

# Product Information Solenoid-Driven Diaphragm Dosing Pump MAGDOS LT

## Reliable dosing of chemicals

Solenoid-driven diaphragm dosing pumps play an important role in the reliable and accurate dosing of liquids in the process cycles. They are appropriate for low-pressure applications and small dosing quantities.

Dosing pumps are used in many branches of industry that work with liquid chemicals - not excluding toxic and aggressive media.

## The classic

Here is what you can count on in future: The solenoid-driven diaphragm dosing pumps MAGDOS LT work economically, reliably and flexibly.

A microprocessor-controlled electronic unit guarantees optimum energy consumption and flexible pressure adjustment. Double ball valves ensure highest accuracy even at smallest flow rates. MAGDOS LT pumps are fitted with a powerful stroke solenoid, the flow rate per stroke can be adjusted without steps. MAGDOS LT pumps have a distinct design and are absolutely easy to maintain.

MAGDOS LT solenoid-driven diaphragm dosing pumps are especially suitable for water treatment and the process industry. The hermetically sealed pumps can be used universally due to the reliable PVC material and a PTFE diaphragm.

Changing requirements is not a challenge, the MAGDOS LT pumps allow an adjusting ratio of 1 : 20, thus enabling you to carry out your process corrections with a turn of the wrist.

## Modular construction

Due to their functional principle, solenoid-driven dosing pumps are particularly suited for proportional control subject to impulses. They work without delay time and/or leakages and react to each control impulse with a precisely defined dosing quantity.

Its modular subdivision in the control unit, drive and dosing head makes it possible with the combination of different options to have a custom-made solution depending on the type of application.

## In short

- Capacity range 0.2 to 17 l/hr, at up to 16 bar [0.05 to 4.49 gph @ 232 to 87 psig]
- Suitable for toxic and aggressive media
- Usable at ambient temperatures of up to 45 °C
- Stroke length adjustable 0...100%
- Internal operation with 25, 50 and 100% or control by pulse
- Connection for level control
- Double-ball valves for highest accuracy
- Energy adjustment
- Convenient single-button operation
- All types are available for german standard DVGW-DIN 19635
- 115 V AC and 230 V AC 50/60 Hz models CSA proofed available
- 24 V DC model available



