

PREMIA® 75

SOLENOID METERING PUMPS

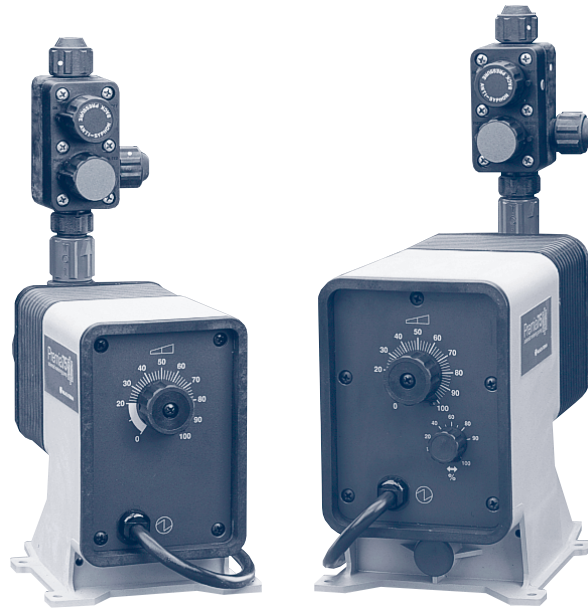
MONO AND ECONO SERIES

Key Features – Mono Series

- 4 sizes to cover a range of capacities up to 1.27 gph (4.73 l/h) and pressures up to 80 psi (5.6 bar).
- Manual control by on-line adjustable stroke length, fixed stroke frequency.
- Optional external pulse control.
- Auto degassing pump arrangements available up to 1.27 gph (4.73 l/h).
- 3-function valve supplied as standard.
- 5:1 turndown ratio.
- Metering performance reproducible to within +/-3%.
- ETL certified for indoor and outdoor use per UL standard 778, as well as CSA standard C22.2 and NSF Standard 50.

Key Features – Econo Series

- 8 sizes to cover a range of capacities up to 1.27 gph (4.73 l/h) and pressures up to 150 psi (10 bar).
- Manual control by on-line adjustable stroke length and stroke frequency.
- Optional external pulse control.
- Auto degassing pump arrangements available up to 1.27 gph (4.73 l/h).
- 3-function valve supplied as standard.
- 100:1 turndown ratio.
- Metering performance reproducible to within +/-3%.
- ETL certified for indoor and outdoor use per UL standard 778, as well as CSA standard C22.2 and NSF Standard 50.



OPERATING BENEFITS
Reliable Metering Performance

Guided checks valves, with state-of-the-art ball and seat designs, provide precise seating and excellent priming and suction lift characteristics. The timing circuit is virtually unaffected by temperature, EMI and other electrical disturbances.

Rated for Continuous Duty

Premia® 75 pumps continue to meet their capacity and pressure specifications even during extended use. The solenoid is encapsulated in a fin-cooled, thermo-conductive enclosure that effectively dissipates heat and provides stability of output.

High Viscosity Capability

A straight flow path, and ample clearance between the diaphragm and head, enables the Mono and Econo series to handle chemicals with viscosities up to 1000 CPS.

High Specification Liquid End

The premium composite diaphragms are manufactured to stringent specifications to ensure long life, even under the most demanding applications. The design incorporates teflon-facing and fabric reinforcements, bonded to a preformed elastomeric support which combined with an integral o-ring for complete sealing and a metal insert will ensure volumetric accuracy even at varying discharge pressures.

TECHNICAL DATA

PUMP TECHNICAL DATA

Capacity and Back Pressure – Mono Series (MO)

Back Pressure, maximum psig	Capacity, nominal US gph			
	0.25	0.50	0.90	1.27
80	L1	L2	L3	L5

Capacity and Back Pressure – Econo Series (EC)

Back Pressure, maximum psig	Capacity, nominal US gph			
	0.25	0.50	0.90	1.27
150	H1	H2		
100			M3	M5
80	L1	L2	L3	L5

