Motor-Driven Metering Pump Sigma X Control Type – Sigma/ 2 - S2Cb

The new Sigma X range - reliable, smart and connectible



Capacity range S2Cb: 61 - 353 l/h, 16 - 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 overload shut-down in the pump control to protect the pump from overloading and thus significantly reduce pressure surges caused by blockages.
- 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 connectable: 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

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
ar 1/h	า	ml/stroke	Strokes/min	psi	gph (US)	m WC	bar	G-DN	kg
61	I	11.4	90	145	16.1	7	2	1–15	15
56	6	10.4	90	232	14.8	7	2	1–15	20
) 10	9	11.4	160	145	28.8	7	2	1–15	15
99	9	10.3	160	232	26.2	7	2	1–15	20
) 13	31	10.9	200	145	34.6	7	2	1–15	15
3 12	29	10.9	200	232	34.1	7	2	1–15	20
15	0	27.4	90	102	39.6	5	1	1 1/2–25	16
15	0	27.4	90	102	39.6	5	1	1 1/2–25	24
27	71	27.7	160	102	71.6	5	1	1 1/2–25	16
27	71	27.7	160	102	71.6	5	1	1 1/2–25	24
35	53	29.4	200	58	93.3	5	1	1 1/2–25	16
35	53	29.4	200	58	93.3	5	1	1 1/2–25	24
	1/h	ar I/h 61 56 109 69 131	ar I/h ml/stroke 0 61 11.4 5 56 10.4 109 11.4 5 99 10.3 131 10.9 150 27.4 150 27.4 271 27.7 271 27.7 353 29.4	ar I/h ml/stroke Strokes/min 0 61 11.4 90 0 56 10.4 90 1 109 11.4 160 0 131 10.9 200 1 129 10.9 200 1 150 27.4 90 2 71 27.7 160 2 71 27.7 160 3 53 29.4 200	press ar I/h ml/stroke Strokes/min psi 0 61 11.4 90 145 0 56 10.4 90 232 0 109 11.4 160 145 0 99 10.3 160 232 0 131 10.9 200 145 0 129 10.9 200 232 150 27.4 90 102 271 27.7 160 102 271 27.7 160 102 353 29.4 200 58	ar I/h ml/stroke Strokes/min psi gph (US) 0 61 11.4 90 145 16.1 3 56 10.4 90 232 14.8 4 109 11.4 160 145 28.8 5 99 10.3 160 232 26.2 0 131 10.9 200 145 34.6 3 129 10.9 200 232 34.1 150 27.4 90 102 39.6 271 27.7 160 102 71.6 271 27.7 160 102 71.6 353 29.4 200 58 93.3	pressure ar I/h ml/stroke Strokes/min psi gph (US) m WC 0 61 11.4 90 145 16.1 7 0 56 10.4 90 232 14.8 7 0 109 11.4 160 145 28.8 7 0 191 10.3 160 232 26.2 7 0 131 10.9 200 145 34.6 7 0 129 10.9 200 232 34.1 7 150 27.4 90 102 39.6 5 150 27.4 90 102 39.6 5 271 27.7 160 102 71.6 5 271 27.7 160 102 71.6 5 353 29.4 200 58 93.3 5	ar I/h ml/stroke Strokes/min psi gph (US) m WC bar 0 61 11.4 90 145 16.1 7 2 0 56 10.4 90 232 14.8 7 2 0 109 11.4 160 145 28.8 7 2 0 199 10.3 160 232 26.2 7 2 0 131 10.9 200 145 34.6 7 2 0 129 10.9 200 232 34.1 7 2 150 27.4 90 102 39.6 5 1 150 27.4 90 102 39.6 5 1 271 27.7 160 102 71.6 5 1 271 27.7 160 102 71.6 5 1 353 29.4 200 58 <th> Strokes/min Psi gph (US) m WC bar G-DN </th>	Strokes/min Psi gph (US) m WC bar G-DN

^{**} 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 these types of pipes (see technical data, suction/discharge side connector), the connector parts that can be ordered under the identity code (e.g. inserts) are already reduced to DN 20, i.e. DN 20 pipework and accessories can be installed.

Materials in Contact With the Medium

Material	Dosing head	Suction/pressure connector	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

^{*} 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	Ren	narks	
U	1-phase, IP 65	100 – 230 V ±10 % / 240 V ±6 %	50/60 Hz	220 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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