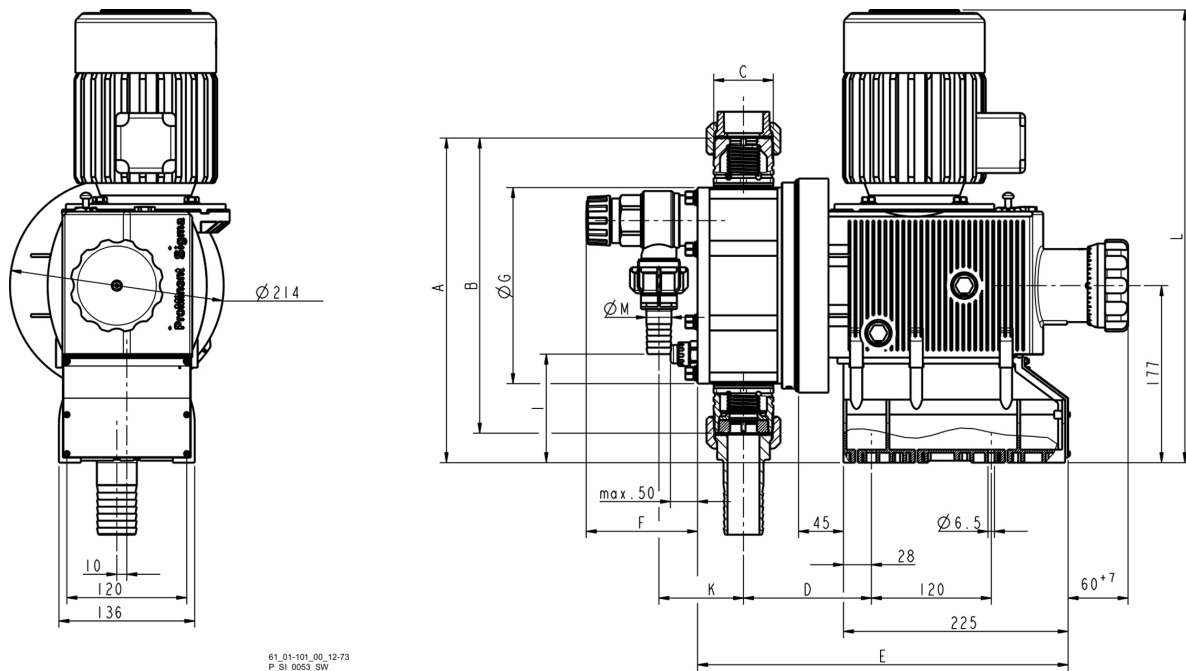


# Motor-Driven Metering Pump Sigma/ 3 (Basic Type)

## The robust pump for safe and reliable use



Exemplary representation. The dimensions depend on the configuration chosen.

The patented multi-layer safety diaphragm for excellent process reliability is just one feature of the extremely robust motor-driven metering pump Sigma/3 Basic. It also offers a wide range of power end versions, such as three-phase or 1-phase AC motors, also for use in ATEX areas.

### Technical Details

- Stroke length: 6 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 are available: Three-phase standard AC motor, 1-phase AC motor, motors for use in Exe and Exde areas 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.



