



REDLINE® C 12hv/1

Single stage cylinder pressure regulator

Description C 12hv/1 is a single stage diaphragm pressure regulator, especially suitable for non-corrosive gases up to 6.0 purity (99.9999%) as well as gas mixtures with a low concentration of corrosive components.

The regulator is suited for all gases with a low vapour pressure of all purities and gas mixtures, especially liquefied gases. The regulator is designed to reduce inlet pressure to very low outlet pressures and to be able to regulate low pressures precisely.

The regulator also has a vacuum dosing capability down to 0.1 bar abs. C 12hv/1 can be plain or equipped with a shut-off valve (type A) or a metering valve (type B). It can also be equipped with inert gas purge valve (TP) or with triple purge block (EP).

Product name	Material	bar	psi	Art. Nr
C 12hv/1	Chrome-plated brass	0.2 – 2	3 – 29	5453
C 12hv/1	Chrome-plated brass	0.2 – 3	3 – 44	5454
C 12hv/1	Stainless steel	0.2 – 2	3 – 29	5459
C 12hv/1	Stainless steel	0.2 – 3	3 – 44	5460
C 12hv/1 TP	Chrome-plated brass	0.2 – 2	3 – 29	6280
C 12hv/1 TP	Chrome-plated brass	0.2 – 3	3 – 44	6281
C 12hv/1 TP	Stainless steel	0.2 – 2	3 – 29	6282
C 12hv/1 TP	Stainless steel	0.2 – 3	3 – 44	6283
C 12hv/1 EP	Stainless steel	0.2 – 2	3 – 29	6060
C 12hv/1 A	Chrome-plated brass	0.2 – 2	3 – 29	5455
C 12hv/1 A	Chrome-plated brass	0.2 – 3	3 – 44	5456
C 12hv/1 A	Stainless steel	0.2 – 2	3 – 29	5461
C 12hv/1 A	Stainless steel	0.2 – 3	3 – 44	5462
C 12hv/1 A TP	Chrome-plated brass	0.2 – 2	3 – 29	6284
C 12hv/1 A TP	Chrome-plated brass	0.2 – 3	3 – 44	6285
C 12hv/1 A TP	Stainless steel	0.2 – 2	3 – 29	6286
C 12hv/1 A TP	Stainless steel	0.2 – 3	3 – 44	6287
C 12hv/1 A EP	Stainless steel	0.2 – 2	3 – 29	6061
C 12hv/1 B	Chrome-plated brass	0.2 – 2	3 – 29	5457
C 12hv/1 B	Chrome-plated brass	0.2 – 3	3 – 44	5458
C 12hv/1 B	Stainless steel	0.2 – 2	3 – 29	5463
C 12hv/1 B	Stainless steel	0.2 – 3	3 – 44	5464
C 12hv/1 B TP	Chrome-plated brass	0.2 – 2	3 – 29	6288
C 12hv/1 B TP	Chrome-plated brass	0.2 – 3	3 – 44	6289
C 12hv/1 B TP	Stainless steel	0.2 – 2	3 – 29	6290
C 12hv/1 B TP	Stainless steel	0.2 – 3	3 – 44	6291
C 12hv/1 B EP	Stainless steel	0.2 – 2	3 – 29	6062

Delivery and ordering information

Cylinder pressure regulator with cylinder connection (manual connection) according to DIN 477 on the high-pressure side and compression fitting 6 mm on the service gas outlet. In addition to the article number, please specify the type of gas. Other configurations on request.

Application

Suitable for all applications involving non-corrosive high purity gases with a vapor pressure below 12 bar at pressures below 1 bar (abs) or in a pressure range from 0 to 3 bar (abs) with high control accuracy. Recommended for all applications in analysis, as well as research and development, where high demands in gas purity, accuracy, reliability are required. The pressure regulator must not be used as a shut-off device. The version with a shut-off valve allows the gas flow to be shut off / opened while maintaining the pressure reducer setting. The design with a needle valve allows additional metering of the gas flow.



