

R31100

Stainless steel AISI 316L high pressure regulator,
for compressed air, gas and liquids



FEATURES


High pressure regulator for cylinder or manifold; standard version inlet pressure up to 220 bar (3190 psi), higher pressure for special versions.

Ideal for industrial application and for welding equipment.

Cylinder inlet connections according to UNI standard, other connections available on request.

Outlet pressure up to 15 bar (218 psi) is controlled by a diaphragm; greater outlet pressures are controlled by a piston.

Available the ATEX version.

Brand  II2GDcIICX.

For use in potentially explosive atmospheres zones: 1, 21, 2, 22 (not for mines and zone 0).

The product complies with the directive 97/23/CE PED.

SPECIFICATIONS

Gauges: accuracy class 1,6

Regulator weight: ~4.7 Kg (~10,4 lb)

Standard version operating temperature: -20°C ÷ +60°C (-4°F ÷ 140°F)

Main valve leakage classification: VI (bubble tight)

Flow coefficient: $K_v = 0.15 \text{ Nm}^3/\text{h}$ ($C_v = 0,18 \text{ USgal}/\text{min}$)

Degree of protection: IP25

MATERIALS

Body and bonnet: stainless steel AISI 316L

Internal parts: stainless steel AISI 316L

Adjusting spring: stainless steel AISI 302 (not in contact with the fluid)

Main valve spring: stainless steel AISI 302

Diaphragm (for outlet pressure up to 15 bar): stainless steel AISI 316L

Piston (for greater outlet pressure): stainless steel AISI 316L

O-rings: EPDM or FPM depending on the fluid (other compounds available on request)

Main valve gasket: PTFE + carbon (EPDM for PS 15 bar)

