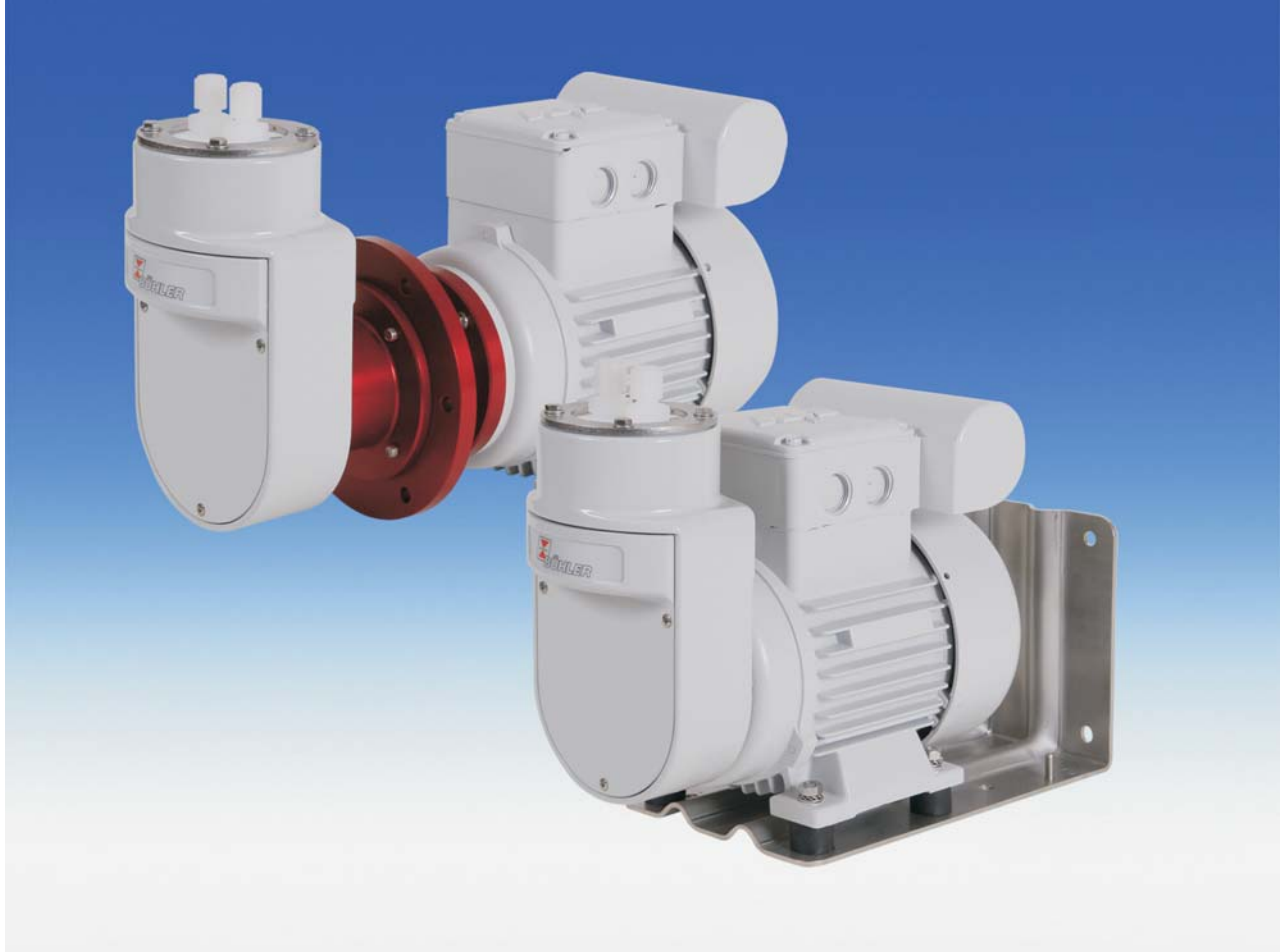


Sample gas pumps

P 2.3; P 2.3C; P 2.83; P 2.4; P 2.4C; P 2.84



The transportation of sample gas in sample conditioning systems requires reliable sample pumps. The corrosive nature of the gas and the potential of condensate formation are the real challenges for any pump.

