

## Reliable Dosing of Chemicals

Solenoid diaphragm dosing pumps play an important role in the reliable and accurate dosing of liquids.

The Encore® EM solenoid diaphragm metering pump is a good-value alternative for simple and continuous dosing tasks, particularly suitable for the process industry.

## Wide Range of Applications

The Encore® EM is available in seven sizes for metering applications ranging to 14.98 lph with back pressures up to 16 bar. Double-ball valves ensure accurate, consistent dosing. The dosing rate can be adjusted continuously from 0 to 100% by manually changing the stroke frequency.

The pump is externally controlled by switching the supply voltage of the pump ON and OFF.

Several different materials and connections are available for wetted-end components. By using appropriate and recommended materials, the Encore® EM can be used in a wide variety of process applications.

Matching accessory sets with tubing, injection nozzles and suction lines allow quick installation and reliable operation.

## Simple to Use and Space-saving

Thanks to the sturdy, low-maintenance solenoid drive, the media being supplied (for example acids, alkalis, coagulants and flocculants) is reliably and accurately dosed.

The combination of the Encore® EM's solid design and the easy-to-use control allow for short set up times and efficient operation.

The compact design and the small footprint allow for easy integration into dosing systems even for installations with limited space available.

Wall mounting is possible provided the check valves remain in a vertical orientation by rotating the head.



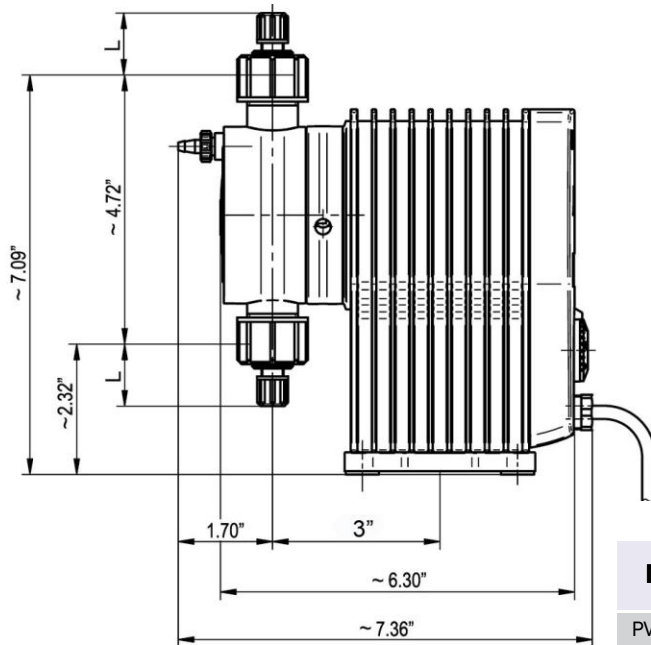
## In Short

- Capacity range to 14.98 lph, up to 16 bar
- Wide range power supply unit 110-240 VAC, 50/60 Hz
- Integrated vented head
- Wall and floor mounting possible without a bracket
- Double-ball valves ensure accurate dosing
- Materials available: PVC (standard), PP & PVDF
- Material consistency for pumps and accessories
- Dosing heads and valves for high-viscosity media are available

