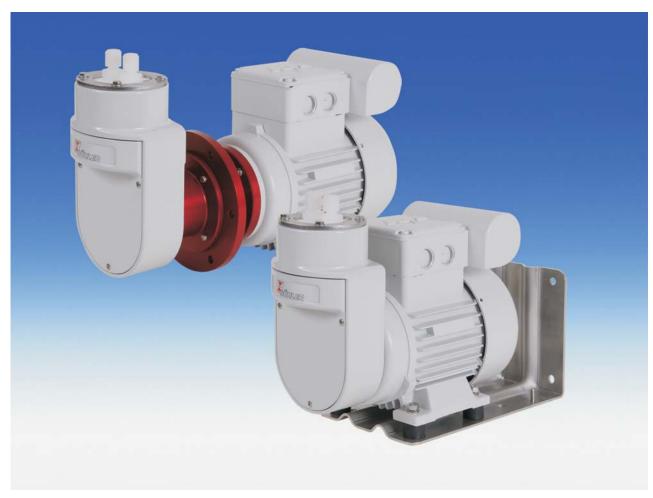


Sample gas pumps P 2.3; P 2.3C; P 2.83; P 2.4; P 2.4C; P 2.84



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

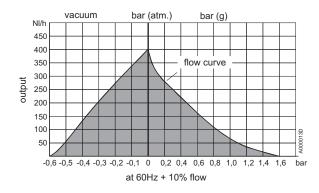
Dead space 8,5 ml

Materials of parts in contact with mediums by pump type:

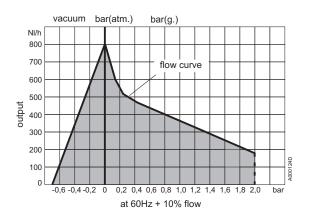
PTFE / PVDF (standard pump with 100 °C valves)

- + 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, P2.2AMEX and P2.82AMEX, 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

Valves: PTFE / PEEK max. 160 °C

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

Pump Models P2.3C and P2.4C

Pump models P2.3C and P2.4C are suitable for conveying flammable gases in zone 2. The pumps are not suitable for use in explosive areas according to Atex.

Technical data specific to P2.3C and P2.4C

Weight Ambient temperature

P2.3C 6,5 kg Motor max. 50 °C P2.4C 7,5 kg Pump head see table below **⟨E⟩** II 3G/- c IIB T4 X Marking Media temperature see table below

Note: The devices are not suitable for installation in explosive areas!

Restrictions for sample and ambient temperature:

P 2.3C		Media temp.
Sample without flammable gases		see P2.3 / P2.83
Sample with flammable	T3	120 °C
gases above the lower	T4	50 °C
explosion level		

P 2.4C		Media temp.	Pump head temp.	
Sample without		se		
flammable gases		P2.4 / P2.84		
Sample with flammable	T3	100°C	80°C	
gases above the lower	T4	50°C	50°C	
explosion level				

Ordering hints:

(X stands for number below)

Part-no.	42 XX	Х	Х	Х	Х	Х	9	0 00	Feature			
	, l								Basic type			
	52							P2.3C 400 I/h (II 3G/- c IIB T4 2	X)			
	53								P2.4C 400 I/h (II 3G/- c IIB T4 X)			
	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 *			
									to 100 °C PTFE/PVDF ** to 160 °C PTFE/PEEK Male stud couplings (for voltages 230 V and 400 V)			
					1							
					2							
								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"	1/4"		
									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	d buffer *		

^{*}not possible for P2.4, P2.4C and P2.84

Ordering example:

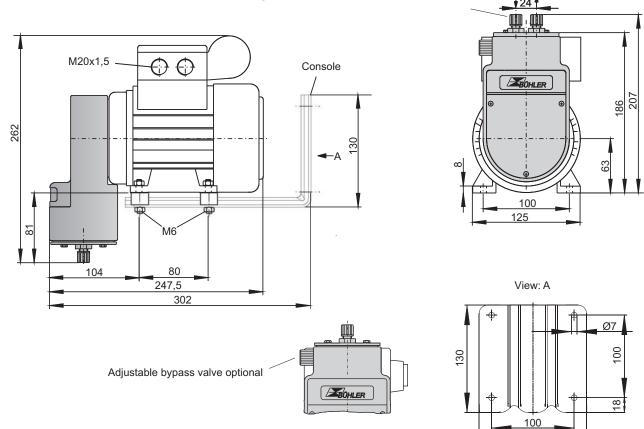
part no. 42 63 1112 99 000 63 for 800 Liter pump P2.83 1 for 230 V 50/60 Hz Motor for pump head pointing up pump head PTFE

1 for 160 °C valves 2

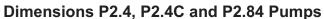
DE 42 0008 9 for DN4/6 screw in screw connection 04/2015 Page 3/4 including mounting console and buffer

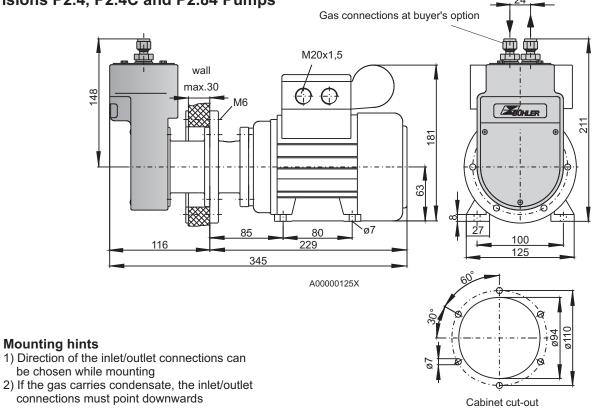
^{**}not possible for P2.4, P2.4C, P2.83 and P2.84

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



Gas connections at buyer's option





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