

# 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 very reliable sample pumps. Of course, the sample gas should have an equal and steady flow but very often the corrosive nature of the gas and the presence of condensate form the real task for the pump.

The sample pumps are equipped with a bellows made from solid PTFE which has proven his reliability and long lifetime in numerous applications. If the pump head is pointed downwards the pump is able to pump sample gas with condensate contents.

A special flange design makes the P2.4 and P2.84 pumps suitable for hot applications i.e the flange is designed of two parts, one -carrying the pump head - can be installed into a heated cabinet and the other part - 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**
- **bellows made of one solid piece**
- **pumps gas containing condensate**
- **high life expectancy**
- **explosion proof version available**
- **low noise emission**

## pump types P2.3 and P2.83

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

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

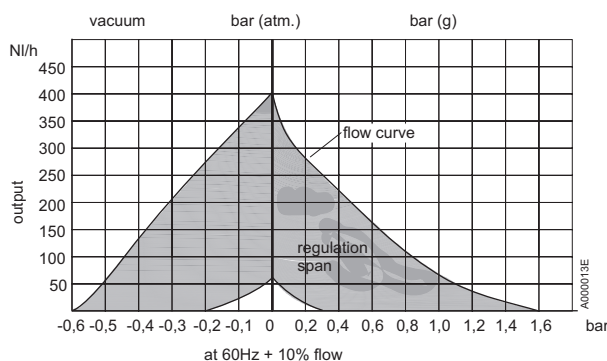
The difference between the P2.3 and P2.83 pump is in the flow provided. The P2.3 pump has got 400l/h free flow and the P2.83 has got 800l/h free flow.

The P2.3 and P2.83 Pumps must not be applied to explosive areas. The corresponding type for ex areas would be the P2.2 ATEX; data sheet 420006, or the US-P2.6Ex, data sheet 420005.

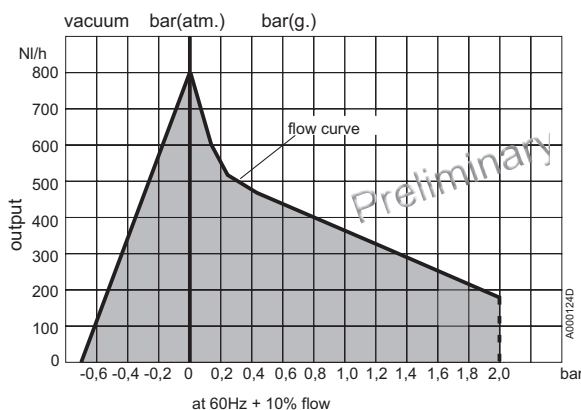
### technical data

nominal voltage	see order number
nominal current	see order number
protection class	IP 55
weight	6,5 kg
clearance volume	8,5 ml
media temperature	80 °C Ventile PTFE / PVDF
	140 °C Ventile PTFE / PCTFE
ambient temp.	max. 60 °C

**flow curve P2.3**



**flow curve P2.83**



### please indicate with order

x stands for number below

The P2.83 pump are only with 140°C valves.

#### ordering example:

- part no.. 42 631112 99
- 63 for 800 Liter pump P2.83
- 1 for 230V 50/60Hz Motor
- 1 for pump head pointing up
- 1 pump head PTFE
- 2 for 140°C valves

part no.

42 xx x x x x 99

56						
63						
	1					
	2					
		1				
		2				
		3				

P2.3 400l pump

P2.83 800l pump

#### motor

230 V, 50/60Hz, 0,85/0,8 A

115 V, 50/60Hz, 1,7/1,6 A

#### position of pump head

normal pos. vertical  
pointing downwards

#### material of pump head

1 PTFE  
2 SS 1.4571, viton, 1.4401  
3 PTFE with bypass valve

#### material of valves

1 up to 80°C PTFE / PVDF (P2.3 only, not aviable for P2.83)  
2 up to 140°C PTFE / PCTFE

## pump types P2.4 and P2.84

A cabinet wall thickness of up to 30mm can be compensated without other modifications.

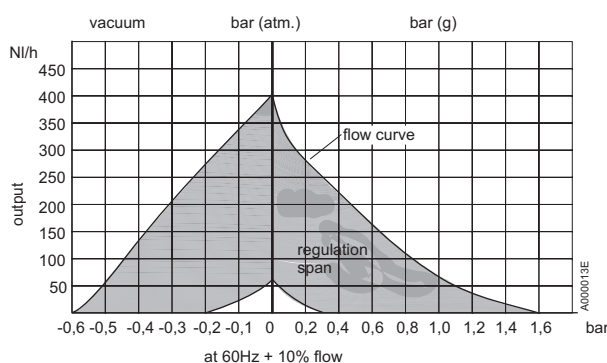
The difference between the P2.4 and P2.84 pump is in the flow provided. The P2.4 pump has got 400l/h free flow and the P2.84 has got 800l/h free flow.

