

Solenoid driven dosing pump



COMMON KEY FEATURES

- ⇒ Multi-functions modes dosing pump
- ⇒ Microcontroller pump, SMD technology
- ⇒ PTFE diaphragm
- ⇒ Stroke frequency control 0÷100%
- ⇒ Digital keypad controls
- ⇒ Display LCD / 3 LED display status
- ⇒ Air Bleed valve for priming
- ⇒ Plastic housing reinforced Polypropylene / IP65 protection rating
- ⇒ models MX-MXE MF/L include level probe

MX series mounts **BALL** check valves and is made to last always keeping a steady performance suitable for most dosing requirements.

MXE series mounts **LIP** type check valves and a smaller size solenoid therefore, making it suitable for not continuous small duties and cost-effective,

PUMP FUNCTIONS, DOSING MODES AND CONTROLS

Constant mode: adjustment of injection frequency stroke per minute; stroke per hour; stroke per day. Connected to a Remote On/Off equipment, the pump will start and stop operations according to the external contact.

Proportional to external digital pulses:

- **divider mode:** step down (1: n), dividing factor 1999; it divides external pulses received then effects one injection according the dividing factor selected.
- **pacing mode 1:1** suitable for proportional controllers with pulses output for proportional control.
- **multiplier mode** step up (1x n); it multiplies up to pump max frequency for each pulse received
- **multiplier mode with memory** step up (1x nM), it memorised pulses then effect sequential injections
- **PPM (parts per million):** knowing the water meter pulse type, it allows to select the exact ppm dosing requirements

Proportional to external analog signal 4÷20 mA: also allows to choose signal 20÷4, 0÷20 or 20÷0 mA combining to the signal any stroke frequency adjustment.

Flow detector Alarm: this function must be connected to FWT Flow Sensor. The pump will go in alarm once the actual pump injections will not correspond to stroke frequency selected. Alarms via buzzer remote relay.

Clock: time and date setting - **Timer:** digital timer, weekly and daily programming; ideal for biocide dosing

Language: language programming selection

Level control: level switch stops the pump when liquid level runs low allowing pump to stay primed.

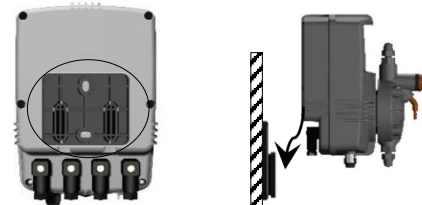
Level alarm output contact: output contact N.O./N.C. to drive external equipment

PUMPS MAIN FEATURES

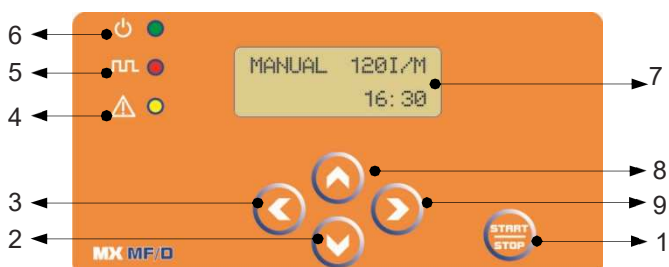
Power supply: 230 Vac (±10-15%) - 1 phase - 50/60 Hz
Reproducibility under standard conditions: ± 5%
Plastic housing and support: PP reinforced, IP65
Connectors: 4 pole IP56 (changing the housing IP rating)
Upon request: 110 Vac/60 Hz; 12-24 Vdc (limited range)
Ambient working temperature: 45°C
Voltage working range: min.207V ÷ Max 253 V
Voltage Peak: Max 270 V
All products are provided with accessory kit, are individually tested and manufactured according CE regulations

MOUNTING MODE

MX / MXE series are wall mounting provided with quick mounting bracket, easy to install and disassemble



PUMP CONTROLS



1. START/STOP (STAND-BY) button
2. "NEXT STEP" program button
3. Decreasing (left) values button
4. YELLOW LED: flow sensor alarm
5. RED LED: injection pulses status
6. BOCOLOR LED: GREEN Power – RED Level control
7. DISPLAY LCD
8. "PREVIOUS PROGRAM" button
9. Increasing value button - programming menu

ACCESSORIES PROVIDED WITH THE PUMP

2 m - Discharge Hose (white)	1 - Injection lance with No-return sleeve valve
2 m - Suction Hose PVC flexible (transparent)	1 - Foot Valve / Filter
1,5 m - Air Bleed Hose PVC flexible (transparent)	1 - Level switch with fixing bracket (only for C/AL model)

