

## Sample gas pumps P 4.3, P 4.83

Gas analysis is key for safe and efficient system operation in the chemical industry, petrochemistry or biochemistry. Many of the analysis processes used in these fields require sample gas extraction and conditioning.

Sample gas pumps convey the sample gas from the sampling point to the conditioning system. The main item in these pumps designed specifically for the application is the PTFE single-piece bellows. Combined with the pump head, also single-piece, this solution provides high resistance against particularly aggressive sample gas. Turning the pump head allows gas with condensate to be conveyed without a problem.

Simple, sturdy construction

Easy to replace valves

Adjustable bypass valve (optional)

Single-piece bellows

Conveys sample gas with condensate

Long life

Low noise emission

115 V - versions with FM C-US approval

Mounting bracket and rubber mounting standard

Bypass valve for PTFE and VA pump body



### P4.3 and P4.83 Pump Models

For easier installation, the P4.3 and P4.83 pumps include a mounting bracket with rubber mounting. The pump head can optionally be ordered with adjustable bypass valve (not applicable with parallel operation).

The difference between the P4.3 and P4.83 is the flow rate. The P4.3 pump has a capacity of 2 x 400 L/h free flow and the P4.83 has a capacity of 2 x 800 L/h free flow.

The P4.3 and P4.83 pumps are not suitable for use in explosive areas.

Connecting the two gas paths with the optional piping or tubing kit significantly increases the flow rate.

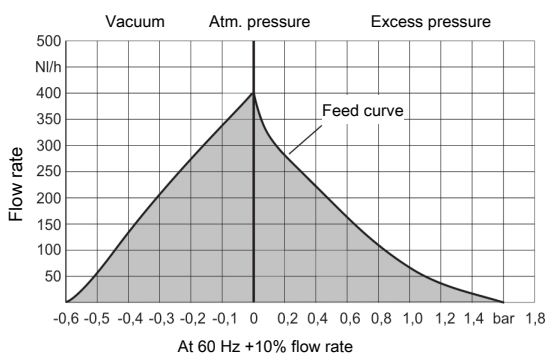
### Technical Data

#### P4.3/P4.83 Technical Data

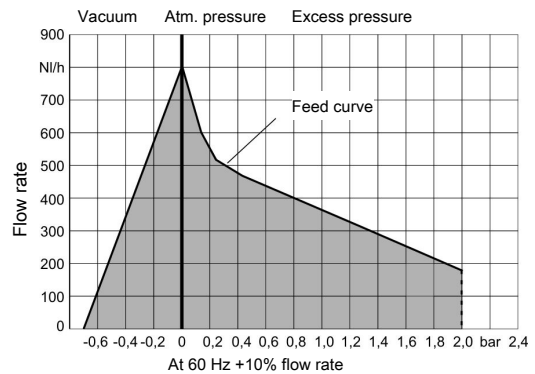
|  |  |
|--|--|
| Nominal voltage:   | see ordering information   |
| Nominal current:   | see ordering information   |
| Protection class:  | electric IP55<br>mechanical IP20   |
| Weight:  | approx. 12.5 kg  |
| Dead volume:   | 2 x 8.5 ml   |
| FM C-US (115 V only)                                     |  |
| FM approval no.:   | 3038101/3038101C   |
| Ambient temperature:                                     | max. 60 °C   |
| Medium temperature:                                      | PTFE/PVDF valves max. 100 °C<br>PTFE/PEEK valves max. 160 °C   |
| Materials of parts in contact with mediums by pump type: | PTFE / PVDF (standard pump with 100 °C valves)<br>+ PEEK (standard pump with 160 °C valves)<br>+ Viton (standard pump with 100 °C valves and bypass valve)<br>+ PCTFE, Viton (standard pump with 160 °C valves and bypass valve)<br>+ 1.4571 (VA pump body)<br>+ 1.4401, Viton (VA pipe fitting)<br>+ Viton (VA pump body with bypass valve) |

### Feed Curves

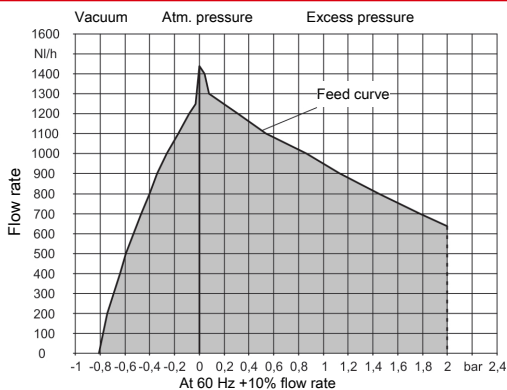
P4.3 (per head)



P4.83 (per head)



P4.83 (parallel circuit)



