

Sigma

Motor-driven diaphragm metering pump

The right capacity for every requirement. Each Sigma pump is available as a basic version or as a micro-processor/control version with internal electronics.

The three variants differ in their capacity ranges:

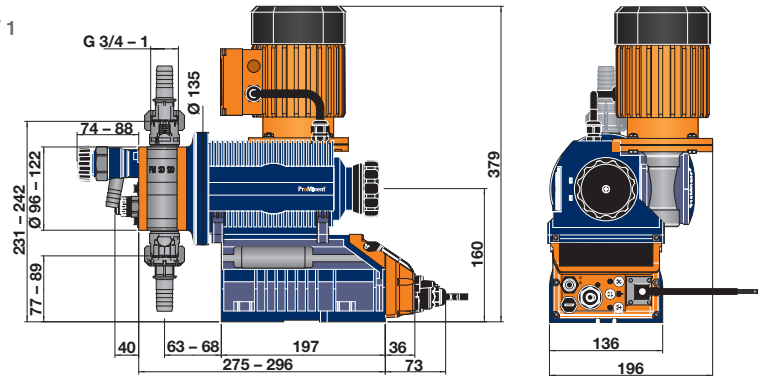
Sigma/ 1 17–144 l/h, 12–4 bar

Sigma/ 2 50–420 l/h, 16–4 bar

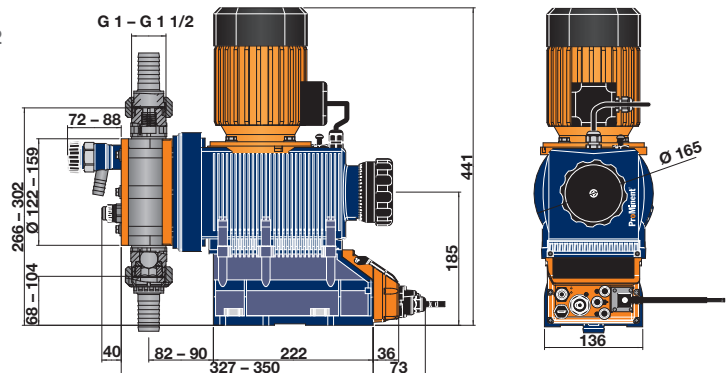
Sigma/ 3 145–1,030 l/h, 12–4 bar

- Process safety through double diaphragm with diaphragm rupture indication
- Ventilation option provides functional reliability
- Integral relief valve protects against overload
- Simple operation through large plain text display (microprocessor version)
- Ideal for simplified spares management when a number of pumps in the Sigma series are used together. Their key features are:
- Straightforward linking to bus-networked systems via PROFIBUS DP® or CAN-open interface (microprocessor version)
- For volume-proportional, measured value-dependent, time and pulse-controlled dosing

