

# Motor-Driven Metering Pump Sigma X Control Type – Sigma/ 3 - S3Cb

The new Sigma X range – reliable, smart and connectible



## Capacity range S3Cb: 182 – 1,040 l/h, 12 – 4 bar

The Sigma X diaphragm metering pump covers a capacity range of 21 to 1,040 l/h in versions S1Cb, S2Cb and S3Cb. Its patented multi-layer safety diaphragm guarantees maximum process reliability. Efficient protection of the power end from overloading by means of an integral frequency converter with microprocessor control.

One highlight is the standardised operating concept with click wheel and 4 additional operating keys on a removable operating unit. A large illuminated LCD and a 3-LED display for operating, warning and error messages, visible from all sides, offers additional operating convenience.

The Sigma, like all smart ProMinent metering pumps, can be flexibly connected to various bus systems.

It has a large adjustment range thanks to a combination of frequency and stroke length adjustment. The pump works with high precision across the entire frequency range. Accurate and complication-free metering of viscous and gaseous media by adjustment of the movement profile.

Operating statuses are simply remotely transmitted via an additional output or relay module. A built-in timer, included as standard, controls time-dependent metering cycles.

Relevant spare parts can be shown in the display. The integral log book significantly improves process management, optimisation and troubleshooting.

## Your benefits

- Safe: In the event of an accident, the feed chemical does not escape to the outside nor into the pump's power end, thanks to the patented multi-layer safety diaphragm with optical (optionally electric) signalling.
- Integrated relief valve protects the pump against overloading and reliable operation by means of a bleed option during the metering process.
- External control is scalable via potential-free contacts with pulse step-up and step-down, batch mode or via a 0/4-20 mA standard signal.
- Flexibly connectible: Connection to process management systems via integral PROFIBUS®, CANopen interface.
- Integral log book saves up to 300 events and simplifies troubleshooting and analysis of the cause.



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### Technical Data

Type S3Cb	Delivery rate at max. back pressure			Max. stroke rate	Delivery rate at max. back pressure		Suction lift	Perm. pre-pressure suction side	Connection, suction/ discharge side	Shipping weight
	bar	l/h	ml/stroke		psi	gph (US)				
120145 PVT	10	182	33.7	90	145	48.0	5	2	1 1/2–25	22
120145 SST	12	182	33.7	90	174	48.0	5	2	1 1/2–25	26
120190 PVT	10	243	33.7	120	145	64.1	5	2	1 1/2–25	22
120190 SST	12	243	33.7	120	174	64.1	5	2	1 1/2–25	26
120270 PVT	10	365	33.8	180	145	96.4	5	2	1 1/2–25	22
120270 SST	12	365	33.8	180	174	96.4	5	2	1 1/2–25	26
070410 PVT	7	500	95.1	90	102	132.0	4	1	2–32**	24
070410 SST	7	500	95.1	90	102	132.0	4	1	2–32**	29
070580 PVT	7	670	95.1	120	102	176.9	4	1	2–32*	24
070580 SST	7	670	95.1	120	102	176.9	4	1	2–32**	29
040830 PVT	4	1,040	95.1	180	58	274.7	3	1	2–32**	24
040830 SST	4	1,040	95.1	180	58	274.7	3	1	2–32**	29

\*\* DN32 plate valves with valve spring

### Materials in Contact With the Medium

Material	DN 25 ball valves			DN 32 plate valves				
	Suction/pressure connector on dosing head	Seals	Valve balls	Valve seats	Seals	Valve plates/valve spring	Valve seats	Integral relief valve
PVT	PVDF	PTFE	Glass	PTFE*	PTFE	Ceramic/ Hast C. + CTFE*	PTFE	PVDF/FKM or EPDM
SST	Stainless steel 1.4581	PTFE	Stainless steel 1.4404	PTFE*	PTFE	Stainless steel 1.4404/ Hast. C	PTFE	Stainless steel/ FKM or EPDM

\* With 07120, 07220, 04350

With “F” sealing material design – “physiologically safe - FDA”, the ball seat is made of PVDF

### Motor Data

Identity code specification	Power supply	Remarks
U	1-phase, IP 65 100 – 230V ±10 % / 240V ±6 % 50/60 Hz 420 W	

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.

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