

# Pressure regulator U13



Line pressure regulator  
U13-W6/E-200-15  
for non flammable gases



Manifold pressure regulator  
U13-W6/G-200-20  
for oxygen

## 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 EN 562
- 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 U 13 special fittings with orifice holes have to be used to ensure a correct function of the regulator.

## Technical Data

|  |                                       |
|--|---------------------------------------|
| <b>Type</b>                                    | single-stage                          |
| <b>Flow rate Q</b>                             | max. 500 m <sup>3</sup> /h            |
| <b>Inlet pressure P<sub>i</sub></b>            | max. 40 / 200 / 300 bar               |
| <b>Outlet pressure P<sub>2</sub></b>           | see table below                       |
| at P <sub>i</sub> = 40 bar:                    | max. 5...30 bar                       |
| at P <sub>i</sub> = 300 bar:                   | max. 14...35 <sup>*)</sup> bar        |
| <sup>*)</sup> 35 bar not available for oxygen! |                                       |
| <b>Materials</b>                               |                                       |
| Body regulator:                                | brass                                 |
| Bonnet:  | Alu (plastic coated)                  |
| Diaphragm regulator:                           | NBR                                   |
| Valve seat regulator:                          | PA                                    |
| <b>In- and outlets</b>                         |                                       |
| Inlet:   | G 1/2" - female<br>M24 x 1,5 (oxygen) |
| Outlet:  | G 1/2" - female                       |
| Pressure gauge ports:                          | G 1/4" - female                       |
| Outlet relief valve:                           | G 3/8" - male                         |
| <b>Temperature range</b>                       | -30°C to +60°C                        |
| <b>Leak rate</b>                               | < 10 <sup>-3</sup> mbar l/s He        |
| <b>Weight</b>                                  | approx. 4,2 kg                        |

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

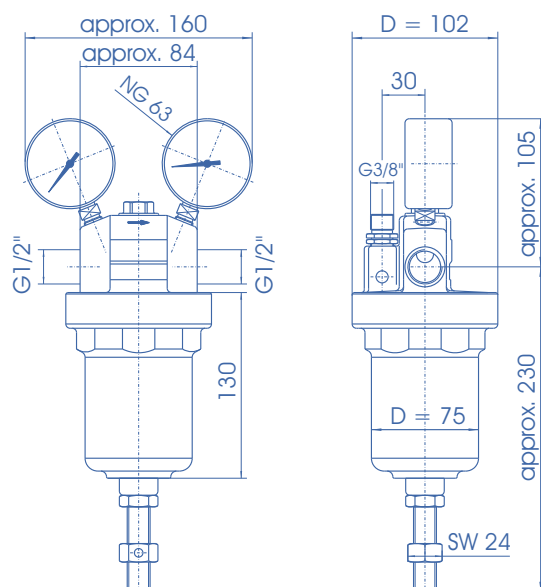
| Series   |                                     | U13W6 |      |     |     | U13W5 | U13W4 |
|--|-------------------------------------|-------|------|-----|-----|-------|-------|
| Type   |                                     | E     | G    | J   | L   | D     | D     |
| Performance factor   | L <sub>5</sub> (5% pressure drop)   | 4.5   | 5.5  | 4.5 | 5   | 4.5   | 3.5   |
|  | L <sub>10</sub> (10% pressure drop) | 6     | 7    | 6   | 6.5 | 6     | 4.5   |
|  | L <sub>max</sub>                    | 7.5   | 8.5  | 7.5 | 8   | 7.5   | 5.5   |
| max. Outlet pressure P <sub>2</sub><br>[bar]                           | at 40 bar inlet pressure            | 16    | 25   | 6   | 16  | 30    | -     |
|  | at 200 bar inlet pressure           | 16    | 20   | -   | -   | 30    | 35    |
|  | at 300 bar inlet pressure           | 16    | 20   | -   | -   | 30    | 35    |
| Outlet pressure variations [%]<br>relating to inlet pressure variation |                                     | 1     | 1.85 | 2.7 |     | 1.25  | 1.5   |

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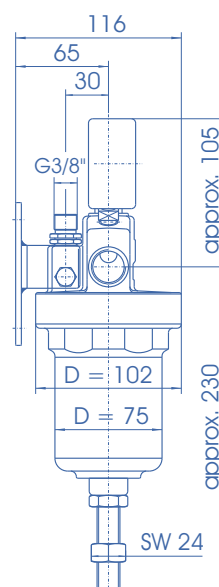
**spectro tec**

## Dimensions and connections of the pressure regulator U13

Dimensions (front- and side view)



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



Ordering information: Pressure regulator U13

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

**U13 W6 E - NFG - 40**

### Type

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

### Type of gas

NFG - non flammable gases  
O<sub>2</sub> - oxygen

### Inlet pressure P<sub>i</sub>

40 - max. 40 bar  
200 - max. 200 bar  
300 - max. 300 bar