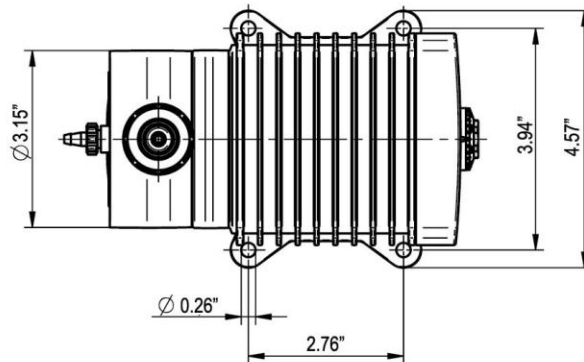
## Technical Data

Encore® EM	05	1	2	4	6	10	15
Max. back pressure (bar)	16	16	16	16	8	6	3
Flow rate at max. pressure (lph)	0.34	0.75	1.89	3.36	6.05	9.08	12.98
Average back pressure (bar)	8	8	8	8	4	3	0.96
Flow rate at medium pressure (lph)	0.52	1.09	2.30	3.78	6.81	10.0	14.98
Max. stroke frequency (SPM)	120	250	160	180	180	180	250
Suction lift for non-effervescent media (M H <sub>2</sub> O)	5	5	2.75	2.75	1.75	1.75	1.75
Max. inlet pressure (bar)	0.75 bar						
Power supply	110...240 V, 50/60 Hz						
Power supply cable	2 Meters with mains plug						
Power consumption	18 W						
Max. power consumption during dosing stroke	approximately 4 A						
Protection class	IP 65						
Weight	approximately 3 kilograms						
Ambient temperature	5°C-45°C (with PVC parts 5°C-40°C)						
Max. temperature of the medium	PVDF 80°C (with PVC parts 35°C, with PP parts 60°C)						

## Encore® EM Dimensions

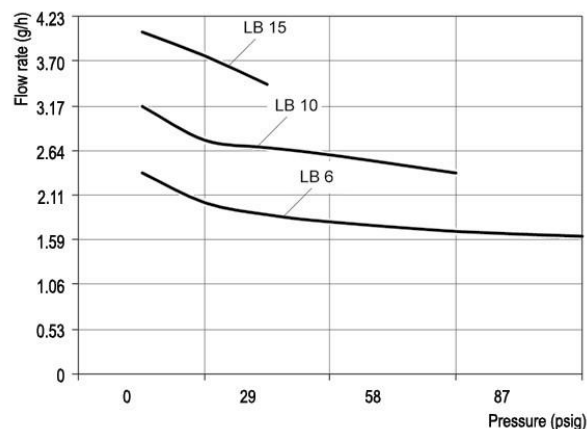
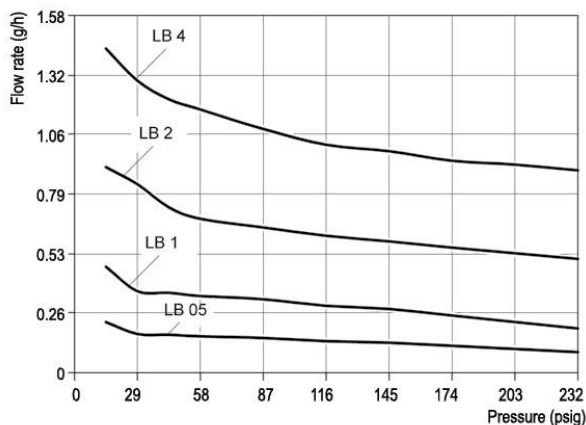


Material	Connection Size	Union Nut	L
PVC, PP, PVDF	1/4" x 3/8"	D4	1.34"



## Flow Curves

The flow curves are valid for ambient temperatures of 20 °C (68 °F) and dosing water at 100% stroke frequency. The delivery capacities depend on the medium (density and viscosity) and temperature.

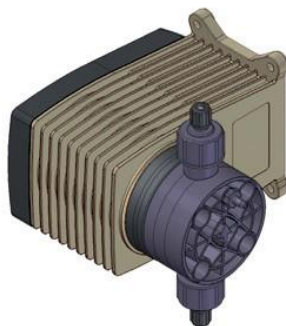


## Installation Positions

Encore® EM can be mounted in three different positions without further auxiliary equipment.



