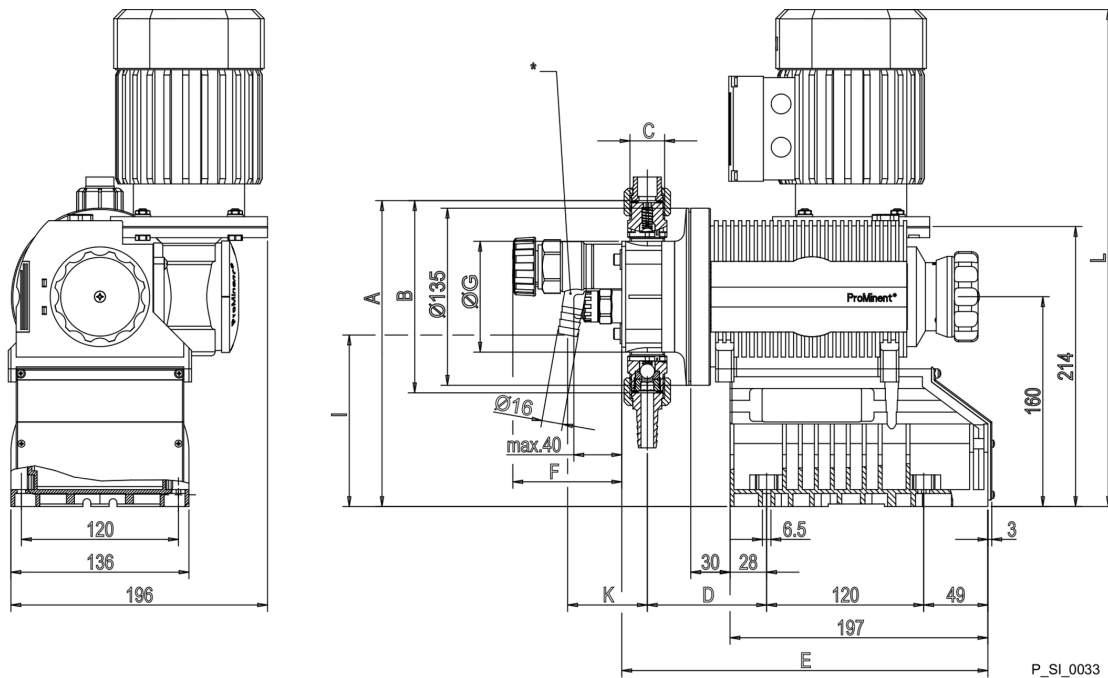


Motor-Driven Metering Pump Sigma/ 1 (Basic type)

The robust pump for safe and reliable use



Exemplary representation. The dimensions depend on the configuration chosen.

The Sigma/ 1 Basic is an extremely robust motor-driven metering pump with patented multi-layer safety diaphragm for excellent process reliability. It offers a wide range of power end designs, such as three-phase or 1-phase AC motors, also for use in areas at risk from explosion.

Technical Details

- Stroke length: 4 mm
- Stroke length adjustment range: 0 – 100%
- Stroke length adjustment: manually using self-locking rotary dial in 1% increments (optionally with actuator or control drive)
- With the right, constant conditions, correct installation and calibration, precision exceeds $\pm 1\%$, based on maximum stroke volume.
- Wetted materials: PVDF, stainless steel 1.4571/1.4404, special materials on request
- Patented multi-layer safety diaphragm with optical diaphragm rupture display (as option with diaphragm rupture warning system via a contact)
- Integrated hydraulic relief and bleed valve
- A wide range of power end versions is available: Three-phase standard AC motor, 1-phase AC motor, motors for use in areas at risk from explosion and different flange designs for use in customer-specific motors
- For areas at risk from explosion II 2G Ex h IIC T3 Gb X or II 2G Ex h IIC T4 Gb X (optional)
- IP 55 degree of protection
- Fibreglass-reinforced plastic housing
- Liquid end on left is available as standard
- For reasons of safety, provide suitable overflow devices during installation for all mechanically deflected diaphragm metering pumps



Motor-Driven Metering Pump Sigma/ 1 (Basic type)

