

1 Introduction

1.1 Intended use

Sample gas pumps are intended for installation in gas analysis systems for industrial applications.

The way two pumps are aligned in a motor with twin shaft is a cost-effective solution for analysis systems with two independent gas circuits. Applications requiring a quick response time the flow rate of the P4.83 pump can be increased by coupling both gas gas circuits.

The sample gas pump is only intended to convey gaseous media. It is not suitable for liquids.

Please note the additional information in chapters [Product description](#) [> page 4] and [Operation and control](#) [> page 12] along with the information on specific intended use, existing material combinations, as well as pressure and temperature limits in the data sheets.

DANGER**Potentially explosive atmosphere**

Explosion hazard if used in hazardous areas.

The device is not suitable for operation in hazardous areas with potentially explosive atmospheres.

Do not expose the device to combustible or explosive gas mixtures.

When installed outdoors, ensure adequate protection from the weather, see chapter [Requirements for the set-up location](#) [> page 8]

1.2 Product key

The device is delivered with different configurations. The part number given on the type plate informs you about the specific configuration of your device.

On the type plate you will find the order number as well as the 13-digit product key. This number is a code where each digit (x) describes a certain feature:

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

* not with parallel operation

** not P4.83

*** P4.83 only

If there are special instructions for a pump type, they are marked in the manual.

Take care of the limits of the pump. When ordering spare parts chose for the type matching part numbers (e.g. valves).

1.3 Scope of delivery

P4.3	P4.83
2 x Sample gas pump with motor	2 x Sample gas pump with motor
4 x Rubber-metal bumpers	4 x Rubber-metal bumpers
1 x Mounting bracket	1 x Mounting bracket
Product documentation	Product documentation
	if necessary, 1 x connection kit (optional)

1.4 Product description

The sample gas pumps are only intended to convey gaseous media. They are not suitable for liquids.

Please note the specifications in the appendix to this manual on the specific intended use, existing material combinations, as well as pressure and temperature limits. In addition, please also note the specifications and markings on the nameplates.

Applications where sample gas is still moist, can result in condensation in the lines and the pump body. In these cases the pump head must be suspended (see item [Alteration of hanging pump bodies](#) [> page 9]).