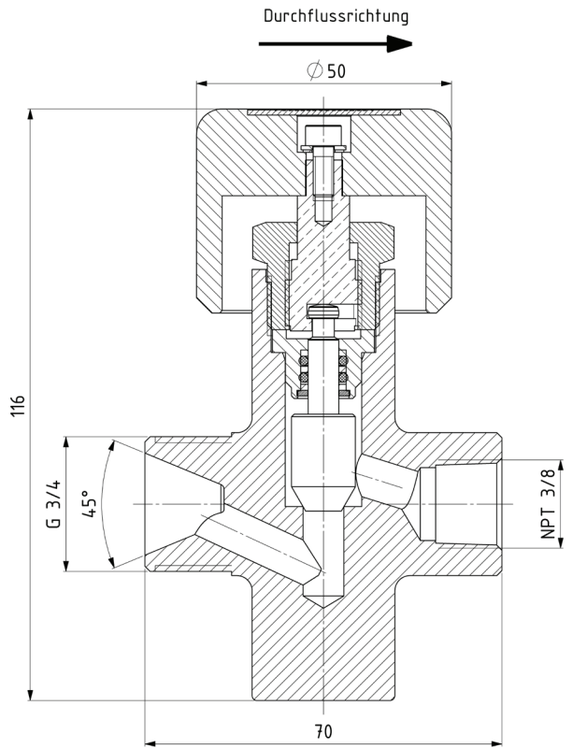
Shut-off valve AV 8

DESCRIPTION

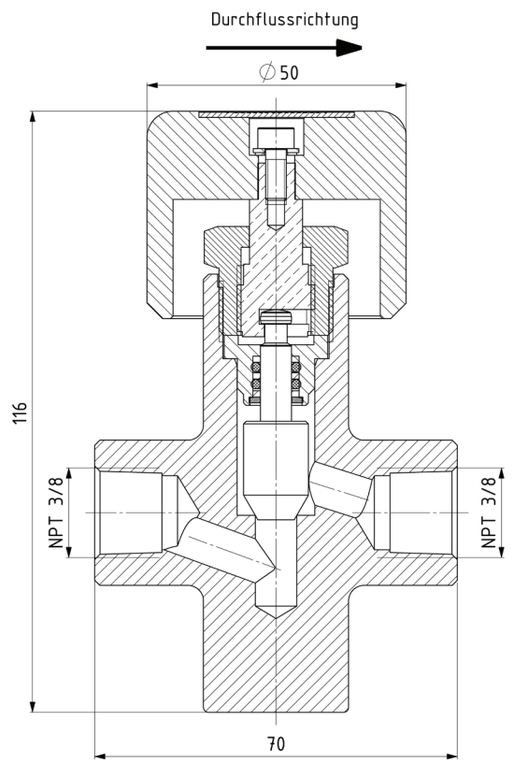
- For the safe gas shut-off for ranges up to 300 bar
- Applicable for left and right side of the cylinder battery
- Oil and grease-free, ready for Oxygen use
- Functional parts exchangeable
- Also available with different housing connections and integrated, changeable filter element.

SELECTION:

Selection according to illustrations



Version 1: G 3/4“ X NPT 3/8“



Version 2: NPT 3/8“ X NPT 3/8“

TECHNICAL DETAILS

Material:	Brass	Operating temp.:	-20°C to +70°C
Elastomer:	Viton	Dimensions (wxhxd):	70 x 116 x 53 mm
Max. inlet pressure:	300 bar	Weight:	743 g
Nominal diameter:	Ø 8 mm	Connections:	Inlet G 3/4“ ball in cone or NPT 3/8“ outlet NPT 3/8“

ORDER DETAILS

Connections:

1 = Inlet: G 3/4“ ball in cone
Outlet: NPT 3/8“

2 = Inlet: NPT 3/8“
Outlet: NPT 3/8“

Order sample: Shut-off valve type 62- AV 8 Type 62- 2 Connections Gas type Gas type

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001:2008** and **ISO 14001:2009**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

dated 05/2017

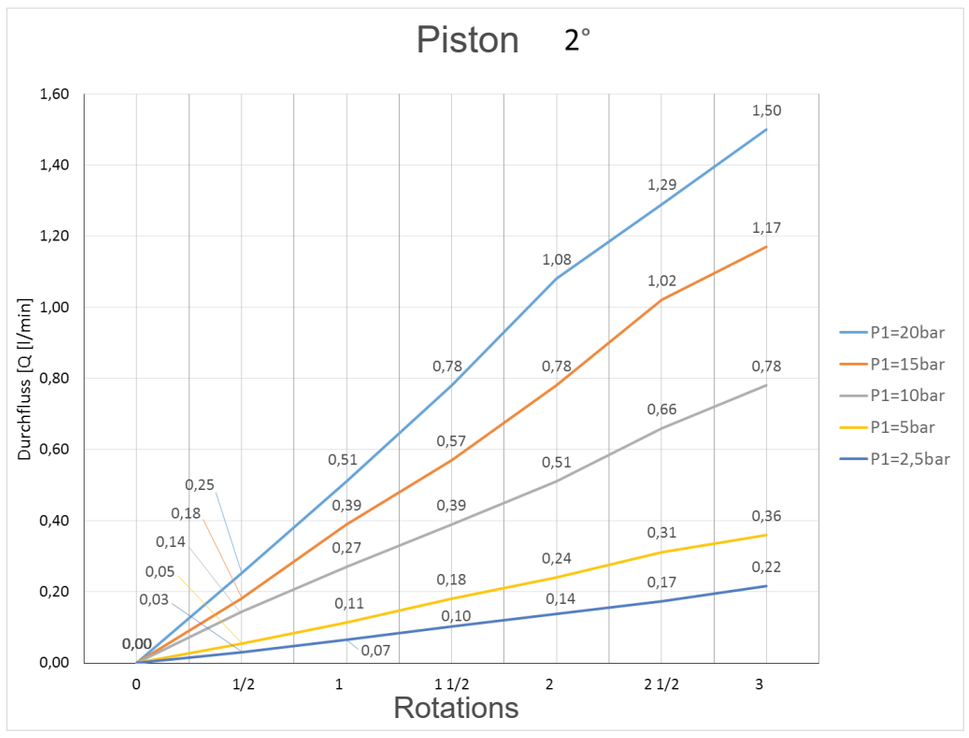
Dosage valve DV 4

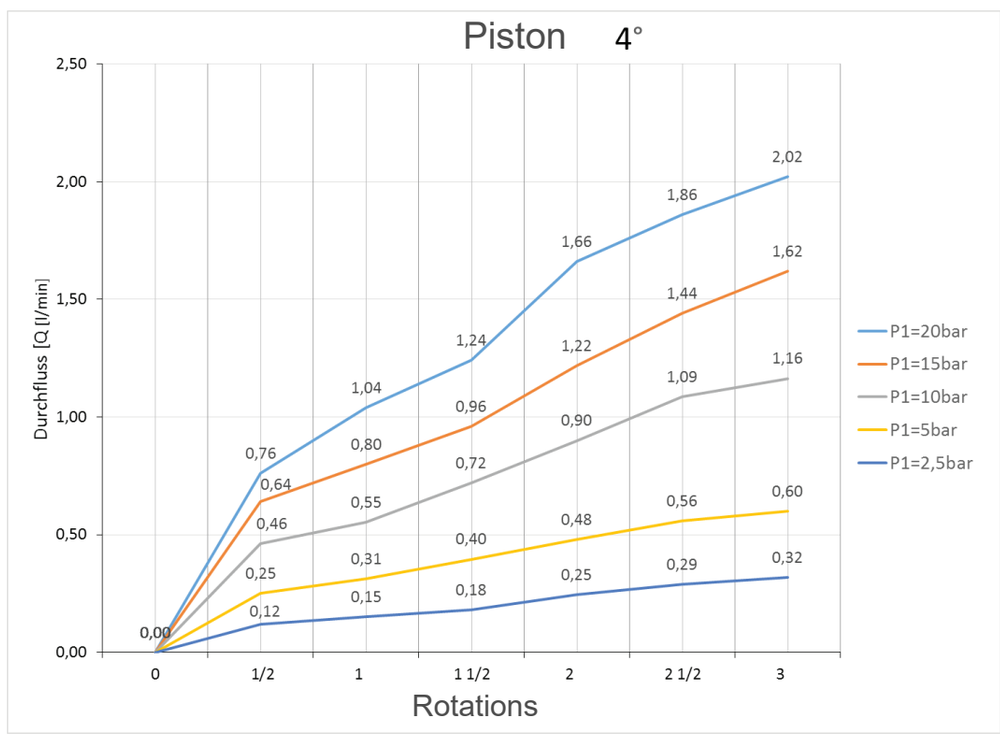
- 2-port or 4-port version

2-port version

4-port version (chromium-plated)

TECHNICAL DETAILS		APPLICATION AREA	DESCRIPTION
Material:	Brass, chrome plated	When oxygen is used, it is ensured by an selection of a metallic sealing piston. The DV 4 shut-off valve is availeble in an angle and through-feed, or in 4 port version. The dosage valve is suitable for applications with flammable, non-flammable and toxic gases. Shut-off valves are applicable as system components in central high purity gas supply at low as well as high pressure.	The dosage valve DV 4 is different through its compact structure and replaceability of its functioning components. Its shut-off function guarantees a safe application in low and high pressure ranges. It ensures a safe gas supply shut-off at a pressure range of up to 300 bar.
Piston:	Stainless steel 2° and 4°		
Max. inlet pressure:	300 bar		
Nominal diameter:	Ø 4 mm		
Operating temp.:	-20°C to +70°C		
Weight:	approx. 325 g		
Connections:	NPT 1/4“ f		





QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001:2008** and **ISO 14001:2009**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

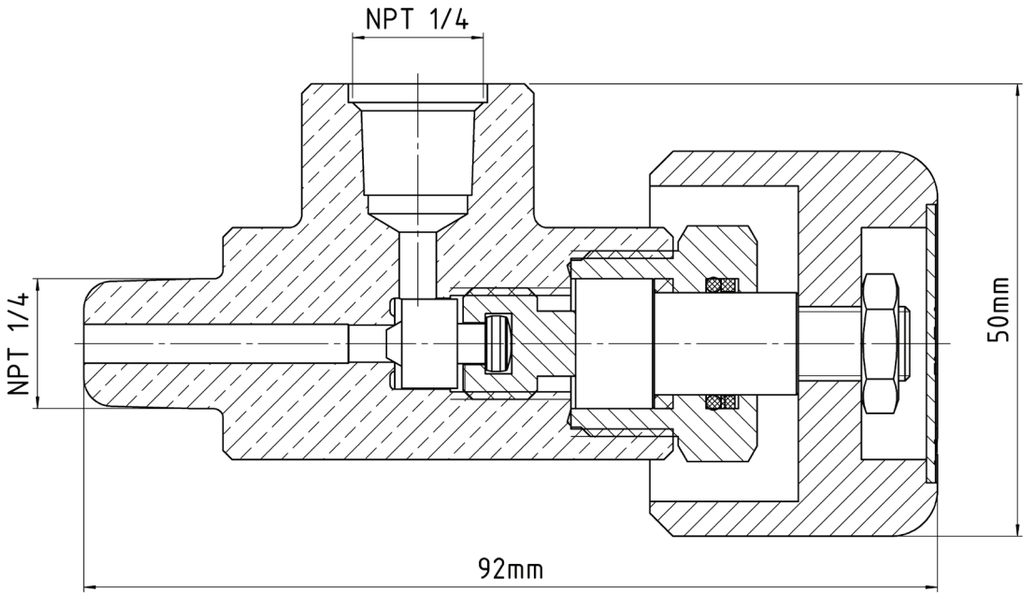
www.hornung.org
info@hornung.org

DV 4

SELECTION:

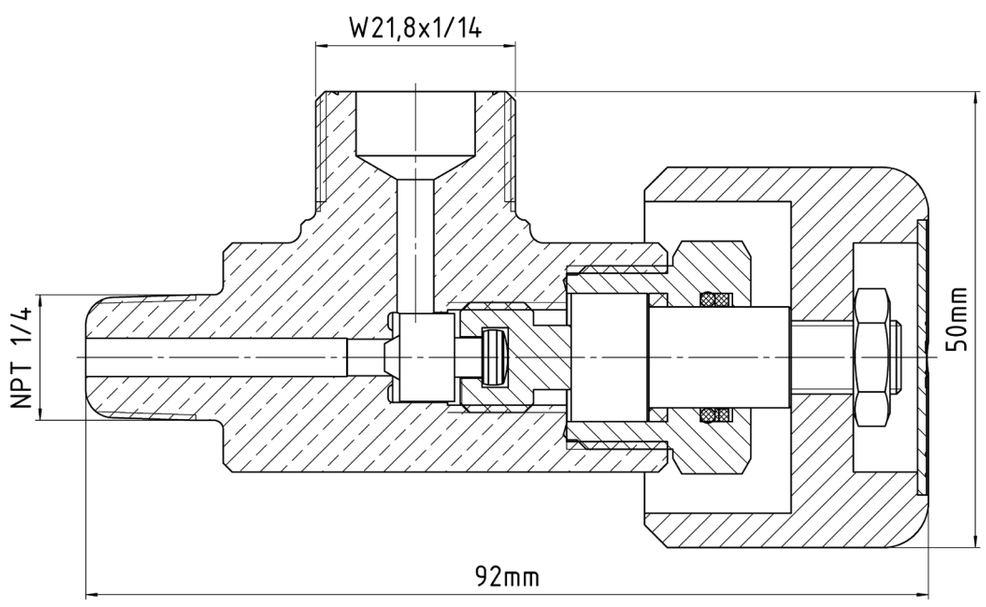
Main dimensions and selection criteria of the DV 4 according to illustrations on the front page.

Version (1) [2-port]



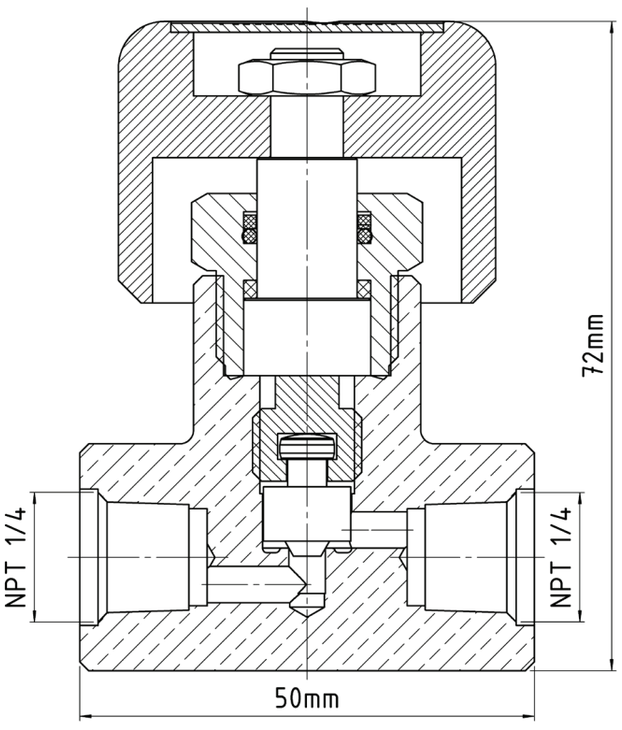
inlet NPT 1/4“ m | outlet NPT 1/4“ f

Version (2) [2-port]



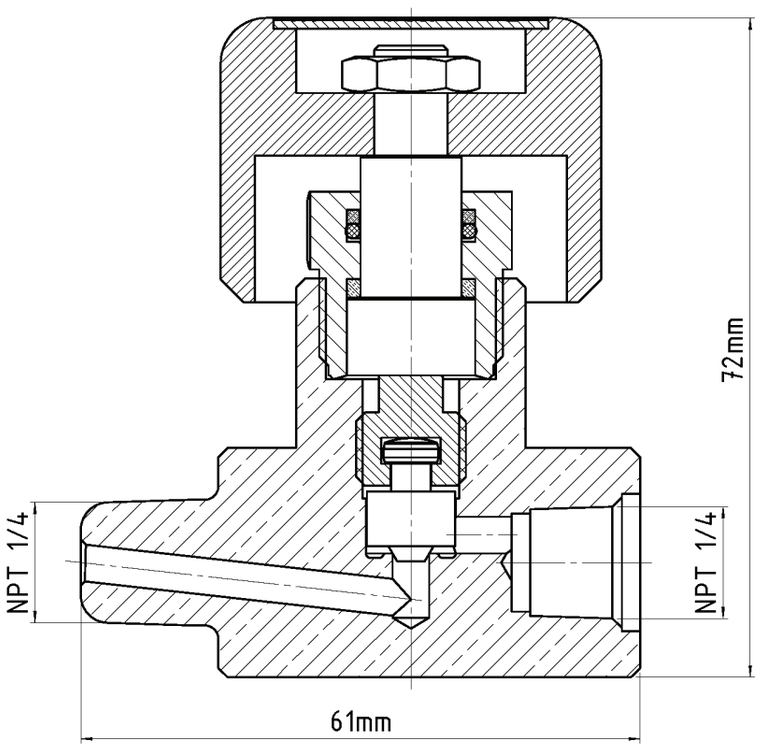
inlet NPT 1/4“ m | outlet W21,80x1/14

Version (3) [2-port]



