



CYLINDER PRESSURE REGULATORS

FMD 230/232 - 14/16/18

EDITION 1/2015

Cylinder pressure regulator, single/double stage, brass, plated and chromed, for inert and flammable gases and oxygen and gas mixtures.

Inlet pressure 300 bar/ 4800 psi

FEATURES

The FMD 230/232-14 consists of cylinder connection, pressure regulator, inlet gauge, outlet gauge, relief valve and tube fitting. The FMD 230/232-18 is available with metering valve at the outlet, the FMD 230/232-16 is available with diaphragm shut-off valve at the outlet.

APPLICATION

This cylinder pressure regulator FMD 230/232 is distinguished by high flow and good control characteristics and allow direct extraction from gas cylinders as well as considering the user's need for mobility of gas supply. For basic applications and gas purities up to 6.0. Double-stage design for constant outlet pressure virtually independent from the inlet pressure level.

HIGH RELIABILITY

- Relief valve
- High purity of the surfaces
- Safety pressure gauges
- Seat seal PCTFE
- Stainless steel diaphragm

ADVANCED TECHNIQUE

- Good control characteristics
- Low maintenance
- Clear operation and serving elements
- User friendly design



CYLINDER PRESSURE REGULATOR FMD 230/232-14/16/18

TECHNICAL DATA

Body:	BrassCuZn 40 Pb2
Bonnet:	chrome plated
Seat seal:	low maintenance, service friendly regulator unit, particle filter 100 µm at the inlet
Relief valve:	AV 230
Diaphragm:	stainless steel
Gas compatibility:	inert, flammable gases and oxygen, no corrosive gases, no acetylene
Gas purity:	< 6.0
Leakage rate:	< 1 x 10 ⁻⁷ mbar l/s helium (outside) < 1 x 10 ⁻⁶ mbar l/s helium (seat)
Nominal pressure:	300 bar / 4350 psi
Outlet press range:	see „Order code“
Flow max:	18 m ³ /h N ₂ 10,6 SCFM / N ₂ at 59 psi outl. press.
Working temp.:	-20°C to +60°C / -4 to 140 °F
Weight:	ca. 1,3 kg / 2,9 lb
Gauges:	safety version acc. to EN 562, class 2.5, rated size 50 mm,
Outlet gauge	
Indication range:	0 - 5 bar / 0 - 72 psi 0 - 16 bar / 0 - 230 psi 0 - 40 bar / 0 - 580 psi
Inlet gauge	
Indication range:	0 - 415 bar / 0 - 6000 psi
Cylinder connection:	acc. to DIN 477, Nr. 1, 6, 9, 10, 14 or other country specific cylinder connections on request
Outlet:	see order code

GCE DRUVA QUALITY STANDARD

Druva pure gas components are high quality level products. They have been well known for many years. Giving great reliability, safety and variety, they permit a flexible, economic design of numerous gas supply systems. The use of high grade materials, high surface quality and system tightness permits precise control of pure gas pressure and flow while maintaining cylinder gas purity and composition.

Each manufacturing step from design to final test is subject to our rigorous quality management system, according to DIN EN 9001.

The most important steps are:

Periodical optical measurement control.

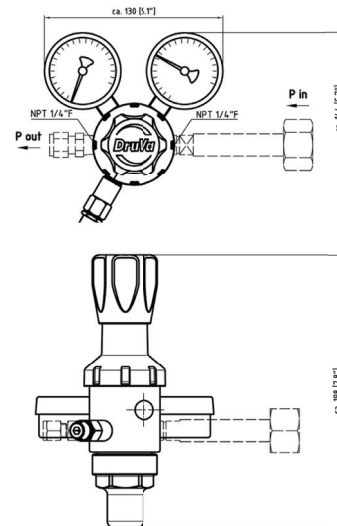
Microscopic test of all borings.

Multi-stage special cleaning procedure.

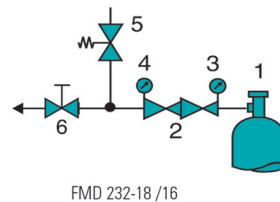
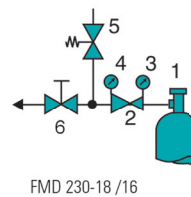
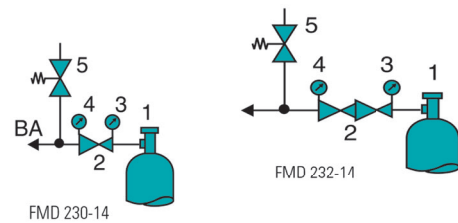
ORDER CODE

FMD 230-14	BC	G	3	D	gas	CL6
Type FMD 230-14= without MV FMD 232-14 FMD 230-16=with MVA FMD 232-16 FMD 230-18=with MVR FMD 232-18	Material BC = brass ni/cr	Inlet pressure G = 300 bar/4350 psi	Outlet pressure 3 = 0,1 - 3 bar / 1,5 - 45 psi (only for FMD 232) 10 = 0,5 - 10 bar / 7,3 - 145 psi 20 = 0,5 - 20 bar / 7,3 - 290 psi (only for FMD 230)	D = DIN A = ANSI F = AFNOR B = NBN UK = BS 341 US = CGA NL = NEN I = UNI	Spezification of used gas	Outlet screw connection CL6, CL8, CL10, CL1/ 8", NO1/4, NO1/8 [expl.: CL6=tube fitting with outer diameter 6mm, NO1/4 = hose adaptor with hose inner diameter 1/4"]

DIMENSIONS FMD 232-14



FLOW SCHEMES



- 1 cylinder connection
- 2 pressure regulator
- 3 inlet pressure gauge
- 4 outlet pressure gauge
- 5 relief valve
- 6 outlet metering valve / shut-off valve



Gas Control Equipment

GCE world-wide: <http://www.gcegroup.com>