Floor mounting

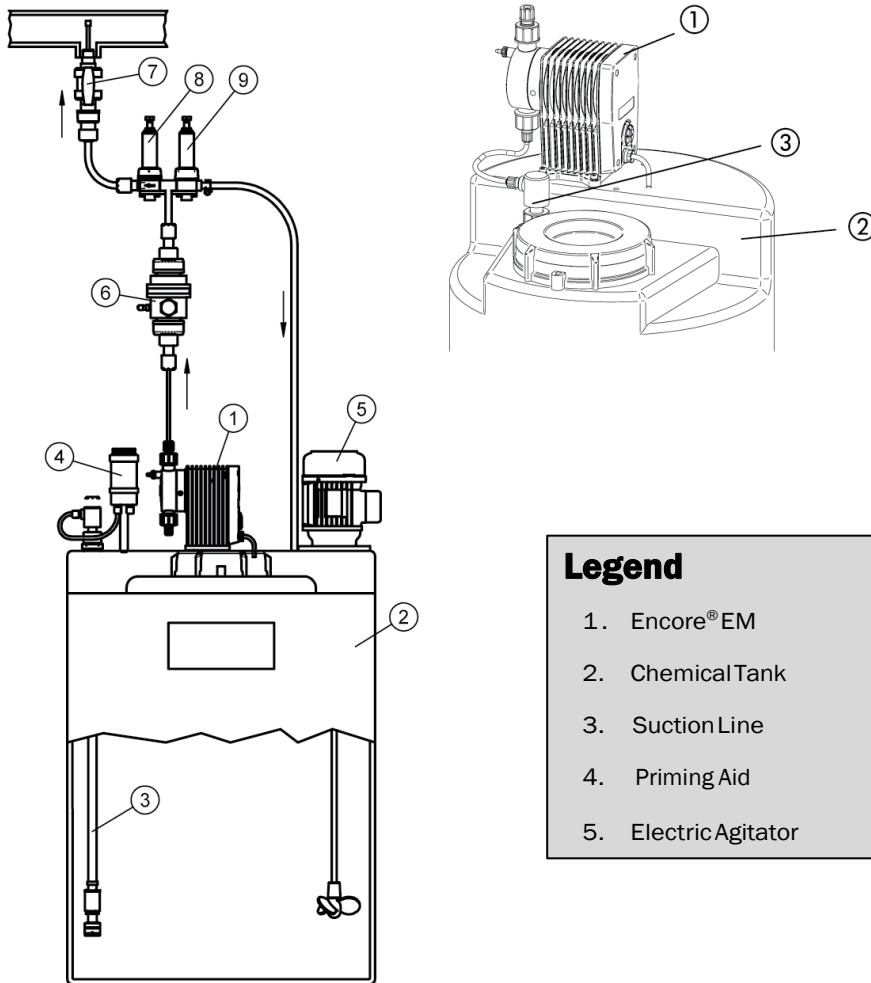


Wall mounting with dosing head on the right-hand side



Wall mounting with dosing head on the left-hand side

## Installation Examples



### Legend

- |                      |   |
|----------------------|---|
| 1. Encore® EM        | 6. Pulsation Dampener                                   |
| 2. Chemical Tank     | 7. Injection Nozzle with Non-return and Shut- off Valve |
| 3. Suction Line      | 8. Back Pressure Regulating Valve                       |
| 4. Priming Aid       | 9. Back Pressure Regulating Valve                       |
| 5. Electric Agitator |   |

## Accessories

Even the best pump can be improved – simply by the addition of appropriate accessories.

Suitable sets of accessories, consisting of suction/ discharge tubing, foot valve and injection nozzle, are available for the dosing pumps.

To turn your dosing pump into an efficient dosing system, we recommend using the following accessories:

- Injection nozzles - to dose the medium into the main line and to prevent it from flowing back into the pressure line.
- Back pressure and pressure relief valves - to increase dosing accuracy or to protect the system against excessive pressure.
- Pulsation dampener - to dampen supply flow as well as to reduce discharge flow pulsations.
- Priming aids - to significantly ease priming of dosing pumps with low supply volumes per stroke, for large suction heights, highly viscous dosing media, for initial priming or when priming after the system has been idle.
- Suction pressure regulator - to prevent medium flow when the dosing pump is not running or to prevent a vacuum being formed in the event of a pipe failure.

Please contact us for more information on accessories and metering pump systems.