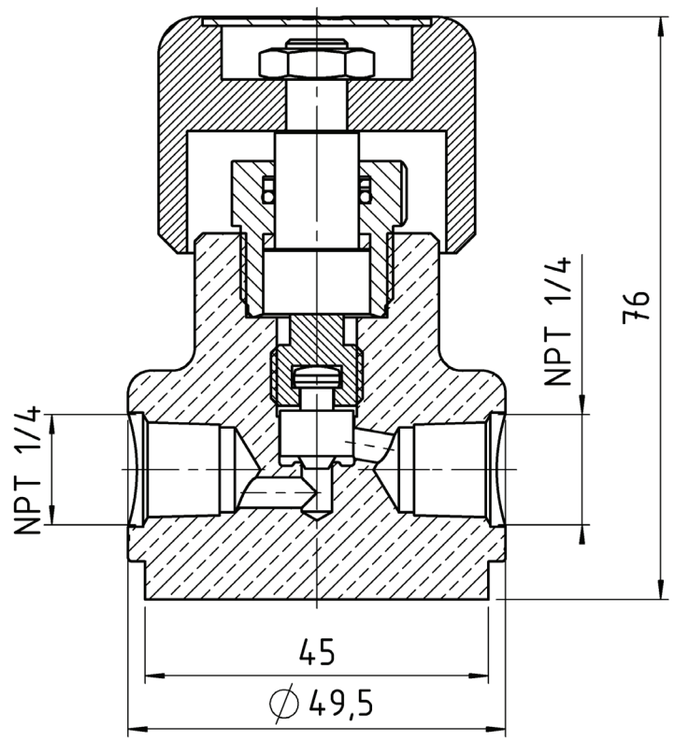
inlet NPT 1/4“ f
outlet NPT 1/4“ f

Version (4) [2-port]



inlet NPT 1/4“ m
outlet NPT 1/4“ f

Version (5 u. 6) [4-port]



1x inlet NPT 1/4“ m
3x outlet NPT 1/4“ f
or
3x inlet NPT 1/4“ m
1x outlet NPT 1/4“ f

ORDER DETAILS

Material:
1 = Brass

Version: Selection according to illustrations:
1 = Inlet NPT 1/4“ m | outlet NPT 1/4“ f
2 = Inlet NPT 1/4“ m | outlet W21,80x1/14
3 = Inlet NPT 1/4“ f | outlet NPT 1/4“ f
4 = Inlet NPT 1/4“ m | outlet NPT 1/4“ f
5 = 1x inlet NPT 1/4“ f | 3x outlet NPT 1/4“ f
6 = 3x inlet NPT 1/4“ f | 1x outlet NPT 1/4“ f

Piston:
1 = 2°
2 = 4°

Dosage valve	DV 4-	1	1	1	Gas type
DV 4	Type	Material	Version	Piston	Gas type

dated 09/2023

Dosage valve DV 25

- Dosage valve PN max. 60 bar; DN Ø 2.5 mm

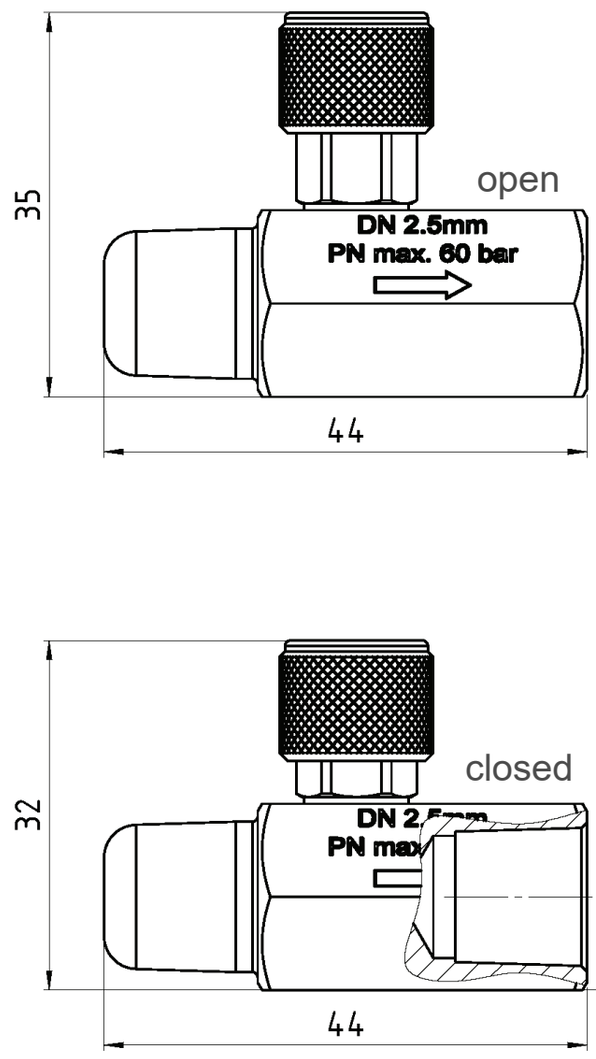
DESCRIPTION

The dosage valve is designed for use at the outlet of cylinder pressure regulators or point of use regulators.
It is characterized by ist compact design and easy installation and handling.

Application area:
Dosage valves are applicable as system components in a central high purity gas supply at low pressure.

Technical details:

Material:	Stainless steel 1.4404
Elastomer:	Viton®, EPDM
Nominal diameter:	Ø 2,5 mm
Leakage rate:	10^{-6} mbar l/s Helium leak test
Gas purity:	≤ 6.0
Max. inlet pressure:	60 bar
Operating temp.:	-20°C to +70°C
Dimensions (wxhxd):	SW 17x35x44 mm
Weight:	approx. 100 g
Connections:	Inlet NPT 1/4“ m Outlet NPT 1/4“ f



ORDER DETAILS:

Material:
0 = Stainless steel

Elastomere:
1 = Viton®
2 = EPDM

Accessories: see total catalogue segment

ORDER EXAMPLE:

64-	0	1	Gas type
Type	Material	Elastomer	Gas type

7. Accessories; compression fittings and hose nozzles

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

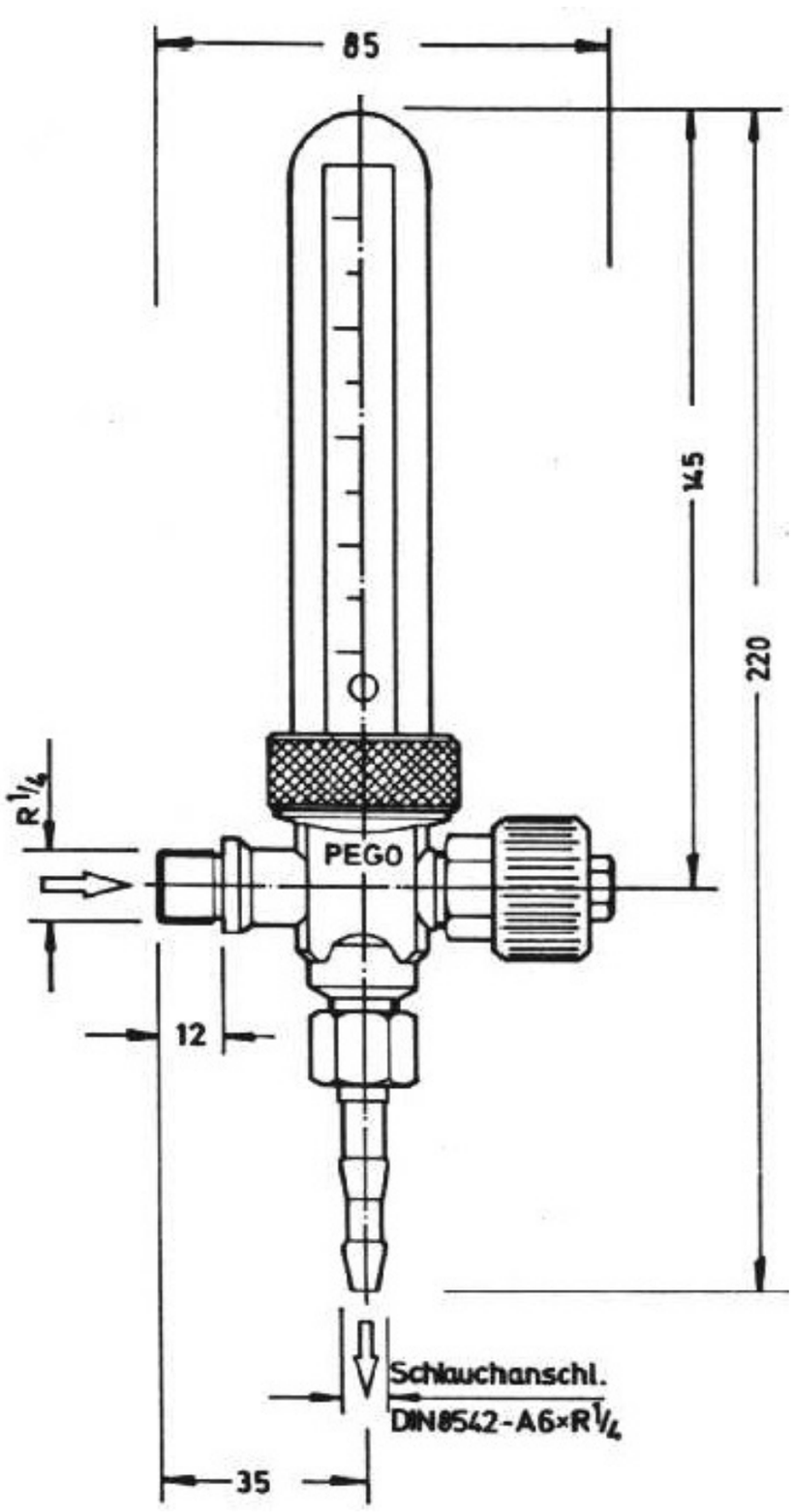
HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

Flow meter



Model	Gas	Operating pressure	Inlet connection	Outlet connection
Flowmeter	F, NF, NC	max. 2,5 bar	G 1/4	G 1/4 DIN EN 560 G 3/8 LH DIN EN 560

N_2	CO_2Ar	Forming gas	H_2
1-16 l/min 4-32 l/min	1-16 l/min 3-30 l/min 5-55 l/min	1-16 l/min 2-30 l/min	1-16 l/min 3-30 l/min

The Flowmeter can be used for inert gas welding and in laboratories to control the gas flow.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001:2009**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

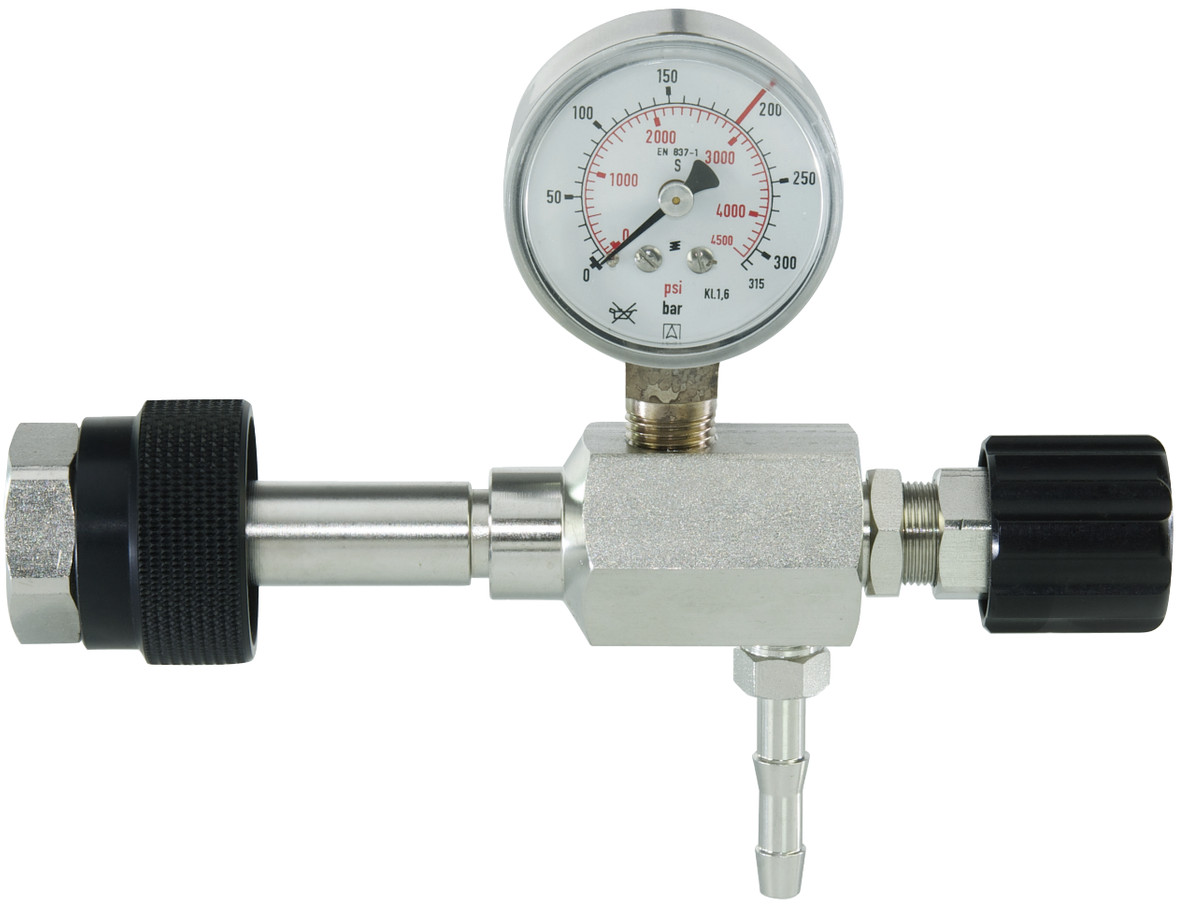
Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

dated 02/2021

Fine dosage valve Rossignol

- with cylinder valve connection according national standards



TECHNICAL DETAILS		APPLICATION	DESCRIPTION
Body	stainless steel	The metering valve Rossignol will be used for industrial applications as well as for such in laboratories, e.g. for gases (like hydrocabons), where the vapour pressure is low or pressure control is not needed in applications. For flammable, non-flammable, corrosive and toxic gases.	The rossignol metering valve will be fitted directly to the cylinder valve. Due to the slim conus of the metering spindle the rossignol valve guarantees precise metering. The valve is supplied as standard with a pressure gauge to display the cylinder pressure. The rossignol valve can not be used for pressure control.
Seat:	metering valve		
Gaskets:	viton		
Max inlet pressure:	200 bar		
Flow max.:	50 l/min air		
Operating temp.:	-20 up to +70°C		
Dimensions (wxhxd):	146 x 150* x 75 mm		
Connections:	inlet: DIN 477-1 outlet: nozzle 6mm		

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001:2009**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

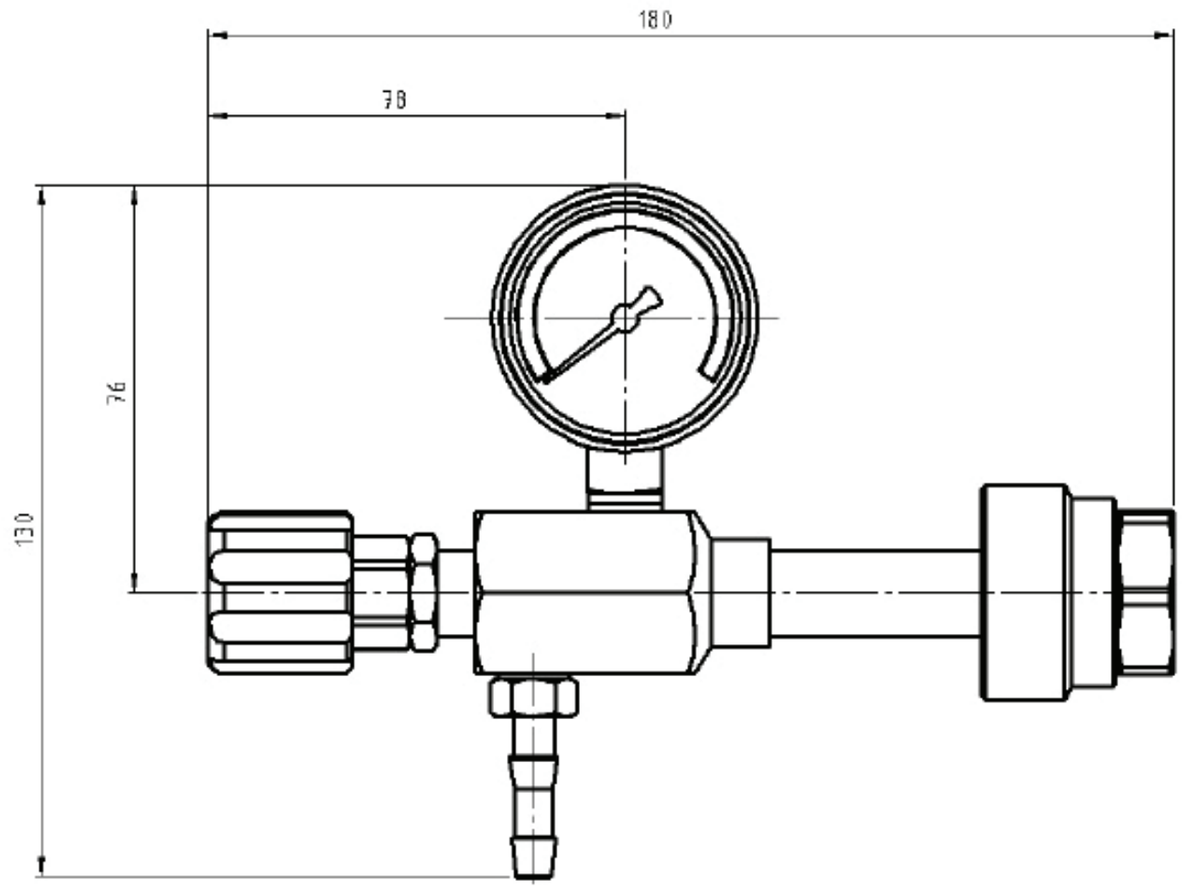
HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

