



REDLINE® C 300/1

Single stage cylinder pressure regulator – 300 bar

Description C 300/1 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.

A single stage regulator is preferred where the primary pressure is fairly constant (e.g. for gases in liquid phase). C 300/1 can be plain or equipped with a shut-off valve (type A), a metering valve (type B) or equipped for purging of the high-pressure side (type P).

Product name	Material	bar	psi	Art. Nr
C 300/1	Chrome-plated brass	0.2 – 3	3 – 44	7100
C 300/1	Chrome-plated brass	0.5 – 6	7 – 87	7750
C 300/1	Chrome-plated brass	1 – 10	15 – 145	7101
C 300/1	Chrome-plated brass	1 – 14	15 – 203	7751
C 300/1	Chrome-plated brass	2.5 – 28	36 – 406	7120
C 300/1	Chrome-plated brass	2.5 – 50	36 – 725	7104
C 300/1	Chrome-plated brass	10 – 100	145 – 1450	7812
C 300/1	Chrome-plated brass	10 – 200	145 – 2900	7813
C 300/1	Stainless steel	0.2 – 3	3 – 44	7125
C 300/1	Stainless steel	0.5 – 6	7 – 87	7194
C 300/1	Stainless steel	1 – 10	15 – 145	7126
C 300/1	Stainless steel	1 – 14	15 – 203	7124
C 300/1	Stainless steel	2.5 – 28	36 – 406	7148
C 300/1	Stainless steel	2.5 – 50	36 – 725	7129
C 300/1 A	Chrome-plated brass	0.2 – 3	3 – 44	7105
C 300/1 A	Chrome-plated brass	0.5 – 6	7 – 87	7752
C 300/1 A	Chrome-plated brass	1 – 10	15 – 145	7106
C 300/1 A	Chrome-plated brass	1 – 14	15 – 203	7753
C 300/1 A	Chrome-plated brass	2.5 – 28	36 – 406	7121
C 300/1 A	Chrome-plated brass	2.5 – 50	36 – 725	7109
C 300/1 A	Chrome-plated brass	10 – 100	145 – 1450	7814
C 300/1 A	Chrome-plated brass	10 – 200	145 – 2900	7815
C 300/1 A	Stainless steel	0.2 – 3	3 – 44	7130
C 300/1 A	Stainless steel	0.5 – 6	7 – 87	7195
C 300/1 A	Stainless steel	1 – 10	15 – 145	7131
C 300/1 A	Stainless steel	1 – 14	15 – 203	7145
C 300/1 A	Stainless steel	2.5 – 28	36 – 406	7149
C 300/1 A	Stainless steel	2.5 – 50	36 – 725	7134
C 300/1 B	Chrome-plated brass	0.2 – 3	3 – 44	7110
C 300/1 B	Chrome-plated brass	0.5 – 6	7 – 87	7754
C 300/1 B	Chrome-plated brass	1 – 10	15 – 145	7111
C 300/1 B	Chrome-plated brass	1 – 14	15 – 203	7755
C 300/1 B	Chrome-plated brass	2.5 – 28	36 – 406	7122
C 300/1 B	Chrome-plated brass	2.5 – 50	36 – 725	7114
C 300/1 B	Stainless steel	0.2 – 3	3 – 44	7135
C 300/1 B	Stainless steel	0.5 – 6	7 – 87	7196
C 300/1 B	Stainless steel	1 – 10	15 – 145	7136
C 300/1 B	Stainless steel	1 – 14	15 – 203	7146
C 300/1 B	Stainless steel	2.5 – 28	36 – 406	7162
C 300/1 B	Stainless steel	2.5 – 50	36 – 725	7139