		Mono	Econo
Materials of Construction	Pump Head	Glass-filled Polypropylene (GFPP), Polyvinylidene Fluoride (PVDF), Styrene-Acrylonitrile (SAN), PVC, 316 SS	
	Diaphragm	Teflon-faced, Fabric-reinforced, Hypalon-backed, metal insert	
	Check Valves: Seats/O-rings Balls Fittings	Teflon, Hypalon, Viton Ceramic, Teflon, 316 SS, Hastalloy C GFPP, PVDF, PVC, 316 SS	
	Injection Valve/Foot Valve	Same as fittings and check valves selected	
	Tubing: Suction and Discharge tubing available	Ethylene Vinyl Acetate (EVA) maximum working pressure 79 psi PVC maximum working pressure 79 psi Polyethylene (PE) maximum working pressure 143 psi Polypropylene maximum working pressure 300 psi	
Connections	Tubing	3/16" ID x 5/16" OD (5mm ID x 8mm OD) 1/4" ID x 3/8" OD (6mm ID x 9mm OD) 3/8" ID x 1/2" OD (9mm ID x 12mm OD) For other connections consult W&T.	
	Piping	1/4" FNPT	
	Reproducibility at Max. Capacity	±3%	
	Maximum Viscosity	1000 CPS Viscosities measured with a Brookfield Viscometer, No. 2 and No. 3 spindles, 1.5 RPM	
	Maximum Stroke Frequency	125 SPM	
	Stroke Length Turndown Ratio	5:1	10:1
	Stroke Frequency Turndown Ratio	N/A	10:1
	Maximum Suction Lift at 1 cP	5 feet once primed	
	Power Input	115 VAC, 50/60 Hz, 1 Ph 230 VAC, 50/60 Hz, 1 Ph	
	Average Input Power @ Max. SPM	50 Watts	
	Average Current Draw	@ 115 VAC – 0.6 Amps @ 230 VAC – 0.3 Amps	
	Peak Input Power	130 Watts	
	Maximum Temperature	104°F	

5 FUNCTION VALVE TECHNICAL DATA

Materials of Construction	Valve Body	GFPP, PVDF, PVC	
	Diaphragm	Teflon-faced Hypalon	
	O-rings	Teflon	
	Hardware	18/8 SS	
	Maximum Operating Pressure	250 psi	
	Maximum Flow	10 gph	
	Maximum Viscosity	1000 CPS, Measured with a Brookfield Viscometer, No. 2 and No. 3 spindles, 1.5 RPM	
	Pressure Relief Setting	175 psi – coded green 125 psi – coded blue	
Connections	Tubing	1/4" ID x 3/8" OD (6mm ID x 9mm OD) 3/8" ID x 1/2" OD (9mm ID x 12mm OD)	For other connections consult W&T.
	Piping	1/4" MNPT	
	Relief Port	1/4" ID x 3/8" OD (6mm ID x 9mm OD) 3/8" ID x 1/2" OD (9mm ID x 12mm OD) 1/4" MNPT (with NPT connection only)	

TOTAL SOLUTIONS

Included as standard accessories with all models are a function valve, injection valve, foot valve/sinker/strainer, tubing and tubing straighteners.

A Wide Range of Additional Accessories is Available

Choose from tank feed systems, mixers, flow meters, liquid level controllers, flow indicators, wall mounting brackets, and many more. Reference publication TI 460.150 UA for additional information.

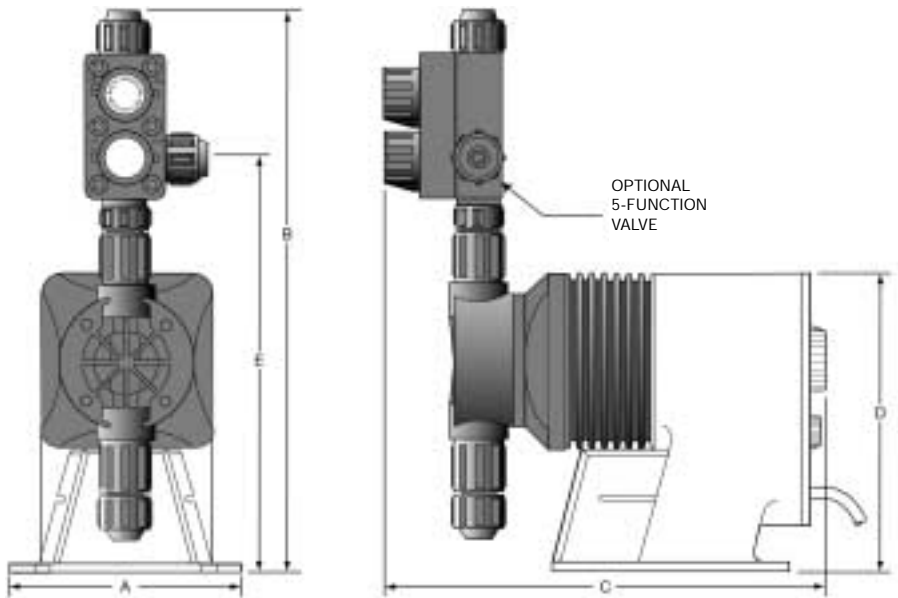
Quick and Economical Liquid End Maintenance

A unique PM Kit™ is available for every model. These convenient, economically priced packages contain new cartridge check valves, diaphragm, head and other important spare parts.