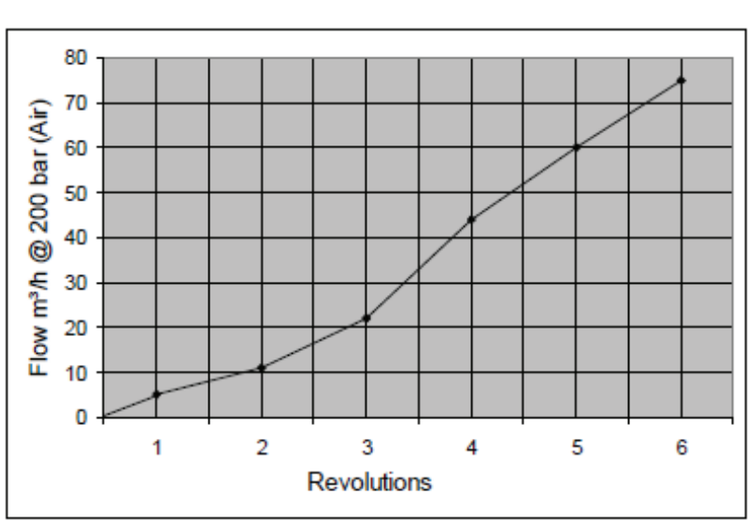
Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

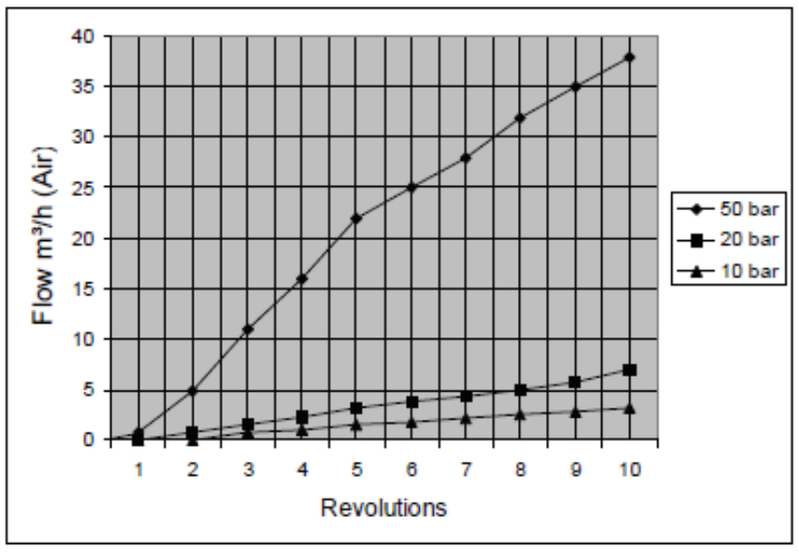
www.hornung.org
info@hornung.org

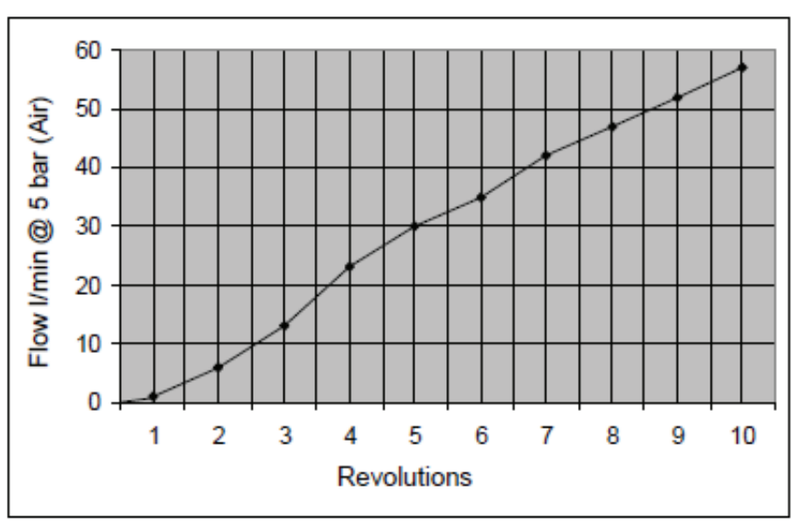
ROSSIGNOL



Flow m³/h @ 200 bar (Air)	Flow m³/h (Air)	Flow l/min @ 5 bar (Air)







ORDER DETAILS

Material:
2 = stainless steel

Gaskets:
1 = NBR
2 = viton

Outlet connection:
0 = 1/4“ NPT - Internal thread
1 = nozzle 6 mm

Valve type	metering valve	62-	2	2	0	Gas type
Rossignol	62	Type	Material	Gaskets	Outlet	Gas type

Accessories: See total catalogue segment

- Diaphragm shut-off and metering valves
- Gauges, screws, compression fittings and other accessories

Filters and safety valves

Safety valves are used primarily to stop, or at least reduce, the occurrence of accidents. Protect the operator from injury and equipment from damage or destruction. Pressure safety valves are checked to a certain opening pressure tolerance in the factory and are sealed to avoid accidental readjustment.

Component tested containers of safety valves by technical safety institutes have the corresponding registration number. With the use of filters the accuracy and life span of pressure regulators can be substantially increased through a clean medium.

Contents

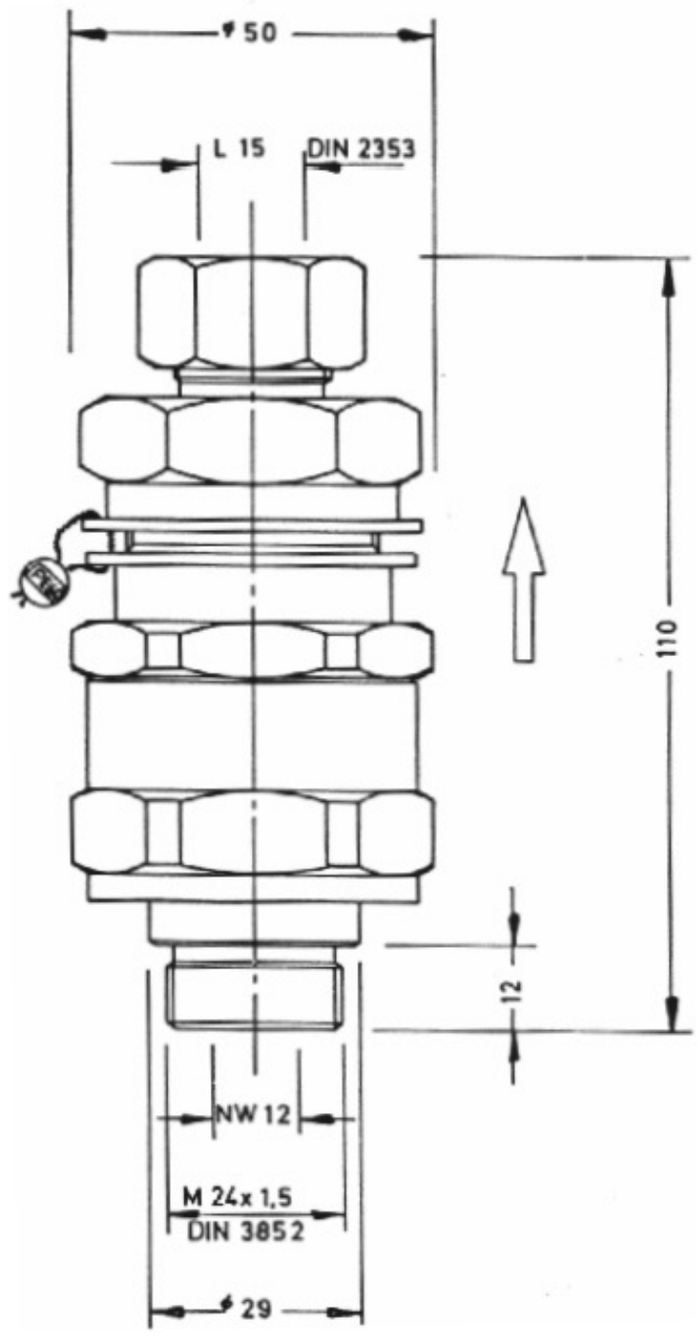
HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

Safety valve for Acetylene Asi - 35



Model	Gas	Inlet pressure P1	Operating pressure	Flow rate	Inlet connection	Outlet connection
ASI 35	Acetylene	max. 1,5 bar	approx. 2,4 bar	ca. 35 m³/h air	M 24 x 1,5 DIN 3852	L15 DIN 2235

The safety valve Asi-35 is for intermediate pressure lines that are fed from Acetylene cylinder batteries.

The safety valve Asi-35 is piston actuated.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001:2009**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

dated 07/2022

Fine filter **F1**

- single stage brass or stainless steel electropolished

TECHNICAL DETAILS	
Material:	brass / stainless steel
Gaskets:	viton
Max. pressure:	420 bar
Pore size:	20 or 40 µ (bronze) 20 or 35 µ (st. steel)
Operating temp.:	-20°C to +70°C
Dimensions:	60 x 100 x 168 mm
Weight:	3400 g
Connections:	in-/ outlet G 1“ f

DESIGN

This fine filter is equipped with a standard internal thread G1” at the in- and outlet.

In order to constantly have the maximum flow capacity available, it is advisable to periodically examine the filter element and replace when necessary.

Application area:
We urgently recommend the use of this filter element in connection with our pressure regulators D 1, DH 1 and L 1, where the accuracy and life span of pressure regulators can be substantially increased with a clean medium.

Further application areas exist in high pressure pneumatics for the protection of sensitive measuring equipment and controllers.

DESCRIPTION

The fine filter F 1 is a stainless steel 1.4404 or brass manufactured filter with a replaceable filter element made of sintered bronze or stainless steel.

The built-in filter element holds back solid particles to 20 or 40 micron and permits only cleansed gases or liquids to flow to the following equipment.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

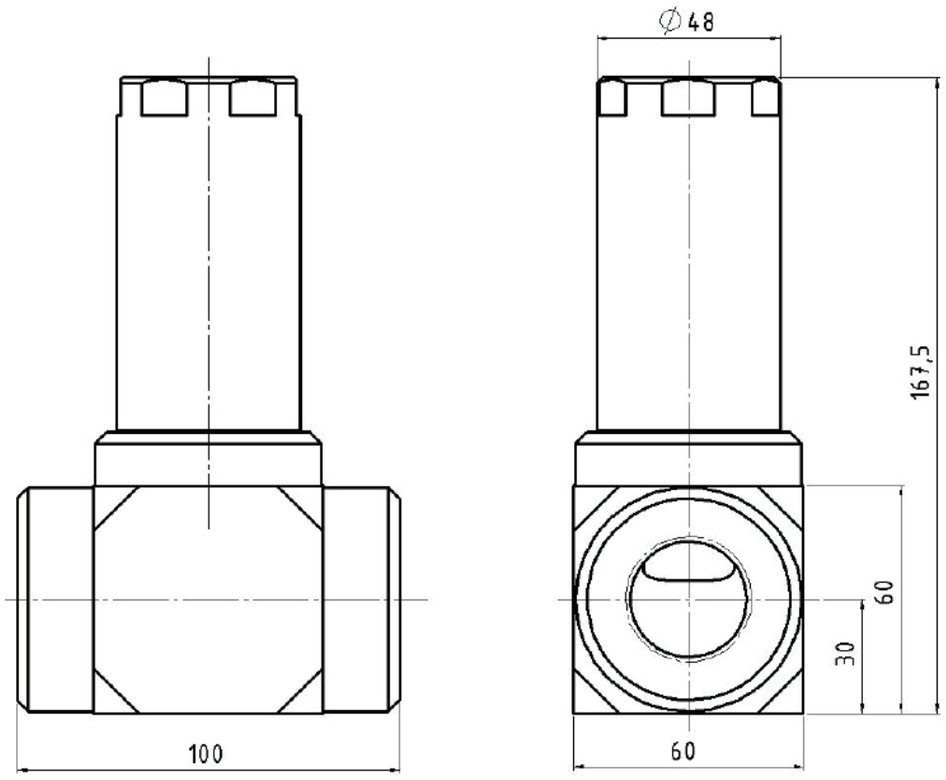
HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

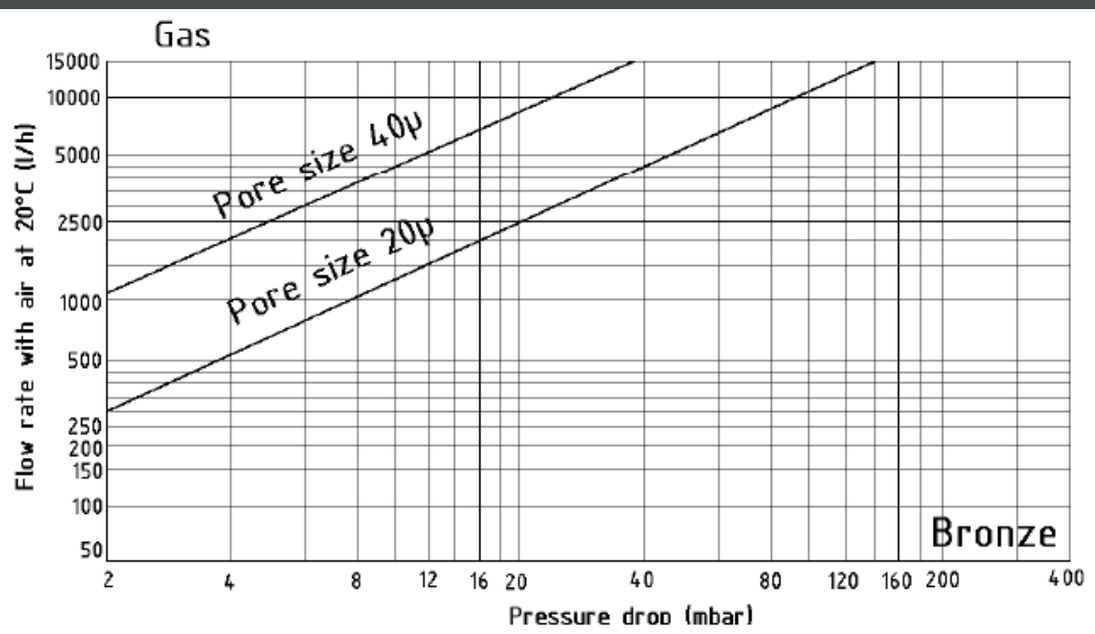
Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

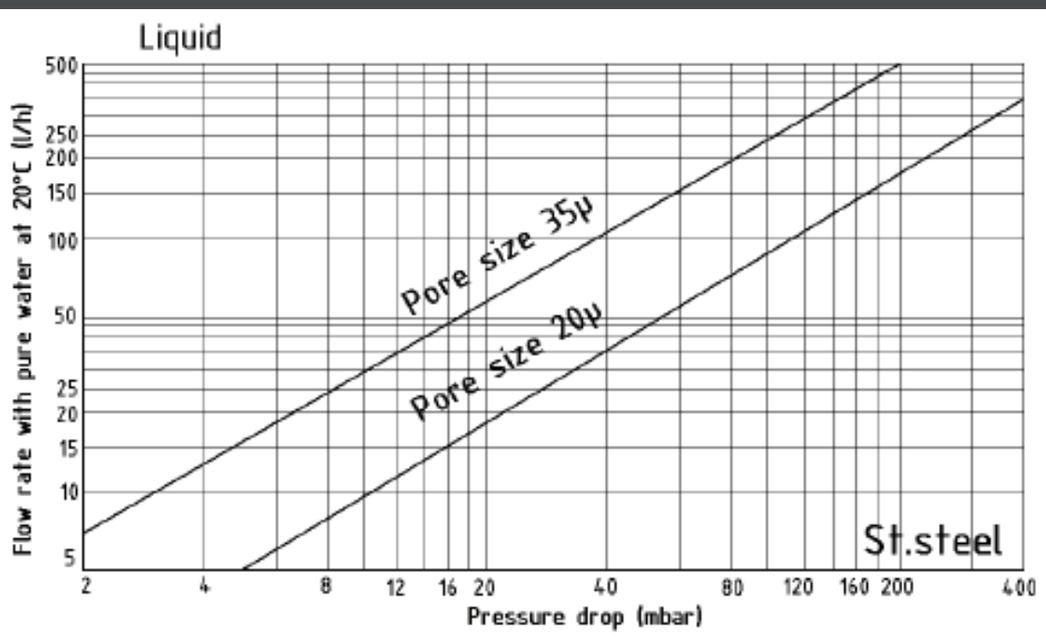
F 1



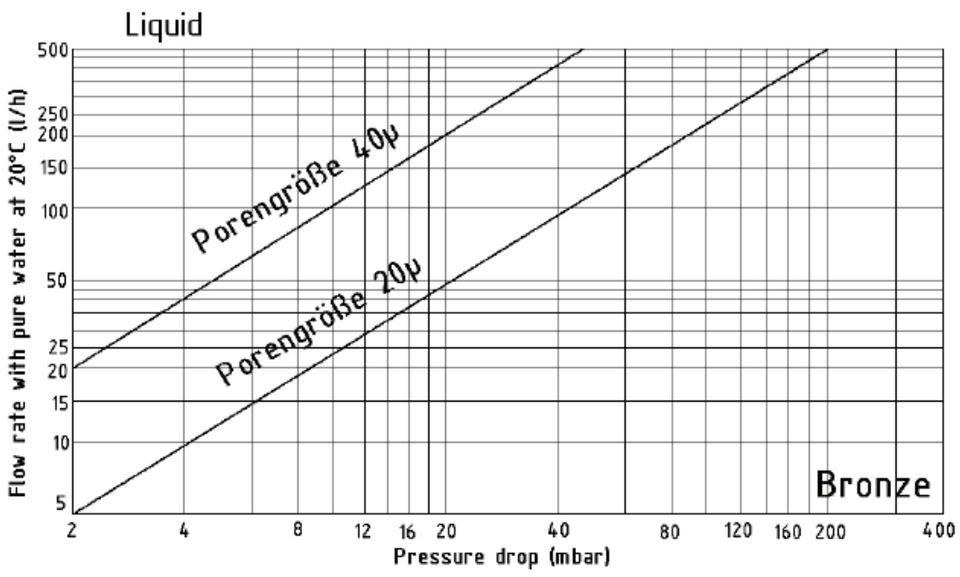
MEDIUM POROSITY GAS (BRONZE)



