

GENODOS®-pump GP

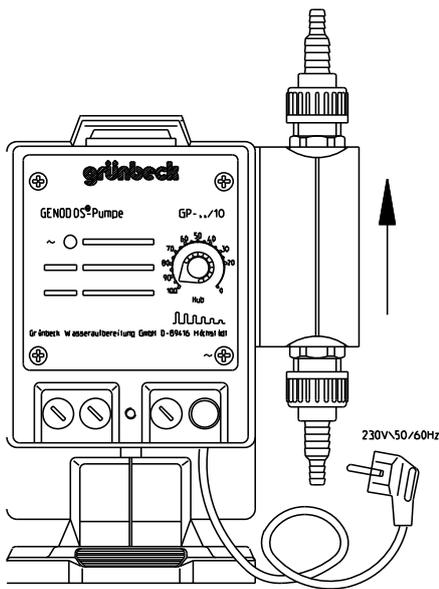


Fig. 1: GENODOS®-pump GP -./10

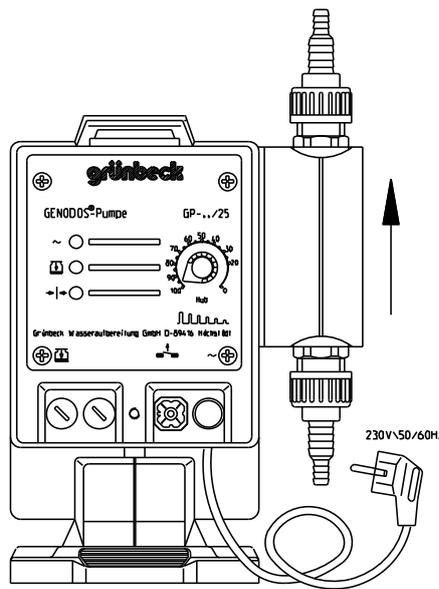


Fig. 2: GENODOS®-pump GP -./25

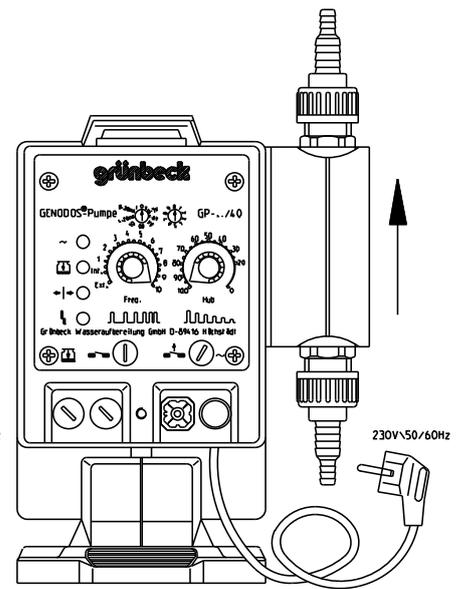


Fig. 3: GENODOS®-pump GP -./40

Designated application

The GENODOS®-pump GP is suitable for a whole range of different applications involving the dosing of chemicals and other agents in the area of water treatment (e. g. EXADOS®-agents, flocculants, flushing and cleaning agents, disinfectants, pH stabilising agents).

Function

The GENODOS®-pump is a self-priming and automatically deaerating membrane pump with eccentric wheel drive and a low-noise synchronous motor. The eccentric wheel installed in the gearbox converts the rotation of the motor into a stroke movement of the dosing membrane. The automatic deaeration is positively controlled and realised via a second membrane. The dosing volume is not affected by the deaeration process even though a partial flow of the dosing medium is continuously returned to the dosing agent tank via the return hose even at the minimum setting of the stroke length controller.

Due to the automatic deaeration feature, suction and dosing against pressure are ensured even if outgassing media are used or when the dosing agent tank is exchanged. With the GENODOS®-pump, the time-consuming and complicated manual deaeration is no longer necessary.

Dosing capacity of GENODOS®-pump

The GENODOS®-pumps are available in five different pump sizes, starting from GP-0/.. (0.15 l/h at max. 10 bar) and GP-1/.. (0.9 l/h at max. 10 bar) and GP-2/.. (2.0 l/h at max. 10 bar) and GP-6/.. (6.8 l/h at max. 8 bar) up to GP-10/.. (8.8 l/h at max. 6 bar). The dosing volume depends on the system counter pressure. In order to maintain the exact dosing capacity at counter pressures of < 1 bar and in case of pressure fluctuations, we recommend installing a pressure maintaining valve. For all GENODOS®-pumps, the dosing stroke can be adjusted by means of a stroke length controller. The max. dosing frequency is 109 strokes/min. at 50 Hz.

GENODOS®-pump

The GENODOS®-pumps are available with three different types of controllers: GP-./10, GP-./25 and GP-./40.

