

Sigma X: Sigma/1 (S1Cb/S1Ba)

HMI Controller



The **ProMinent® Sigma/ 1** is a mechanically-actuated diaphragm metering pump capable of flow rates from **5.3 to 38 gph (20 - 144 l/h)** and pressures up to **174 psig (12 bar)**. The entire Sigma motor-driven metering pump product range, control type S1Cb/S2Cb/S3Cb, has been equipped with intelligent features to provide a high level of operating convenience, safety and efficiency. The Sigma X features a removable HMI control unit with innovative click-wheel and 4 operating buttons.

(Also available in basic (non-microprocessor based version).

Features & Benefits

- Certified to NSF/ANSI 61 (PVDF liquid ends)
- Variable AC frequency combined with digital stroking frequency
- Removable HMI unit with illuminated LCD, click-wheel and 4 operation buttons
- 3 LED's function as operation indicators, alarm indicator and fault indicator
- Integrated Timer (standard) and Data Logger
- Connection to PROFIBUS -DP interface
- Control via contact or analog signals
- Integrated multilayer safety diaphragm (standard) with visual or electrical rupture indicator

Applications

- Time controlled chemical addition in cooling water circuits
- Proportional chemical addition in water treatment (e.g. Sodium Hypochlorite for drinking water disinfection)
- Measurement dependent chemical addition (e.g. acid & caustic metering for pH neutralization in wastewater treatment)
- Pulse controlled metering from variable flow meters
- Chemical Process, Mining, Petrochemical, Heavy Industrial, Pharmaceutical, Water and Wastewater Treatment

Sigma/ 1 Series

Capacity data: Sigma/ 1 Control Version

Capacity Data														
Pump Version	Capacity at Maximum Backpressure				Max. Stroking Rate	Output per Stroke	Pre-Primed Suction Lift		Max. Suction Pressure		Suction/Discharge Connector		Shipping Weight	
	psig	(bar)	gph	(l/h)			ft	(m)	psig	(bar)	in	(DN)	lbs	(kg)
S1Cb H														
12017 PVT	145	(10)	5.5	(21)	90	3.8	23	(7)	14.5	(1)	1/2 MNPT	(10)	19.8	(9)
12017 SST	174	(12)	5.5	(21)	90	3.8	23	(7)	14.5	(1)	3/8 FNPT	(10)	26.5	(12)
12035 PVT	145	(10)	11.1	(42)	170	4	23	(7)	14.5	(1)	1/2 MNPT	(10)	19.8	(9)
12035 SST	174	(12)	11.1	(42)	170	4	23	(7)	14.5	(1)	3/8 FNPT	(10)	26.5	(12)
10050 PVT	145	(10)	12.9	(49)	200	4	23	(7)	14.5	(1)	1/2 MNPT	(10)	19.8	(9)
10050 SST	145	(10)	12.9	(49)	200	4	23	(7)	14.5	(1)	3/8 FNPT	(10)	26.5	(12)
10022 PVT	145	(10)	7.1	(27)	90	5	19.6	(6)	14.5	(1)	1/2 MNPT	(10)	19.8	(9)
10022 SST	145	(10)	7.1	(27)	90	5	19.6	(6)	14.5	(1)	3/8 FNPT	(10)	26.5	(12)
10044 PVT	145	(10)	14	(53)	170	5.1	19.6	(6)	14.5	(1)	1/2 MNPT	(10)	19.8	(9)
10044 SST	145	(10)	14	(53)	170	5.1	19.6	(6)	14.5	(1)	3/8 FNPT	(10)	26.5	(12)
07065 PVT	102	(7)	16.6	(63)	200	5.2	19.6	(6)	14.5	(1)	1/2 MNPT	(10)	19.8	(9)
07065 SST	102	(7)	16.6	(63)	200	5.2	19.6	(6)	14.5	(1)	3/8 FNPT	(10)	26.5	(12)
07042 PVT	102	(7)	13.7	(52)	90	9.5	9.8	(3)	14.5	(1)	3/4 MNPT	(15)	21	(9.5)
07042 SST	102	(7)	13.7	(52)	90	9.5	9.8	(3)	14.5	(1)	1/2 FNPT	(15)	29.8	(13.5)
04084 PVT	58	(4)	26.7	(101)	170	9.7	9.8	(3)	14.5	(1)	3/4 MNPT	(15)	21	(9.5)
04084 SST	58	(4)	26.7	(101)	170	9.7	9.8	(3)	14.5	(1)	1/2 FNPT	(15)	29.8	(13.5)
04120 PVT	58	(4)	30.9	(117)	200	9.7	9.8	(3)	14.5	(1)	3/4 MNPT	(15)	21	(9.5)
04120 SST	58	(4)	30.9	(117)	200	9.7	9.8	(3)	14.5	(1)	1/2 FNPT	(15)	29.8	(13.5)

