



# DIAPHRAGM METERING PUMP

PHP-800 Series  
Starts at  
**\$1350**



- ✓ Digital Control
- ✓ Diaphragm Failure Detection System
- ✓ External Signal Control Available
- ✓ Variable Speed
- ✓ NEMA 4X (IP66) (Washdown)
- ✓ Programmable Alarm Relays

The PHP-800 Series of metering pumps are well suited for use in many applications, including; agricultural industries for pumping fertilizers, and in some cases pH lowering chemicals (acid); waste water treatment fields (including municipal); plating and metal finishing; and larger HVAC cooling towers, just to name a few. The pump has PVDF double ball valves that can pump up to 159 LPH (42 GPH, 2650 mL/min) and handle output pressures up to 12.1 bar (175 psi). The PHP-800 also has an operator friendly digital touch pad and easy to read backlit LCD display. The display shows output % and the diaphragm failure alarm status. A built-in diaphragm failure detection (DFD), senses a chemical leak in the pump head and shuts off the pump. There is also a

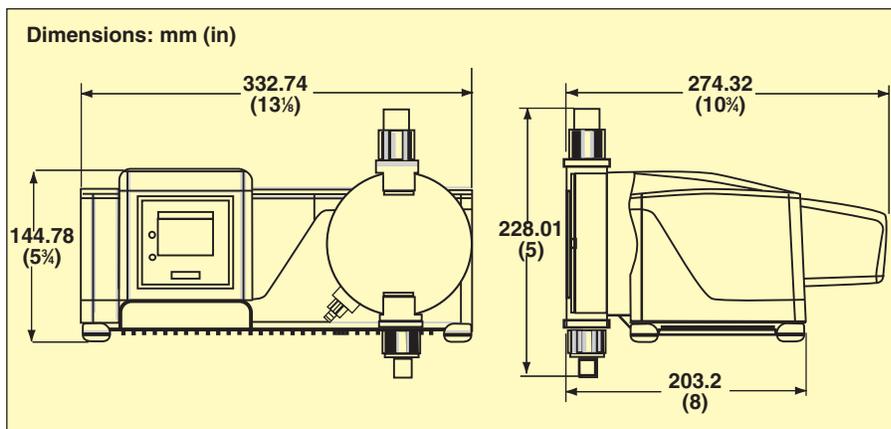
priming/degassing valve built into the pump head. The washdown rated housing is made of durable, chemical resistant, powder coated aluminum. Brush life is at 3400 hours.

PHP-801, \$1350, shown smaller than actual size.

## SPECIFICATIONS

**Max Working Pressure:** 12.1 bar (175 psig)  
**Max Fluid Temperature:** 54°C (130°F)  
**Max Ambient Temperature:** -10 to 43°C (14 to 110°F)  
**Output Adjustment Range:** 1 to 100% in 1% increments  
**Duty Cycle:** Continuous  
**Max Viscosity:** 1500 Centipoise

**Max Suction Lift:** 4.6 m (15') water 0 psig  
**Enclosure:** NEMA 4X (IP66)  
**Alarm Relay:** SPST N.O.: (field switchable), 3A max @ 125 Vac (24 Vdc)  
**External Signal Control: ("-ESC" Option)** 4 to 20mA, 0 to 10 Vdc, AC sign waves TTL, CMOS or contract  
**Motor on Signal:** 5 to 20 Vdc open collector output closed when energized