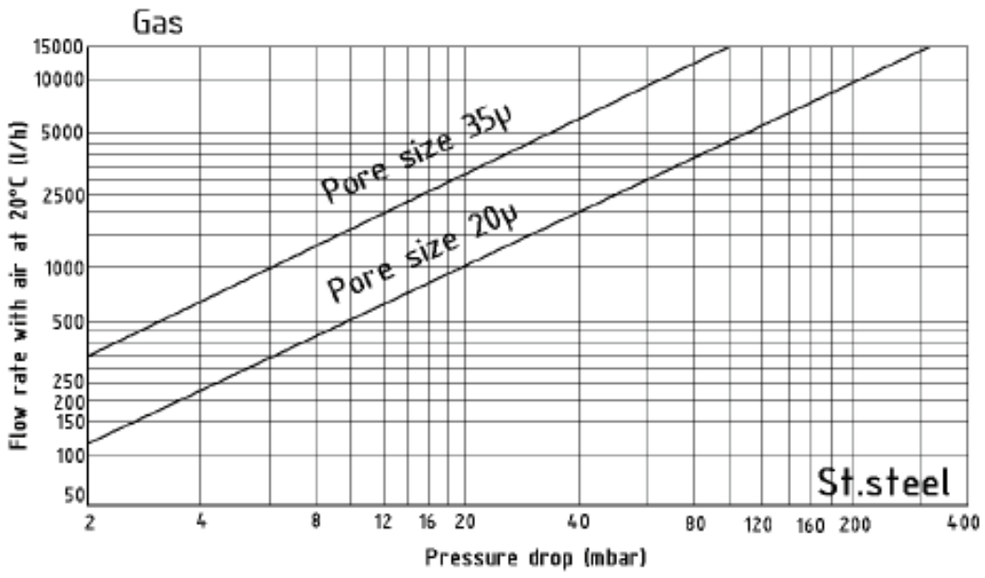
MEDIUM POROSITY GAS (STAINLESS STEEL)



MEDIUM POROSITY LIQUID (BRONZE)



MEDIUM POROSITY LIQUID (STAINLESS STEEL)



ORDER DETAILS

Material:
1 = brass
2 = stainless steel

Filter element
1 = bronze 20 µ
2 = bronze 40 µ
3 = stainless steel 20 µ
4 = stainless steel 35 µ

Filter type		30	-1	1	Gas type
30	F 1	Type	Material	Filter element	Gas type

Accessories: - Filter elements, O-rings

Fine filter **F 2**

TECHNICAL DETAILS	
Material:	brass / stainless steel
Gaskets:	viton
Max. pressure:	420 bar
Pore size:	20 or 40 µ (bronze) 20 or 35 µ (st. steel)
Operating temp.:	-20°C to +70°C
Dimensions:	38 x 70 x 71 mm
Weight:	640 g
Connections:	inlet G 3/8” m outlet G 3/8” f

DESIGN

This fine filter is equipped with a standard internal thread G 3/8” m at the inlet and G 3/8 ” f at the outlet.

In order to constantly have the maximum flow capacity available, it is advisable to periodically examine the filter element and replace when necessary.

Application area
We urgently recommend the use of this filter element in connection with our pressure regulators, where the accuracy and life span of pressure-regulators can be substantially increased with a clean medium.

Further application areas exist in high pressure pneumatics for the protection of sensitive measuring equipment and controllers.

DESCRIPTION

The high pressure filter F 2 is a stainless steel 1.4404 or brass manufactured fine filter with a replaceable filter element made of sintered bronze or stainless steel.

The built-in filter element holds back solid particles to 20 or 40 micron and permits only cleansed gases or liquids to flow to the following equipment.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001:2009**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

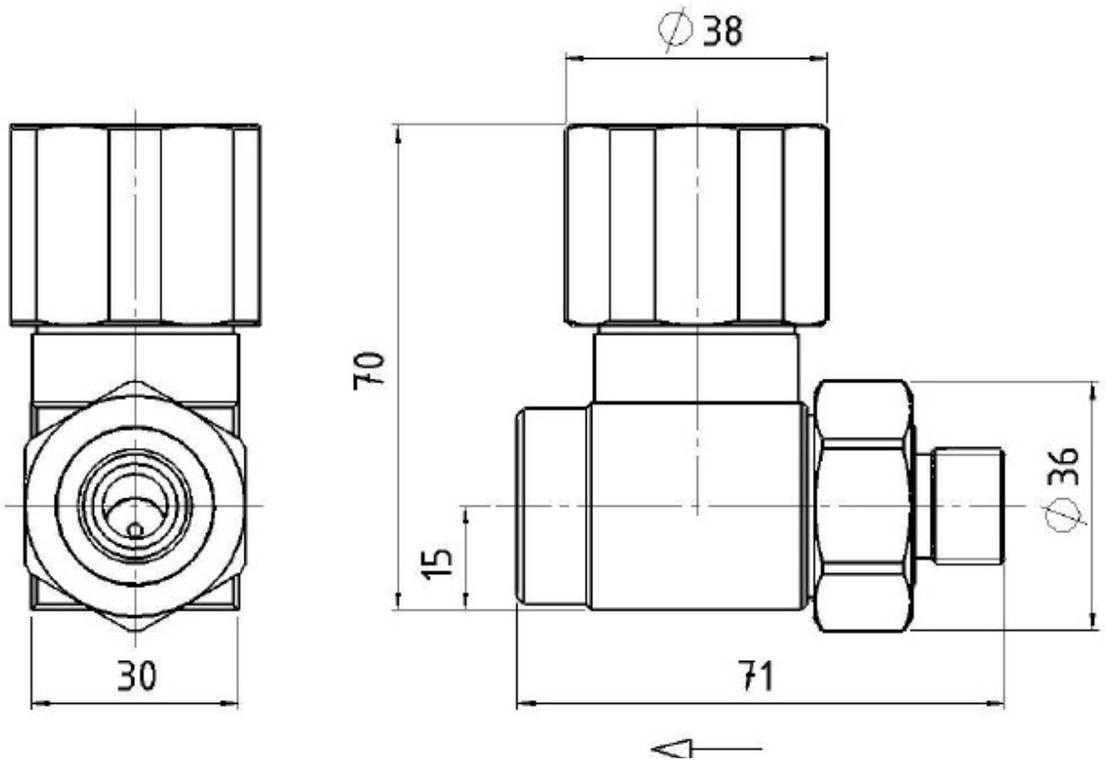
HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

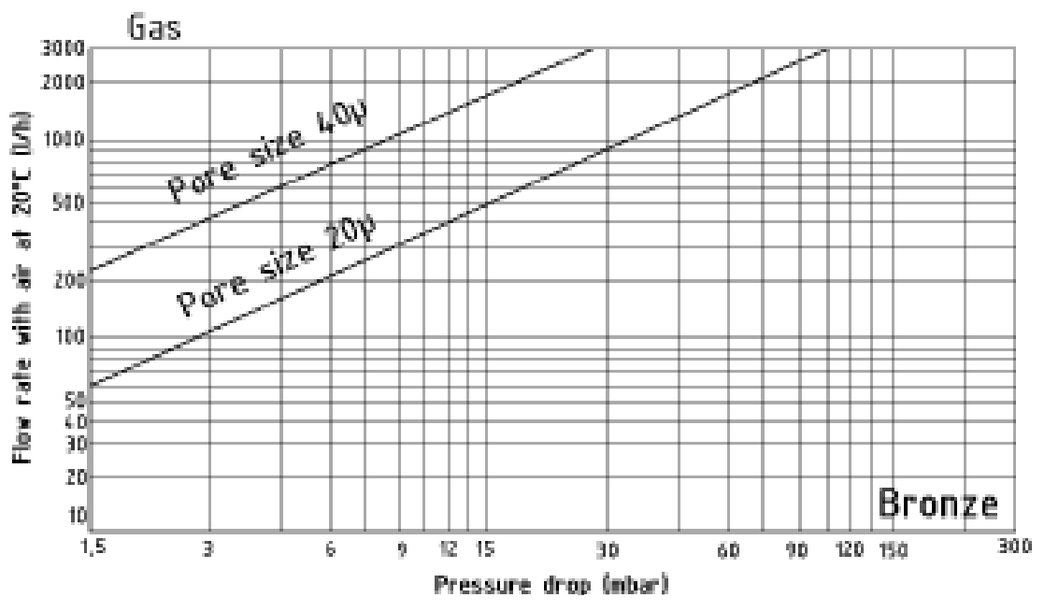
Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

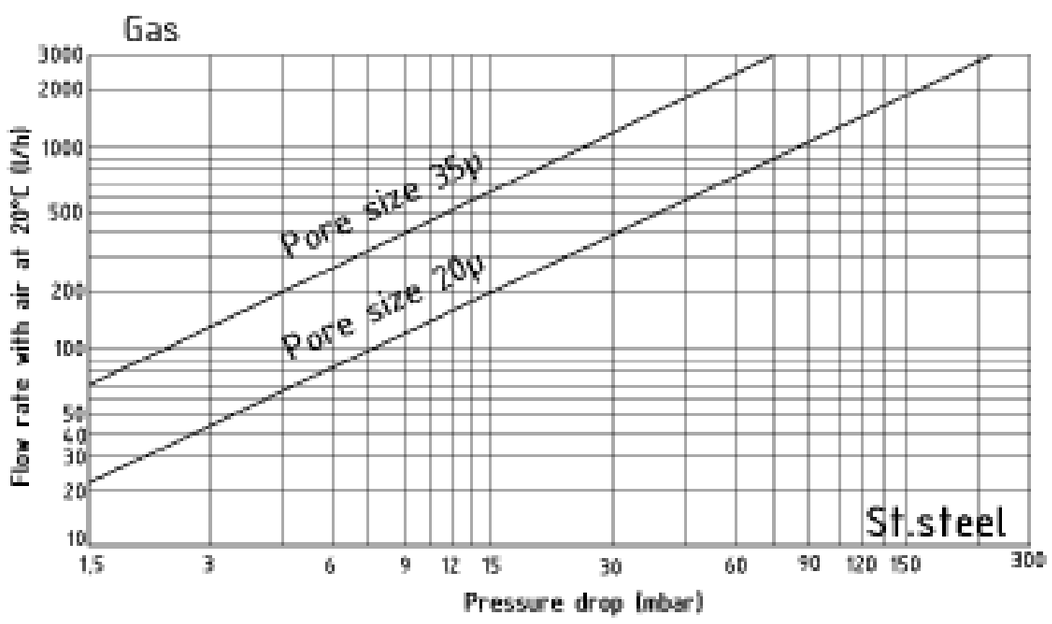
F 2



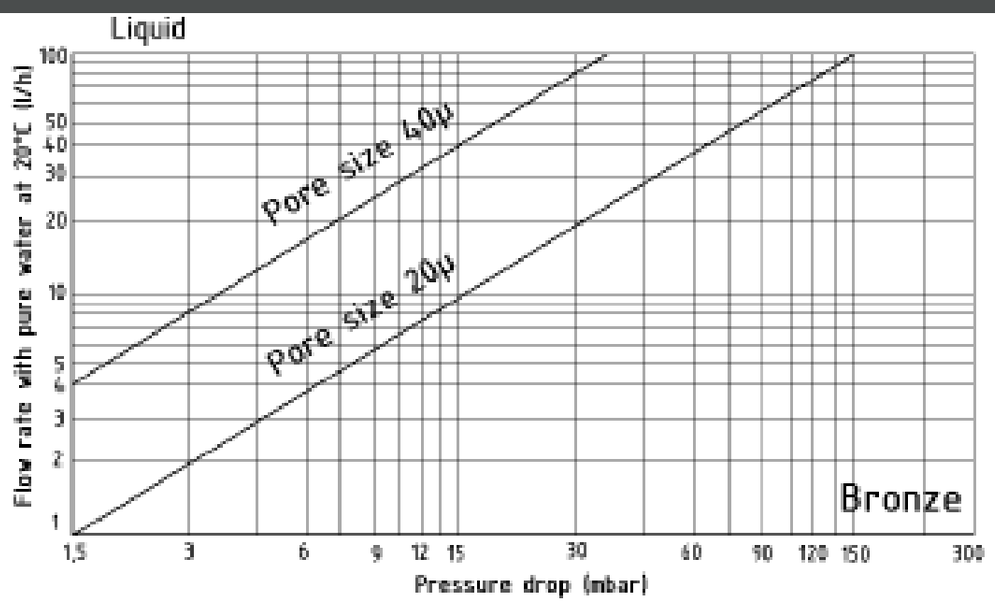
GAS (BRONZE)



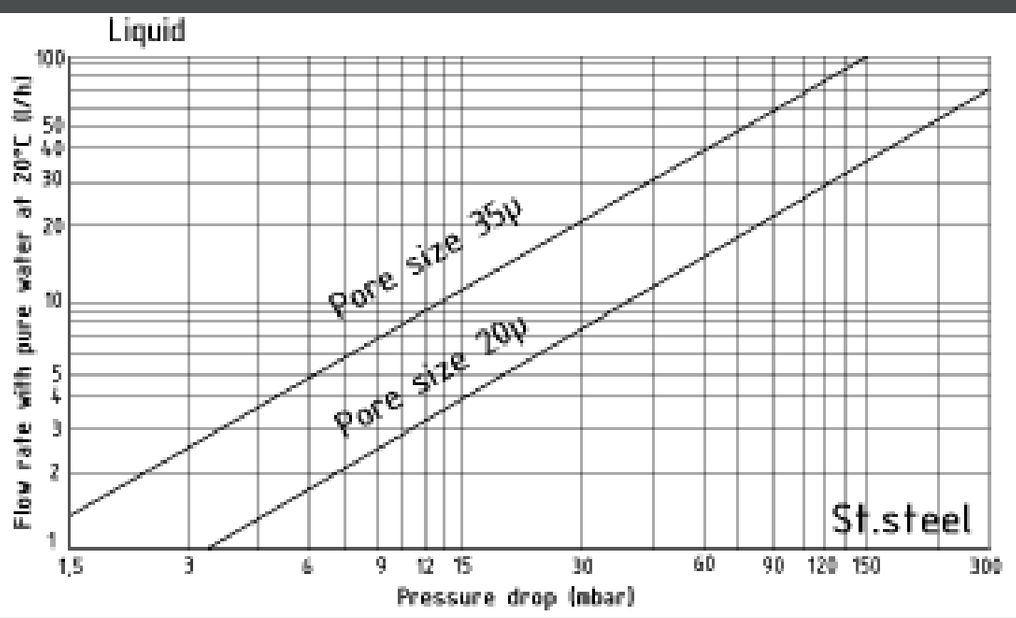
GAS (STAINLESS STEEL)



LIQUID (BRONZE)



LIQUID (STAINLESS STEEL)



ORDER DETAILS

Material:
1 = brass
2 = stainless steel

Filter element:
1 = bronze 20 µ
2 = bronze 40 µ
3 = stainless steel 20 µ
4 = stainless steel 35 µ

Filter type		32	-1	1	Gas type
32	F 2	Type	Material	Filter element	Gas type

Accessories: - Filter elements, O-rings

dated 07/2022

Fine filter F 4

- with a replaceable filter element

TECHNICAL DETAILS	
Material:	Stainless steel 1.4404
Elastomer:	Viton®
Max. inlet pressure:	300 bar
Nominal diameter:	Ø 3 mm
Pore size:	32 µm (1.4404)
Operating temp.:	-20°C to +70°C
Dimensions (wxhxd):	SW 24x48 mm
Weight:	approx. 125 g
Connections:	Inlet NPT 1/4“ m Outlet NPT 1/4“ f

APPLICATION AREA

We urgently recommend the use of this filter element in connection with our pressure regulators.

The accuracy and life span of the equipment can be substantially increased with a clean medium.

Further application areas are high pressure pneumatics for the protection of sensitive measuring equipment and controllers.

DESCRIPTION

The fine filter F 4 is a stainless steel manufactured filter with a stainless steel replaceable filter element.

The built-in filter element holds back solid particles up to 32 micron and permits only cleansed gases or liquids to flow to the following equipment.

Design:
The fine filter is designed with a standard external thread NPT 1/4“ at the inlet and an internal thread NPT 1/4“ at the outlet.

In order ro constantly have the maximum flow capacity available, it is advisable to periodically examine the filter element and replace it when necessary.