In case of GENODOS®-pumps GP-./40, the number of strokes of the dosing pump can internally be set to an almost linear increase (6 - 109 strokes/min. at 50 Hz) via a potentiometer. This dosing pump can externally be activated in various ways such as by means of a pulse generator (Hall and Reed). If the pulse sequence of the water meter is too high or too low, a pulse division (factor 0.02 to 1) resp. a pulse multiplication (factor 1 to 18) is possible.

Furthermore, the dosing pump can be activated via various analogue signals such as 0-5 V, 1-6 V, 0-20 mA, and 4-20 mA or via a timer.

In addition, a suction lance with pre-alarm and empty signal can be connected to the dosing pump. Operation, level, level pre-warning, membrane break and dosing monitoring are indicated at the pump's operating panel via diodes.

The GENODOS®-pumps GP-./25 and GP-./40 also feature a voltage-free collective fault signal output.

For further versions of the GENODOS®-pumps (GP-./10, GP-./25 and GP-./40), please refer to page 2 "Technical specifications".

Chemical resistance of the GENODOS®-pump

The heads of the dosing pumps are available in two different versions: PPO/EPDM; PVDF/Viton (4G). Subject to the dosing chemical and for reasons of chemical resistance, the corresponding pump head material needs to be selected.

Pump head PPO/EPDM (standard version)

Aluminium chloride, aluminium sulphate, calcium hydroxide, glycerine, potassium permanganate, hydrogen peroxide, sodium hydroxide, sulphuric acid

Pump head PVDF/Viton (4G)

Sodium hypochlorite, ammonia, peracetic acid, phosphoric acid, nitric acid, hydrochloric acid, sulphur chloride, bromine water. Also refer to the technical information "Dimensioning calculation and chemical resistance of GENODOS®-pump"

Order no. 118 949
Accessories

Suction lances, pressure maintaining valve, contact water meter, dosing tank, timer, dosing groups, automatic stirring device.

Also refer to technical information "Accessories for GENODOS®-pumps"

Order no. 118 950

For GENODOS®-pumps GP-../40 only and exclusively suction lances and empty signals with pre-warning must be used.

Technical specifications	Control unit GENODOS® GP-		
	../ 10	../ 25	../ 40
Nominal connection diameter			
Connection:	G 5/8		
Power supply	230 V / 50 / 60 Hz / 18 / 21 VA		
Protection	IP 54		
Dimensions and weights			
Dimensions [l x w x h]	170 x 175 x 285 mm		
Weight	2.5 kg		
Ambient data			
Ambient temperature, min./max.	5 °C / 30 °C		
Ambient humidity of air	< 95% rel. (non-condensing)		
Max. temperature of dosing medium	40 °C		
Materials	EPDM-PTFE coated membranes, PPO pump head/valves (standard), PVDF (4G); valve balls made of borosilicate glass/Hastelloy		
Seals	EPDM (standard) / Viton (4G) and GENO®-Baktox		
Others			
Adjustable dosing stroke	X	X	X
Operating indicator	X	X	X
Indication of empty signal		X	X
Level pre-warning			X
Indication of membrane break		X	X
Dosing monitoring			X
Selector for internal or external control			X
Voltage-free activation			X
Voltage-free collective fault signal output		X	X
Analogue controller 0-5 V / 1-6 V / 0-20 mA or 4-20 mA			X
Pulse division and pulse multiplication			X
Performance data			
Dosing frequency at 50 Hz [strokes/min.]	109	109	6-109
Max. suction height	1.5 mWC (based on water 20 °C)		
Dosing accuracy	± 5% of final value (based on water 20 °C)		
Performance data of GENODOS®-pump			
	Order no. PPO / EPDM version (standard)		
GP-0/.. 0.15 l/h at max. 10 bar	118 110	118 130	118 150
GP-1/.. 0.9 l/h at max. 10 bar	118 160	118 180	118 200
GP-2/.. 2.0 l/h at max. 10 bar	118 210	118 230	118 250
GP-6/.. 6.8 l/h at max. 8 bar	118 260	118 280	118 300
GP-10/.. 8.8 l/h at max. 6 bar	118 310	118 330	118 350
	Order no. PVDF / Viton (4G) version		
GP-0/.. 0.15 l/h at max. 10 bar	118 110 4G		118 150 4G
GP-1/.. 0.9 l/h at max. 10 bar	118 160 4G	118 180 4G	118 200 4G
GP-2/.. 2.0 l/h at max. 10 bar	118 210 4G	118 230 4G	118 250 4G
GP-6/.. 6.8 l/h at max. 8 bar	118 260 4G	118 280 4G	118 300 4G
GP-10/.. 8.8 l/h at max. 6 bar	118 310 4G	118 330 4G	118 350 4G
GENO®-Baktox pump			
	Order number of leaded version (vp)		
for dosing system DM-B 6/10			118 221vp
for dosing system DM-B 20/30			118 222vp
for dosing system DM-B 6/10			118 223vp
for dosing system DM-B 20/30			118 224vp