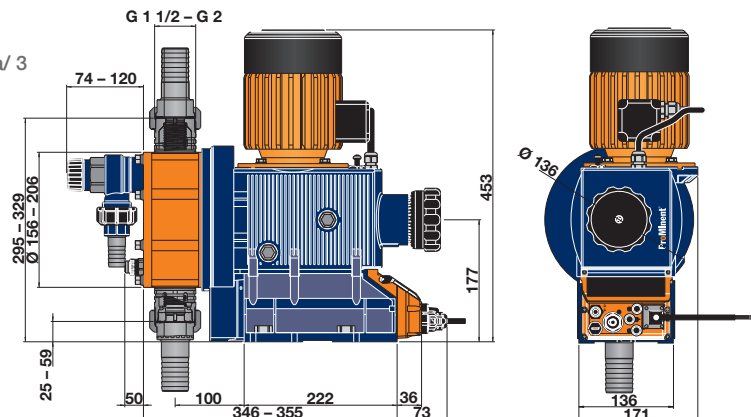
Sigma/ 1



Sigma/ 2



Sigma/ 3





Sigma

Pump type	With motor 1,500 rpm at 50 Hz Delivery rate at max. backpressure			Suction head mWC	Perm. admss. pressure suction side bar	Connection suction/pressure side G-DN	
	bar	l/h	ml/stroke				
Sigma/ 1							
12017	12	17	4.0	73	7	1	¾ – 10
12035	12	35	4.0	143	7	1	¾ – 10
10050	10	50	4.0	200	7	1	¾ – 10
10022	10	22	5.1	73	6	1	¾ – 10
10044	10	44	5.1	143	6	1	¾ – 10
07065	7	65	5.1	200	6	1	¾ – 10
07042	7	42	9.7	73	3	1	1 – 15
04084	4	84	9.7	143	3	1	1 – 15
04120	4	120	9.7	200	3	1	1 – 15
Sigma/ 2							
16050	16	48	11.4	73	7	3	1 – 15
16090	16	86	11.4	132	7	3	1 – 15
16130	16	125	10.9	198	7	3	1 – 15
07120	7	120	27.4	73	5	1	1½ – 25
07220	7	220	27.7	132	5	1	1½ – 25
04350	4	350	29.4	198	5	1	1½ – 25
Sigma/ 3							
120145	12	145	31.5	72	2	5	1½ – 25
120190	12	190	31.5	103	2	5	1½ – 25
120270	12	270	31.5	144	2	5	1½ – 25
120330	12	330	31.5	180	2	5	1½ – 25
070410	7	410	95.1	72	1	4	2 – 32
070580	7	580	95.1	103	1	4	2 – 32
040830	4	830	95.1	144	1	3	2 – 32
041030	4	1,030	95.1	180	1	3	2 – 32

Sigma Control version and basic version operating with 60 Hz increases delivery rate approx. 20 %.

Sigma/ 2 and Sigma/ 3 with PVDF design max. 10 bar.

Materials in contact with medium

Material	Liquid end	Suction/pressure port		Seals/Ball seat	Valve balls	Integrated overflow valve	
Sigma/ 1 + Sigma/ 2							
PVT	PVDF	PVDF		PTFE/PTFE	Ceramic	PVDF/FPM or EPDM	
SST	Stainless steel 1.4404	Stainless steel 1.4581		PTFE/PTFE	Stainless steel 1.4404	Stainless steel/FPM or EPDM	
Sigma/ 3							
Material	Suction/pressure port liquid end	DN 25 ball valve			DN 32 ball valve		Integrated overflow valve
		Seals	Valve balls	Valve seat	Seals	Valve plate/ valve spring	
PVT	PVDF	PTFE	Glas	PTFE	PTFE	Ceramic/Hast C. + CTFE	PVDF/FPM or EPDM
SST	Stainless steel 1.4581	PTFE	Stainless steel 1.4404	PTFE	PTFE	Stainless steel 1.4404/Hast C.	Stainless steel/FPM or EPDM

DEVELOPAN® metering diaphragm with PTFE coating for all types.

Hygienic pumps

The EHEDG-certified specialists

These hygienic pumps are fitted with stainless steel liquid ends (to comply with the requirements for EHEDG hygienic design and construction).

Motor-driven or solenoid driven can be used depending on the output required.

Applications

- Dosing of aromas and colourings
- Dosing of additives directly upstream of the filling process
- Dosing of enzyme solutions
- Application of sauces and oils to finished products

Features

- EHEDG-certified liquid end
- Spring-mounted and seal-free suction discharge valve
- Internal surface roughness < 0.8 µm
- CIP-compatible, excellent microbiological safety
- Simple to fit and dismantle thanks to tri-clamp connections



delta®

Diaphragm metering pump delta® with regulated optoDrive® solenoid drive. Output data dependent on pump type.

- Flow rate of up to 70 l/h
- Back pressure of up to max. 7 bar

Sigma

Motor-driven pump series Sigma, output data dependent on pump type.

- Flow rate of up to 1,000 l/h
- Back pressure of up to max. 5 bar