ACCESSORIES

Ring-nut P35018030304

Kit bracket and ring-nut M1B306

Rubber diaphragm for liquids

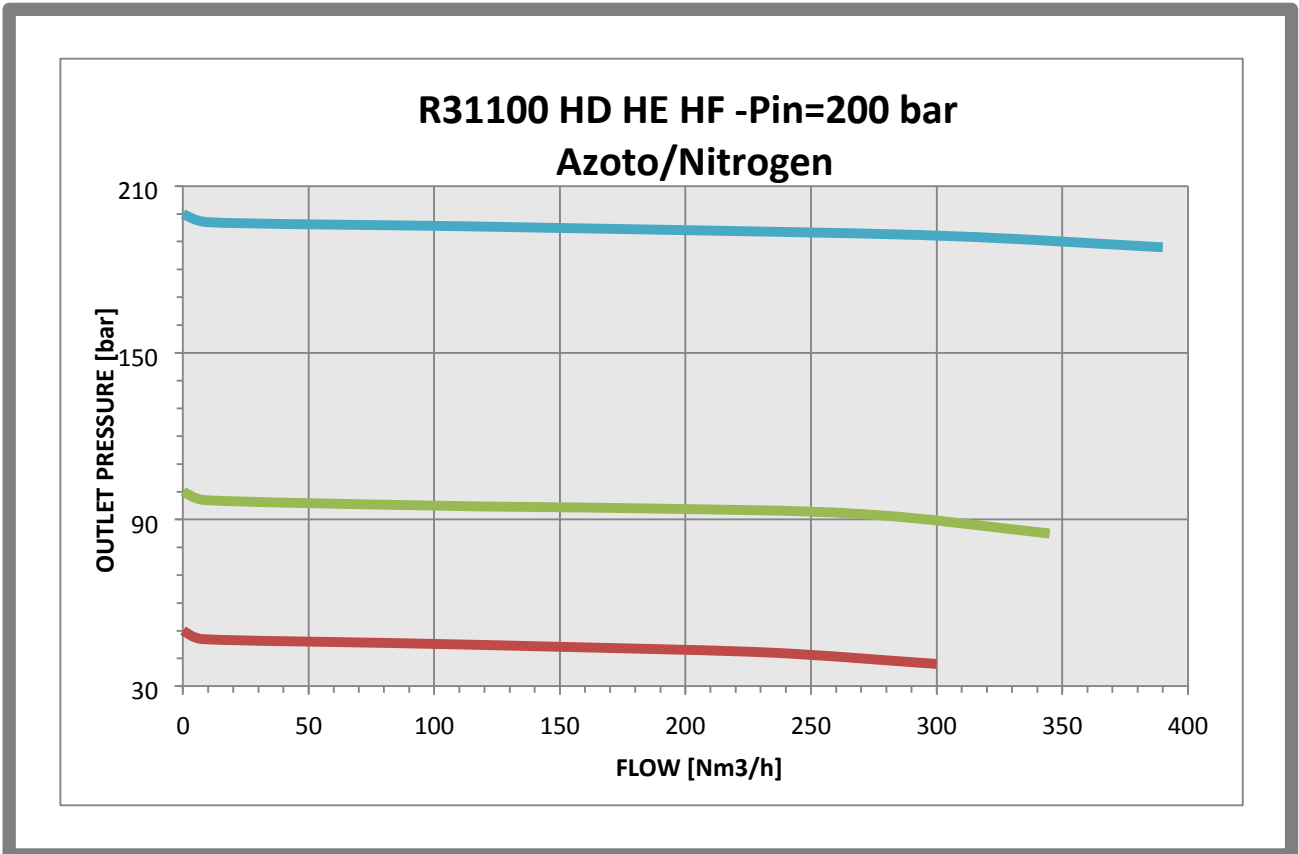
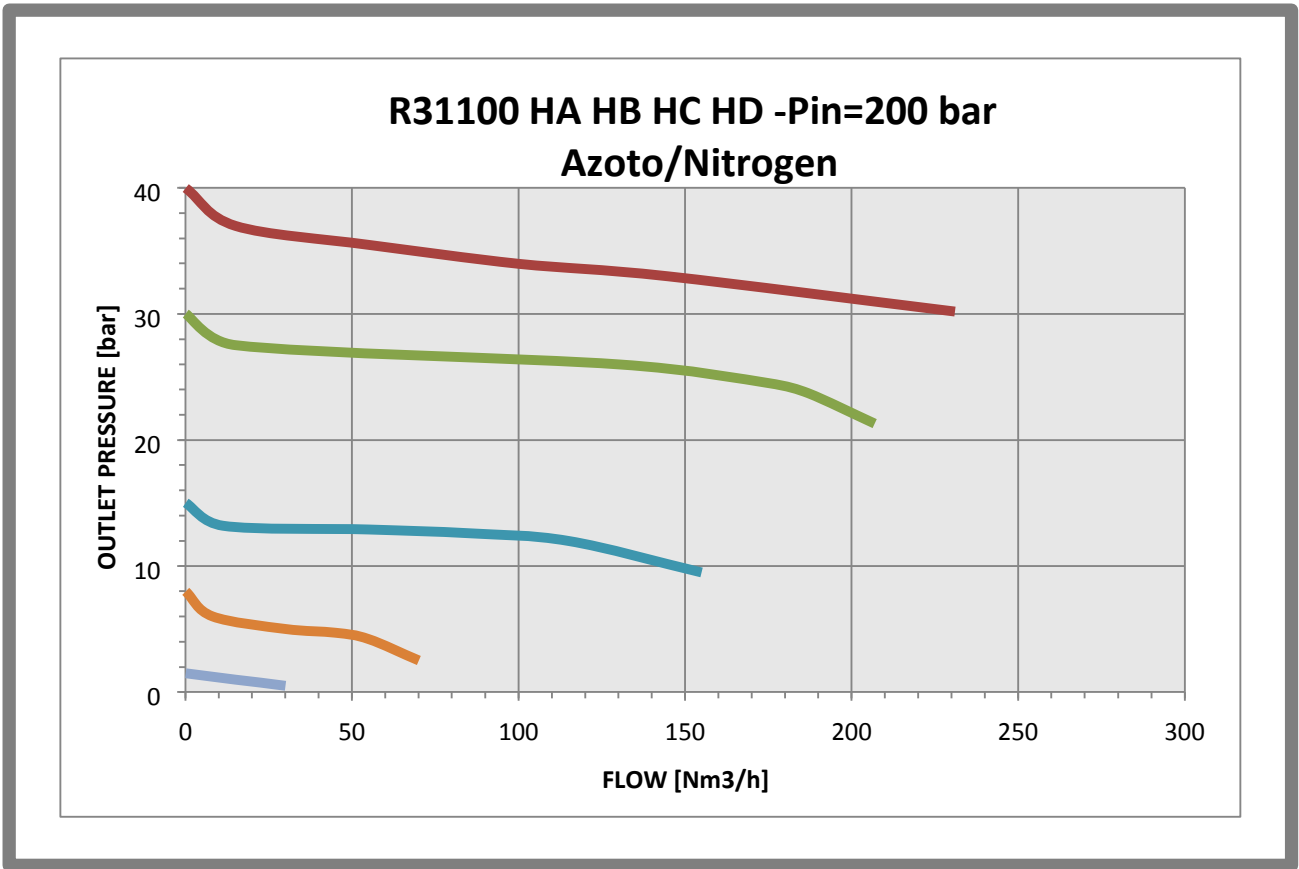
SPARE PARTS

