

DLX MA/AD

The DLX range of pumps is a proven PTFE diaphragm type Solenoid Metering Pump that distinguishes itself with having a wide range of control options. Since its launch the DLX pump range has given proven reliability and quality. It is the ideal solution for many chemical dosing applications where moderate flow rate is required with counter pressures up to 20 Bar (290 PSI).

Key Features:

Pump Body Construction of Anti-acids mica-filled reinforced polypropylene.

Excellent water resistant for tough applications. Pump protection: IP65.

Either wall (DLX) or foot mount (DLXB) installations options available.

Liquid low level option available to prevent loss of prime.

Flashing led showing pump's stroke frequency.

Manual air bleed polypropylene head for safe & easy priming with durable leak-free bleed valve assembly.

Diaphragms are of superior construction, robust PTFE machined part not bonded composite layers, for optimum flexibility and long durability.

A wide variety of chemicals can be pumped due to different liquid end materials include glass-filled polypropylene (GFPPL), PVC, Polyvinylidene Fluoride (PVDF), PTFE, Plexiglas and 316SS. Valves and sealing in FPM (Viton), EPDM (Dutral), Nitril, Silicone, ceramic and alloys.

Immediate installation and start-up, included as standard accessories with all models are an injection/back pressure valve assembly and a foot valve/strainer assembly, including discharge, suction and bleeding tubing.

Safe and easy priming and valve maintenance, included as a standard accessory is a bleed valve assembly, including return tubing (available only on those models with manual air bleed head).

Control panel protection assured by an adhesive polyester film, weather-proof and resisting UV light.

Silent version available upon request.

The products are manufactured according CE regulation.

Standard power supply (fluctuations not to exceed $\pm 10\%$): 230-240 V a.c. 50-60 Hz single phase.

Optional power supply (fluctuations not to exceed $\pm 10\%$): 110 V a.c. 50-60 Hz single phase. 48V a.c, 24V a.c/d.c., 12V d.c.

Overvoltage cat. II. Environmental Conditions: IP65 protection, altitude up to 2000m, ambient temperature 5°C to 40°C, maximum relative humidity 80% for temperatures up to 31°C decreasing linearly to 50% relative humidity at 40°C.

Pollution degree 2



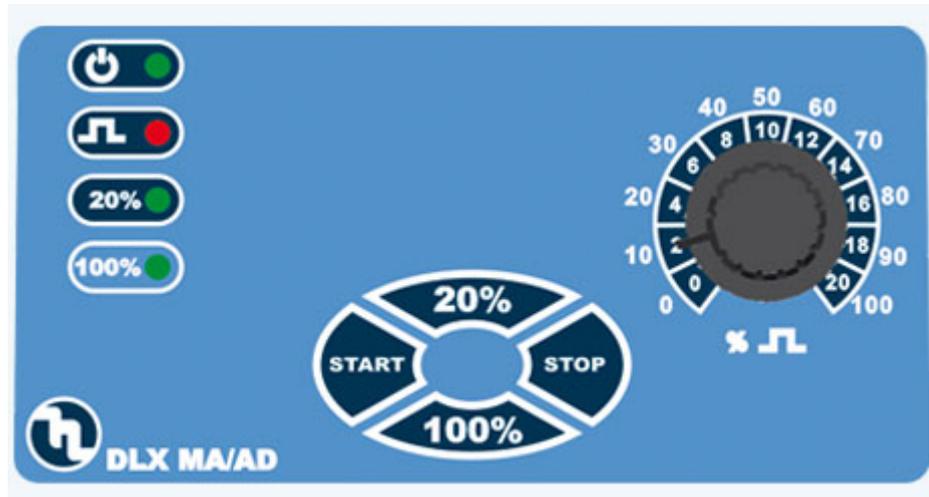
Characteristics

The DLX-DLXB MA/AD metering pumps are activated by a PTFE diaphragm mounted on a piston of an electromagnet. When the piston of the electromagnet is energised, a pressure is produced in the pump head creating an expulsion of liquid from the discharge valve. After each pump pulse is finished a spring returns the piston back to the initial position, enabling a recall of liquid through the suction valve.

The operation is simple and the pump does not need lubrication, therefore maintenance is reduced almost to zero.

DLX-DLXB MA/AD metering pumps are analogical dosing pumps, manual flow rate adjustment from 0÷20% - 0÷100% thanks to a double regulating scale.