Product name	Material	bar	psi	Art. Nr
C 300/1 P	Chrome-plated brass	0.2 – 3	3 – 44	7115
C 300/1 P	Chrome-plated brass	0.5 – 6	7 – 87	7756
C 300/1 P	Chrome-plated brass	1 – 10	15 – 145	7116
C 300/1 P	Chrome-plated brass	1 – 14	15 – 203	7757
C 300/1 P	Chrome-plated brass	2.5 – 28	36 – 406	7123
C 300/1 P	Chrome-plated brass	2.5 – 50	36 – 725	7119
C 300/1 P	Chrome-plated brass	10 – 100	145 – 1450	7816
C 300/1 P	Chrome-plated brass	10 – 200	145 – 2900	7817
C 300/1 P	Stainless steel	0.2 – 3	3 – 44	7140
C 300/1 P	Stainless steel	0.5 – 6	7 – 87	7197
C 300/1 P	Stainless steel	1 – 10	15 – 145	7141
C 300/1 P	Stainless steel	1 – 14	15 – 203	7147
C 300/1 P	Stainless steel	2.5 – 28	36 – 406	7163
C 300/1 P	Stainless steel	2.5 – 50	36 – 725	7144

Delivery and ordering information

Cylinder pressure regulator with cylinder connection (manual connection) according to ISO 5415 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 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. The design with a flushing device allows the high-pressure side to be flushed with its own gas.

Technical Data

	bar	psi
Maximum primary pressure	300	4351
Outlet pressure range	0.2 – 3	3 – 44
	0.5 – 6	7 – 87
	1 – 10	15 – 145
	1 – 14	15 – 203
	2.5 – 28	36 – 406
	2.5 – 50	36 – 725
	10 – 100	145 – 1450
	10 – 200	145 – 2900
Outlet gauge range	-1 – 5	-15 – 73
	-1 – 10	-15 – 145
	-1 – 18	-15 – 261
	-1 – 25	-15 – 363
	0 – 40	0 – 580
	0 – 80	0 – 1160
	0 – 160	0 – 2320
	0 – 315	0 – 4569
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 ISO 5145	
- Relief valve outlet	NPT 1/4" f	
Stability	1.5 bar increase in outlet pressure when the inlet pressure drops from 300 bar to 0 bar	
Flow coefficient	Cv = 0.09	

Materials		
- Casing	Cr-plated brass	stainless steel
- Housing seal	PVDF	PCTFE
- Membrane	Hastelloy®	
- Seat seal	PCTFE	
- 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 300 (Type A, P) Diaphragm control valve V 50 (Type B)	
Cylinder connection	ISO 5145	
Weight	2.5 kg max.	5.5 lb max.

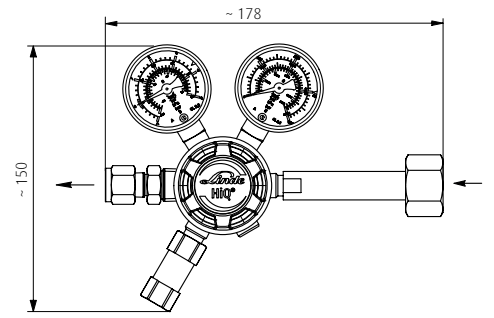
Other accessories

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.

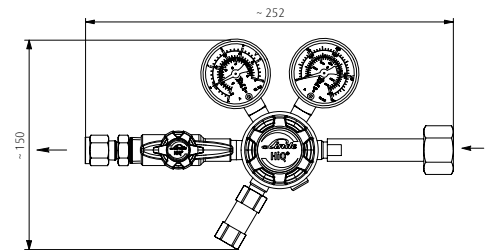
Quality Assurance

The cylinder pressure regulator C 300/1 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.