Gauges

Relief valve

Complete kit: gaskets, assembled diaphragm, filter, main valve, O-rings

flow charts



available model types

Body by machining round bar, inlet connection to bottle according to standard UNI

TYPE	Pin Bar	Pout Bar	Connection OUT	MEDIUM
				R31100
R31100 LA	15	0,2 – 1,5	G 3/8-F	C2H2 – NH3
R31100 MA	80	0,8 – 8	G 3/8-F	CO2 – N2O
R31100 MB	80	1,5 – 15	G 3/8-F	CO2 – N2O
R31100 MC	80	3 – 30	G 3/8-F	CO2 – N2O
R31100 MD	80	5 – 50	G 3/8-F	CO2 – N2O
R31100 HA	220	0,8 – 8	G 3/8-F	H2 – CH4
				Air – N2 – Ar – He
R31100 HB	220	1,5 – 15	G 3/8-F	H2 – CH4
				Air – N2 – Ar – He
R31100 HC	220	3 – 30	G 3/8-F	H2 – CH4
				Air – N2 – Ar – He
R31100 HD	220	5 – 50	G 3/8-F	H2 – CH4
				Air – N2 – Ar – He
R31100 HE	220	10 – 100	G 3/8-F	H2 – CH4
				Air – N2 – Ar – He
R31100 HF	220	20 – 200	G 3/8-F	H2 – CH4
				Air – N2 – Ar – He

MEDIUM	Connection IN	UNI
C2H2	Manifold	1H-UNI 11144
	Bottle connection	7F-UNI 11144
NH3	Bottle_manifold	3-UNI 11144
CO2	Bottle_manifold	2-UNI 11144
N2O	Bottle	9-UNI 11144
	Manifold	2-UNI 11144
Air	Bottle	6-UNI 11144
	Manifold	2-UNI 11144
N2	Bottle	5-UNI 11144
	Manifold	2-UNI 11144
Ar – He	Bottle	8-UNI 11144
	Manifold	2-UNI 11144
H2 – CH4	Bottle_manifold	1H-UNI 11144

CONNECTION DIFFERENT FROM STANDARD

Connections different from standard (G 3/8-F in body, external nipples G1/2-F – 1/2" NPT-F)

Bottle connection different from italian standard UNI (DIN 477, CGA, NFE 29-650, BS 341 e UNE ITC MIE)