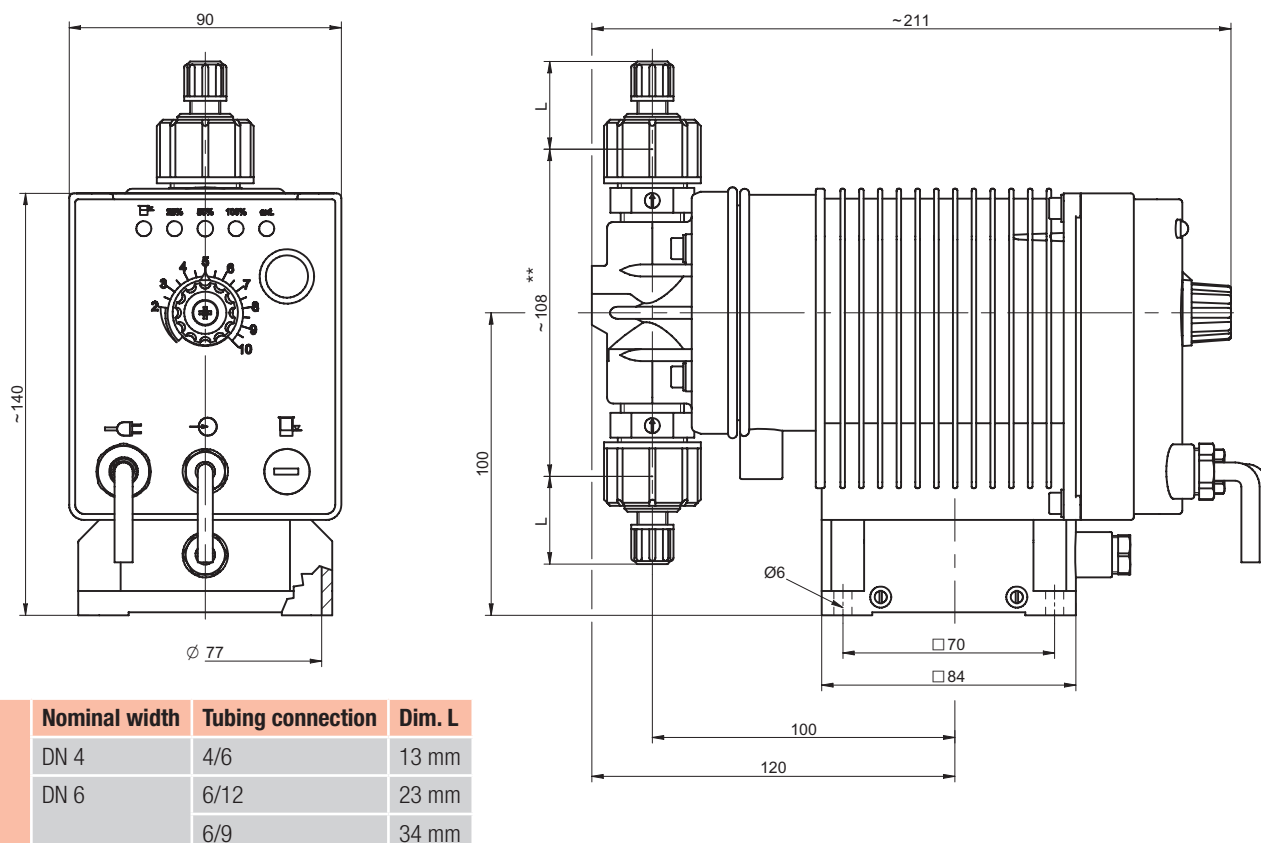
## Model variants

MAGDOS	Material	Connections	Order no.
LT 02	PVC	Terminal connection 4/6 - 4/6	10208001
	PP	Terminal connection 4/6 - 4/6	10208007
LT 06	PVC	Terminal connection 4/6 - 4/6	10208002
	PP	Terminal connection 4/6 - 4/6	10208008
LT 1	PVC	Terminal connection 4/6 - 6/12	10208003
	PP	Terminal connection 4/6 - 6/9	10208009
LT 3	PVC	Terminal connection 4/6 - 6/12	10208004
	PP	Terminal connection 4/6 - 6/9	10208010
LT 4	PVC	Terminal connection 4/6 - 6/12	10208005
	PP	Terminal connection 4/6 - 6/9	10208011
LT 6	PVC	Terminal connection 4/6 - 6/12	10208006
	PP	Terminal connection 4/6 - 6/9	10208012
LT 10	PVC	Terminal connection 4/6 - 6/12	10208081
	PP	Terminal connection 4/6 - 6/9	10208083
LT 17	PVC	Terminal connection 4/6 - 6/12	10208082
	PP	Terminal connection 4/6 - 6/9	10208084

## Technical data

MAGDOS LT	02	06	1	3	4	6	10	17
Max. pressure	12 bar	16 bar	16 bar	16 bar	12 bar	10 bar	8 bar	3 bar
Flow rate at max. pressure	0.14 l/hr	0.48 l/hr	0.9 l/hr	1.6 l/hr	3.3 l/hr	5.2 l/hr	7.9 l/hr	13.5 l/hr
Medium pressure	6 bar	8 bar	8 bar	8 bar	6 bar	6 bar	6 bar	2 bar
Flow rate at medium pressure	0.28 l/hr	0.7 l/hr	1.4 l/hr	2.8 l/hr	3.7 l/hr	5.5 l/hr	10.1 l/hr	17 l/hr
Max. stroke frequency	80 min <sup>-1</sup>					120 min <sup>-1</sup>		
Suction lift [m H <sub>2</sub> O] for non-effervescent media	3 mWs						2 mWs	1.2 mWs
Power supply	115 V AC or 230 V AC, ± 10 %, 50/60 Hz 24 V DC, ± 10 %							
Power consumption	30 W							
Max. power consumption during dosing stroke	230 V AC: 2.9 A 115 V AC: 4.3 A 24 V DC: 17 A slow							
Protection class	IP 65							
Input pulse duration	10 ms							
Voltage at level connection / pulse input	5 V DC, for potential-free switching outputs							
Max. ambient temperature	45 °C (with PVC parts 40 °C)							
Max. process fluid temperature	50 °C (with PVC parts 35 °C)							
Weight	ca. 2.7 kg							

