

CYLINDER PRESSURE REGULATORS FMD 322-14/-16/-18 - DUAL STAGE



Type -14



Type -16



Type -18

Dual-stage,
for inert, reactive, flammable and oxidizing gases and mixtures, not suitable for acetylene,
purity max. 5.0
cylinder pressure 230 bar / 3300 psi,
downstream pressure range 0.5 - 10.5 bar / 7 - 150 psi

SPECIAL FEATURES

- Downstream pressure is independent of the upstream pressure due to the dual-stage design
- Diaphragm valve (FMD 322-16 with 90° shut-off function)
- Pressure regulator with stainless steel diaphragm
- ATEX conform adjustment knob
- Gauge in safety version accordance with DIN EN 837

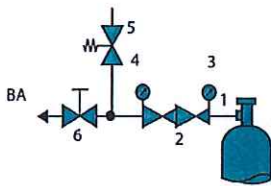
DESCRIPTION

These pressure regulators consist of cylinder connections, pressure regulator, inlet- and outlet gauges, diaphragm shut-off valve (Type -16) regulating valve (Type -18), relief valve, tube fitting on outlet.

APPLICATION

The FMD 322-14 is the base model. The FMD 322-16 permits shutting-off of the gas flow while maintaining the pressure regulator settings, the regulating valve on the FMD 322-18 enables a fine controlling of the gas flow. The dual-stage pressure regulator ensures the uniformity of the downstream pressure independent of the level of the cylinder pressure.

FLOW SCHEMATIC



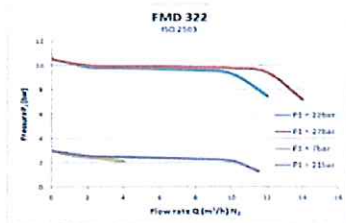
- 1 Cylinder connection
 - 2 Dual-stage pressure regulator
 - 3 Upstream pressure gauge
 - 4 Downstream pressure gauge
 - 5 Relief valve
 - 6 Downstream shut-off valve (only type -16) / downstream regulating valve (only type -18)
- BA Process gas outlet

TECHNICAL DATA

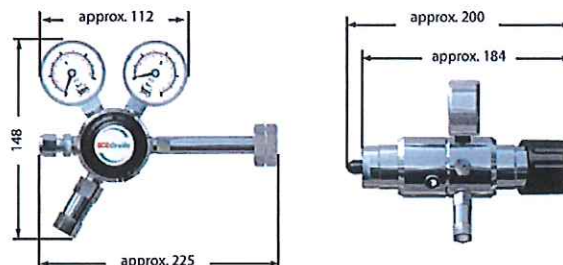
Body:	Stainless steel 316L (1.4404) specially cleaned or Brass CW614 (CuZn39Pb3) specially cleaned
Seat seals:	1st stage: PCTFE, 2nd stage: PTFE
Body seals:	PCTFE (Stainless steel), PVDF (Brass)
Diaphragm:	Stainless steel
Leakage rate:	< 1×10 ⁻⁹ mbar l/s Helium (outboard) < 1×10 ⁻⁶ mbar l/s Helium (across the seat)
Relief valve seat seals:	Stainless steel: FKM, (EPDM, FFKM) * Brass: EPDM, (FKM)
Pressure gauge range:	-1 - 10 bar (-15 - 145 psi), -1 - 18 bar (-15 - 260 psi), 0 - 315 bar (0 - 4500 psi)
Weight:	approx. 2.1 kg (Type -14), 2.4 kg (Type -16/18)
Working temperature:	-25 °C to +70 °C / -13 °F to 158 °F
Performance data:	see below
Basic design aspects:	see page 37
Cylinder connection:	according to gas type

*on request

PERFORMANCE DATA



DIMENSIONS



ORDER CODE

Type	Material	Upstream pressure	Downstream pressure	Inlet	Outlet	Contact gauge	Relief Valve	Gas type
FMD 322-14	BC	F	6	DIN	CL6	Ki	AV	GAS
FMD 322-14	BC = brass Cr	F = 230 bar	6 = 0.5 - 6 bar / 7 - 85 psi	DIN	N14=NPT 1/4"f	0 = without	0 = without	Please specify Subject to change without notice
FMD 322-16	plated	/3300 psi	10 = 1 - 10.5 bar / 15 - 150 psi	ANSI/ AFNOR/ NBN/BS 341/ CGA/NEN/UNI	CL6/ CL8**	Ki = with	A = with	
FMD 322-18	SS = stainless steel				CL 1/8" /CL 1/4"			

** = Outlet: (CL6 = tube fitting for 6 mm outside diameter, NO6 = hose connector for 6 mm hose inside diameter). Please note the "burst rate chart" when choosing the tube fittings in chapter 5.