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

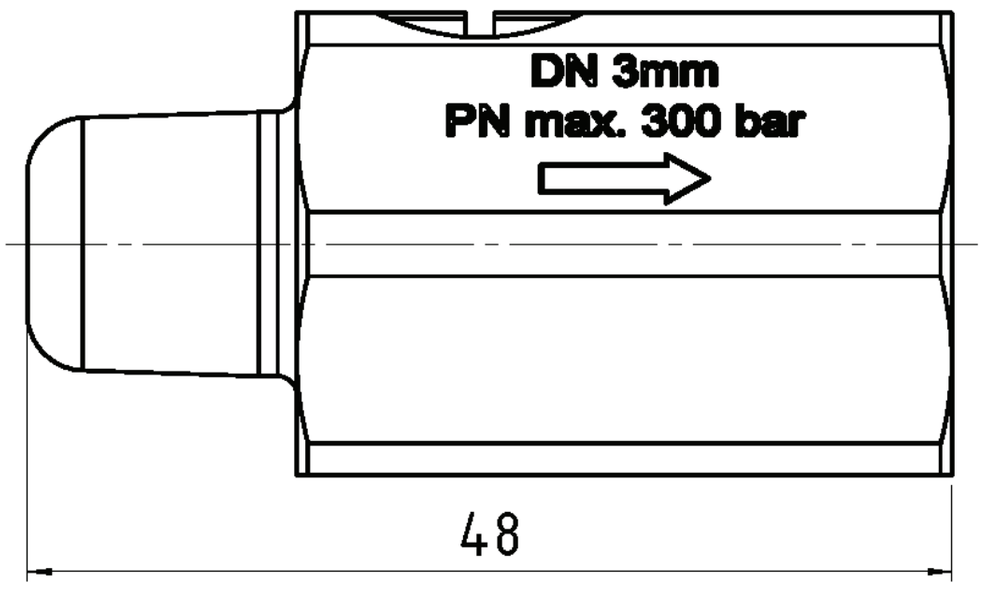
HORNUNG
Präzision made in Germany

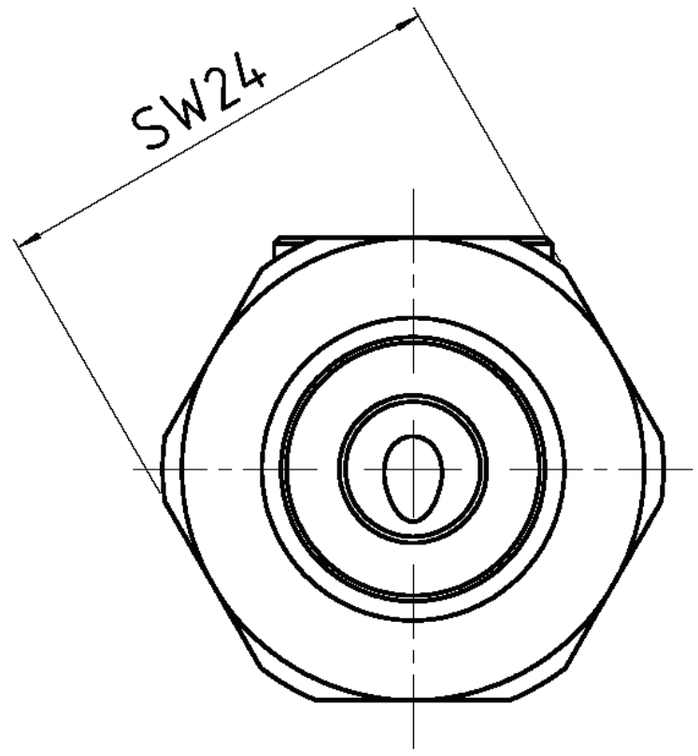
Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

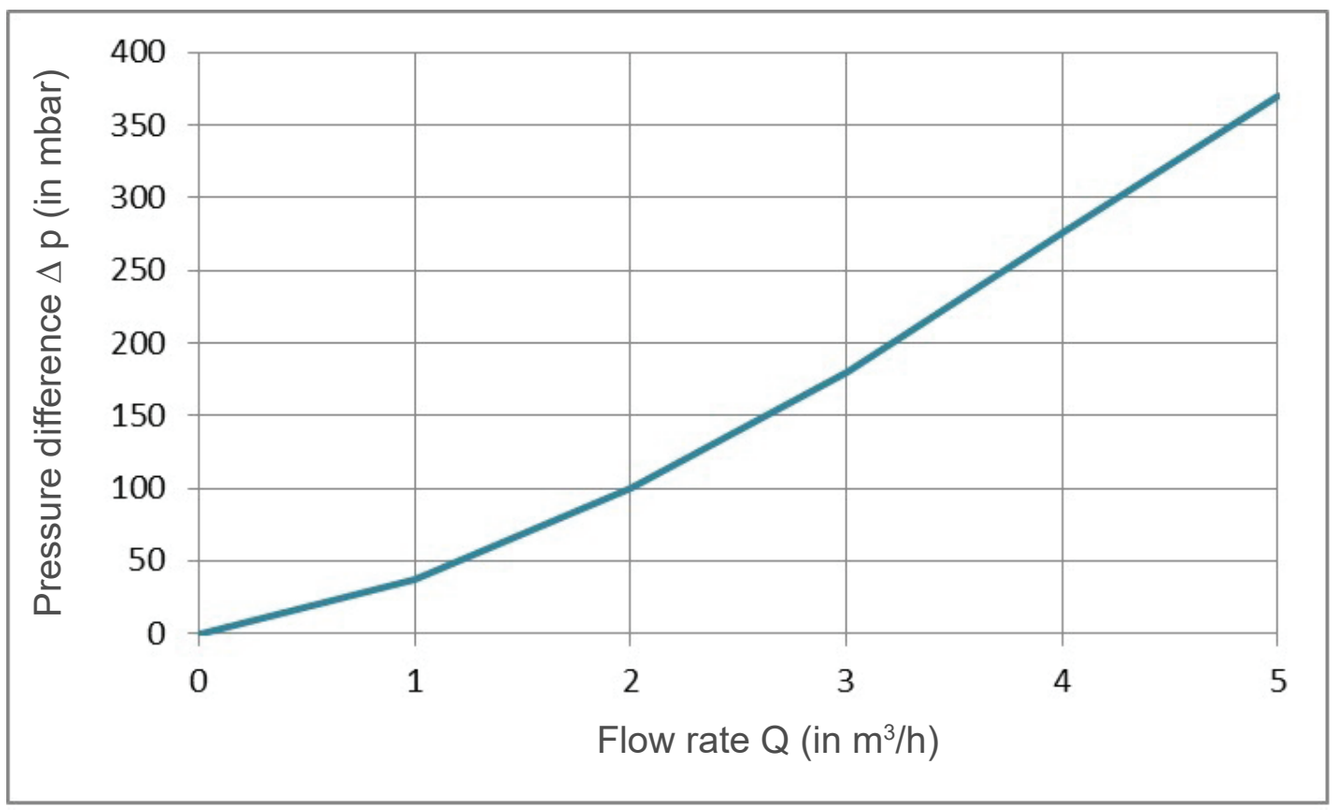
www.hornung.org
info@hornung.org

F 4





PRESSURE DROP F 4



ORDER DETAILS

Material:
1 = Stainless steel

Filter element:
1 = Stainless steel 32 µ

Filter element F 4	F 4- Type	1 Material	1 Filter element	Gas type Gas type

Accessories: Filter inlet, O-rings

dated 07/2022

Fine filter **YF1/2“ to YF2“**

- With G-thread made of brass or NPT-thread made of stainless steel

TECHNICAL DETAILS

Material:	brass (G) stainless steel (NPT)
Seals:	PTFE
Pore size:	50 µ
Operating temperature:	-40°C to +150°C
Connections:	G-thread brass NPT-thread SS
Max. pressure:	16bar (brass) 100bar (stainless steel)

APPLICATION AREA

At the inlet and autlet, this fine filter is equipped with an female thread as standard.

In order to have the maximum flow capacity available at all times, it is advisable to check the replaceable filter elements periodically and to replace them if necessary.

Fields of application

We strongly recommend to use this filter element in conjunction with our pressure regulator of the DOM series, as the control accuracy and service life of pressure reducers can be substantially increased by a clean medium.

Further applications are in high-pressure pneumatics for the protection of sensitive measuring and control devices.

DESCRIPTION

The fine filter YF is a filter made of stainless steel 1. 4404 or brass with a replaceable filter element made of bronze or stainless steel.

The built-in filter element retains solid particles up to 50 microns and allows only purified gases or liquids to flow to the next plant.

ORDER DETAILS

Filter type YF

article:	YF 1/2 VA	YF 3/4 VA	YF 1 VA	YF 1 1/2 VA	YF 2 VA	YF 1/2 MS	YF 3/4 MS	YF 1 MS	YF 1 1/2 MS	YF 2 MS
size	1/2“	3/4“	1“	1 1/2“	2“	1/2“	3/4“	1“	1 1/2“	2“
material	SS	SS	SS	SS	SS	brass	brass	brass	brass	brass
filter element	SS	SS	SS	SS	SS	brass	brass	brass	brass	brass
connection	NPT	NPT	NPT	NPT	NPT	G	G	G	G	G
max. pressure	100bar	100bar	100bar	100bar	100bar	16bar	16bar	16bar	16bar	16bar

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001.** All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

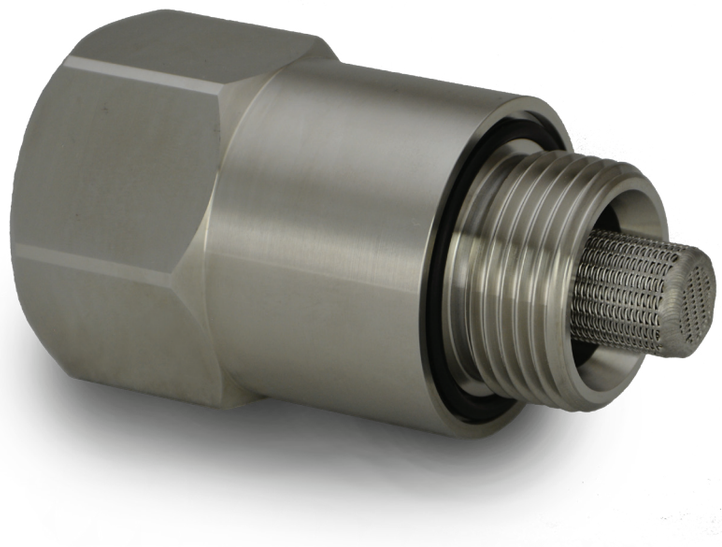
www.hornung.org
info@hornung.org

dated 07/2022

Fine filter **IF1/2“ to IF2“**

- Made of brass or electropolished stainless steel

IF2“



IF1“

IF1/2“

TECHNICAL DETAILS	
Material:	Brass / stainless steel
Seals:	EPDM/Viton
Pore size:	40 µ
Operating temp.:	-40°C to +150°C
Connections:	G / NPT thread
Max. pressure:	320bar (Brass) 420bar (Stainless steel)

APPLICATION AREA

At the inlet, this fine filter is equipped with an female thread as standard. (outlet with male thread)

In order to have the maximum flow capacity available at all times, it is advisable to check the replaceable filter elements periodically and to replace them if necessary.

Fields of application

We strongly recommend to use this filter element in conjunction with our pressure regulator of the DOM series, as the control accuracy and service life of pressure reducers can be substantially increased by a clean medium.

Further applications are in high-pressure pneumatics for the protection of sensitive measuring and control devices.

DESCRIPTION

The fine filter IF is a filter made of stainless steel 1. 4404 or brass with a replaceable filter element made of bronze or stainless steel.

The built-in filter element retains solid particles up to 40 microns and allows only purified gases or liquids to flow to the next plant.

ORDER DETAILS

Material:
1 = brass 320bar
2 = stainless steel 420bar

Elastomer:
0 = NPT without
1 = G with FKM
2 = G with EPDM

Filter element:
1 = bronze 40 µ
2 = stainless steel 40 µ

Connection at the entrance:
1 = NPT $^{1}/_{2}$“ IG
2 = G $^{3}/_{4}$“ IG
3 = NPT $^{3}/_{4}$“ IG
4 = G 1“ IG
5 = NPT 1“ IG
6 = G $1^{1}/_{2}$“ IG
7 = G 2“ IG

Filter type	IF X“-	1	1	1	1
IF	Typ	Material	Elastomer	Filter element	Connection

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001.** All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

HORNUNG

Präzision made in Germany

Wall mounting brackets

With the conception of gas supply systems it is essential to consider staple parts which do not have something directly to do with gas consumption and regulators.

Usually such parts are however necessary, in order to guarantee the operability of these armatures and devices.

Contents:

HORNUNG

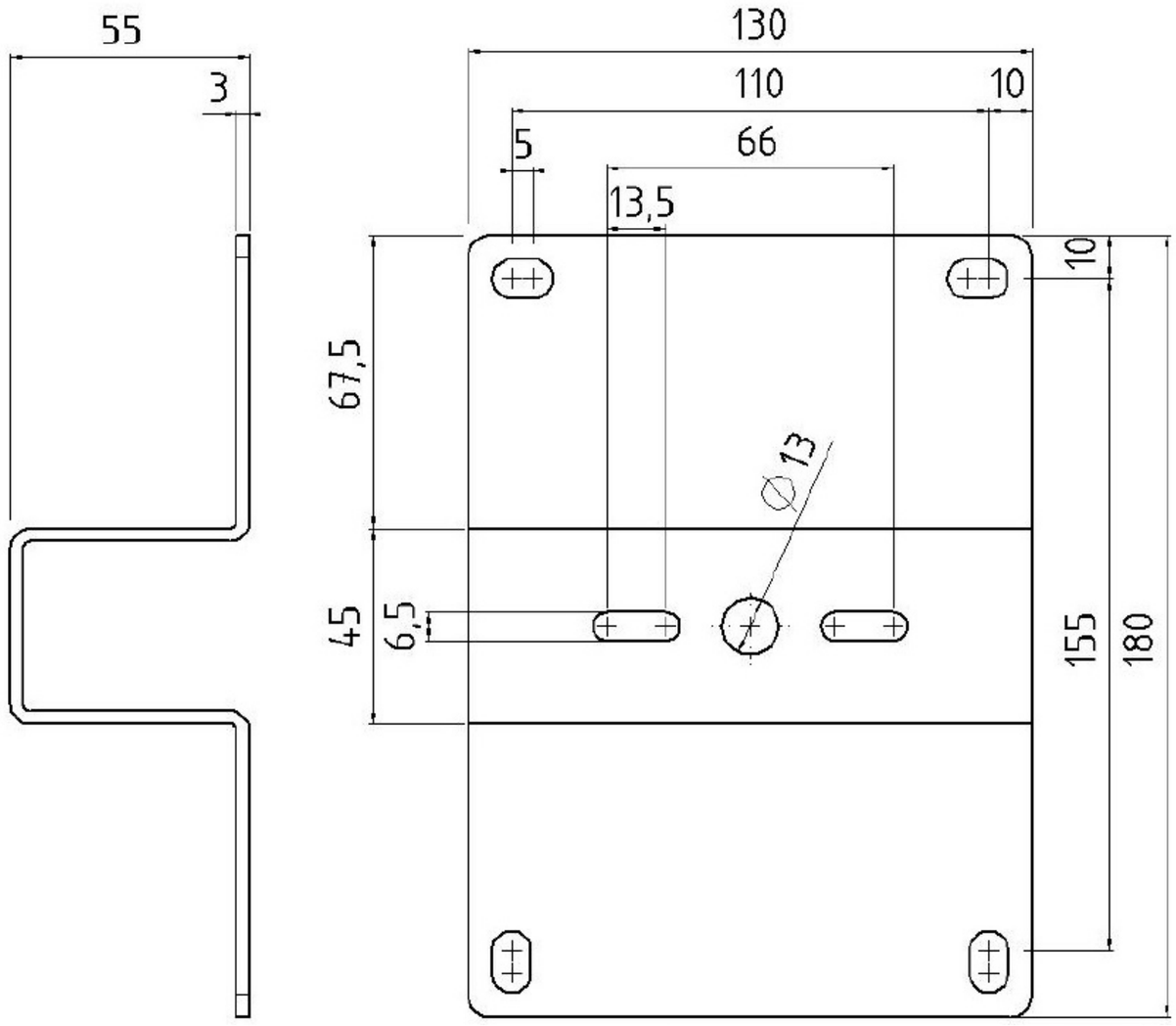
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

Wall mounting bracket in stainless steel, electropolished, for double shut-off valve **DV5 and regulators DH1 / D1 / L1 / LH 1**



The stainless steel version of this bracket assures the secure mounting of the double shut-off valve DV 5 and pressure regulators DH1 / D1 / L1 / LH 1.