# Motor-Driven Metering Pump Sigma/ 3 (Basic Type)

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### Technical Data

Type	Capacity at max. back pressure with 1500 rpm motor at 50 Hz				Capacity at max. back pressure 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	psi	I/h / gph (US)	Max. stroke rate Strokes/min				
<b>S3Ba</b>											
120145 PVT	146	10	33.7	72	145	174/45.9	86	5	2	1 1/2-25	22
120145 SST	146	12	33.7	72	174	174/45.9	86	5	2	1 1/2-25	26
120190 PVT	208	10	33.7	103	145	251/66.3	124	5	2	1 1/2-25	22
120190 SST	208	12	33.7	103	174	251/66.3	124	5	2	1 1/2-25	26
120270 PVT	292	10	33.8	144	145	351/92.7	173	5	2	1 1/2-25	22
120270 SST	292	12	33.8	144	174	351/92.7	173	5	2	1 1/2-25	26
120330 PVT *	365	10	33.8	180	-	-	-	5	2	1 1/2-25	22
120330 SST *	365	12	33.8	180	-	-	-	5	2	1 1/2-25	26
070410 PVT	410	7	95.1	72	102	492/129.9	86	4	1	2-32 **	24
070410 SST	410	7	95.1	72	102	492/129.9	86	4	1	2-32 **	29
070580 PVT	580	7	95.1	103	102	696/183.8	124	4	1	2-32 **	24
070580 SST	580	7	95.1	103	102	696/183.8	124	4	1	2-32 **	29
040830 PVT	830	4	95.1	144	58	1,000/264.1	173	3	1	2-32 **	24
040830 SST	830	4	95.1	144	58	1,000/264.1	173	3	1	2-32 **	29
041030 PVT *	1,030	4	95.1	180	-	-	-	3	1	2-32 **	24
041030 SST *	1,030	4	95.1	180	-	-	-	3	1	2-32 **	29

\* Only available for 50 Hz.

\*\* DN32 plate valves with valve spring

Performance data for TTT, see type PVT

### Materials in Contact with the Medium

Identity code of material	Seals	DN 25 ball valves			DN 32 plate valves			Integral relief valve
		Suction / discharge connection on dosing head DN 25	Valve balls	Valve seats	Suction / discharge connection on dosing head DN 32	Valve plates/valve springs	Valve seats	
PVT	PTFE	PVDF	Glass	PTFE *	PVDF	Ceramic/Hastelloy C + CTFE **	PTFE	PVDF/FKM or EPDM
SST	PTFE	Stainless steel 1.4581	Stainless steel 1.4404	PTFE *	Stainless steel 1.4581	Stainless steel 1.4404/Hastelloy C	PTFE	Stainless steel/FKM or EPDM
TTT ***	PTFE	PTFE + 25% carbon	Ceramic	PTFE *	PVDF	Ceramic/Hastelloy C + CTFE **	PTFE	-
PVF	PTFE	PVDF	Glass	PVDF	-	-	-	-
SSF	PTFE	Stainless steel 1.4581/1.4404	Stainless steel 1.4404	PVDF	-	-	-	-
SSG	PTFE	Stainless steel 1.4581/1.4404	Stainless steel 1.4404	Stainless steel 1.4404	-	-	-	-
SSH ****	EPDM or FKM	Stainless steel 1.4435	Ceramic	Stainless steel 1.4404	Stainless steel 1.4581	Ceramic/E-CTFE	Stainless steel 1.4404	-

\* With design 'F', the ball seat is made of PVDF, only for DN 25 ball valves

\*\* The valve spring is coated with CTFE (resistance similar to PTFE)

\*\*\* Specifically for areas at risk from explosion

\*\*\*\* DN 25 and DN 32 designed as ball non-return valve

# Motor-Driven Metering Pump Sigma/ 3 (Basic Type)

## The robust pump for safe and reliable use

### Motor Data

Identity code specification	Power supply	$\Delta/Y$			Remarks
S	3-phase, IP 55'	230 V/400 V	50 Hz	0.37 kW	
T	3-phase, IP 55'	230 V/400 V	50 Hz	0.37 kW	With PTC, speed control range 1:5
		265 V/460 V	60 Hz	0.37 kW	
R	3-phase, IP 55'	230 V/400 V	50 Hz	0.55 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	0.55 kW	
L1	3-phase, II2GExellT3	220 – 240 V/380 – 420 V	50 Hz	0.37 kW	
L2	3-phase, II2GExdllCT4	220 – 240 V/380 – 420 V	50 Hz	0.37 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.

In accordance with the Eco Design Directive 2009/125/EC, motors of less than 0.75 kW and motors designed for operation with variable speed are not subject to the IE3 standard.

### 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.