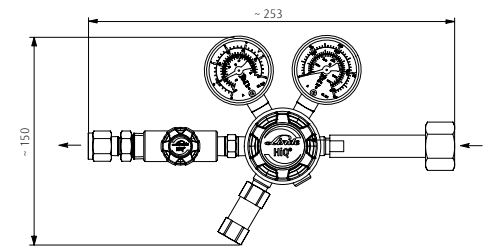
C 300/1



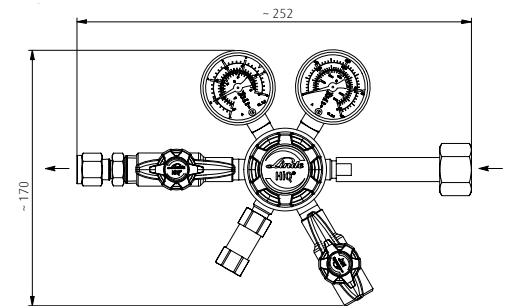
C300/1 A



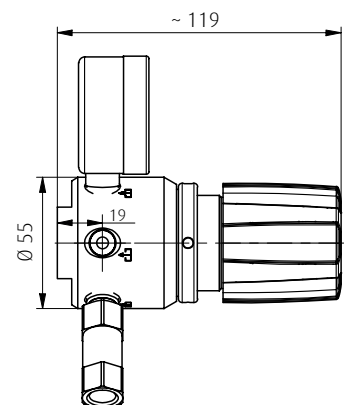
C 300/1 B



C 300/1 P

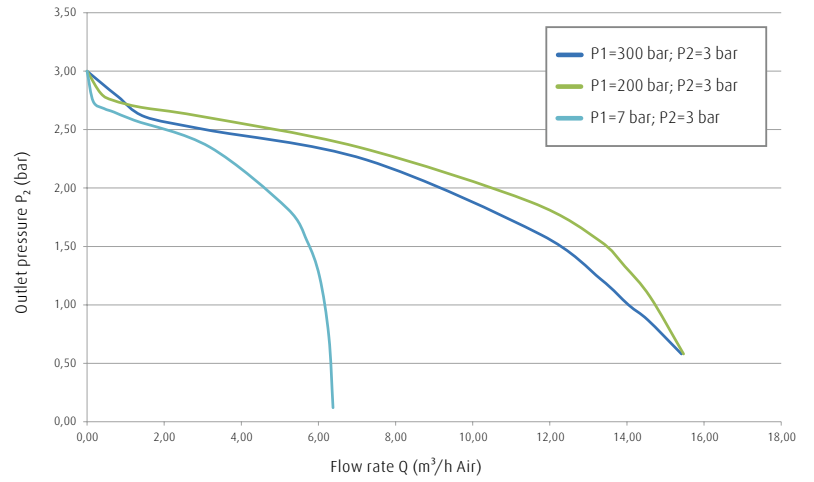


C 300/1
Side view

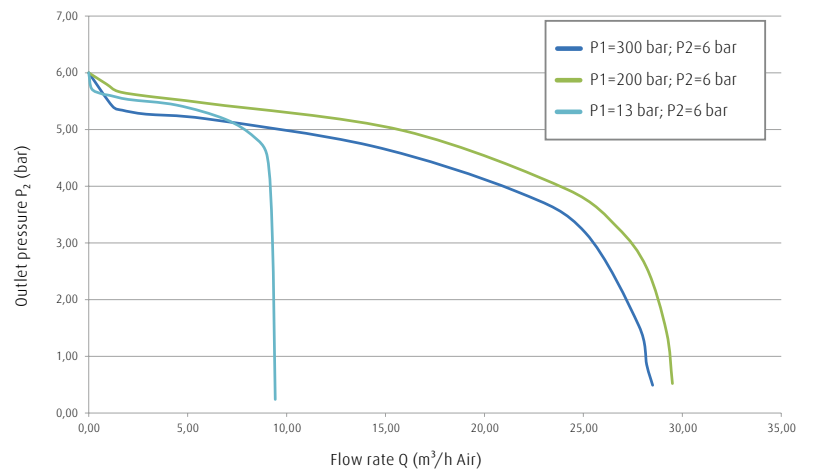