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Technical Data

Type	Capacity at max. back pressure with 1500 rpm motor at 50 Hz				Pump capacity at max. back pressure with 1800 rpm motor at 60 Hz			Suction lift	Perm. pre-pressure suction side	Connector Suction/ Discharge Side	Shipping weight
	I/h	bar	ml/stroke	Max. stroke rate Strokes/min	I/h / gph (US)	psi	Max. stroke rate Strokes/min				
S1Ba	I/h	bar	ml/stroke	Max. stroke rate Strokes/min	I/h / gph (US)	psi	Max. stroke rate Strokes/min	m WC	bar	G-DN	kg
12017 PVT	17	10	3.8	73	20.4/5.3	145	88	7	1	3/4-10	9
12017 SST	17	12	3.8	73	20.4/5.3	145	88	7	1	3/4-10	12
12035 PVT	35	10	4.0	143	42.0/11.0	145	172	7	1	3/4-10	9
12035 SST	35	12	4.0	143	42.0/11.0	174	172	7	1	3/4-10	12
10050 PVT	50	10	4.0	205	60.0/15.8	145	246	7	1	3/4-10	9
10050 SST	50	10	4.0	205	60.0/15.8	145	246	7	1	3/4-10	12
10022 PVT	22	10	5.0	73	26.4/6.9	145	88	6	1	3/4-10	9
10022 SST	22	10	5.0	73	26.4/6.9	145	88	6	1	3/4-10	12
10044 PVT	44	10	5.1	143	52.8/13.9	145	172	6	1	3/4-10	9
10044 SST	44	10	5.1	143	52.8/13.9	145	172	6	1	3/4-10	12
07065 PVT	65	7	5.2	205	78.0/20.6	102	246	6	1	3/4-10	9
07065 SST	65	7	5.2	205	78.0/20.6	102	246	6	1	3/4-10	12
07042 PVT	42	7	9.5	73	50.4/13.3	102	88	3	1	1-15	10
07042 SST	42	7	9.5	73	50.4/13.3	102	88	3	1	1-15	14
04084 PVT	84	4	9.7	143	100.8/26.6	58	172	3	1	1-15	10
04084 SST	84	4	9.7	143	100.8/26.6	58	172	3	1	1-15	14
04120 PVT	120	4	9.7	205	144.0/38.0	58	246	3	1	1-15	10
04120 SST	120	4	9.7	205	144.0/38.0	58	246	3	1	1-15	14

Performance data for TTT, see type PVT

Integrated relief valve, connector for DN 10 pressure hose sleeve

Materials in Contact with the Medium

Identity code of material	Dosing head	Connection on suction/discharge side	Seals/ball seat	Balls	Integral relief valve
PVT	PVDF	PVDF	PTFE/PTFE	Ceramic	PVDF/FKM or EPDM
SST	Stainless steel 1.4404	Stainless steel 1.4581	PTFE/PTFE	Stainless steel 1.4404	Stainless steel/FKM or EPDM
TTT *	PTFE + 25% carbon	Carbon-filled PTFE	PTFE/PTFE	Ceramic	-
PVF	PVDF	PVDF	PTFE/PTFE	Ceramic	PVDF/FKM or EPDM
SSF	Stainless steel 1.4404	Stainless steel 1.4581	PTFE/PTFE	Stainless steel 1.4404	Stainless steel/FKM or EPDM
SSG	Stainless steel 1.4404	Stainless steel 1.4581	PTFE/stainless steel 1.4404	Stainless steel 1.4404	-
SSH	Stainless steel 1.4435	Stainless steel 1.4435	EPDM or FKM/stainless steel 1.4435	Ceramic	-

* Specifically for areas at risk from explosion

Motor-Driven Metering Pump Sigma/ 1 (Basic type)

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Motor Data

Identity code specification	Power supply	Δ/Y			Remarks
S	3-phase, IP 55*	230 V/400 V	50 Hz	0.09 kW	
T	3-phase, IP 55*	230 V/400 V 265 V/460 V	50 Hz 60 Hz	0.09 kW 0.09 kW	With PTC, speed control range 1:5
R	3-phase, IP 55*	230 V/400 V	50 Hz	0.09 kW	With PTC, speed control range 1:20 with external fan (1-phase 230 V; 50/60 Hz, 20 W)
M	1-phase AC, IP 55	230 V \pm 5 %	50 Hz	0.12 kW	
N	1-phase AC, IP 55	120 V \pm 5 %	60 Hz	0.12 kW	
L1	3-phase, II2GExelIT3	220 – 240 V/380 – 420 V	50 Hz	0.12 kW	
L2	3-phase, II2GExdllICT4	220 – 240 V/380 – 420 V	50 Hz	0.18 kW	With PTC, speed control range 1:5

* Three-phase motor according to IEC 60034-1

Motor data sheets can be requested for more information. Versions 265/460V - 60Hz, special motors or special motor flanges are available on request.

Motors less than 0.75 kW and motors designed for speed-controllable operation are not subject to the IE3 standard in compliance with the Ecodesign Directive 2009/125/EC.

Information for use in areas at risk from explosion

Only use pumps with the appropriate labelling in line with the ATEX Directive 2014/34/EC in premises at risk from explosion. Ensure that the explosion group, category and degree of protection specified on the label correspond to or are superior to the conditions prevalent in the intended application.