

# Sigma/ 2 Series

## New Technology, Durable Design

The **ProMinent® Sigma/ 2** is a mechanically-actuated diaphragm metering pump capable of flow rates from **15.9 to 111 gph (60 - 420 l/h)** and pressures up to **232 PSI (16 bar)**. **ProMinent® Sigma/ 2** microprocessor controlled metering pumps are programmable and display comprehensive data for monitoring, recording, and tracking. Functions include digital setting of stroke frequency, manual stroke length adjustment, integral variable speed and access codes.

**Also available in basic, non-microprocessor based version and explosion proof models.**

## 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



Multi-layer safety diaphragm

## Features & Benefits

- Certified to **NSF/ANSI 61** (PVDF liquid ends)
- Universally compatible PVDF liquid ends
- Variable AC frequency combined with digital stroking frequency
- The individual pump functions are simply adjusted using the five programming keys
- A large backlit LCD indicates the current operating status.
- 3-LED-function as operation indicators, alarm indicator and fault indicator
- Connection to complex process control systems with PROFIBUS®-DP interface
- Control via contact or analog signals (e.g. 0/4-20 mA)
- Optional 2-week-process timer
- Integrated multi-layer safety diaphragm (standard) with visual rupture indicators

# ProMinent®

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# Sigma/ 2 Series

## Capacity data: Sigma/ 2 Control Version

Pump version:	Capacity at Max. Backpressure		Max. Stroke Rate	Output per Stroke	Max. Suction Lift	Max. Suction Pressure	Suction/ Discharge Connector		Shipping Weight w/Motor
	psig	(bar)	U.S. (L/h) GPH	Stroke/ min.	mL/ stroke	(water) ft. (m)	psig (bar)	DN in.	(approx.) lbs. (kg)
<b>S2Ca HM</b>									
16050 PVT	145	(10)	15.9 (60)	90	11.4	23 (7)	44 (3)	15 1/2 MNPT	33 (15)
16050 SST	232	(16)	15.9 (60)	90	11.4	23 (7)	44 (3)	15 1/2 FNPT	44 (20)
16090 PVT	145	(10)	28.5 (108)	160	11.4	23 (7)	44 (3)	15 3/4 MNPT	33 (15)
16090SST	232	(16)	28.5 (108)	160	11.4	23 (7)	44 (3)	15 1/2 FNPT	44 (20)
16130 PVT	145	(10)	34.3 (130)	200	10.9	23 (7)	44 (3)	15 3/4 MNPT	33 (15)
16130 SST	232	(16)	34.3 (130)	200	10.9	23 (7)	44 (3)	15 1/2 FNPT	44 (20)
07120 PVT	100	(7)	38 (144)	90	27.4	16 (5)	15 (1)	25 3/4 MNPT	35 (16)
07120 SST	100	(7)	38 (144)	90	27.4	16 (5)	15 (1)	25 3/4 MNPT	53 (24)
07220 PVT	100	(7)	69.7 (264)	160	27.7	16 (5)	15 (1)	25 3/4 MNPT	35 (16)
07220 SST	100	(7)	69.7 (264)	160	27.7	16 (5)	15 (1)	25 3/4 MNPT	53 (24)
04350 PVT	58	(4)	92.5 (350)	200	29.4	16 (5)	15 (1)	25 1 MNPT	35 (16)
04350 SST	58	(4)	92.5 (350)	200	29.4	16 (5)	15 (1)	25 1 MNPT	53 (24)

## Capacity data: Sigma/ 2 Basic Version

Pump version:	Capacity at Max. Backpressure		Max. Stroke Rate	Output per Stroke	Max. Suction Lift	Max. Suction Pressure	Suction/ Discharge Connector		Shipping Weight w/Motor
	psig	(bar)	U.S. (L/h) GPH	Stroke/ min.	mL/ stroke	(water) ft. (m)	psig (bar)	DN in.	(approx.) lbs. (kg)
<b>S2Ba HM</b>									
16050 PVT	145	(10)	15.9 (60)	87	11.4	23 (7)	44 (3)	15 1/2 MNPT	33 (15)
16050 SST	174	(16)	15.2 (57)	87	11.4	23 (7)	44 (3)	15 1/2 FNPT	44 (20)
16090 PVT	145	(10)	28.5 (108)	156	11.4	23 (7)	44 (3)	15 3/4 MNPT	33 (15)
16090 SST	174	(16)	27 (103)	156	11.4	23 (7)	44 (3)	15 1/2 FNPT	44 (20)
16130 PVT	145	(10)	41 (156)	232	10.9	23 (7)	44 (3)	15 3/4 MNPT	33 (15)
16130 SST	174	(16)	39.6 (150)	232	10.9	23 (7)	44 (3)	15 1/2 FNPT	44 (20)
07120 PVT	100	(7)	38 (144)	87	27.4	16 (5)	15 (1)	25 3/4 MNPT	35 (16)
07120 SST	100	(7)	38 (144)	87	27.4	16 (5)	15 (1)	25 3/4 MNPT	53 (24)
07220 PVT	100	(7)	69.7 (264)	156	27.4	16 (5)	15 (1)	25 3/4 MNPT	35 (16)
07220 SST	100	(7)	69.7 (264)	156	27.4	16 (5)	15 (1)	25 3/4 MNPT	53 (24)
04350 PVT	58	(4)	111 (420)	232	29.4	16 (5)	15 (1)	25 1 MNPT	35 (16)
04350 SST	58	(4)	111 (420)	232	29.4	16 (5)	15 (1)	25 1 MNPT	53 (24)

### Sigma/ 2 control type:

The ProMinent® Sigma microprocessor version (standard IP 65) allows rapid and reliable adjustment to fluctuating metering requirements.

The controller has the same control panel as the ProMinent® gamma/ L metering pump.

The microprocessor controller of the Sigma pumps, featuring the optimum combination of variable AC frequency combined with digital stroking frequency, ensures exact metering even in the lower minimum range due to individual stroke control.

The individual pump functions are simply adjusted using the five programming keys. A backlit LCD indicates the current operating status, LEDs function as operation or fault indicators and fault indicator or pacing relays monitor the pump function.

Central or decentral adjustment is possible with PROFIBUS® and/or an integrated process timer.

**ProMinent®**



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