# **ProMinent® Sigma/ 2 basic**

**Experts in Chem-Feed and Water Treatment** 

## Durable design and simple operation

The choice for simple, metering pump applications. The **ProMinent® Sigma/2 Basic** pumps may be operated manually by adjusting the stroke length knob (displacement per stroke) at a constant stroke frequency using a constant speed motor. Automatic control of displacement per stroke via analog (4-20mA) signal is possible with optional motorized stroke positioning systems.

The **ProMinent® Sigma/2 Basic** is a mechanically-actuated diaphragm metering pump capable of flows up to **111 gph (420 l/h)** and pressures to **174 psi (12 bar)**. The Sigma is controlled by stroke length adjustment from 30-100% and the frequency is controlled by a 56-C AC or DC motor.

## **Applications**

- Proportional chemical addition in water treatment (e.g. Sodium Hypochlorite for drinking water disinfection)
- Measurement-dependent chemical addition (e.g. acid and caustic metering for pH neutralization in wastewater treatment)
- Time-controlled chemical addition in cooling water circuits



ProMinent® Sigma/ 2 Basic

#### **Features and benefits**

- Universally compatible PVDF liquid ends
- Corrosion-resistant outer housing for protection against aggressive chemicals
- Convex diaphragm consisting of a Teflon face and steel inner core providing durability and resistance against most chemicals
- Liquid end is physically separated from drive end to ensure that in the event of diaphragm failure, no liquid can pass into the mechanical drive
- Reproducible metering accuracy at defined conditions and correct installation better than ±2 %
- Stroke-length adjustment: manually (optionally with stroke positioning drive or with stroke control drive).

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### **Capacity Data**

Pump version:			Capacity at Max. Pressure	Max. Stroke Rate	Output per Stroke	Max. Suction Lift	Max. Suction Pressure	Suction/ Discharge Connector	Shipping Weight w/Motor
S2Ba HM	psig	(bar)	U.S. (L/h) GPH	Stroke/ min.	mL/ stroke	(water) ft. (m)	psig (bar)	DN in.	(approx.) lbs. (kg)
12050 PVT	145	(10)	15.9 (60)	87	11.4	23 (7)	44 (3)	15 1/2 MNPT	33 (15)
12050 SST	174	(12)	15.2 (57)	87	11.4	23 (7)	44 (3)	15 1/2 FNPT	44 (20)
12090 PVT	145	(10)	28.5 (108)	156	11.4	23 (7)	44 (3)	15 3/4 MNPT	33 (15)
12090 SST	174	(12)	27 (103)	156	11.4	23 (7)	44 (3)	15 1/2 FNPT	44 (20)
12130 PVT	145	(10)	41 (156)	232	10.9	23 (7)	44 (3)	15 3/4 MNPT	33 (15)
12130 SST	174	(12)	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 basic motors

The Sigma/2 microprocessor controlled metering pump (S2Ca) is supplied with an integral TEFC motor. The Sigma basic version (S2Ba) is suitable for simple metering pump applications. The pump may be operated manually by adjusting the stroke length knob (displacement per stroke). Automatic control of displacement per stroke via a 4-20 mA analog signal is possible with an optional servomotor.

Sigma/2 Metering Pumps are also available in microprocessor based control versions.

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