TECHNICAL CHARACTERISTICS MX

Pump type range	Max Flow / Max Pressure		Start-up* performance		Frequency	Stroke volume	Pump head type	Valves types
	l/h	bar	l/h	bar	imp/min	cc(ml) / stroke		
MX 1,5-10	1,5	10	1,5	10	120	0,21	PVDF 3/8"	Ball checks
MX 2,5-15	2,5	15	2,4	15	120	0,34	PVDF 3/8"	Ball checks
MX 5,5-07	5,5	7	6	7	120	0,77	PVDF 3/8"	Ball checks
MX 07-04	7	4	7	4	120	0,98	PVDF 3/8"	Ball checks

TECHNICAL CHARACTERISTICS MXE

Pump type range	Max Flow / Max Pressure		Start-up* performance		Frequency	Stroke volume	Pump head type	Valves types
	l/h	bar	l/h	bar	imp/min	cc(ml) / stroke		
MXE 01-05	1	5	1,2	5	120	0,14	PP 3/8"	"Lip" types
MXE 2,5-06	2,5	6	3,2	6	120	0,34	PP 3/8"	"Lip" types
MXE 05-04	5	4	5	5	120	0,69	PP 3/8"	"Lip" types
MXE 07-02	7	2	7,4	2	120	0,98	PP 3/8"	"Lip" types

Hose size: **4 x 6 mm** (available 6x8 fittings)

Max suction lift: **2 m**

Power consumption: **MX 37 watt - MXE 32 watt**

Current consumption: **MX 0,16 Amp - MXE 0,14 Amp**

AVAILABLE: 12Vdc and 24Vdc

***NOTE:** "Start-up" refer to pump starting performances; such performances are constant only if duties are not for continuous working and/or for time periods not over 30/40 min. continuously and with at least 15 minutes rest.

LIQUID ENDS

PARTS IN CONTACT WITH LIQUID	STANDARD VERSION	UPON REQUEST
Pump head	PVDF <small>MEMO1 - MEMO2</small>	PP; PMMA <small>NOTE</small> ; AISI 316
Diaphragm	PTFE	-----
MX series Ball check valve	CERAMIC	AISI 316
MXE series Reed type "Lip" check valve	FPM (Viton®)	EPDM (Dutral®)
Pump head Nipples 3/8" / Hose fastening nut	PVDF	PP
Seals / O-rings	FPM	EPDM; TFE-P
Injection Fitting 3/8" / No-Return Valve sleeve type	PP / FPM	PVDF; AISI 316 / EPDM
Foot "Lip" type check valve	FPM	EPDM
Filter body / Filtering media	PP / GLASSWOOL	PVDF
Suction Hose / Air Bleed hose 4x6 mm	PVC flexible	PVDF; available PVC 6x8
Discharge Hose 4x6 mm	PE semi- flexible	PVDF; available PE 6x8

OTHER OPTIONS AND SPECIAL CONFIGURATIONS UPON REQUEST:

Reed type "Lip" Valve (only MX series) / Valve seat	FPM / PP seat	EPDM
Foot valve ball check valve / Filter Body	CERAMIC / PVDF Filter body	PP Filter body
Injection valve fitting / Spring injection ball valve	PVDF / PVDF spring / CERAMIC ball	PP fitting
Automatic auto-bleed pump head	PVDF AUTO BLEED <small>NOTE</small>	-----
Aggressive chemicals configuration	PVDF acid configuration <small>MEMO 1</small>	-----
Polymer viscous liquid configuration	PMMA polymer configuration <small>MEMO 2</small>	AISI 316 ball check

MEMO 1 aggressive chemical configuration: PVDF pump head/fittings, double Ceramic ball checks, o-rings in FPM or EPDM (on request TFE/P), Injection no-return valve PVDF spring / Foot valve both with Ceramic ball check, **PVDF** hoses.

MEMO 2 polymer viscous liquid configuration: PMMA pump head, AISI 316 ball checks, Fittings PP 3/4-1/2", o-rings/seals FPM or EPDM, Injection fitting and Strainer (without no- return valve), hoses PVC flexible 10x14;

NOTE: PVDF AUTO-BLEED and Polymer PMMA configurations, pump pressure performance decreases of about 50%

Net weight: 2,2÷2,3 kg

Gross weight: 2,4÷2,5 kg

Carton size (mm): 240x165x215



Technical Data Sheet
rev.01_0220

MX MF/ MXE MF
Solenoid driven dosing pump