Ordering instructions

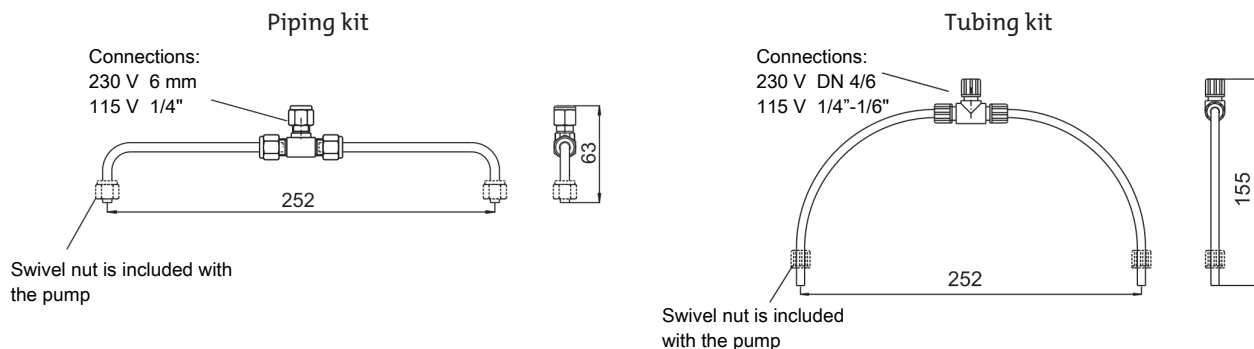
|   |    |   |   |   |                                    |   |   |                                  |    |  |
|---|----|---|---|---|------------------------------------|---|---|----------------------------------|----|--|
| 42  | xx | x | x | x | x                                  | x | 9 | 0                                | 00 | <b>Product characteristic</b>              |
| <b>Base model</b>                               |    |   |   |   |                                    |   |   |                                  |    |  |
| 80  |    |   |   |   |                                    |   |   |                                  |    | P4.3, 2 x 400 L/h                          |
| 81  |    |   |   |   |                                    |   |   |                                  |    | P4.83, 2 x 800 L/h                         |
| <b>Motor voltage</b>                            |    |   |   |   |                                    |   |   |                                  |    |  |
| 1   |    |   |   |   |                                    |   |   |                                  |    | 230 V 50/60 Hz; 1,7/1,4 A                  |
| 2   |    |   |   |   |                                    |   |   |                                  |    | 115 V 50/60 Hz; 3,4/2,8 A                  |
| <b>Pump head position</b>                       |    |   |   |   |                                    |   |   |                                  |    |  |
| 1   |    |   |   |   |                                    |   |   |                                  |    | Normal position vertical                   |
| 2   |    |   |   |   |                                    |   |   |                                  |    | turned by 180°                             |
| <b>Pump head material</b>                       |    |   |   |   |                                    |   |   |                                  |    |  |
| 1   |    |   |   |   |                                    |   |   |                                  |    | PTFE                                       |
| 2   |    |   |   |   |                                    |   |   |                                  |    | Stainless steel 1.4571                     |
| 3   |    |   |   |   |                                    |   |   |                                  |    | PTFE with bypass valve *                   |
| 4   |    |   |   |   |                                    |   |   |                                  |    | Stainless steel 1.4571 with bypass valve * |
| <b>Valve material</b>                           |    |   |   |   |                                    |   |   |                                  |    |  |
| 1   |    |   |   |   |                                    |   |   |                                  |    | up to 100°C; PTFE / PVDF **                |
| 2   |    |   |   |   |                                    |   |   |                                  |    | up to 160°C; PTFE / PEEK                   |
| <b>Screw-in connections (for 230 V voltage)</b> |    |   |   |   |                                    |   |   |                                  |    |  |
|   |    |   |   |   | <b>PTFE Pump body</b>              |   |   | <b>Stainless steel pump body</b> |    |  |
| 9   |    |   |   |   | DN 4/6 (Standard)                  |   |   | 6 mm (Standard)                  |    |  |
| 1   |    |   |   |   | DN 6/8                             |   |   | 8 mm                             |    |  |
| 2   |    |   |   |   | 3/8"-1/4"                          |   |   | 3/8"                             |    |  |
| 3   |    |   |   |   | 1/4"-1/8"                          |   |   |                                  |    |  |
| 4   |    |   |   |   | 1/4"-1/6"                          |   |   | 1/4"                             |    |  |
| <b>Screw-in connections (for 115 V voltage)</b> |    |   |   |   |                                    |   |   |                                  |    |  |
|   |    |   |   |   | <b>PTFE Pump body</b>              |   |   | <b>Stainless steel pump body</b> |    |  |
| 9   |    |   |   |   | 1/4"-1/6" (Standard)               |   |   | 1/4" (Standard)                  |    |  |
| 1   |    |   |   |   | DN 6/8                             |   |   | 8 mm                             |    |  |
| 2   |    |   |   |   | 3/8"-1/4"                          |   |   | 3/8"                             |    |  |
| 3   |    |   |   |   | 1/4"-1/8"                          |   |   |                                  |    |  |
| 5   |    |   |   |   | DN 4/6                             |   |   | 6 mm                             |    |  |
| <b>Mounting accessories</b>                     |    |   |   |   |                                    |   |   |                                  |    |  |
| 9   |    |   |   |   | incl. mounting bracket and bumpers |   |   |                                  |    |  |
| <b>Connection kit for parallel operation</b>    |    |   |   |   |                                    |   |   |                                  |    |  |
|   |    |   |   | 0 | without                            |   |   |                                  |    |  |
|   |    |   |   | 1 | Tubing kit PVDF/PTFE ***           |   |   |                                  |    |  |
|   |    |   |   | 2 | Piping kit 1.4571/1.4401 ***       |   |   |                                  |    |  |