Order-No. 650002

Consists of:

Quantity	Article
1	Mounting bracket

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001:2009**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

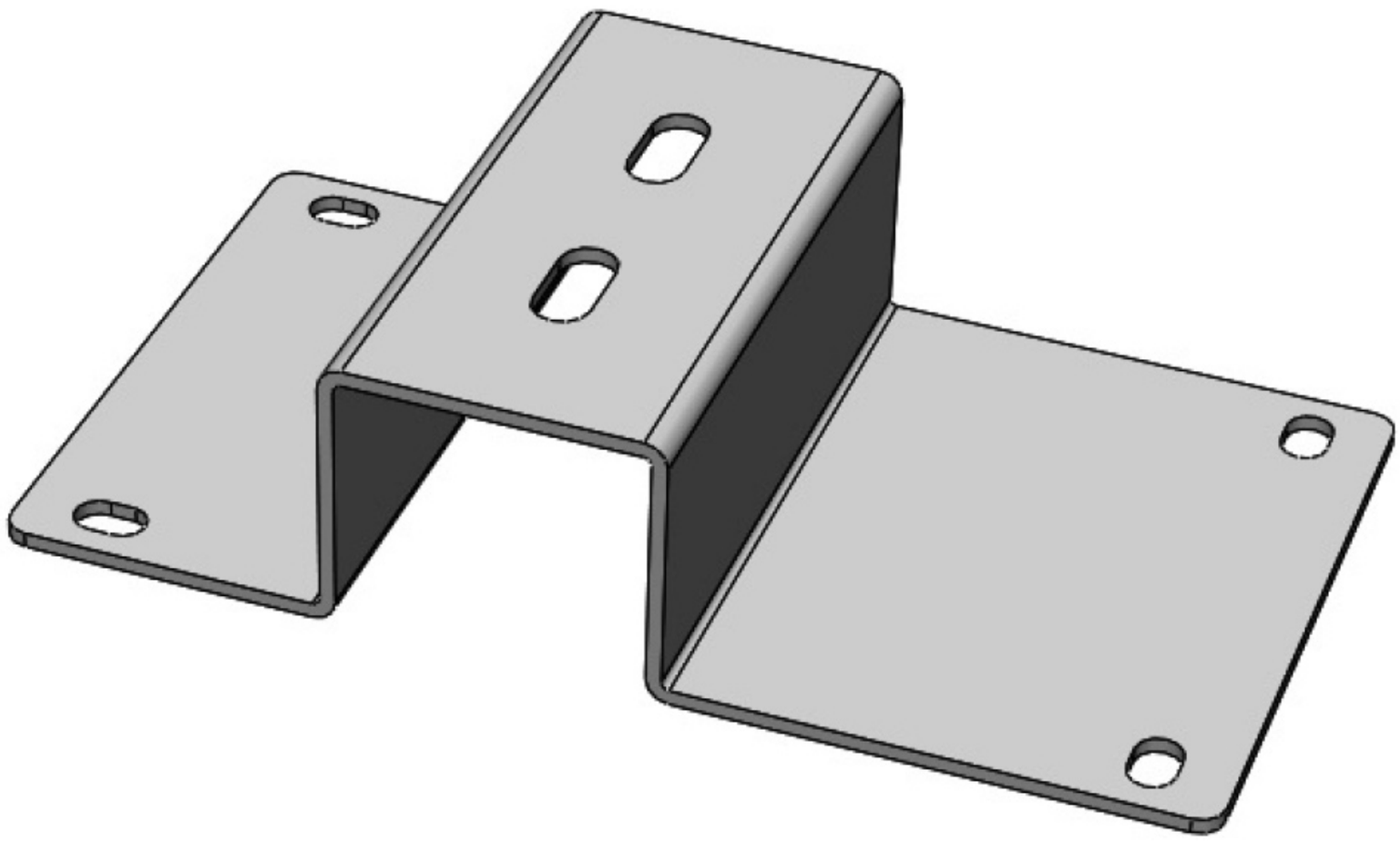
HORNUNG
Präzision made in Germany

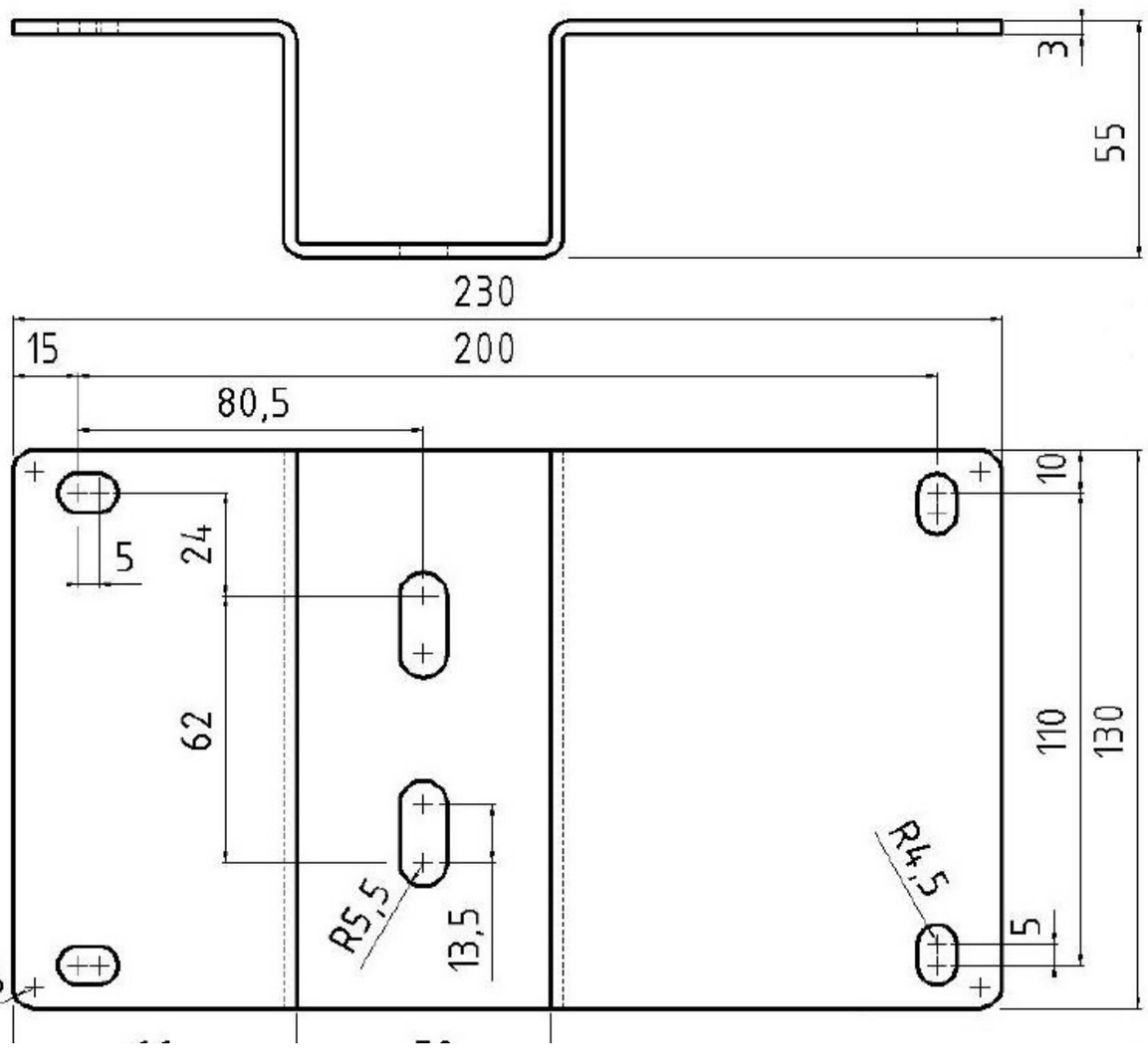
Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

Wall mounting bracket in stainless steel, electropolished, for pressure regulator **D 2**





The stainless steel bracket assures the secure mounting of the pressure regulator D 2.

Order-No. 650004

Consists of:

Quantity	Article
1	Mounting bracket

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001:2009**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

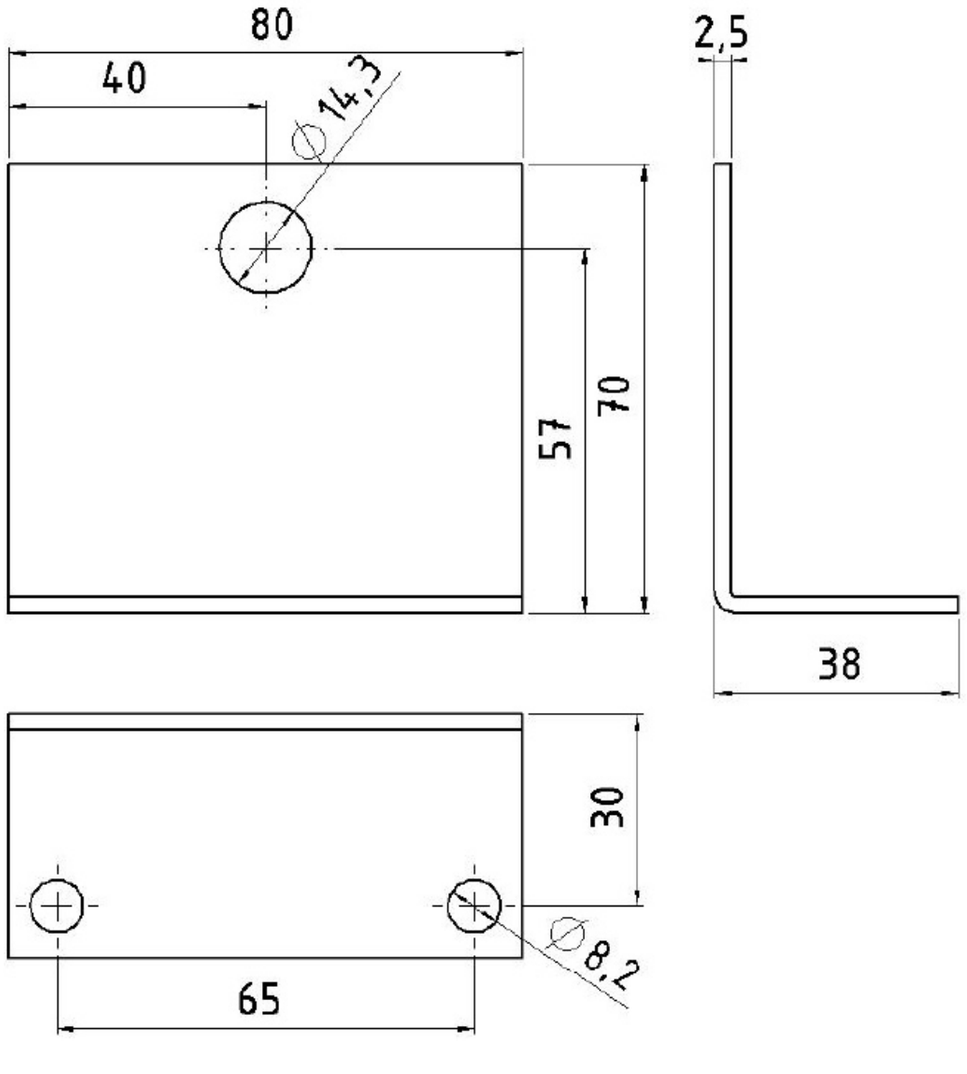
HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

Wall mounting bracket for **FHR 3 / FHR 4 regulator**



The wall mounting bracket with the corresponding housing nut assures the secure mounting of the pressure regulator FHR 3 and FHR 4.

Oder-No. B1060/50

Consists of:

Quantity	Article
1	Bracket (zinc plated)
1	Nut

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001:2009**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

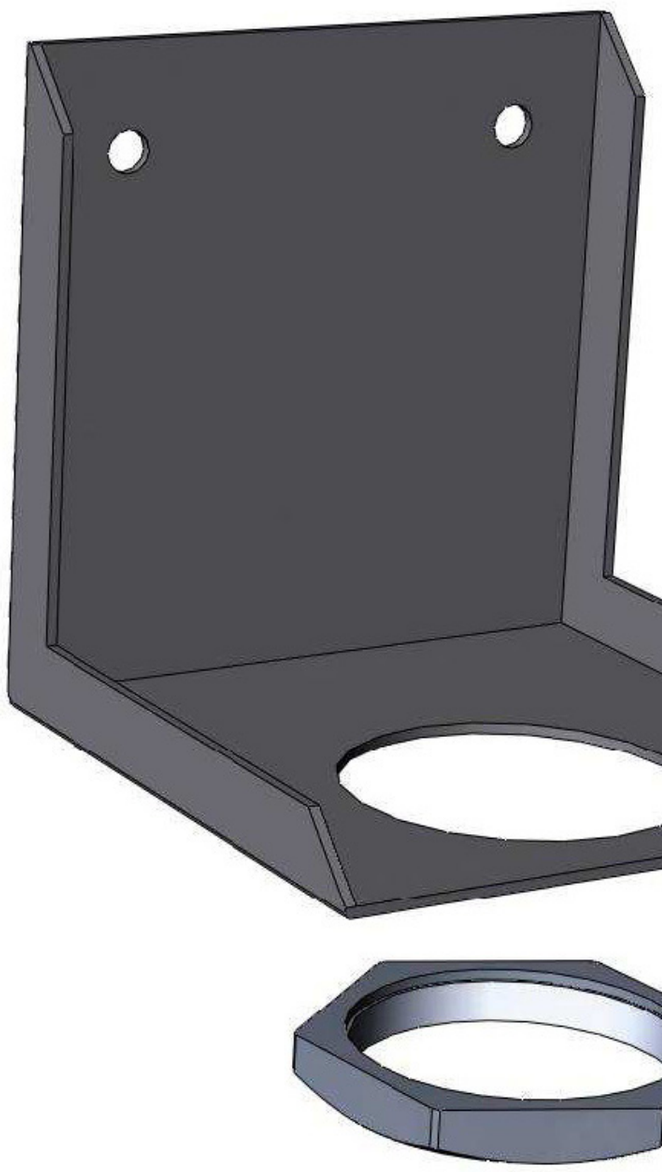
HORNUNG
Präzision made in Germany

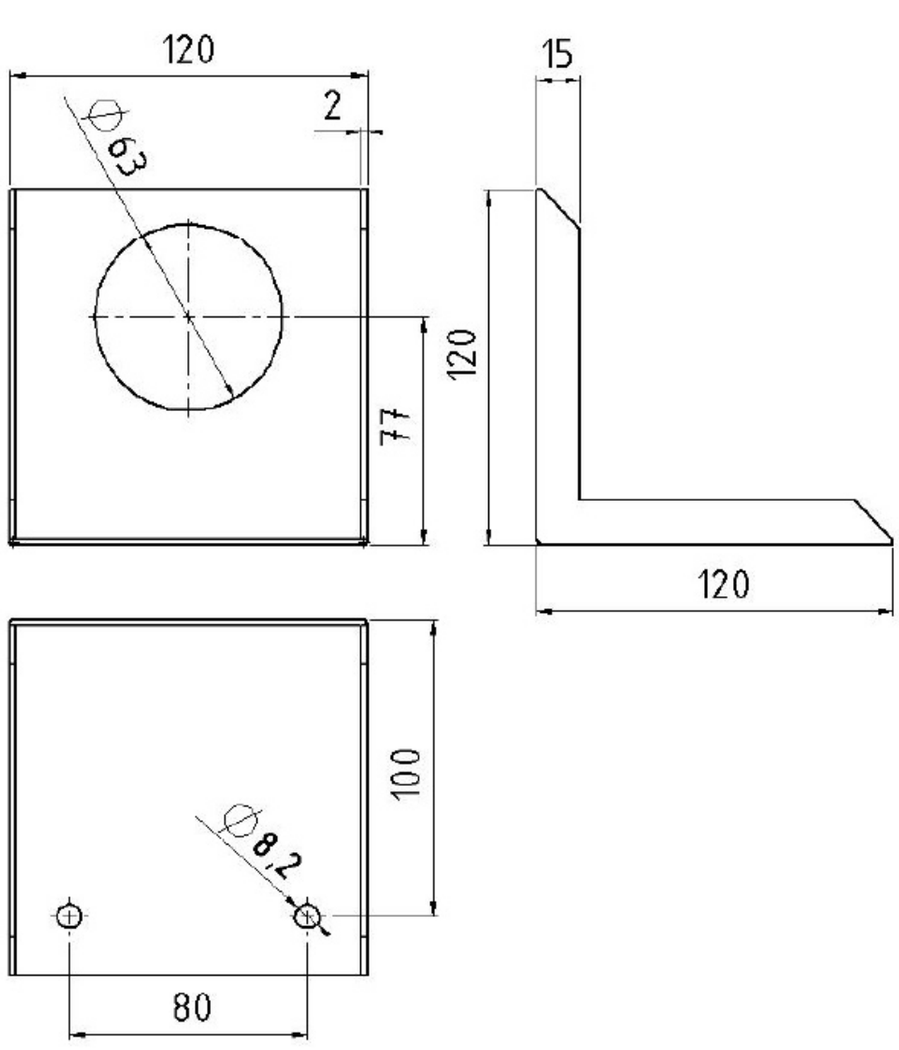
Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

Wall mounting bracket for **PHR regulator**





The wall mounting bracket with the corresponding housing nut assures the secure mounting of the pressure regulator PHR.

Order-No. C192/53

Consists of:

Quantity	Artickle
1	Bracket (zinc plated)
1	Nut

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001:2009**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

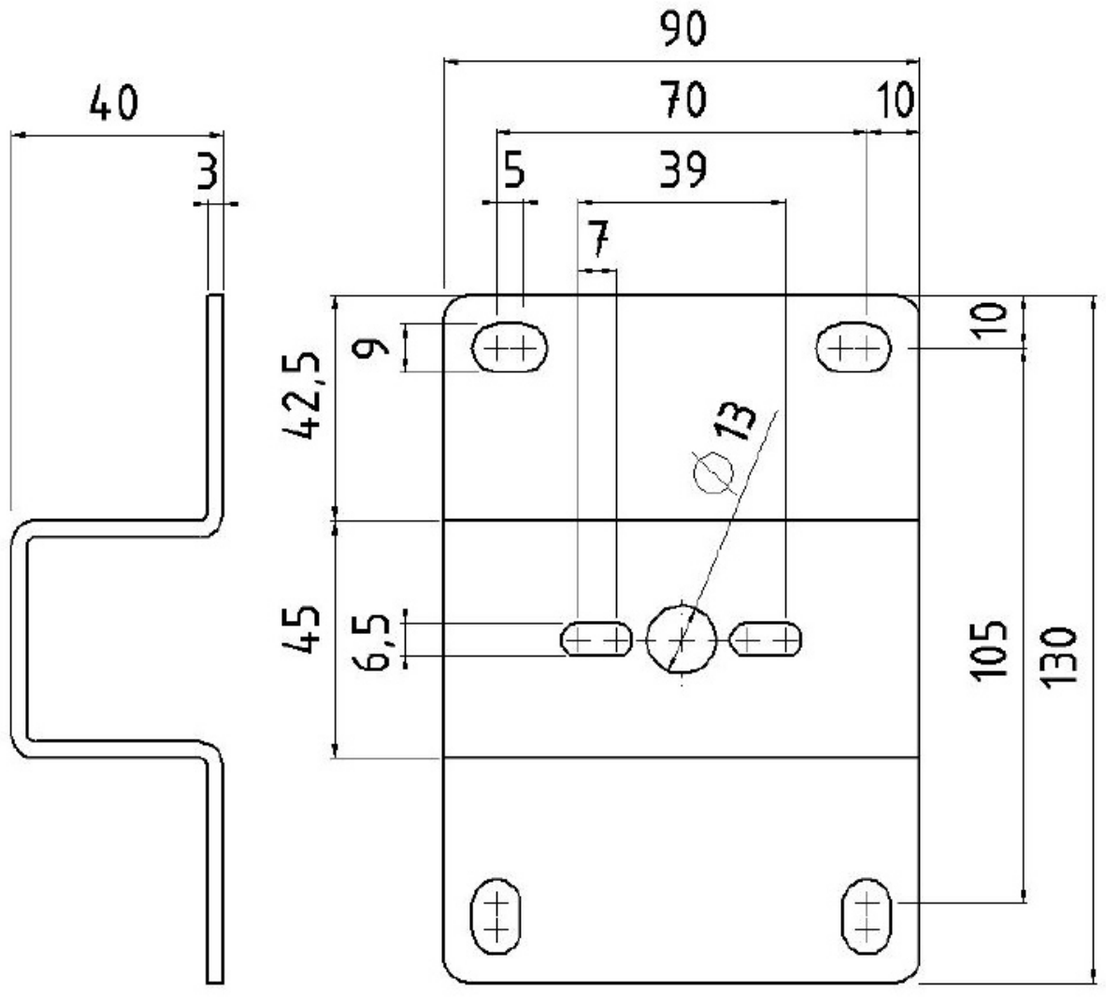
HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

Wall mounting bracket, painted



The bracket assures the secure mounting of various fixtures.