The P2.4 and P2.84 Pumps must not be applied to explosive areas. The corresponding type for ex areas would be the P2.4 ATEX; data sheet 420007.

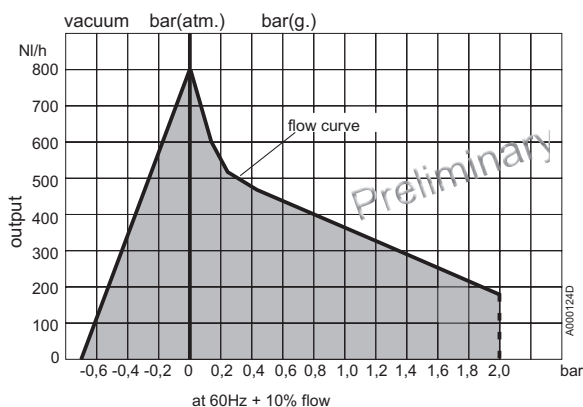
### technical data

nominal voltage	see order number
nominal current	see order number
protection class	IP 55
weight	7,5 kg
clearance volume	8,5 ml
media temperature	140 °C Ventile PTFE / PCTFE
ambient temp.	
motor	max. 60 °C
pump head	max. 100°C

flow curve P2.4



flow curve P2.84



### please indicate with order

x stand for number below

part no.