These sample pumps are equipped with a bellows made from solid PTFE. This design has demonstrated the highest reliability and long lifetime in numerous applications. Designed specifically for harsh gas applications that have entrained liquids present or where condensate is expected to form, it is recommended that the pump head be pointed downwards to accommodate draining of these liquids.

A special flange design makes the P2.4 and P2.84 designs suitable for hot applications. The flange is designed in two parts - one -carrying the pump head- is installed in a heated cabinet and the other -carrying the electrical motor- is flanged to the outside of the cabinet keeping the motor in ambient conditions.

- **Robust and reliable design**
- **Easy to replace valves**
- **Bellow made of one solid piece**
- **Pumps gases with entrained liquid**
- **Long life**
- **ATEX versions**
(see separate data sheet)
- **Low noise**
- **115 V - models with FM C-US approval**
- **C-versions specifically for conveying flammable gases**

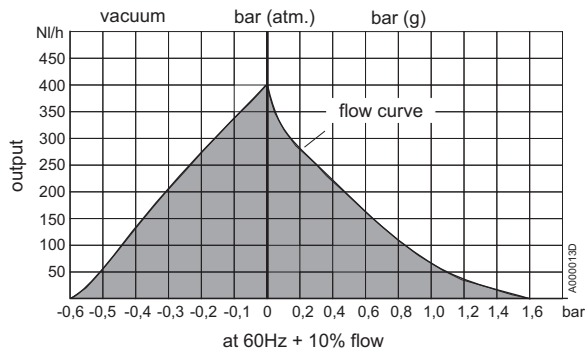
General specifications for all pumps

Nominal voltage	see order number
Protection class	electrical IP55 mechanical IP20
Dead space	8,5 ml

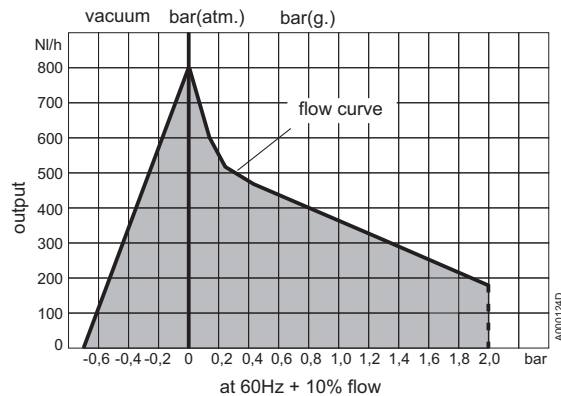
Materials of parts in contact with mediums by pump type:

- PTFE / PVDF (standard pump with 100 °C valves)
- + PEEK (standard pump with 160 °C valves)
- + Viton (standard pump with 100 °C valves and bypass valve)
- + PCTFE, Viton (standard pump with 160 °C valves and bypass valve)
- + 1.4571 (VA pump body)
- + 1.4401, Viton (VA pipe fitting)

Flow Curve P2.3, P2.3C, P2.4, P2.4C



Flow Curve P2.83, P2.84



Pump Models P2.3 and P2.83

For easy installation of the P2.3 and P2.83 pumps, a support console with vibration dampers is included.

The pump head can be ordered with an internal bypass valve.

The difference between the P2.3 and P2.83 pump is in the flow provided. The P2.3 pump has a capacity of 400 l/h free flow and the P2.83 has a capacity of 800 l/h free flow.

The P2.3 and P2.83 pumps must not be used in explosive areas. The corresponding type for ex areas would be the P2.2 ATEX, P2.2 AMEX and P2.82 AMEX, data sheet 420009, or the US-P2.6Ex, data sheet 420005.

