

# Pressure regulator U13

**spectro**tec



**Line pressure regulator**  
U13 P-200-16-0-M-M-0-NFG



**Manifold pressure regulator**  
U13 M-200-20-M24f-M-M-0-O2

## Product features

- Diaphragm pressure regulator
- For non-corrosive industrial gases
- Single-stage with high control accuracy
- Central filter in the pressure regulator
- Safety pressure gauge acc. to DIN ISO 5171
- Pressure regulator with integrated relief valve
- Pressure regulator for oxygen with filter in inlet fitting
- Accessories like wall brackets and in-/outlet fittings are also available

## Attention:

For the pressure regulator U13 special outlet fittings with orifice holes have to be used to ensure a correct function of the regulator.  
see: data sheet "Fittings"

**P** „Performance“ for precise regulation

**M** „Medium“ for medium performance

**F** „Flow“ for high flow rates

## Technical data

<b>Type</b>	single-stage
<b>Flow rate Q</b>	max. 500 m³/h
<b>Inlet pressure P<sub>1</sub></b>	max. 40 /200 /300 bar
<b>Outlet pressure P<sub>2</sub></b>	see table below
at P <sub>1</sub> = 40 bar:	max. 1,5 ... 4 bar
at P <sub>1</sub> = 300 bar:	max. 6 ... 35 <sup>1)</sup> bar
<sup>1)</sup> for oxygen up to 30 bar available!	
<b>Materials</b>	
Body:	brass
Bonnet:	Alu, powder coated
Valve seat:	PA
Diaphragm:	NBR
<b>In- and outlets</b>	
Inlet:	G ½" female or M24 x 1,5 (oxygen) G ½" (oxygen) 1/4"-NPT (oxygen)
Outlet:	G ½" female
Pressure gauge ports:	G 1/4" female
Outlet relief valve:	G 3/8" male
<b>Temperature range</b>	-20°C to +60°C
<b>Leak rate</b>	≤10 <sup>-4</sup> mbar l/s He
<b>Weight</b>	ca. 4.2 kg

## Performance factors and outlet pressures to find the flow rates of the pressure regulators U13

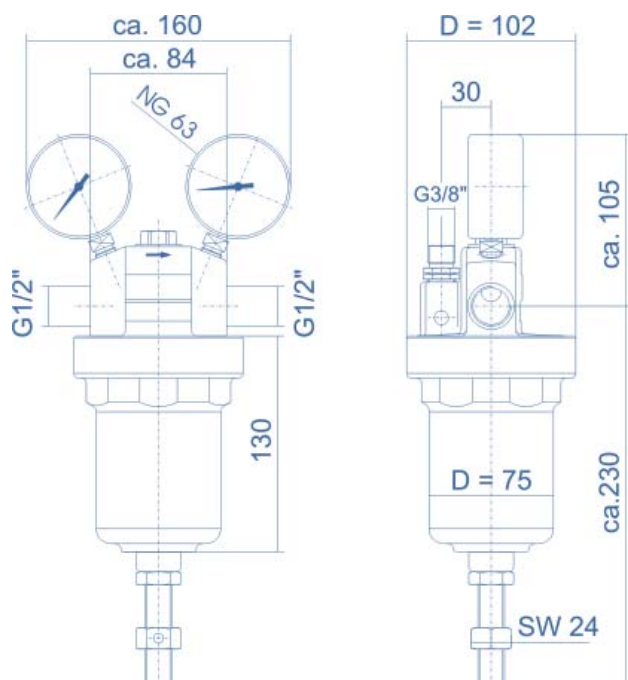
U13 series		max. P <sub>2</sub> : 1,5 ... 4 bar			max. P <sub>2</sub> : 6 ... 30			35 bar
Type		P	M	F	P	M	F	P
Performance factor for P <sub>1</sub> = 300 bar (40 bar)	L <sub>5</sub> (5% press. drop)	4,5 (4)	5 (4,5)	5,5 (5)	4,5	5	5,5	4,5
	L <sub>10</sub> (10% press. drop)	6 (5,5)	6,5 (6)	7 (6,5)	6	6,5	7	6
	L <sub>max</sub>	7,5 (7)	8 (7,5)	8,5 (8)	7,5	8	8,5	7,5
Outlet pressure variations [%] relating to inlet pressure variation		1	1,85	2,7	1,25	2,2	3,5	1,25

# Pressure regulator U13

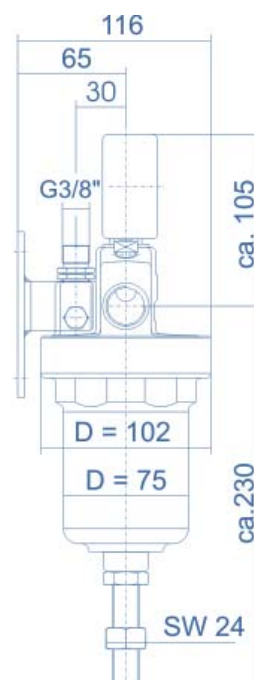
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## Dimensions and connections

Dimensions (front- and side view)



Dimensions with **wall bracket 512.07600**  
(as accessory available)



Ordering information: Pressure regulator U13

**U13 P - 300 - 10 - 0 - M - M - 0 - NFG**

**In- and outlet-fittings:**  
see data sheet "Fittings"

### Type

See table "Performance factors..."  
on page 1

### Inlet pressure $P_1$

<b>10</b>	max. 10 bar
<b>20</b>	max. 20 bar
<b>25</b>	max. 25 bar
<b>40</b>	max. 40 bar
<b>50</b>	max. 50 bar
<b>100</b>	max. 100 bar
<b>200</b>	max. 200 bar
<b>300</b>	max. 300 bar

### Type of gas

<b>NFG</b>	non flammable gases
<b>FG</b>	flammable gases
<b>O2</b>	oxygen

### Outlet pressure $P_2$

<b>1,5</b>	max. 1,5 bar
<b>2,5</b>	max. 2,5 bar
<b>4</b>	max. 4 bar
<b>6</b>	max. 6 bar
<b>10</b>	max. 10 bar
<b>16</b>	max. 16 bar
<b>20</b>	max. 20 bar
<b>30</b>	max. 30 bar
<b>35</b>	max. 35 bar