42 xx x 1 x 2 99

57  
64

P2.4 400l pump

P2.84 800l pump

#### motor

230 V, 50/60Hz, 0,85/0,8 A

115 V, 50/60Hz, 1,7/1,6 A

1  
2

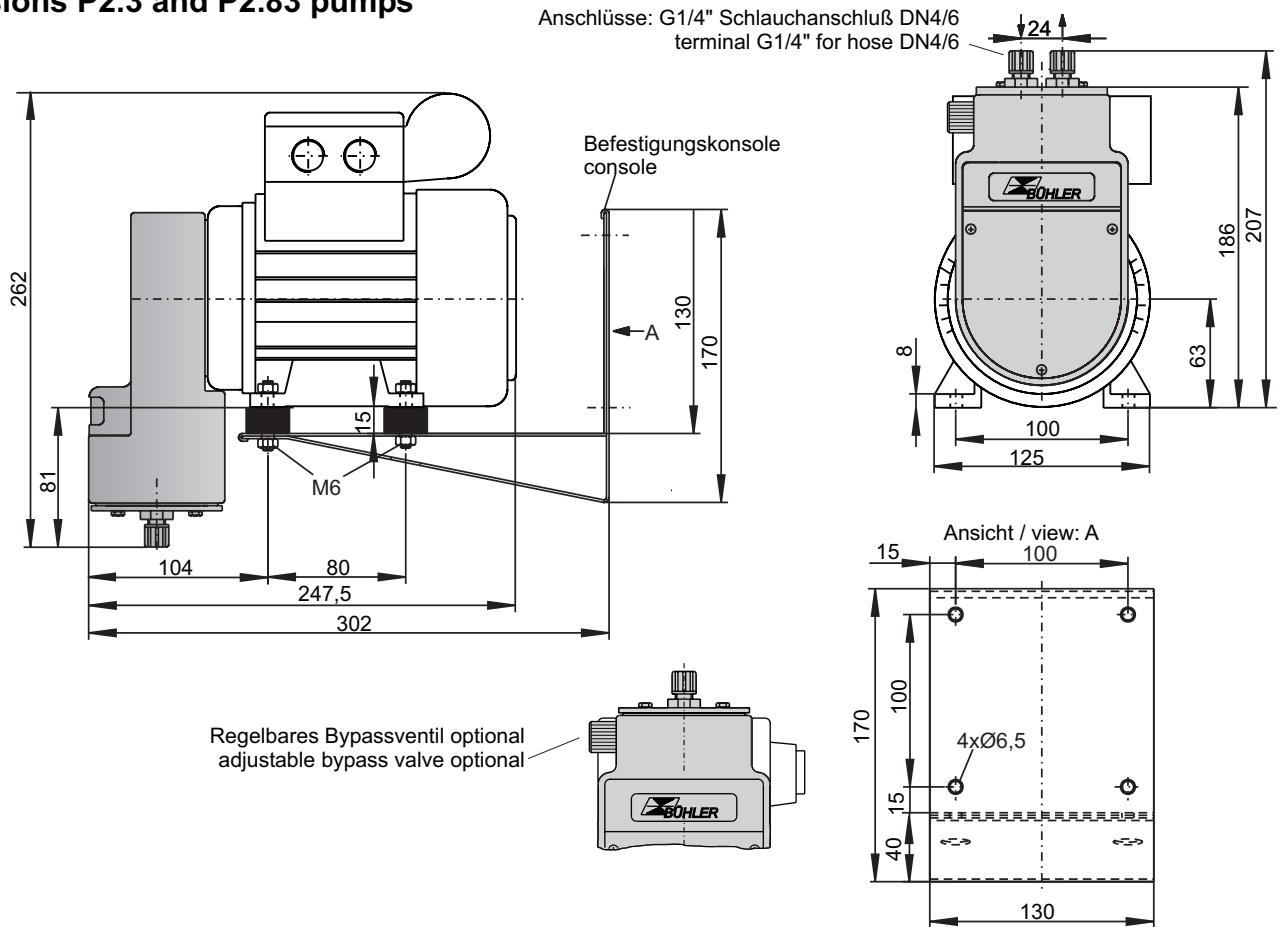
#### material pump head

PTFE

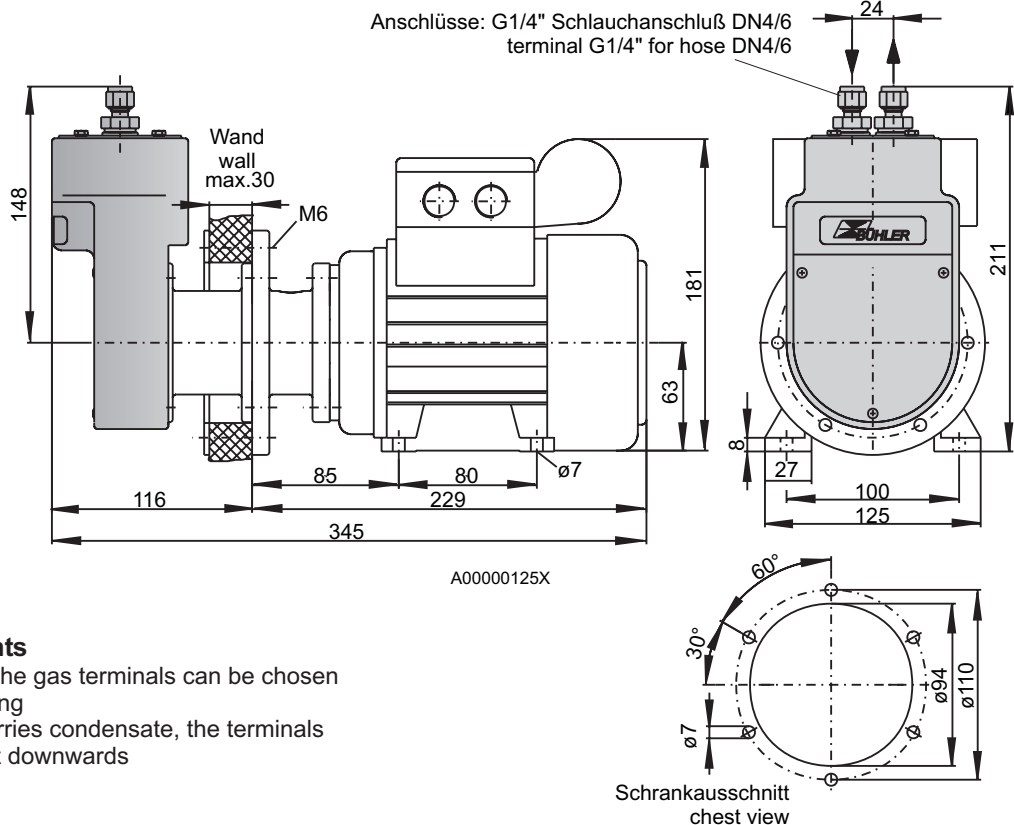
SS 1.4571, viton, 1.4401

1  
2

## dimensions P2.3 and P2.83 pumps



## dimensions P2.4 and P2.84 pumps



### Mounting hints

- 1) Direction of the gas terminals can be chosen while mounting
- 2) If the gas carries condensate, the terminals have to point downwards