Technical data specific to P2.3 and P2.83

Weight	6,5 kg	Ambient temperature	max. 60 °C
FM C-US (115V only)		Media temperature	Valves: PTFE / PVDF max. 100 °C
FM File No.:	3038101 / 3038101C		Valves: PTFE / PEEK max. 160 °C

Pump Models P2.4 and P2.84

A cabinet wall thickness of up to 30 mm (1.2") can be used without other modifications.

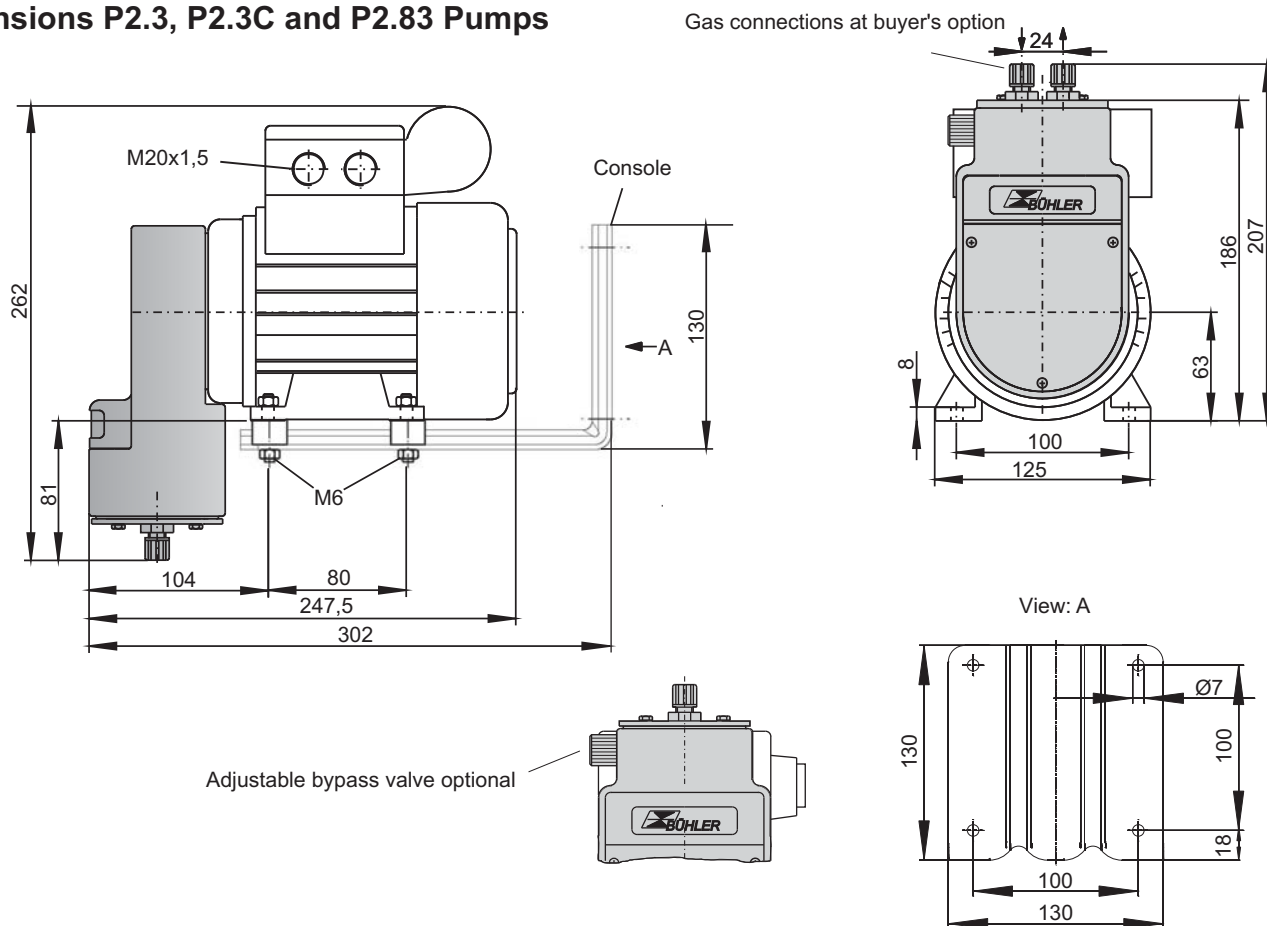
The difference between the P2.4 and P2.84 pump is in the flow provided. The P2.4 pump has a capacity of 400 l/h free flow and the P2.84 has a capacity of 800 l/h free flow.