All dimensions in millimeters

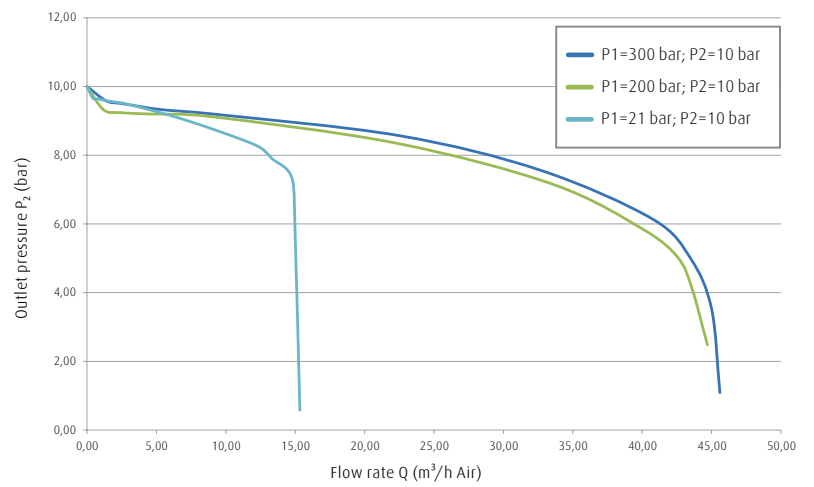
C 300/1 – 3 bar



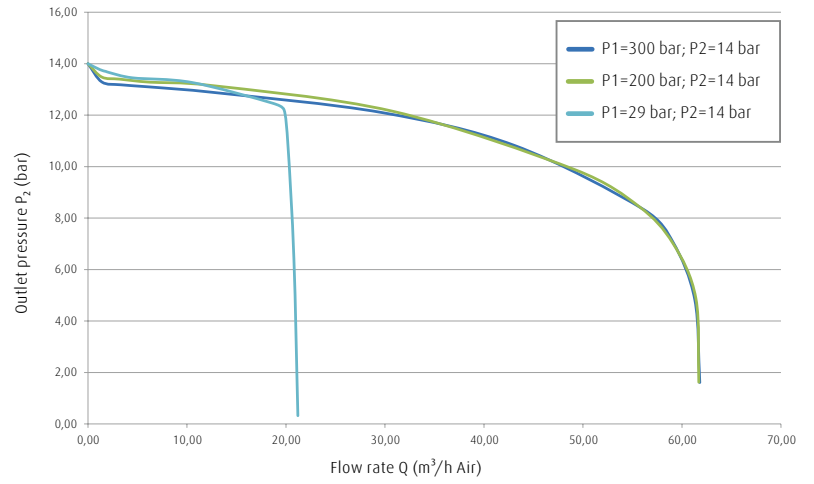
C 300/1 – 6 bar



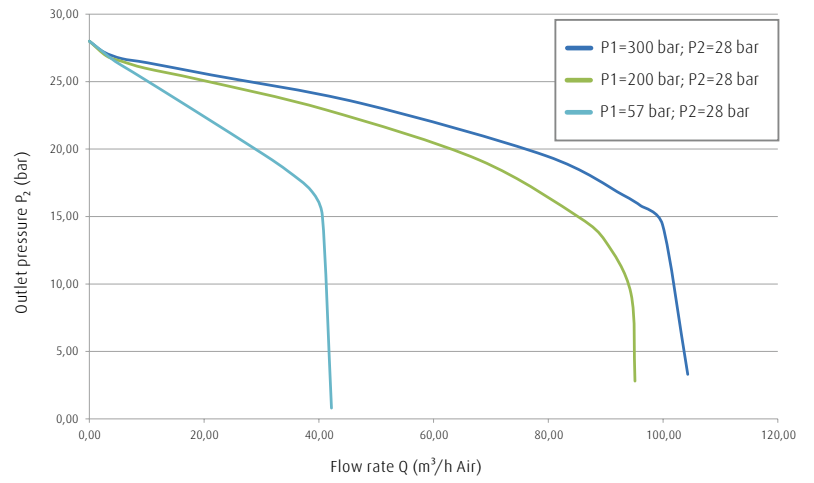
C 300/1 – 10 bar



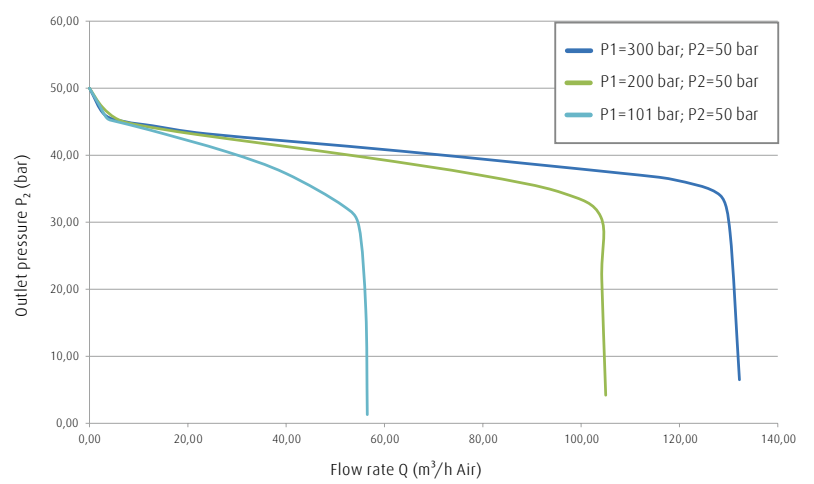
