

Water Technologies

Wallace & Tiernan® Liquid Feed Systems

Premia® 75
Solenoid Metering Pump
Mono and Econo Series

SIEMENS

Premia® 75 Mono and Econo solenoid activated diaphragm metering pumps provide economic reliable performance even during extended use. They are ideal for metering chemicals used in the treatment of water/wastewater or industrial use.

Standard control is manual by on-line stroke length in the Mono Series and Stroke length and stroke frequency adjustment on the Econo Series. An optional external pulse input control is available for both models.

Key Features – Mono Series

- 4 sizes to cover a range of capacities up to 4.7 l/h (1.25 gph) and pressures up to 5.6 bar (80 psi).
- Manual control by on-line adjustable stroke length, fixed stroke frequency.
- Optional external pulse control or external stop.
- Auto degassing arrangements available up to 4.8 l/h (1.27 gph).
- 3 function valve supplied as standard.
- 5:1 turndown ratio.
- Metering performance reproducible to within $\pm 3\%$ of maximum capacity.
- 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

- 10 sizes to cover a range of capacities up to 4.7 l/h (1.25 gph) and back pressures up to 17 bar (250 psi).
- Manual control by on-line adjustable stroke length and stroke frequency.
- Optional external pulse control or external stop.
- Auto degassing arrangements available up to 4.7 l/h (1.25 gph).
- 3 function valve supplied as standard.
- 100:1 turndown ratio.
- Metering performance reproducible to within $\pm 3\%$ of maximum capacity.
- ETL certified for indoor and outdoor use per UL standard 778, as well as CSA standard C22.2 and NSF standard 50.

Key Benefits:

- Reliable metering performance with state-of-the-art ball and seat design
- Able to handle viscosities to 10,000 CPS
- Quick and economical valve and liquid end maintenance
- Long life composite TFE-lined diaphragm



Capacity and Back Pressure

MONO Series (MO) Capacity, nominal				
Model	Capacity		Max. Back Pressure	
	L/H	GPH	BAR	PSI
L1	0.9	0.25	5.6	80
L2	1.9	0.50	5.6	80
L3	3.8	1.0	5.6	80
L4	4.7	1.25	5.6	80

ECONO Series (EC) Capacity, nominal				
Model	Capacity		Max. Back Pressure	
	L/H	GPH	BAR	PSI
H0	0.9	0.25	17	250
H1	0.9	0.25	10	150
H2	1.9	0.5	10	150
M3	3.8	1.0	7	100
M5	4.7	1.25	7	100
L1	0.9	0.25	5.6	80
L2	1.9	0.5	5.6	80
L3	3.8	1.0	5.6	80
L5	4.7	1.25	5.6	80
M4	7.6	2.0	3.3	50

Notes

- The standard installation package includes bleed valve assembly (three function valve), injection valve, foot valve/sinker/strainer and tubing. Tubing is not supplied with metric connections.
- Foot valve/strainer/sinker is not available on > 3000 CPS arrangements.
- Auto De-Gas liquid end is only available with PVC head, ceramic balls, Viton® seals (O rings) and 5/16" OD suction, 3/8" OD discharge tubing.
- Pumps heads in SAN are not available on models above 100 PSI (7 bar)
- Pump heads in PVC are not available on models rated above 150 PSI.

Dimensions

For complete dimensions, please refer to literature WT.460.150.100.UA.CN

Shipping Weights

10 lbs (4.5 Kgs)

Pump Technical Data

	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	Teflon®, Hypalon®, Viton®	
Balls	Ceramic, Teflon®, 316 SS, Hastalloy® C	
Fittings	GFPP, PVDF, PVC, 316 SS	
Injection Valve/Foot Valve	Same as fittings and check valves selected	
Tubing		
Suction and Discharge tubing available (maximum working pressure)	Ethylene Vinyl Acetate (EVA) PVC maximum Polyethylene (PE) Polypropylene	5.5 Bar (79 PSI) 5.5 Bar (79 PSI) 9.9 Bar (143 PSI) 20.7 Bar (300PSI)
Connections		
Tubing	1/4" ID x 3/8" OD 3/8" ID x 1/2" OD 3/16" ID x 5/16" OD (capacities to 0.50 gph/1.89 lph)	
Piping	1/4" FNPT	
Reproducibility at Max. Capacity	±3%	
Maximum Viscosity	10,000 CPS Viscosities measured with Brookfield Viscometer, No. 2 & 3 spindles, 1.5 RPM	
Maximum Stroke Frequency	125 SPM	
Stroke Length Turndown Ratio	5:1	10:1
Stroke Freq. Turndown Ratio	N/A	10:1
Maximum Suction Lift at 1 cP	1.5 meters (5 feet) once primed	
Power input	115 VAC, 50/60 Hz, 1 Ph 230 VAC, 50/60 Hz, 1 Ph	
Average Input Power	50 Watts	
Average Current Draw	@ 115 VAC - 0.6 Amp @ 230 VAC - 0.3 amps	
Peak Input Power	130 Watts	
Maximum Temperature	40° C (104° F)	

5 Function Valve Technical Data

	MONO	ECONO
Materials of Construction		
Pump Head	GCPPL, PVDF, PVC	
Diaphragm	Teflon® faced Hypalon®	
O-rings	Teflon®	
Hardware	18/8 SS	
Maximum Operating Pressure	17.2 Bar (250 PSI)	
Maximum Flow	37.9 l/h (10 gph)	
Maximum Viscosity	1000 CPS, Measures with a Brookfield Viscometer, No. 2 and No.3 spindles, 1.5 RPM	
Pressure Relief Setting	12.1 Bar (175 PSI) - coded green 8.6 Bar (125 PSI) - coded blue	
Connections		
Tubing	6 mm ID x 9 mm OD (1/4" ID x 3/8" OD) 9 mm ID x 12 mm OD (3/8" ID x 1/2" OD)	
Piping	1/4" MNPT	For other connections consult W&T
Relief Port	6 mm ID x 9 mm OD (1/4" ID x 3/8" OD) 9 mm ID x 12 mm OD (3/8" ID x 1/2" OD) 1/4" MNPT (with NPT connection only)	

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Siemens
Water Technologies
1901 West Garden Road
Vineland, NJ 08360
www.siemens.com/wallace-tiernan
wtus.water@siemens.com

Lit. No.: WT.460.150.001.UA.PS.0807
Tel: 856.507.9000
Fax: 856.507.4125
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