Technical Data

	bar	psi
Maximum primary pressure	12	170
Outlet pressure range	0.2 – 2 (abs.) 0.2 – 3 (abs.)	3 – 29 (abs.) 3 – 44 (abs.)
Outlet gauge range	-1 – 1.5 -1 – 5	-15 – 22 -15 – 73
Gas purity	≤ 6.0 (99.9999%)	
Leak rate	≤10 ⁻⁹ mbar l/s He to the outside ≤5x10 ⁻⁶ mbar l/s He in the seat	
Connections		
- Pressure reducer body	6 x NPT 1/4" f	
- cylinder pressure regulator		
- Service gas outlet	Compression fitting 6 mm	
- High pressure inlet bottle	Connection according to DIN 477	
- Relief valve outlet	NPT 1/4" f	
Stability	Constant outlet pressure when the inlet pressure drops from 200 bar to 0 bar	
Flow coefficient	Cv = 0.09	
Materials		
- Casing	Cr-plated brass	SS 316L
- Housing seal	PVDF	PCTFE
- Membrane	Hastelloy®	
- Seat seal	FKM / EPDM	
- Seal relief valve	FKM / EPDM	(according to gas type)
Operating temperature	-20°C ... +60°C	-4°F ... +140°F
Particle filter	Inlet 10 µm	Outlet 100 µm
Valves	Diaphragm shut-off valve V 200 (Type A) Diaphragm control valve V 50 (Type B)	
Cylinder connection	DIN 477 (other connections on request)	
Weight	2.5 kg max.	5.5 lb max.

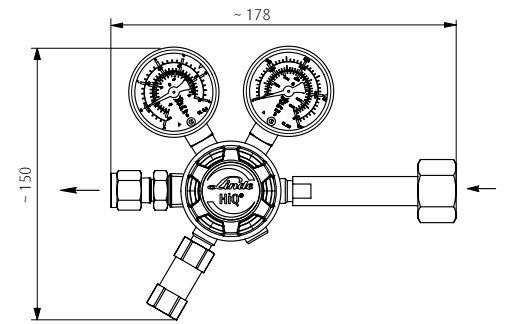
Other accessories

Gas type-specific manual connection, brass or stainless-steel compression fittings from 3 to 12 mm or 1/8" to 1/2" for service gas and relief valve outlet, contact pressure gauge.

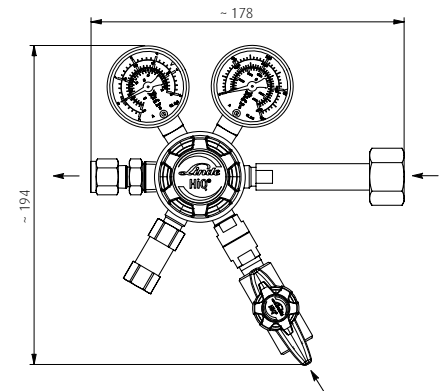
Quality Assurance

The cylinder pressure regulator C 12hv/1 is manufactured in accordance with the following international standards: ISO 9001, ISO 2503, EN ISO 5171, EN ISO 7291 (including oxygen burnout test for brass-chrome-plated fittings). Every step, from design to final test, is subject to one Quality Management System.