\* not with parallel operation

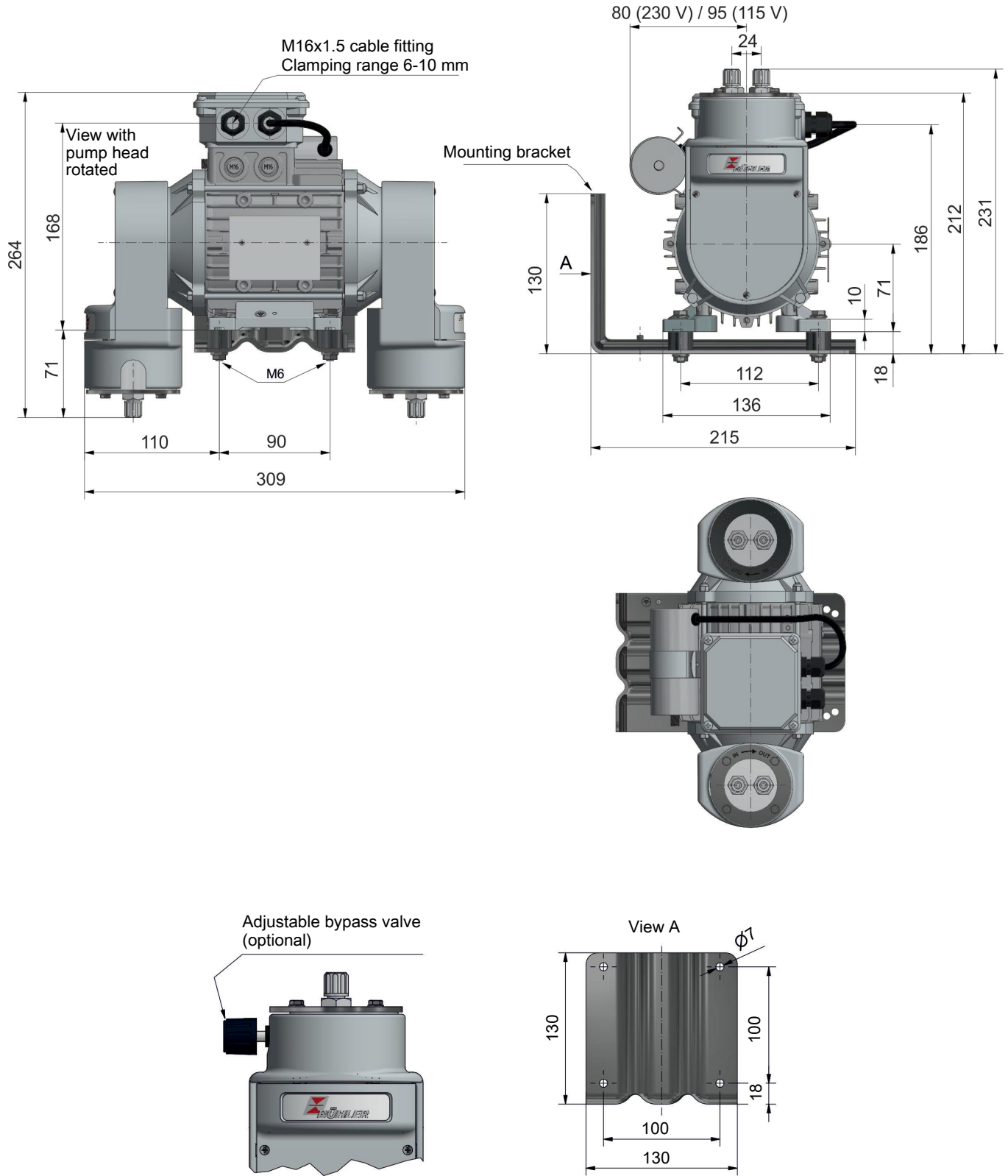
\*\* not P4.83

\*\*\* P4.83 only

Dimensions piping kit/tubing kit for P4.83 with parallel operation



Dimensions



Installation notices:

- 1) This pump should be installed horizontally
- 2) If necessary, rotate the pump head during installation. When conveying gasses with condensate content it must be installed valves down.