

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

This unit is available in various versions. Please refer to the type plate for the specific version.

In addition to the order number or ID number, the type plate also contains the item number with a code, where each character (x) represents specific equipment:

42	xx	x	x	x	x	x	9	0	0	0	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; 1,4/1,2 A
2											115 V 50/60 Hz; 2,4/2,2 A
											Pump head position
1											Normal position vertical
2											turned by 180°
											Pump body material
1											PTFE
2											Stainless steel 1.4571
3											PTFE with bypass valve ¹⁾
4											Stainless steel 1.4571 with bypass valve ¹⁾
											Valve material
1											up to 100°C; PTFE/PVDF ²⁾
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)
1											DN 6/8
2											3/8"-1/4"
3											1/4"-1/8"
4											1/4"-1/6"
											Screw-in connections (for 115 V voltage)
											PTFE Pump body
											Stainless steel pump body
9											1/4"-1/6" (Standard)
1											DN 6/8
2											3/8"-1/4"
3											1/4"-1/8"
5											DN 4/6
											Mounting accessories
9											incl. mounting bracket and bumpers
											Connection kit for parallel operation
0											without
1											Tubing kit PVDF/PTFE ³⁾
2											Piping kit 1.4571/1.4401 ³⁾

¹⁾ not with parallel operation.

²⁾ not P4.83.

³⁾ P4.83 only.

Any special features applicable to a pump model are described separately in the operating manual.

When connecting, please note the specific values of the pump, and the correct version when ordering spare parts (e.g.: valve).

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 head](#) [> page 9]).