

Dome pressure regulator PID 3/4

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



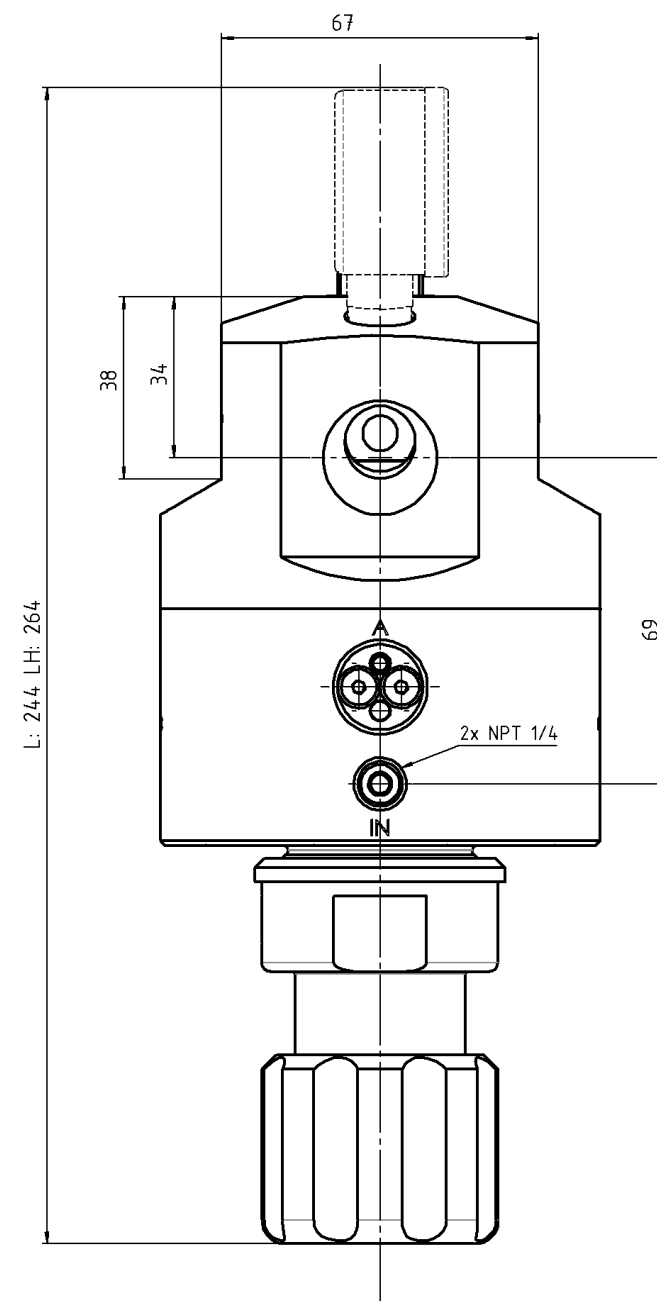
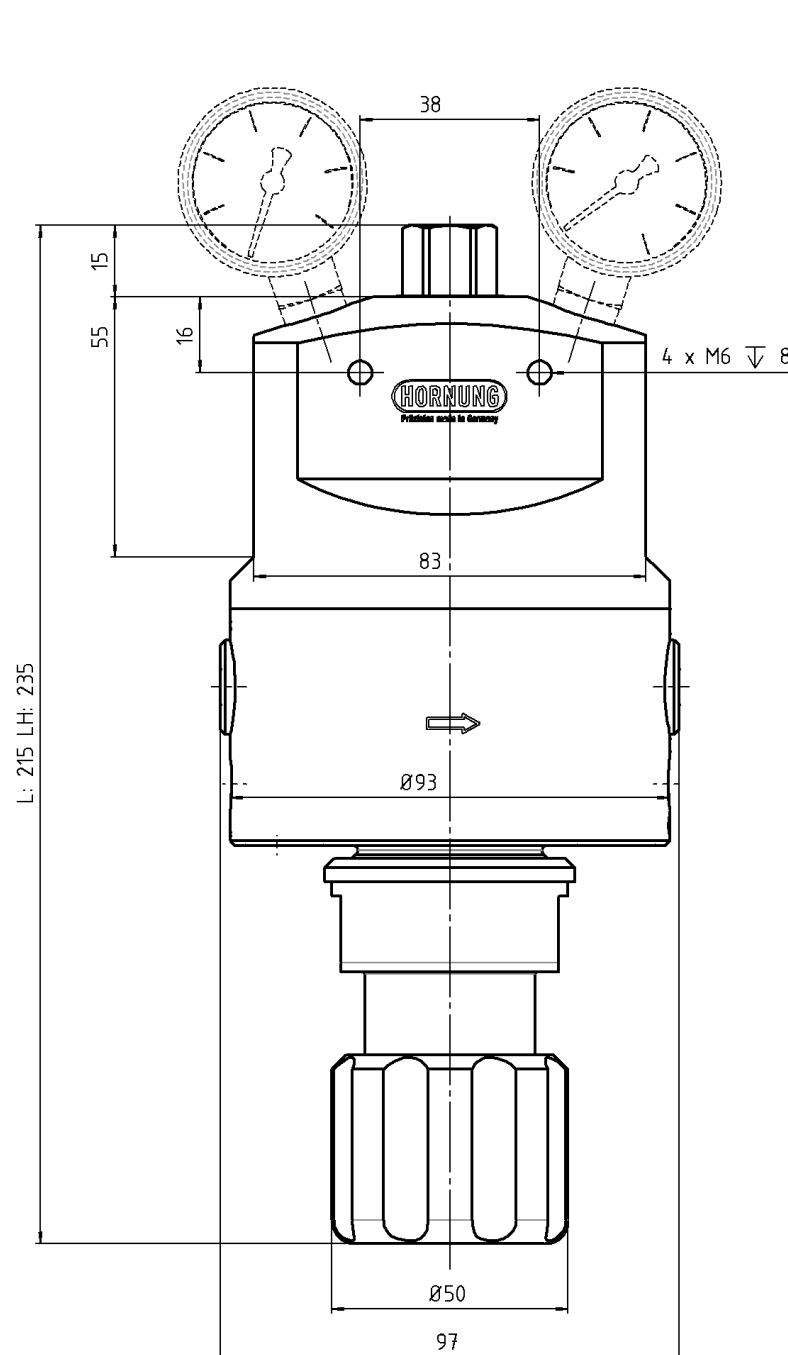
Fittings and gauges optional