## Dimensional figure



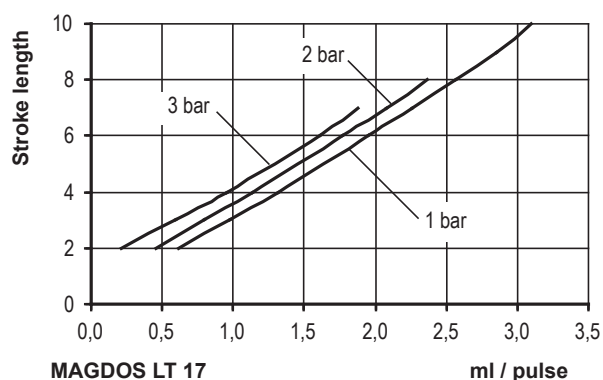
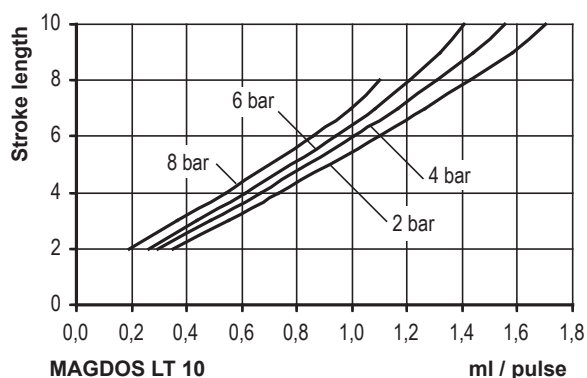
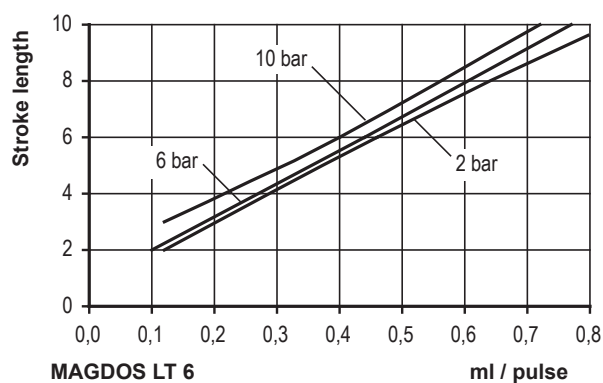
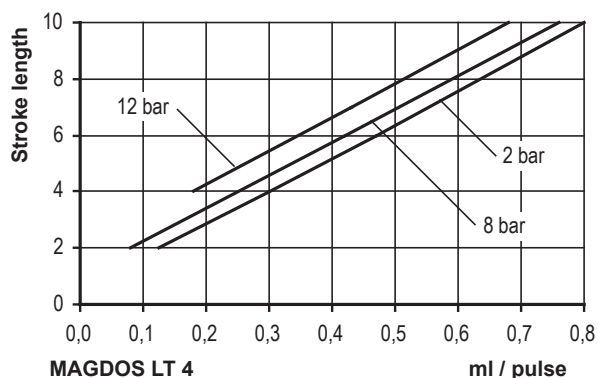
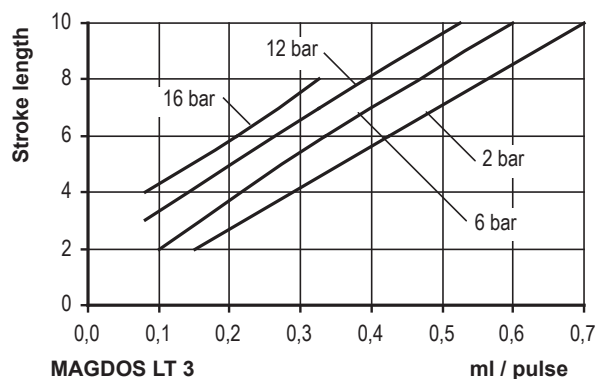
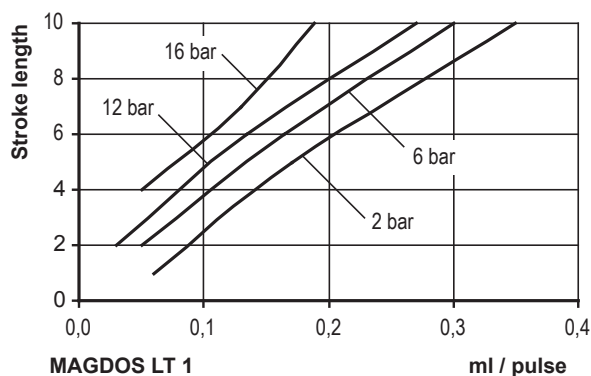
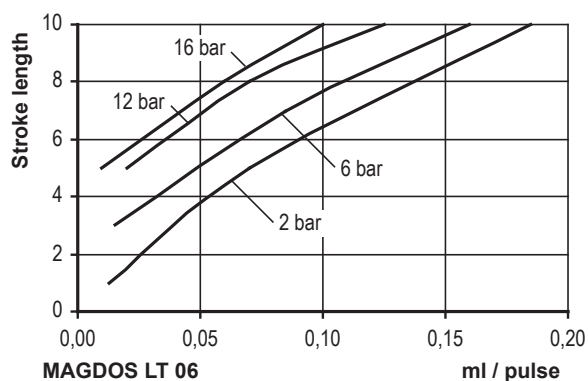
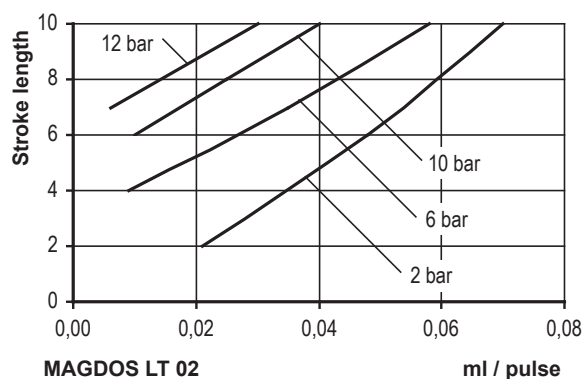
\*) at LT 10 and LT 17 on suction side only