100% corresponds to the maximum stroke frequency, i.e. 120 strokes/min. Stroking rate gives very high rate of reproducible metering accuracy. If small flows are required activating the 0-20% turndown ratio it will be very easy an accurate flow rate tuning between 0 and 20% of the pump frequency stroking.



PUMP CONTROLS

Power LED "green"

Pulse LED "red"

Level alarm LED "yellow" (only on version with level alarm)

Adjustment knob of injections/min numbers (0÷100% max flow).

Pump flow rate can be set manually by an adjustment control switch mounted on the pump facia.

The flow rate of the pump will depend on the counter pressure in the discharge line (please check flow vs. pressure diaphragm) and on the physical properties of the chemical being dosed. As a general rule the pump flow rate will be higher if there is a lower is the counter pressure.

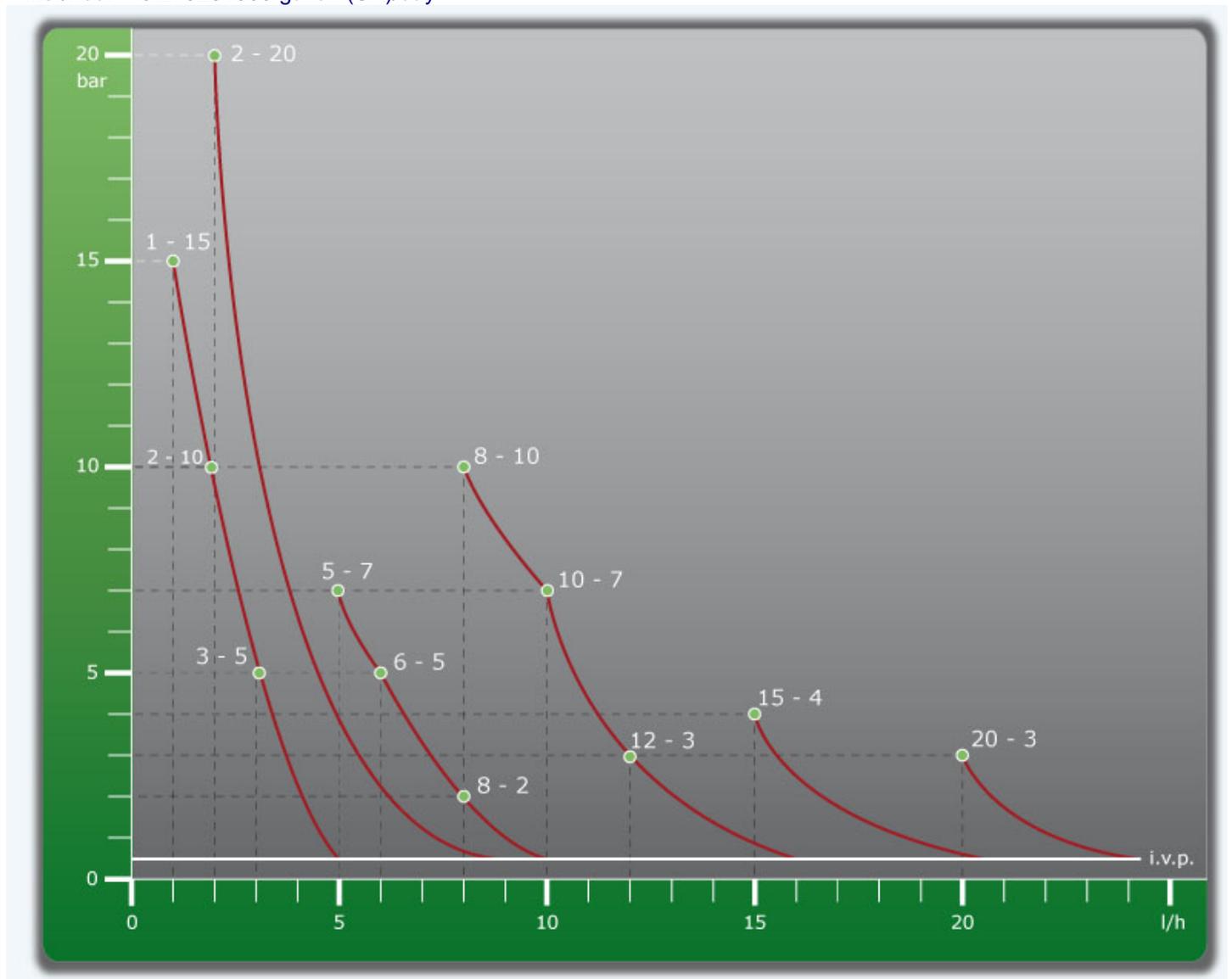
Pressure and Flow Rate Capacity

Model		1 - 15	2 - 10	2 - 20	5 - 7
Nominal Capacity	L/H	1	2	2	5
	G/H	0.26	0.53	1.53	1.32
	G/D	6.24	12.72	36.72	31.68