Dimensions and Shipping Weights

Econo Dimensions (inches)						
Model No.	A	B	C	D	E	Shipping Weight (lbs)
ECH1	5	12	10	6.5	8.7	10
ECH2	5	12.3	10	6.5	9	10
ECM3	5	12.3	10	6.5	9	10
ECM5	5	12.3	10	6.5	9	10
ECL1	5	12	10	6.5	8.7	10
ECL2	5	12.3	10	6.5	9	10
ECL3	5	12.3	10	6.5	9	10
ECL5	5	12.3	10	6.5	9	10

Mono Dimensions (inches)						
Model No.	A	B	C	D	E	Shipping Weight (lbs)
MOL1	5	12	6	6.5	8.7	10
MOL2	5	12.3	6	6.5	9	10
MOL3	5	12.3	6	6.5	9	10
MOL5	5	12.3	6	6.5	9	10



Agency Listings



PREMIA® 75

SOLENOID METERING PUMPS

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EQUIPMENT SPECIFICATION

1.0 General

Chemical metering pumps shall be of the positive displacement, non-hydraulic, solenoid-driven, diaphragm type. Output shall be continuously rated at operating temperature and adjustable while pumps are in operation. Positive flow shall be ensured by the use of a minimum of four ball type check valves and a 3-function valve. The pump to be water-resistant for outdoor installation, and internally dampened for noise reduction. The pump to be a Wallace & Tiernan Products Premia® 75 (Mono), (Econo) Series.

2.0 Controls

2.1 Mono Series

The control panel shall be located opposite the liquid end. Output volume adjustments shall be made by a dial knob for stroke length.

External Pacing (optional)

The pump shall be capable of accepting non-voltage contact closures (e.g. contacting flow meter). As the contact closes, the pump shall stroke once; minimum contact closure time is 10 msec. Contact must open and close for each pump stroke, maximum closures – 125 per minute. The pump shall have a prime button located on the control panel. When the prime button is pushed, the pump will run at maximum stroking rate for ease of priming.

2.2 Econo Series

The control panel shall be located opposite the liquid handling end of the pump. Output vol-

ume adjustment shall be made by independent dial knobs for stroke length and stroke rate.

External Pacing (optional)

Pump controls shall be selectable between manual and external by means of a 2-position switch. In external mode, the pump shall accept non-voltage contact closures (e.g. contacting flow meter). As contact closes, the pump shall stroke once; minimum contact closure time is 10 msec. Contact must open and close for each pump stroke, maximum closures –125 per minute.

3.0 Electronic Drive

To prevent damage to the pump from overheating, the solenoid shall have automatic thermal overload protection. For overpressure conditions, the pump shall automatically stop pulsing when discharge pressure exceeds pump pressure rating by not more than 35%, when the pump is at maximum stroke rate. The electronic circuitry shall be EMI resistant and shall employ a metal oxide varistor for lightning protection. A fusible link on the pump's printed circuit board, solenoid and power to be a quick disconnect terminal at least 3/16" wide.

4.0 Enclosure

The pump drive shall be encased in a water-resistant housing constructed of chemically resistant glass-filled polyester. The electronic circuitry to be mounted at the rear of the pump for maximum protection against chemical intrusion.

Notes

- 5-function valve is not available on auto degassing arrangements.
- Auto degassing liquid end is only available with PVC head, ceramic balls, viton seals/o-rings and 3/16" ID, 5/16" OD (5mm ID, 8mm OD) suction tubing and 1/4" ID, 3/8" OD (6mm ID, 9mm OD) discharge tubing.
- Pump heads in SAN are not available on models rated above 100 psi (7 bar).

For technical information on the Premia® 75 Mini and Mini-DC Series request publication TI 460.150-2UA.

For technical information on the Premia® 75 Mega and Micro Series request publication TI 460.150-3UA.

For information on Premia® 75 solenoid metering pump accessories request publication TI 460.150-4UA.

For chemical resistance guidelines request publication TI 460.150-6UA.

For ordering information request publication TI 460.150-5UA.

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