The P2.4 and P2.84 Pumps must not be used in explosive areas. The corresponding type for ex areas would be the P2.4 ATEX, P2.4 AMEX and P2.84 AMEX, data sheet 420009.

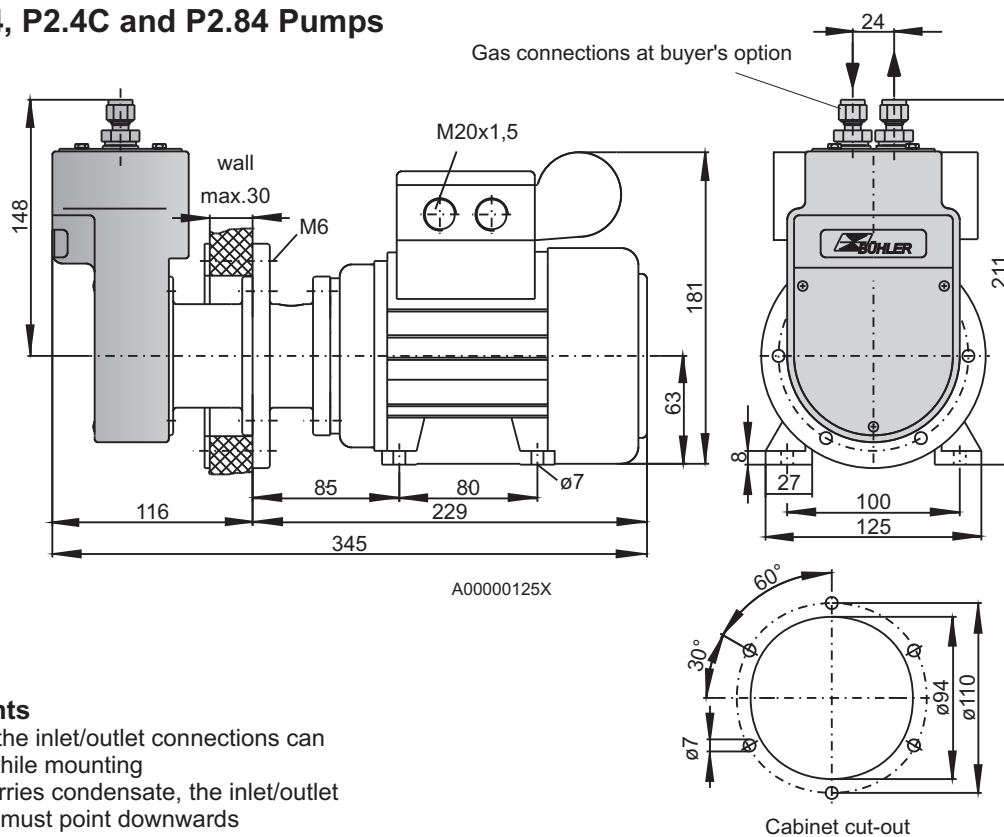
Technical data specific to P2.4 and P2.84

Weight	7,5 kg	Ambient temperature	
FM C-US (115V only)		Motor	max. 60 °C
FM File No.:	3038101 / 3038101C	Pump head	max. 100 °C
		Media temperature	Valves: PTFE / PEEK max. 160 °C

Dimensions P2.3, P2.3C and P2.83 Pumps



Dimensions P2.4, P2.4C and P2.84 Pumps



Mounting hints

- 1) Direction of the inlet/outlet connections can be chosen while mounting
- 2) If the gas carries condensate, the inlet/outlet connections must point downwards