Max Capacity	L/H	8	10	8.5	13
	G/H	2.08	2.6	2.21	3.38
	G/D	49.92	62.4	53.04	81.12
Max Pressure	Bar	15	10	20	7
	PSI	217	145	290	101

How many gallon in 1 liter? The answer is approx. 0,264. Converting between gallon [US, liquid] and liter.

1 liter/hour = 0.264172052 gallon (US)/hour

1 liter/hour = 5.279261959 gallon (UK)/day



How many psi in 1 bar? The answer is approx. 14,5.

We assume you are converting between pound/square inch [absolute] and bar.

The performance of the pump depends on the viscosity of the medium and hydraulic installation conditions. The curves refer to water at 20°C.

Liquid End

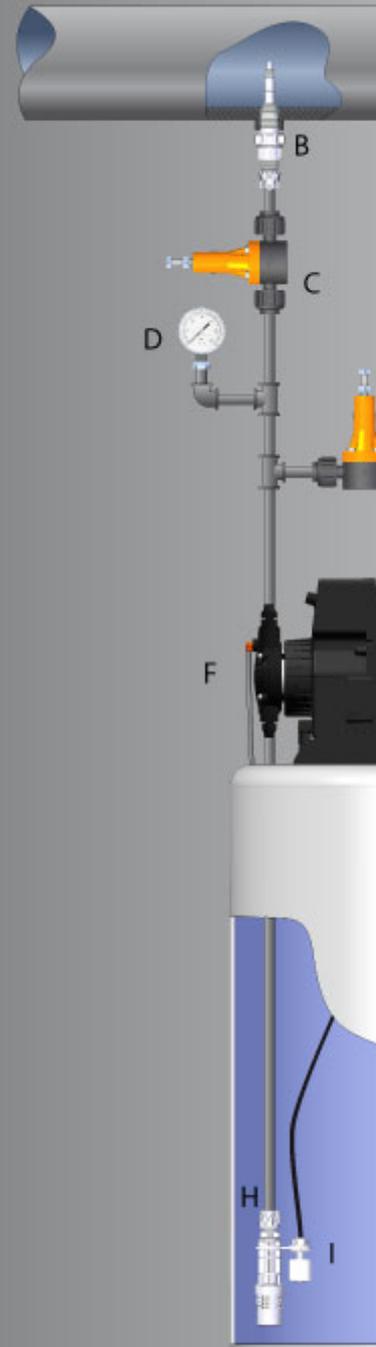
Wetted Parts	Standard Materials	Upon Request
Pump Head	PP	PVDF; AISI 316
Diaphragm	PTFE	PTFE
Lip valves	FPM (Viton®)	
Sealings	FPM (Viton®)	EPDM (Dutral®); Silicone; NBR
Injection Valve	PP/Ceramic	EPDM (Dutral®); Silicone; NBR
Foot Filter	PP/Ceramic	PVDF/Ceramic
Suction/Bleeding Tubings	PVC	PVDF/Ceramic
Delivery Tubing	PE	EPDM (Dutral®)

Wetted Parts	Standard Materials	Upon Request
Pump Head with Gravity Balls	Ceramic	PTFE