C 300/1 – 14 bar



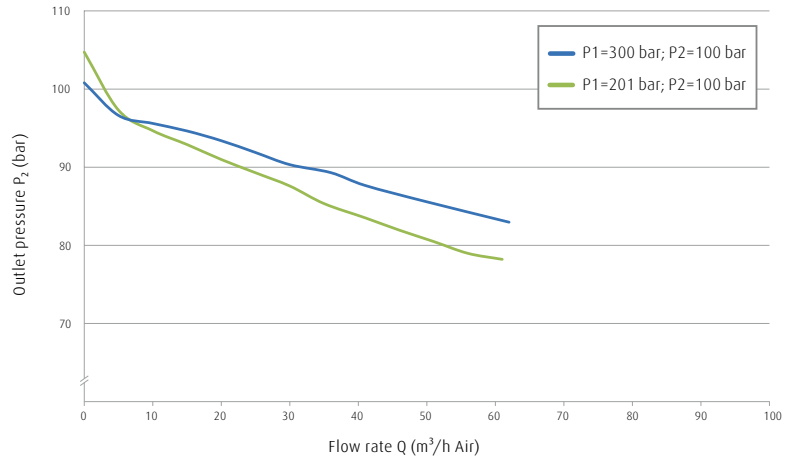
C 300/1 – 28 bar



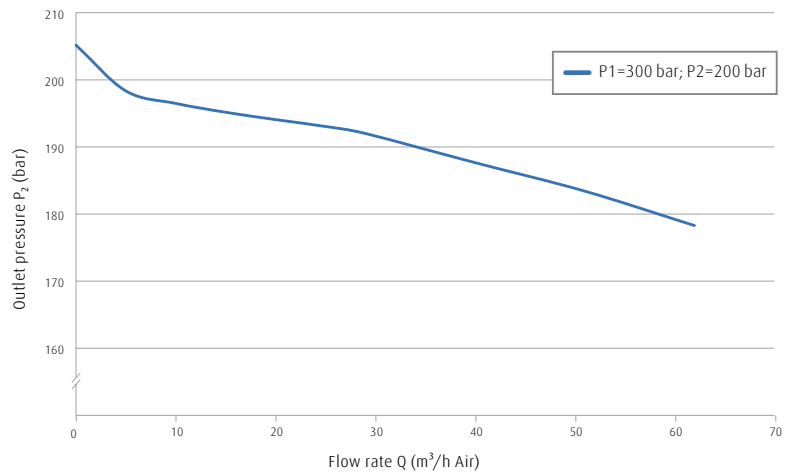
C 300/1 – 50 bar



C 300/1 – 100 bar



C 300/1 – 200 bar



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