**Approx. Shipping Weight:**  
13 kg (29 lb)

**Wetted Components**

**Diaphragm:** PTFE, (PTFE coated CSPE)

**Pump Head:** PVDF (natural color)

**Pump Head Adaptors:** PVDF (natural color)

**Injection/Check Valve:**

**Body and Insert:** PVDF (natural color)

**Check Ball:** Ceramic

**Spring:** Hastelloy® C-276

**Ball Seat O-Ring:** FKM (optional EP)

**Static Seal O-Ring:** FKM (optional EP)

**Footvalve/Strainer:** PVDF natural;

Polypropylene: Grey

**Suction Tubing [3.7 m (12')]:** PVC (clear)

**Non-Wetted Components**

**Enclosure:** 413 aluminum (powder coated)

**Pump Head Cover:** 413 aluminum (powder coated)

**Cover Screws:** 300 stainless steel

**Motor Shaft:** Nickel plated steel

**DFD System Sensor Pins:** Hastelloy® C-276

**Power Cord:** 3 conductor, SJTW-A water-resistant, 1.8 m (6')



**Pump Head Adaptors**

**Standard Unit:** Barbed for 13 mm (½") tubing (2 pieces)

**PHP-800M Units:** Threaded, ½ MNPT (2 pieces)

**PHP-800F Units:** Threaded, ½ FNPT (2 pieces)

**MOST POPULAR MODELS HIGHLIGHTED!**

<b>To Order (Specify Model Number)</b>								
Model No.	Price	Description	Control Type	Max Output at 0 PSI LPH (GPH)	Pressure Maximum Bar (PSI)	Max Output @ Max Pressure LPH (GPH)	Fitting	Strokes/Minute
PHP-801	\$1350	Metering pump	local	36.7 (9.7)	12 (175)	18.6 (4.9)	BARB	62
PHP-802	1350	Metering pump	local	69.7 (18.4)	10.3 (150)	55.2 (14.6)	BARB	62
PHP-803	1350	Metering pump	local	74.6 (19.7)	10.3 (150)	42.6 (11.3)	BARB	130
PHP-804	1350	Metering pump	local	159 (42)	5.5 (80)	131.4 (34.7)	BARB	130
PHP-801M	1350	Metering pump	local	36.7 (9.7)	12 (175)	18.6 (4.9)	MNPT	62
PHP-802M	1350	Metering pump	local	69.7 (18.4)	10.3 (150)	55.2 (14.6)	MNPT	62
PHP-803M	1350	Metering pump	local	74.6 (19.7)	10.3 (150)	42.6 (11.3)	MNPT	130
PHP-804M	1350	Metering pump	local	159 (42)	5.5 (80)	131.4 (34.7)	MNPT	130
PHP-801F	1350	Metering pump	local	36.7 (9.7)	12 (175)	18.6 (4.9)	FNPT	62
PHP-802F	1350	Metering pump	local	69.7 (18.4)	10.3 (150)	55.2 (14.6)	FNPT	62
PHP-803F	1350	Metering pump	local	74.6 (19.7)	10.3 (150)	42.6 (11.3)	FNPT	130
PHP-804F	1350	Metering pump	local	159 (42)	5.5 (80)	131.4 (34.7)	FNPT	130
PHP-801-ESC	1550	Metering pump	external	36.7 (9.7)	12 (175)	18.6 (4.9)	BARB	62
PHP-802-ESC	1550	Metering pump	external	69.7 (18.4)	10.3 (150)	55.2 (14.6)	BARB	62
PHP-803-ESC	1550	Metering pump	external	74.6 (19.7)	10.3 (150)	42.6 (11.3)	BARB	130
PHP-804-ESC	1550	Metering pump	external	159 (42)	5.5 (80)	131.4 (34.7)	BARB	130
PHP-801M-ESC	1550	Metering pump	external	36.7 (9.7)	12 (175)	18.6 (4.9)	MNPT	62
PHP-802M-ESC	1550	Metering pump	external	69.7 (18.4)	10.3 (150)	55.2 (14.6)	MNPT	62
PHP-803M-ESC	1550	Metering pump	external	74.6 (19.7)	10.3 (150)	42.6 (11.3)	MNPT	130
PHP-804M-ESC	1550	Metering pump	external	159 (42)	5.5 (80)	131.4 (34.7)	MNPT	130
PHP-801F-ESC	1550	Metering pump	external	36.7 (9.7)	12 (175)	18.6 (4.9)	FNPT	62
PHP-802F-ESC	1550	Metering pump	external	69.7 (18.4)	10.3 (150)	55.2 (14.6)	FNPT	62
PHP-803F-ESC	1550	Metering pump	external	74.6 (19.7)	10.3 (150)	42.6 (11.3)	FNPT	130
PHP-804F-ESC	1550	Metering pump	external	159 (42)	5.5 (80)	131.4 (34.7)	FNPT	130

**Accessories**

Model No.	Price	Description
PHP-800-MB	\$42	Stainless steel extended mounting bracket
TYRP-3412-100	95	¾ x ½" PVC braid reinforced PVC tubing
CM-4229	60	Reference Book: Chemical Engineering Volume 6



Comes complete with operator's manual, priming/pressure relief valve (located on pump head), foot valve/strainer with 13 mm (½") ceramic ball and 13 mm (½") barbed adaptor, injection fitting with 13 mm (½") ceramic ball and one 13 mm (½") barbed adaptor, suction tubing, 3 m (10') of 13 mm (½") clear PVC tubing and two mounting brackets with screws.

For units with 230 Vac/60 Hz add suffix "-230" to the model number, no additional charge.

For units with 220 Vac/50 Hz and a European plug add suffix "-220" to the model number, no additional charge.

For units with 240 Vac/50 Hz and a UK style plug add suffix "-240" to the model number, no additional charge.

**Ordering Examples:** PHP-802, 18.4 GPH (69.7 LPH) chemical pump, PHP-800-MB, stainless steel mounting bracket, \$1350 + 42 = \$1392. PHP-801-ESC, 9.7 GPH (36.7 LPH) chemical pump, CM-4229, chemical engineering reference book \$1550 + 60 = \$1610.

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