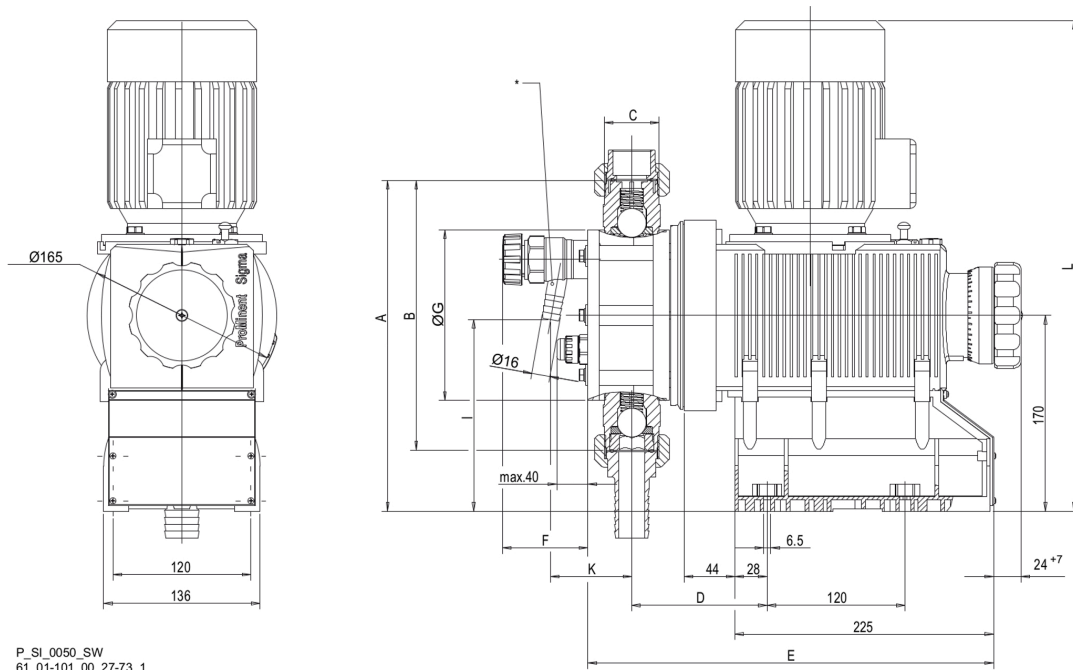


Motor-Driven Metering Pump Sigma/ 2 (Basic Type)

The robust pump for safe and reliable use.



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Exemplary representation. The dimensions depend on the configuration chosen.

Robust motor-driven metering pumps like the Sigma/ 2 Basic guarantee excellent process reliability with their patented multi-layer safety diaphragm. The diaphragm metering pump offers a number of power end versions, also suitable for use in areas at risk from explosion.

Technical Details

- Stroke length: 5 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 (an 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
- High-strength fibreglass-reinforced plastic housing with excellent chemical resistance
- For reasons of safety, provide suitable overflow devices during installation for all mechanically deflected diaphragm metering pumps.



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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				
S2Ba	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
16050 PVT	50	16	11.4	73	60.0/15.8	145	87	7	3	1-15	15
16050 SST	47	16	11.4	73	56.0/14.7	232	87	7	3	1-15	20
16090 PVT	88	16	11.4	132	106.0/28.0	145	158	7	3	1-15	15
16090 SST	82	16	11.4	132	98.4/25.9	232	158	7	3	1-15	20
16130 PVT	135	16	10.9	198	162.0/42.8	145	238	7	3	1-15	15
16130 SST	124	16	10.9	198	148.0/39.0	232	238	7	3	1-15	20
07120 PVT *	126	7	27.4	73	150.0/39.6	102	87	5	1	1 1/2-25	16
07120 SST *	126	7	27.4	73	150.0/39.6	102	87	5	1	1 1/2-25	24
07220 PVT *	220	7	27.7	132	264.0/69.7	102	158	5	1	1 1/2-25	16
07220 SST *	220	7	27.7	132	264.0/69.7	102	158	5	1	1 1/2-25	24
04350 PVT *	350	4	29.4	198	420.0/110.9	58	238	5	1	1 1/2-25	16
04350 SST *	350	4	29.4	198	420.0/110.9	58	238	5	1	1 1/2-25	24

* For the Sigma types 07120, 07220 and 04350, the dosing head is fitted with DN 25 (G 1 1/2) valves. As DN 20 is generally sufficient for the pipework for these types (see technical data, suction/discharge side connector), the connector parts that can be ordered with the identity code (e.g. inserts) are already reduced to DN 20, i.e. DN 20 pipework and accessories can be installed.

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/glass *	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/glass *	-
PVF	PVDF	PVDF	PTFE/PTFE	Ceramic/glass *	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	-

* With 07120, 07220, 04350

** Specifically for areas at risk from explosion

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Motor Data

Identity code specification	Power supply	ΔY			Remarks
S	3-phase, IP 55*	230 V/400 V	50 Hz	0.25 kW	
T	3-phase, IP 55*	230 V/400 V	50 Hz	0.25 kW	With PTC, speed control range 1:4
		265 V/460 V	60 Hz	0.25 kW	
R	3-phase, IP 55*	230 V/400 V	50 Hz	0.37 kW	With PTC, speed control range 1:20 with external fan (1-phase 230 V; 50/60 Hz, 134 W)
M	1-phase AC, IP 55	230 V \pm 5 %	50 Hz	0.18 kW	
N	1-phase AC, IP 55	120 V \pm 5 %	60 Hz	0.18 kW	
L1	3-phase, II2GExellT3	220 – 240 V/380 – 420 V	50 Hz	0.18 kW	
L2	3-phase, II2GExdllCT4	220 – 240 V/380 – 420 V	50 Hz	0.18 kW	With PTC, speed control range 1:5

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.