

Sample Gas Pump

P 2.3; P 2.83; P 2.4; 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**
- **Explosion-proof version available**
- **Low noise**
- **115 V - models with FM C-US approval**

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.

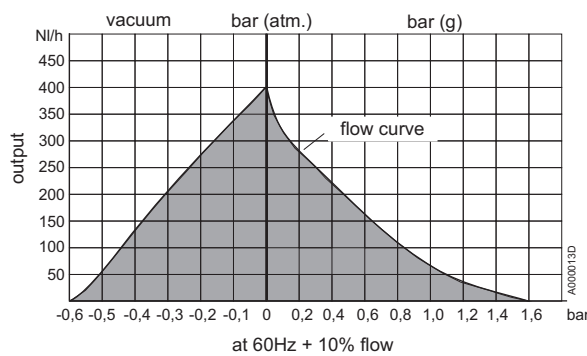
The difference between the P2.3 and P2.83 pump is in the flow provided. The P2.3 pump has a capacity of 400 l/h free flow and the P2.83 has a capacity of 800 l/h free flow.

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.

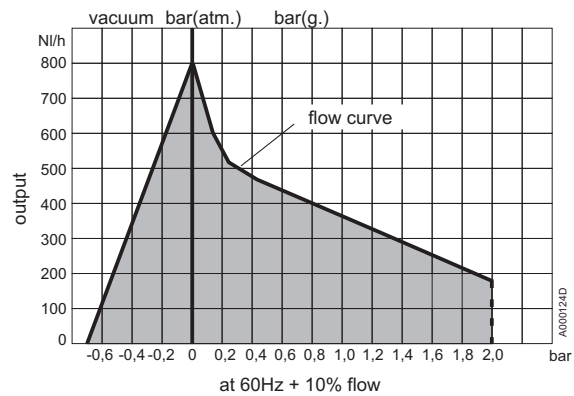
Technical Data

Nominal voltage	See order number	Media temperature	100 °C	Valves: PTFE / PVDF
Nominal current	See order number		160 °C	Valves: PTFE / PEEK
Protection class	Electrical IP55	Ambient temperature	max. 60 °C	
	Mechanical IP20	FM C-US (115V only)	FM File No. 3038101 / 3038101C	
Weight	6.5 kg			
Dead space	8.5 ml			

Flow Curve P2.3



Flow Curve P2.83



Pump Models P2.4 and P2.84

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

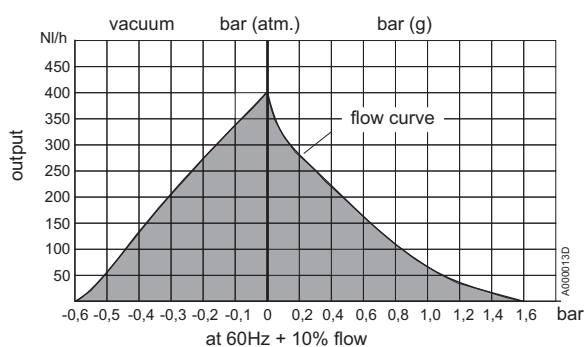
The difference between the P2.4 and P2.84 pump is in the flow provided. The P2.4 pump has a capacity of 400 l/h free flow and the P2.84 has a capacity of 800 l/h free flow.

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.

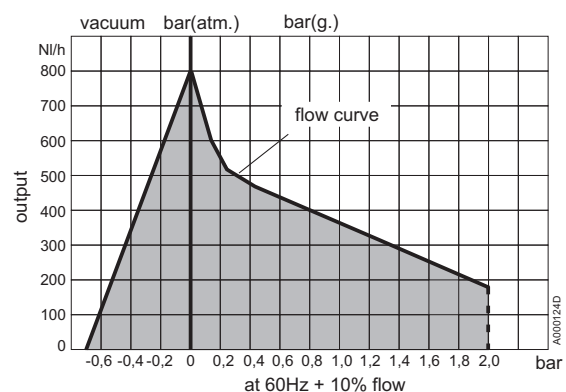
Technical Data

Nominal voltage	See order number	Media temperature	160 °C	Valve: PTFE / PEEK
Nominal current	See order number	Ambient temp.		
Protection class	Electrical IP55	Motor	max. 60 °C	
	Mechanical IP20	Pump head	max. 100 °C	
Weight (approx.)	7.5 kg	FM C-US (115V only)	FM File No. 3038101 / 3038101C	
Dead space	8.5 ml			