Capacity data: Sigma/ 1 Basic Version

Capacity Data														
Pump Version	Capacity at Maximum Backpressure				Max. Stroking Rate	Output per Stroke	Pre-Primed Suction Lift		Max. Suction Pressure		Suction/Discharge Connector		Shipping Weight	
	psig	(bar)	gph	(l/h)			ft	(m)	psig	(bar)	in	(DN)	lbs	(kg)
S1Ba H														
12017 PVT	145	(10)	5.3	(20.4)	88	3.8	23	(7)	14.5	(1)	1/2 MNPT	(10)	19.8	(9)
12017 SST	174	(12)	5.3	(20.4)	88	3.8	23	(7)	14.5	(1)	3/8 FNPT	(10)	26.5	(12)
12035 PVT	145	(10)	11	(42)	172	4	23	(7)	14.5	(1)	1/2 MNPT	(10)	19.8	(9)
12035 SST	174	(12)	11	(42)	172	4	23	(7)	14.5	(1)	3/8 FNPT	(10)	26.5	(12)
10050 PVT	145	(10)	15.8	(60)	246	4	23	(7)	14.5	(1)	1/2 MNPT	(10)	19.8	(9)
10050 SST	145	(10)	15.8	(60)	246	4	23	(7)	14.5	(1)	3/8 FNPT	(10)	26.5	(12)
10022 PVT	145	(10)	6.9	(26.4)	88	5	19.6	(6)	14.5	(1)	1/2 MNPT	(10)	19.8	(9)
10022 SST	145	(10)	6.9	(26.4)	88	5	19.6	(6)	14.5	(1)	3/8 FNPT	(10)	26.5	(12)
10044 PVT	145	(10)	13.9	(52.8)	172	5.1	19.6	(6)	14.5	(1)	1/2 MNPT	(10)	19.8	(9)
10044 SST	145	(10)	13.9	(52.8)	172	5.1	19.6	(6)	14.5	(1)	3/8 FNPT	(10)	26.5	(12)
07065 PVT	102	(7)	20.6	(78)	246	5.2	19.6	(6)	14.5	(1)	1/2 MNPT	(10)	19.8	(9)
07065 SST	102	(7)	20.6	(78)	246	5.2	19.6	(6)	14.5	(1)	3/8 FNPT	(10)	26.5	(12)
07042 PVT	102	(7)	13.3	(50.4)	88	9.5	9.8	(3)	14.5	(1)	3/4 MNPT	(15)	21	(9.5)
07042 SST	102	(7)	13.3	(50.4)	88	9.5	9.8	(3)	14.5	(1)	1/2 FNPT	(15)	29.8	(13.5)
04084 PVT	58	(4)	26.6	(100.8)	172	9.7	9.8	(3)	14.5	(1)	3/4 MNPT	(15)	21	(9.5)
04084 SST	58	(4)	26.6	(100.8)	172	9.7	9.8	(3)	14.5	(1)	1/2 FNPT	(15)	29.8	(13.5)
04120 PVT	58	(4)	38	(144)	246	9.7	9.8	(3)	14.5	(1)	3/4 MNPT	(15)	21	(9.5)
04120 SST	58	(4)	38	(144)	246	9.7	9.8	(3)	14.5	(1)	1/2 FNPT	(15)	29.8	(13.5)

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