\*\*) at LT 10 and LT 17: 118 mm

MAGDOS LT 02...10 - all measurements are given in mm

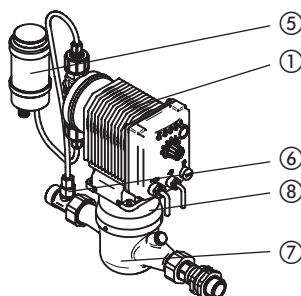
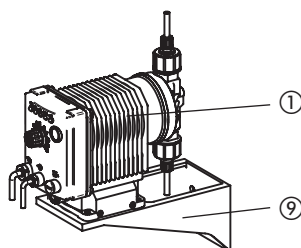
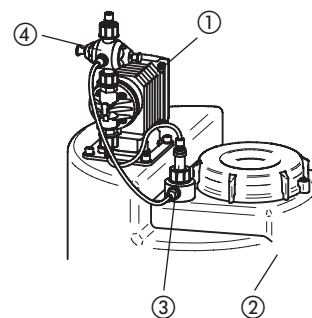
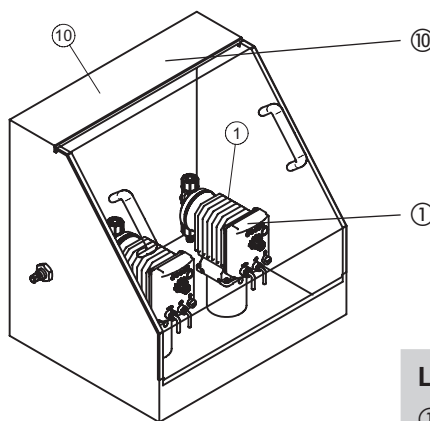
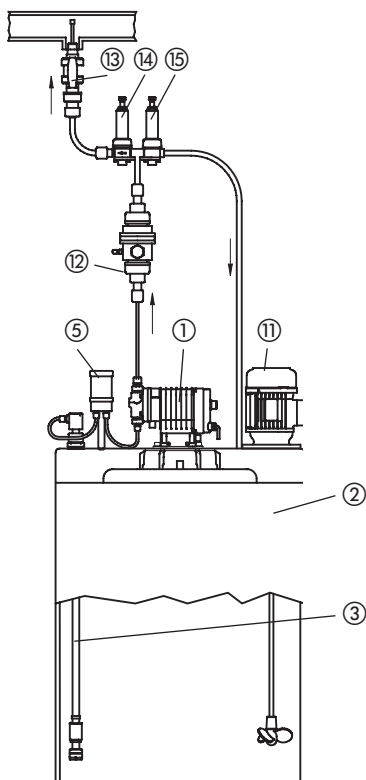
## Performance curves

The performance curves refer to water at 20 °C (68 °F). The performance of the dosing pump depends on the viscosity of the process fluid and hydraulic installation conditions. Dosing pumps must therefore be gauged in litres during application.



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## Installation examples



## Legend

- ① MAGDOS LT
- ② Chemical tank
- ③ Suction line with integrated low level control
- ④ Multifunction valve PENTABLOC
- ⑤ Priming aid
- ⑥ Injection nozzle with non-return valve
- ⑦ Water meter with contact unit
- ⑧ Water meter spacer
- ⑨ Wall bracket
- ⑩ Pump bracket
- ⑪ Electric agitator
- ⑫ Pulsation dampener
- ⑬ Injection nozzle with non-return and shutoff valve
- ⑭ Back pressure regulating valve
- ⑮ Pressure relief valve (safety valve)

## Accessories

Even the best dosing pump can still be improved – namely by the right technical periphery, which, in fact, is the reason for the particularly extensive accessories program. It converts your dosing pump into an efficient dosing system.

Optionally we offer the PENTABLOC, it is a multifunction valve combines all five functions necessary to ensure accurate and safe operation of dosing pumps: back pressure, antisiphon, safety relief, pressure relief and dosing monitoring.

Further accessories you will find in our dosing pump brochure.

To optimize the dosing process we recommend back pressure regulating and safety valves. These valves are used

- to increase dosing accuracy at fluctuating system pressures.
- in case of long dosing pipes, to avoid overfeeding caused by acceleration effects, chemical moving still forwards, although the pump returned to suction already.
- to avoid siphoning, if the chemical pressure should be higher than the system pressure.
- to prevent an excessive pressure increase in the system downstream the dosing pump, which may occur for example if shutoff valves are closed although the pump is still running or the injection nozzle is choked.