Order-No. 650003

Consists of:

Quantity	Article
1	Mounting bracket

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001:2009**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

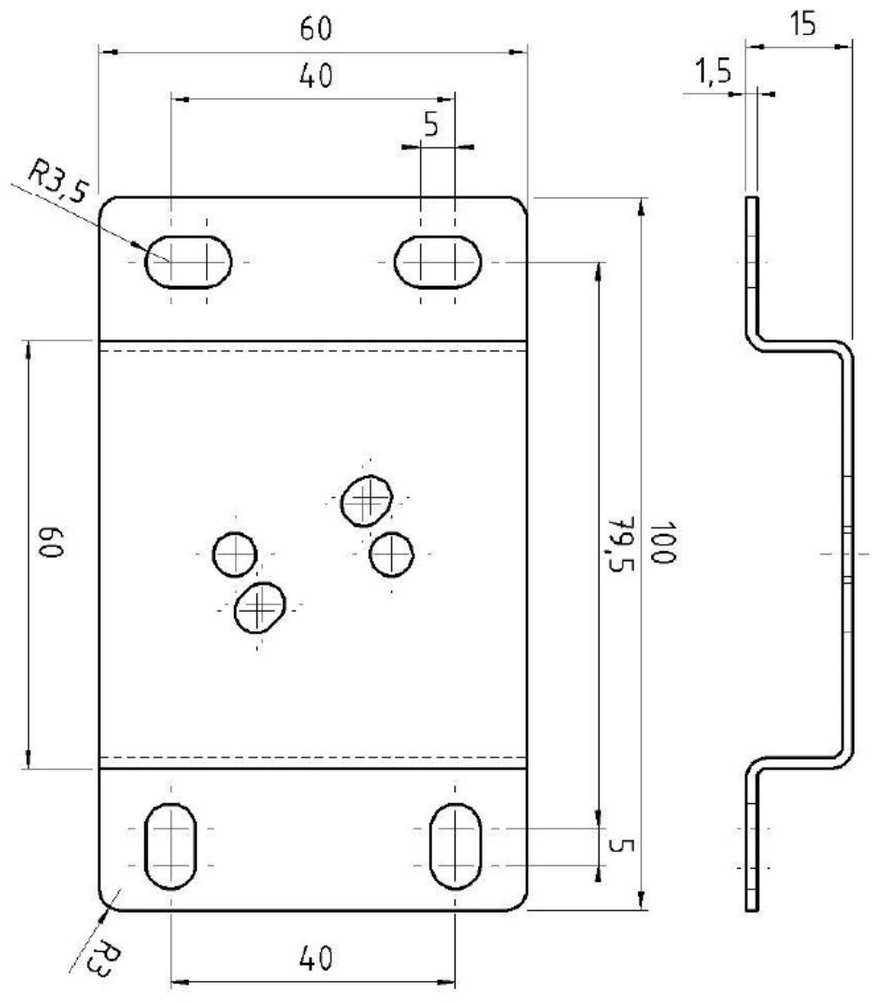
HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

Wall mounting bracket in stainless steel, electropolished, for shut-off valve **HP 500, regulators HD 400, HD 250, HP 300, HP 310 and FR 1**



Wall mounting bracket in stainless steel and electrolytically polished and assures the secure mounting of the shut-off valve HP 500 and the regulators HD 400, HD 250, HP 300, HP 310 and FR 1.

Order-No. 650013

Consists of:

Quantity	Article
1	Bracket

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001:2009**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

HORNUNG
Präzision made in Germany

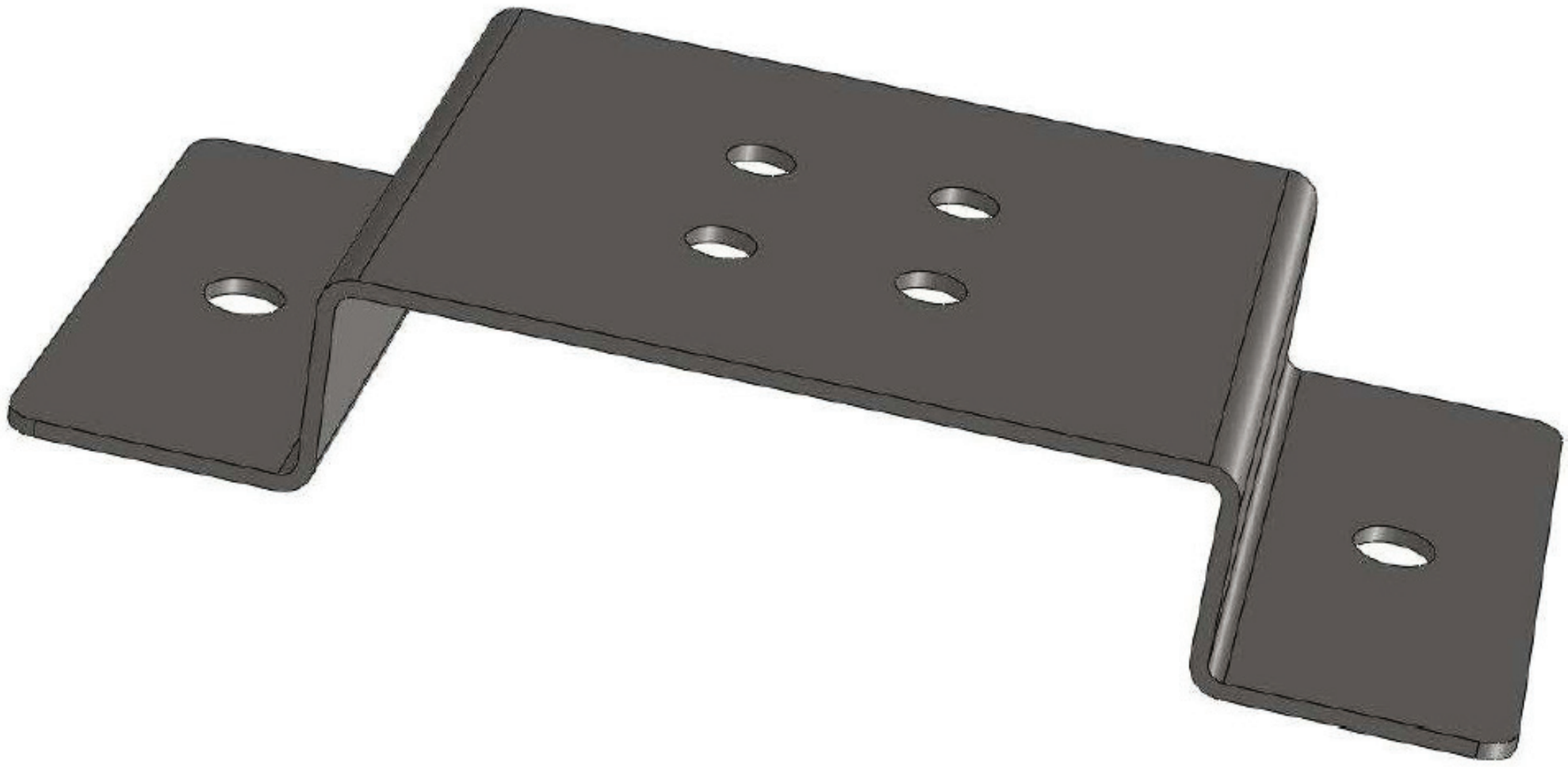
Rathenaustraße 55
63263 Neu-Isenburg

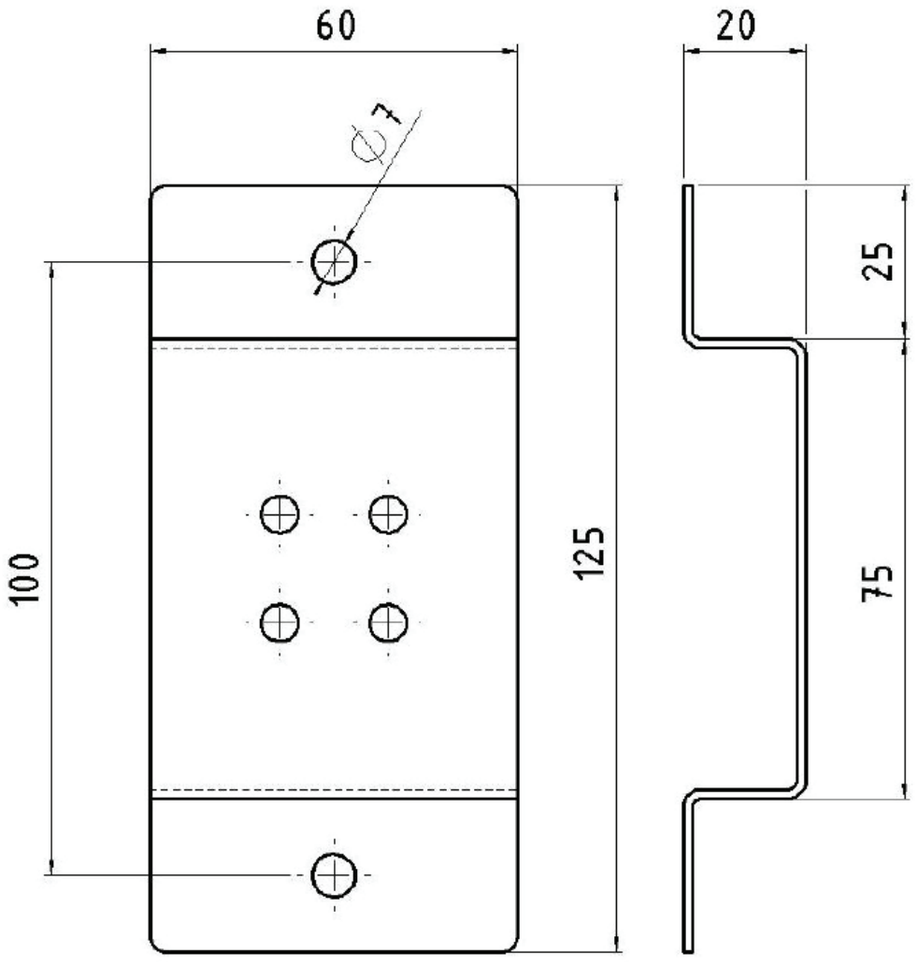
Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

dated 07/2022

Wall mounting bracket in stainless steel, electropolished, for shut-off valve **HP 550, HP 551 and HP 552**





Wall mounting bracket in stainless steel and electropolished and assures the secure mounting of the diaphragm shut-off valve HP 500, HP 551 und HP 552.

Order-No. 650006

Consists of:

Quantity	Article
1	Bracket

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

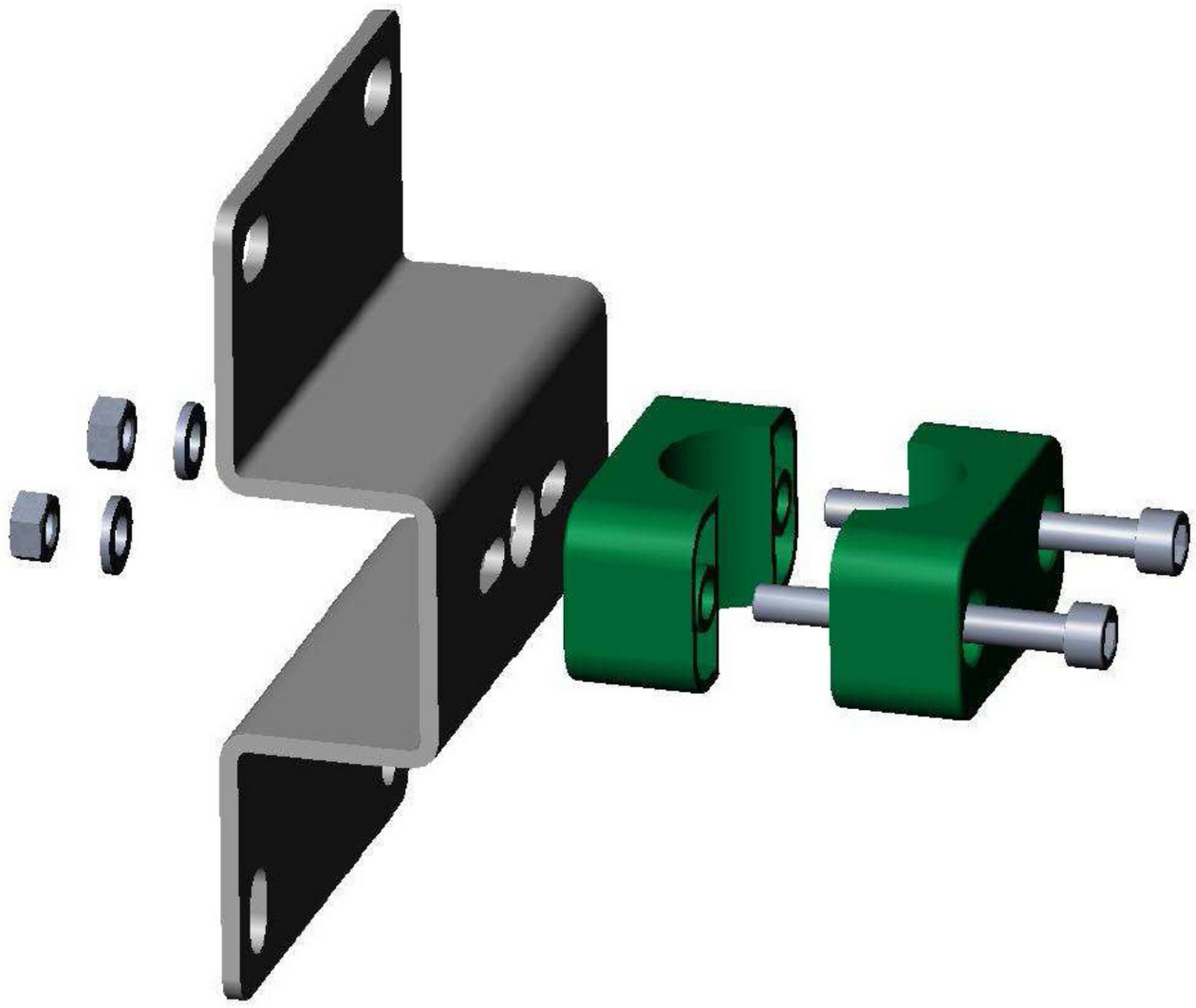
HORNUNG
Präzision made in Germany

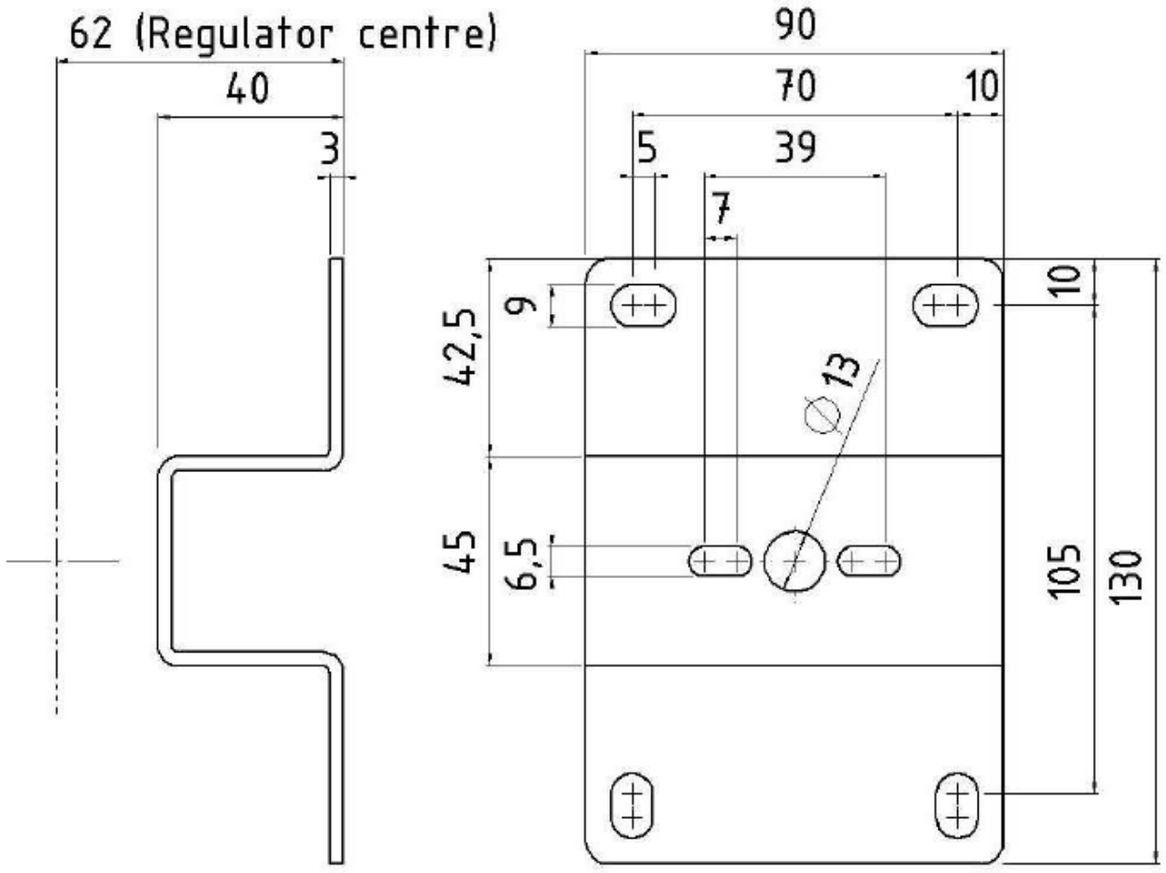
Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

Wall mounting bracket set for **PR regulator**





The mounting bracket set assures the secure mounting of the pressure regulator PR.