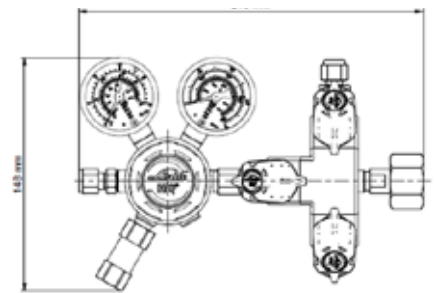
C 12hv/1



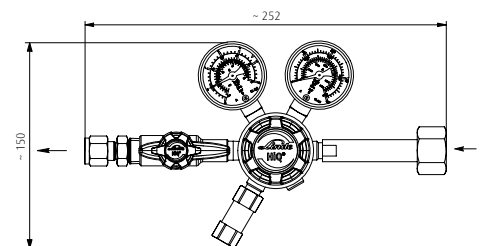
C 12hv/1 TP



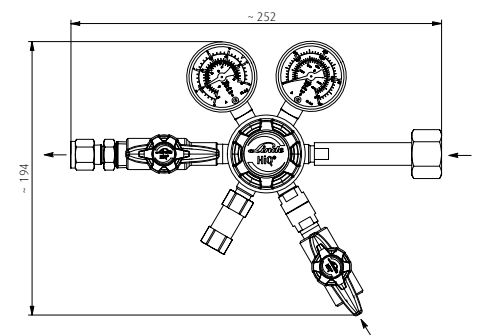
C 12hv/1 EP



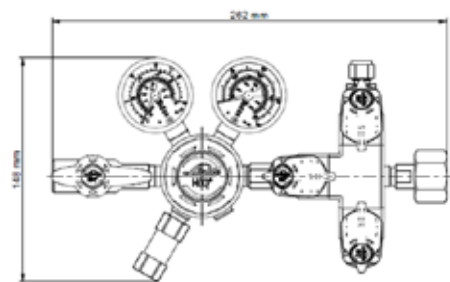
C 12hv/1 A



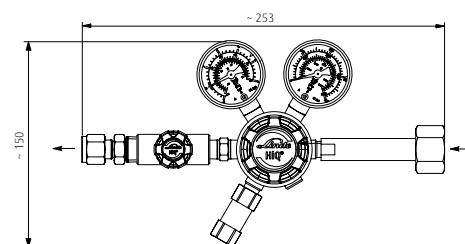
C 12hv/1 A TP



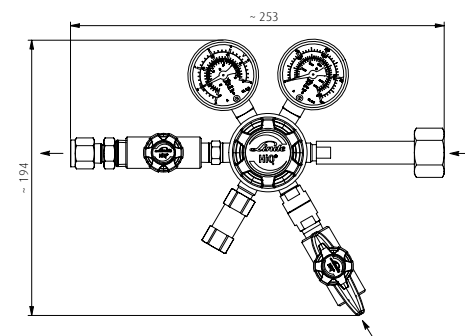
C 12hv/1 A EP



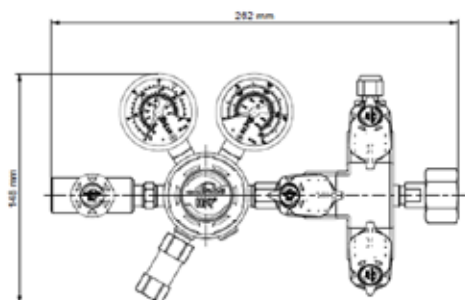
C 12hv/1 B



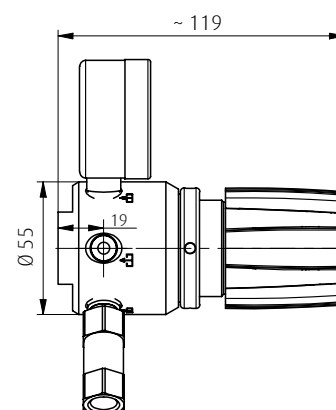
C 12hv/1 B TP



C 12hv/1 B EP

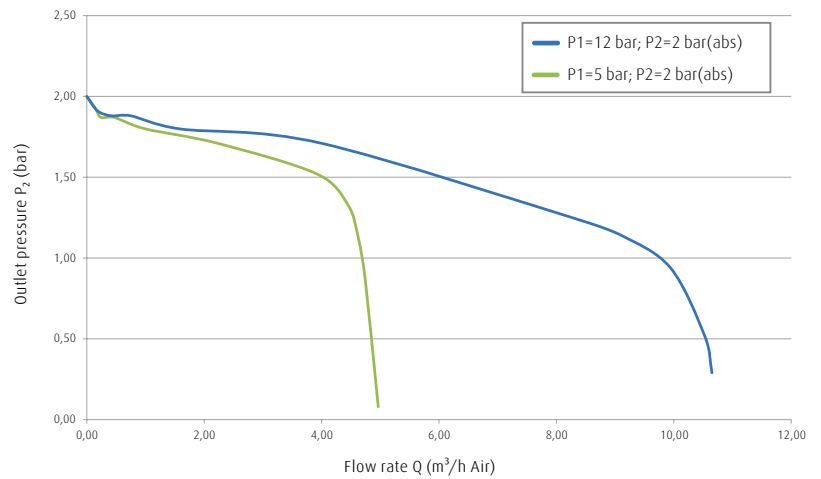


C 12hv/1
Side view

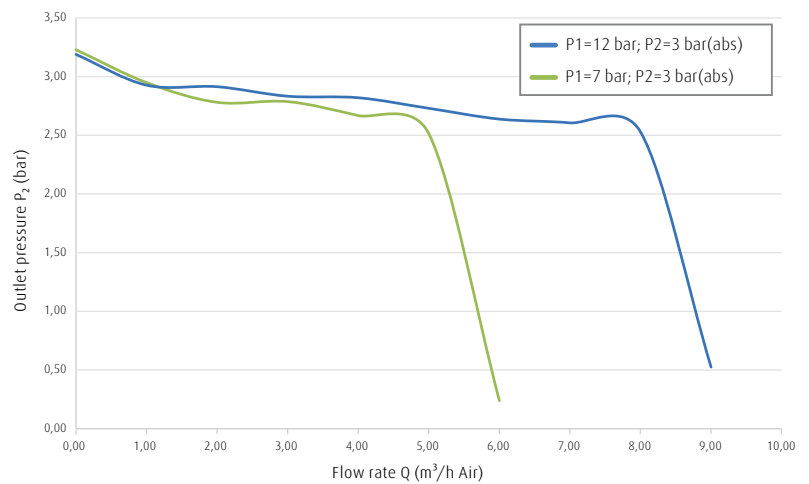


All dimensions in millimeters

C 12hv/1 – 2 bar (abs.)



C 12hv/1 – 3 bar (abs.)



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