TECHNICAL DETAILS		APPLICATION AREA	Description
Material:	Brass or stainless steel (1.4404)	The Dome-pressure regulator is used as a line-pressure regulator.	Dome pressure regulators with integrated pilot regulators are characterised by an accurate regulation and a large throughput.
Valve seat:	Ø 10	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.	The dome pressure regulator works according to the principle of the pressure balance between dome pressure and outlet pressure.
Cv-Wert:	2,0	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 be controlled with the needle valves on the inlet pressure side.
Seat:	EPDM or FKM		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.
Max. inlet pressure:	110 bar		This design is very space saving and easy to assemble and handle.
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 1/4"		

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.

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:	Diaphragm:	Outlet pressure P2:	Gauges:	Inlet / outlet:
1 = Brass 100 bar	1 = EPDM	1 = 0,5 - 3 bar	0 = none	0 = G 3/4" - internal thread
2 = Stainless steel 100 bar	2 = FKM	2 = 0,5 - 6 bar	1 = with inlet and outlet gauge	1 = NPT 3/4" - internal thread
3 = Brass 12 bar		3 = 1 - 12 bar		
4 = Stainless steel 12 bar		4 = 1 - 17 bar		
		5 = 5 - 50 bar		
		6 = 5 - 100 bar		

Regulator type	322-	PID 3/4	322- Type	2 Material/ pressure	1 Diaphragm	2 P2	0 Gauges	0 In-/outlet	Gas type Gas type
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Accessories: see total catalogue segment

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