Flow Curve P2.4



Flow Curve P2.84



Ordering hints:

Part-no.	42	XX	X	X	X	X	X	9	0	00	Feature	
											Basic type	
56											P2.3 400 l/h	
57											P2.4 400 l/h	
63											P2.83 800 l/h	
64											P2.84 800 l/h	
											Motor supply	
1											230 V 50/60 Hz. 0,85/0,8 A	
2											115 V 50/60 Hz. 1,7/1,6 A	
5											400 V 50/60 Hz. 0,5/0,43 A	
											Pump head position	
1											Normal pos. vertical	
2											Pointing downwards *	
											Pump head material	
1											PTFE	
2											SS 1.4571	
3											PTFE with bypass valve *	
											Valve material	
1											to 100 °C PTFE/PVDF **	
2											to 160 °C PTFE/PEEK	
											Male stud couplings (for voltages 230 V and 400 V)	
											PTFE pump head	Stainless steel pump head
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"	6 mm
											Male stud couplings (for voltage 115 V)	
											PTFE pump head	Stainless steel pump head
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
											Mounting accessories	
								9			including mounting console and buffer *	

*not possible for P2.4 and P2.84

**not possible for P2.4, P2.83 and P2.84

Note:

x stands for number below.

Ordering example:

part no. 42 631112 99

63 for 800 Liter pump P2.83

1 for 230 V 50/60 Hz Motor

1 for pump head pointing up

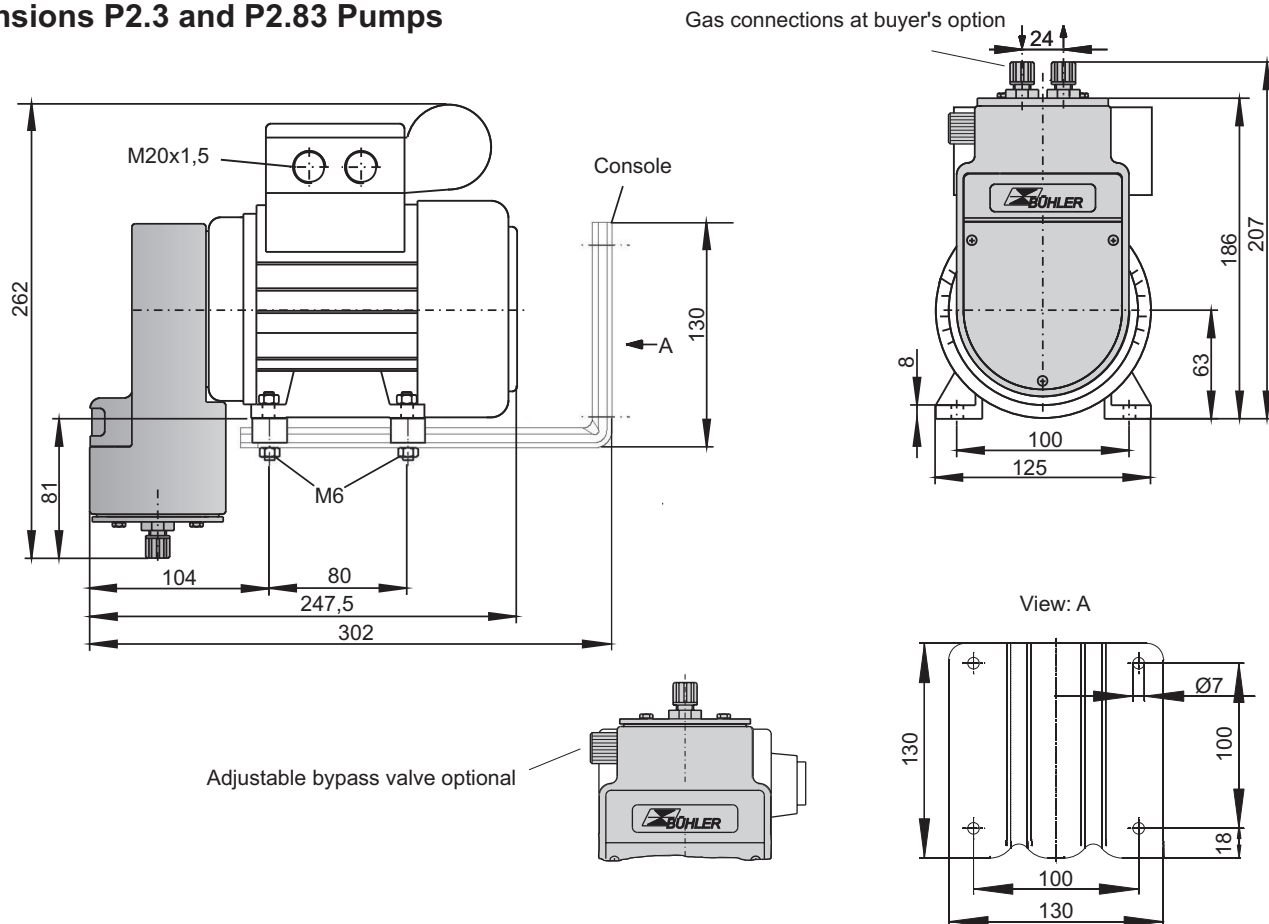
1 pump head PTFE

2 for 160 °C valves

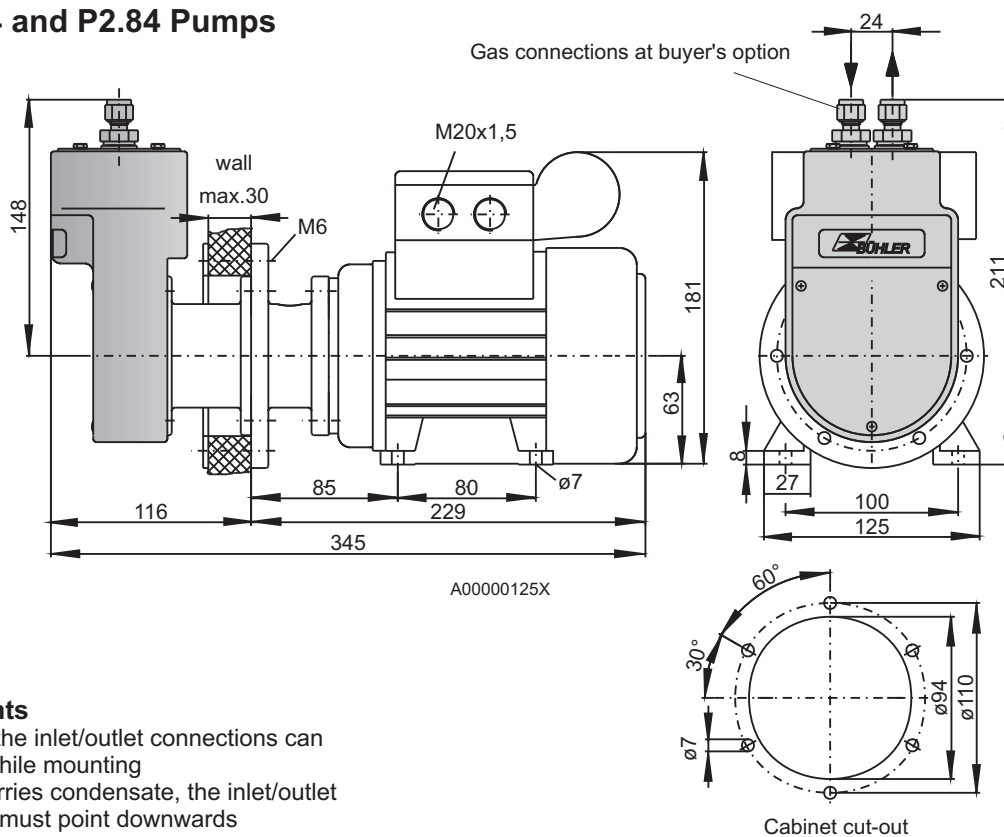
9 for DN4/6 screw in screw connection

9 including mounting console and buffer

Dimensions P2.3 and P2.83 Pumps



Dimensions P2.4 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