Inlet connection for manifold, not for CO2, H2, CH4, NH3

Connections with flanges

EXECUTIONS DIFFERENT FROM STANDARD

Inlet pressure 250 bar

Inlet pressure 300-400 bar

Pre-set outlet pressure

Fixed outlet pressure, screw with cap nut

O-ring in accordance to FDA

O-ring in FPM

Special O-ring

Venting on bonnet and over pressure valve

Execution for liquid

Dome loaded version

Not standard branding

ATEX version

Special temperature range

Relieving version

Degreased for O2

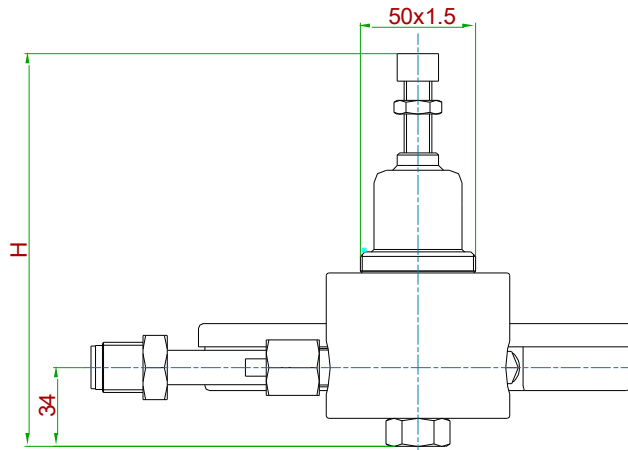
ACCESSORIES

Ring nut P35018030304

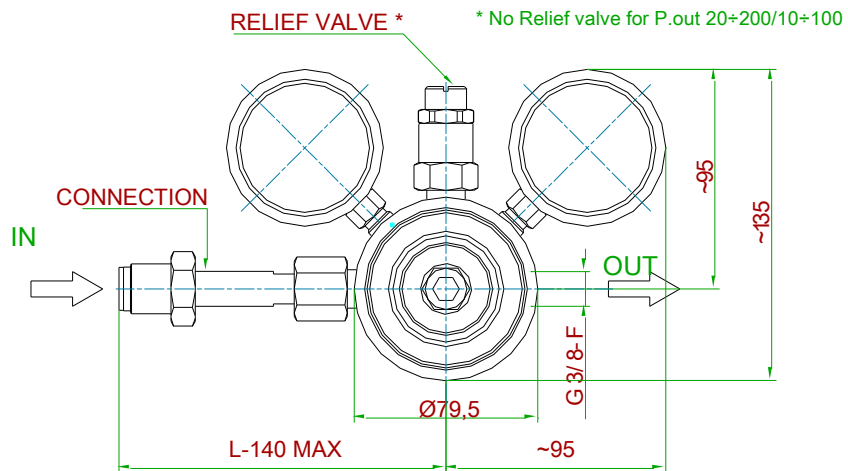
Kit bracket and ring nut M1B306

technical drawings (all dimensions in mm)

TYPE	P Out [bar]	H
Diaphragm	0.2+1.5/0.8+8/1.5+15	~169
Piston	3+30/5+50	~174
Piston	20+200/10+100	~194



Connection	L±2
1H-UNI 11144	135
2-UNI 11144	135
3-UNI 11144	135
5-UNI 11144	140
6-UNI 11144	135
8-UNI 11144	138



PS 15/80/220 bar
P.out 0.2+1.5/0.8+8/1.5+15/3+30/5+50/20+200/10+100 bar

Bracket and Ring-Nut to be ordered separately
Kit order number: M1B306

TYPE	P Out [bar]	H	L2
Diaphragm	0.2+1.5/0.8+8/1.5+15	~169	~152
Piston	3+30/5+50	~174	~147
Piston	20+200/10+100	~194	~127

Connection	L±2
1H-UNI 11144	135
2-UNI 11144	135
3-UNI 11144	135
5-UNI 11144	140
6-UNI 11144	135
8-UNI 11144	138