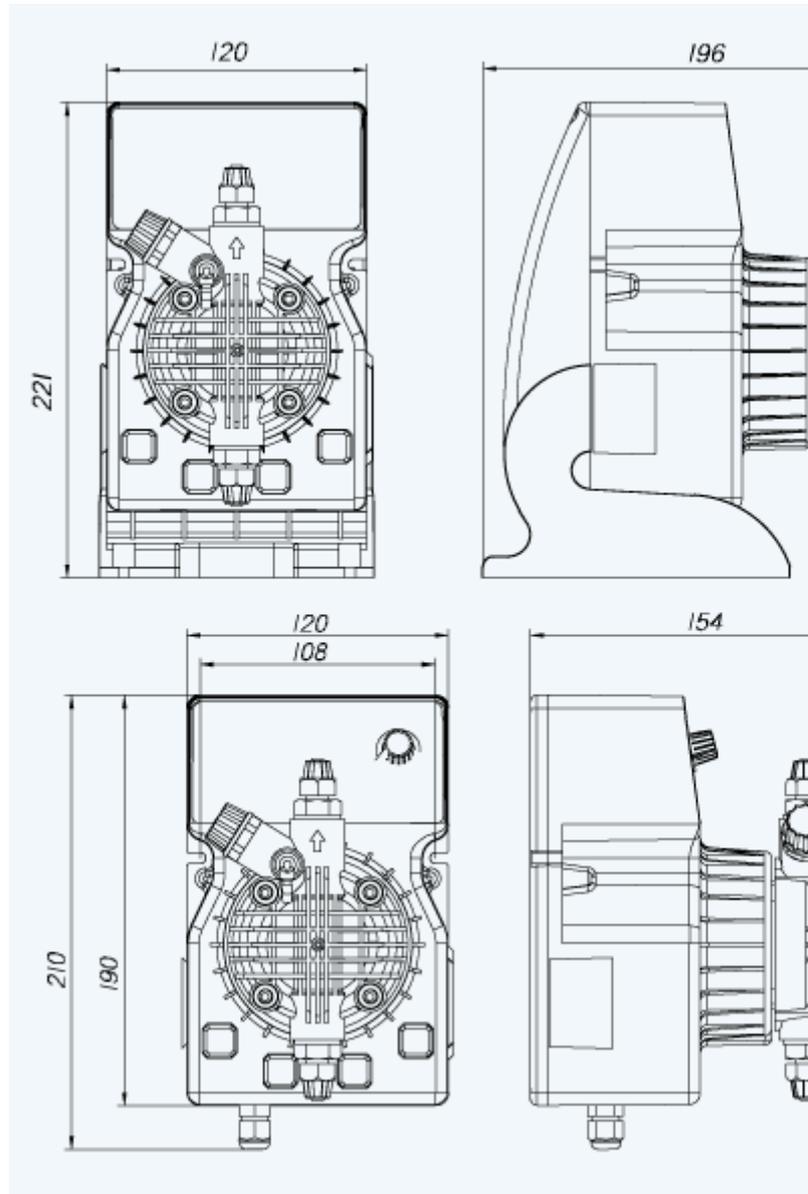
Assembly and Dimensions

Sample Installation

- A - Main Pipeline
- B - Injection Valve
- C - Backpressure Valve
- D - Pressure Gauge
- E - Relief Valve
- F - Dosing Pump
- G - Tank
- H - Foot Filter
- I - Level Switch



Overall Dimensions



How many mm in 1 inches? The answer is 25.4

Options

CHEMICAL LEVEL CONTROL - MA/AD LEVEL

i m m a g i n e

Model MA/AD LEVEL has same characteristics as MA/AD model however the MA/AD LEVEL has a level control setting.

A connected level control causes the dosing pump to stop if the chemical level in the supply tank is low. Thus air bubbles are prevented from entering the suction line and the dosing head. The alarm LED lights. After tank filling and when the level sensor contact closes the pump will restart.

STROKE LENGHT CONTROL ONLY FOR DLXB MA/AD

The stroke adjustment limits the movement of the diaphragm. For adjustment press the adjusting knob, then rotate the knob to the desired value and release the pressing. Adjust the stroke length during standstill or during the dosing stroke, in the second case adjustment is easier.

i m m a g i n e

LOW TENSION POWER SUPPLY OPTIONS

MA/AD series can be order with low tension power supply.

48V a.c - 24V a.c/d.c and 12V d.c. options available with same reduction of performances compared to 230-240/110V power supply models; for instace 12V d.c. allows max 18 l/h at 2 bar.
24V a.c./d.c. allows max 20 l/h at 1 bar.

Available also models at 12V d.c. for solar panel application with reduced power consumption.

1 l/h (0.26 GPH) at 3 bar (43 psi)

3 l/h (0.78 GPH) at 3 bar (43 psi)

2 l/h (0.53 GPH) at 5 bar (72 psi)

5 l/h (1.32 GPH) at 2 bar (29 psi)

120V POWER SUPPLY CSA CERTIFIED

DLX(B) MA/AD and MA/AD LEV. are available at 120V power supply with CSA certification.