

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.	• stepless regulation without shut-off valve in the output
Membran:	EPDM or FKM	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.	• high user safety due to inherent safe construction
Max. inlet pressure:	110 bar	Hornung back pressure regulators are used here for a proper ventilation process in compliance with the safety regulations applicable to the entire system.	• high flow range and high pressures
Outlet pressure range:	up to 12 bar up to 100 bar	• Flow control with back pressure regulators	• minimum pressure difference up to 2% (small hysteresis) between opening and closing
Operating temp.:	-40°C to +150°C	• As a control valve with a large flow range	• maximum accuracy, thanks to large-area membrane (EPDM or FKM)
Dimensions:	Ø 124 x 128 mm	• Tank overlapping	
Weight:	9,5 kg	• For the protection of bursting discs	
Connections:	Inlet / outlet G 1" or NPT 1" Gauge NPT 1/4" Dome screw NPT 1/4"	• Pump pressure-bearing valves	
		• Pressure bypass valves	
		• Pulsation attenuation	

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.

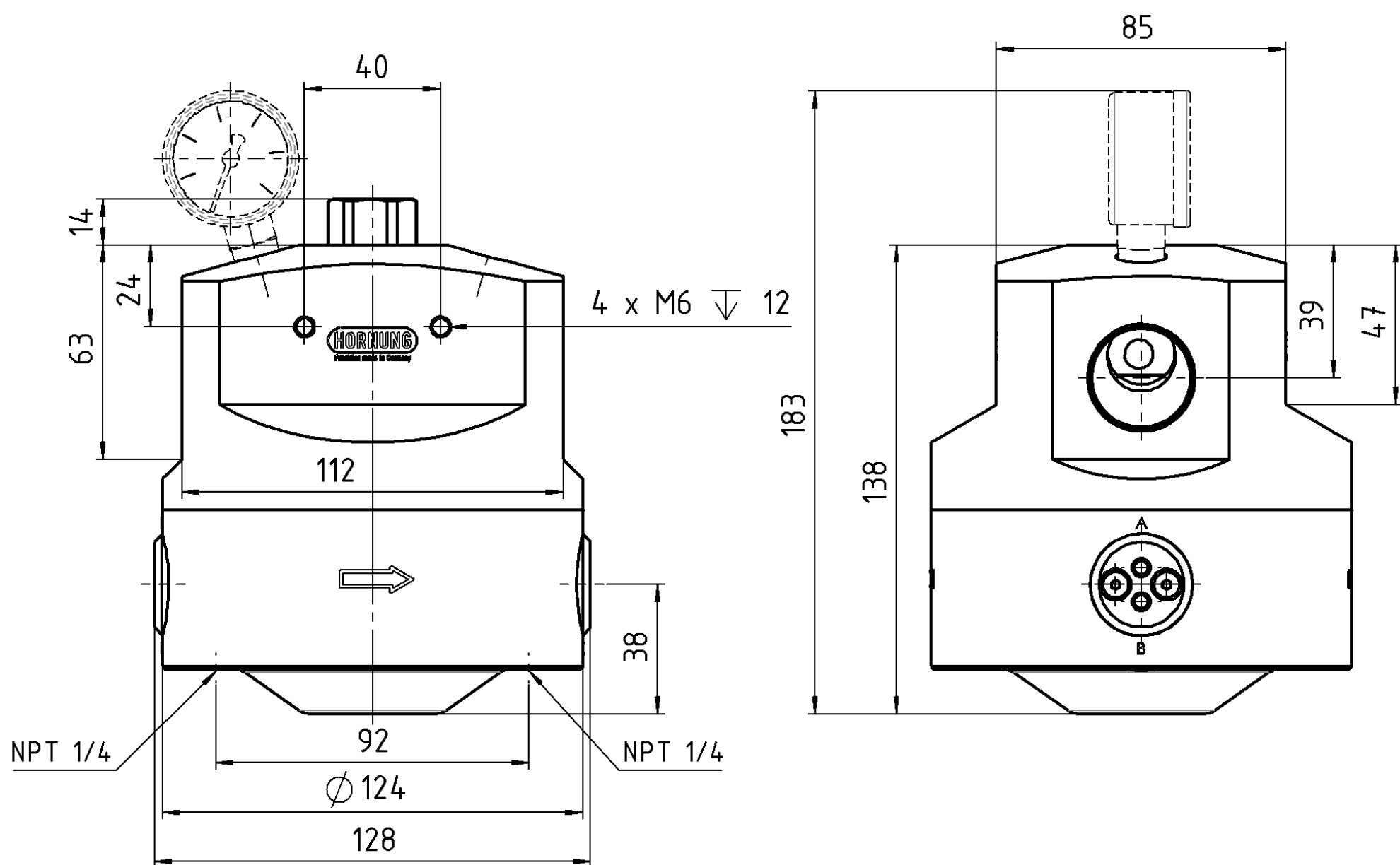
HORNUNG

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



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 $+150^{\circ}\text{C}$. 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

VD1

355-
Type

1
Material/
pressure

0
Diaphragm

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