Order-No. 650012

Consists of:

Quantity	Article
1	Bracket (painted)
2	Ø 28 Clamp
2	Screw
2	Nut
2	Washer

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001:2009**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

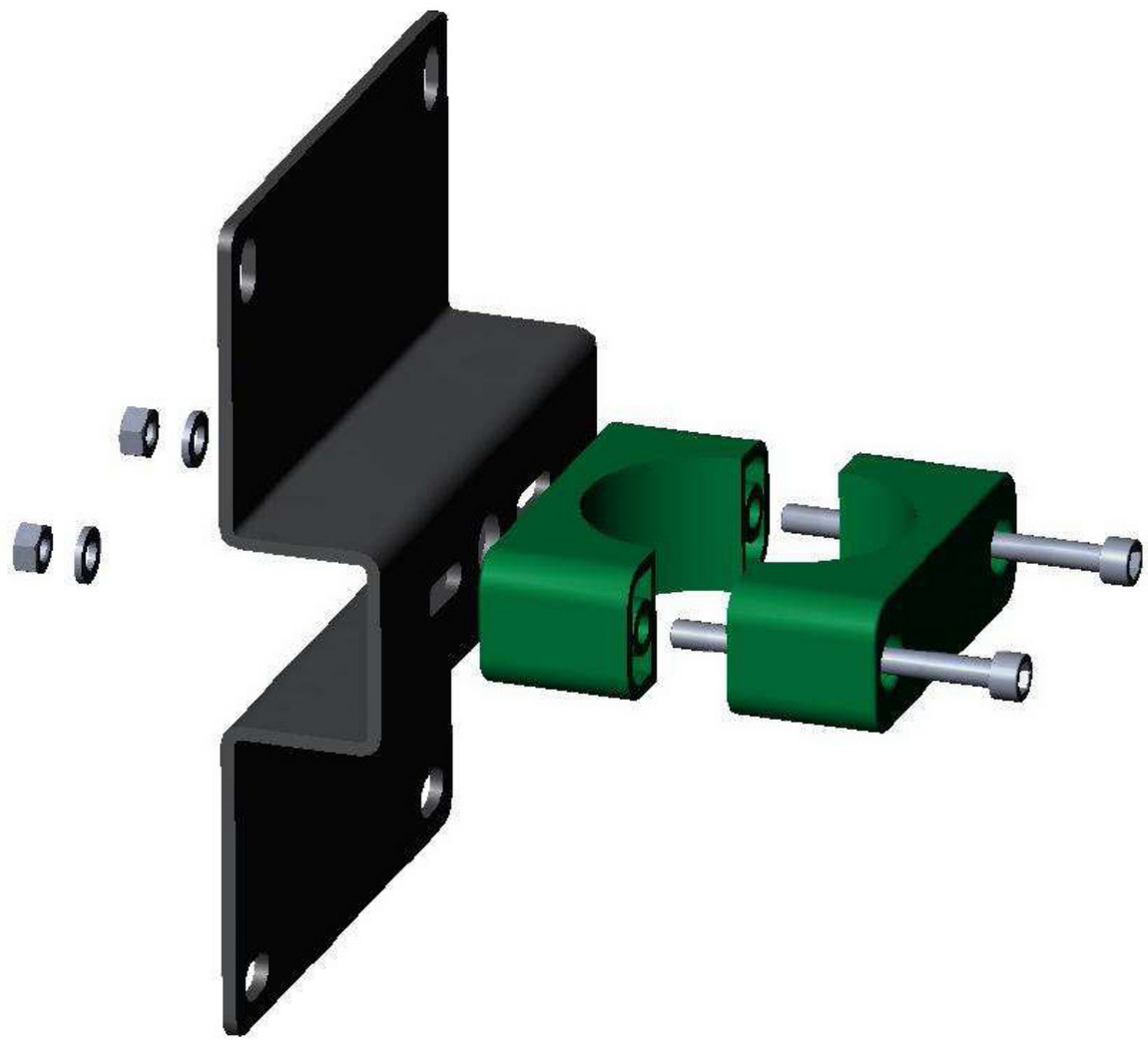
HORNUNG
Präzision made in Germany

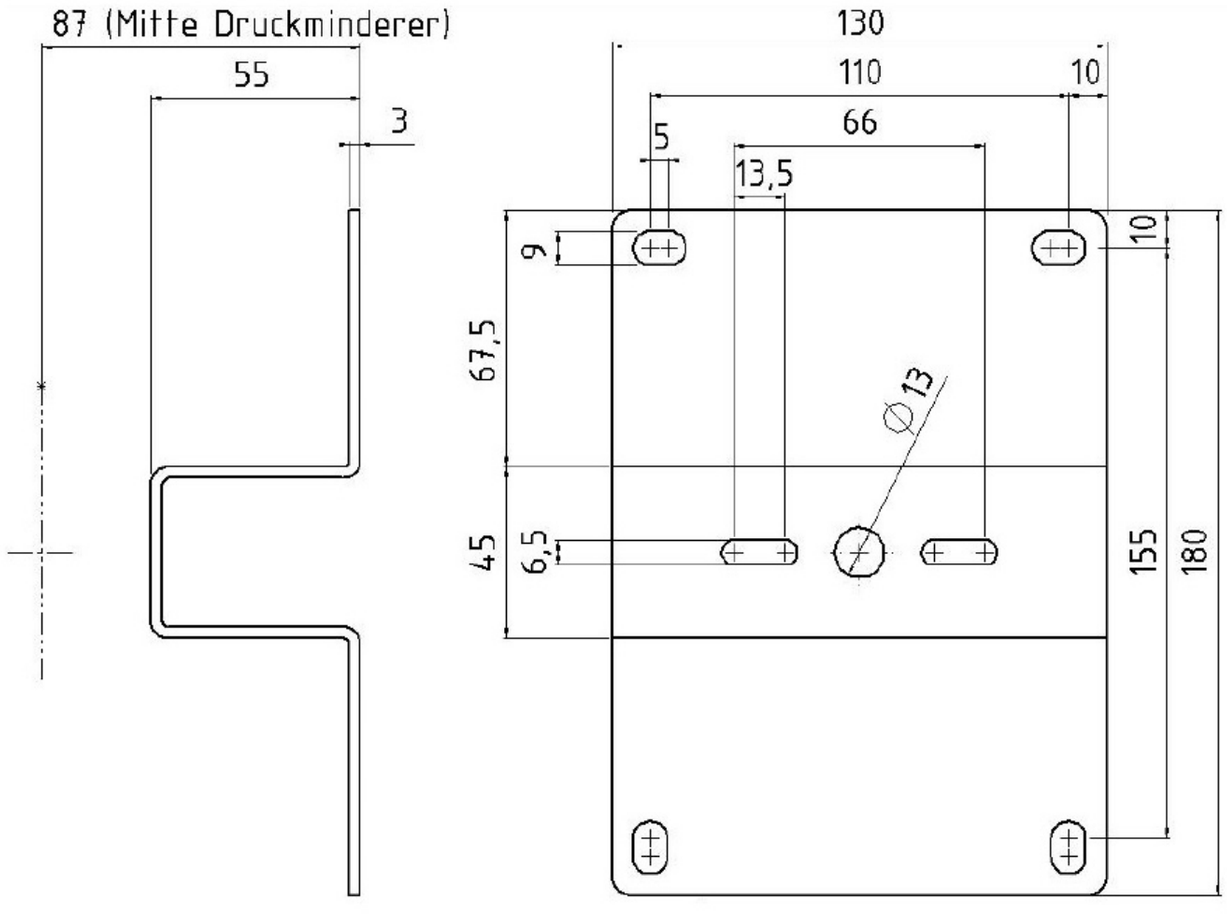
Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

Wall mounting bracket set for **ZD 400 / PFR / ZD 150 / RK 1**





The mounting bracket set assures the secure mounting of the pressure regulators ZD 400, PFR, ZD 150 and the RK 1.

Bestell-Nr. 650010

Consists of:

Quantity	Article
1	Bracket (painted)
2	Ø 50 clamp
2	Screw
2	Nut
2	Washer

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001:2009**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

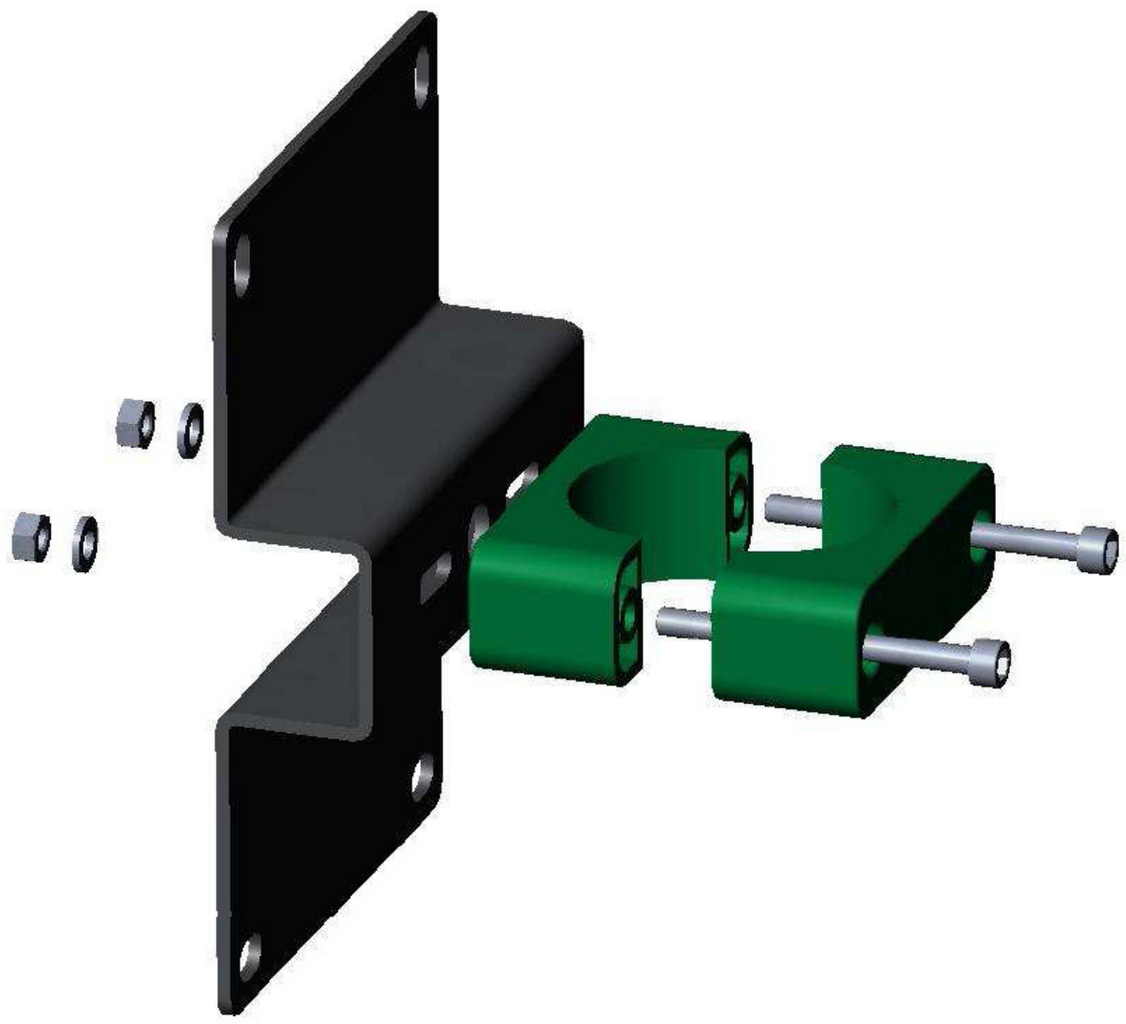
HORNUNG
Präzision made in Germany

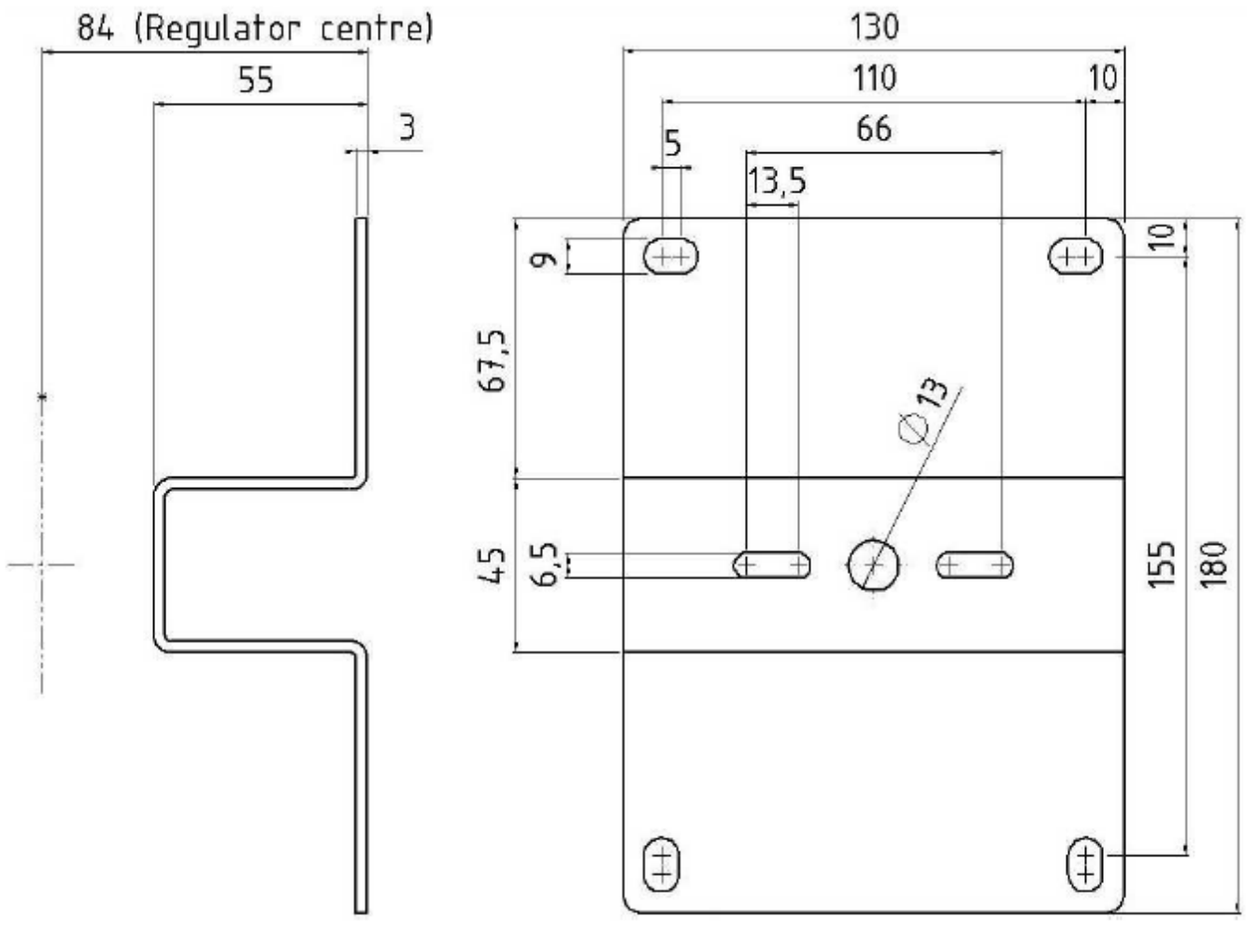
Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

Wall mounting bracket set for **ZD 60 / PR-HD**





The mounting bracket set assures the secure mounting of the pressure regulators ZD 60 and PR-HD.

Order-No. 65001

Consists of:

Quantity	Article
1	Bracket (painted)
2	Ø 40 Clamp
2	Screw
2	Nut
2	Washer

QUALITY STANDARD

The company Hornung is certified to **DIN EN ISO 9001** and **ISO 14001:2009**. All single parts are manufactured, assembled and tested by in-house production. The finished parts are therefore under all criteria of German quality control with 100% final inspection.

HORNUNG
Präzision made in Germany

Rathenaustraße 55
63263 Neu-Isenburg

Phone: +49 6102 7883-70
Fax: +49 6102 7883-40

www.hornung.org
info@hornung.org

HORNUNG

Präzision made in Germany

Our team is happy to assist you.
Please don‘t hesitate to contact us at any time.
Please don‘t forget to mention the gas type.

Custom made production is possible, please contact us for further information.

Technical modifications and errors excepted.