

MC3

CHEM-FEED® Diaphragm Metering Pump



Features

- > Built-in leak detection (DFD) senses diaphragm failure
- > Exclusive DiaFlex® Diaphragm guaranteed to last the life of the pump
- > Signal inputs: 4-20mA, Pulse inputs, and Remote start/stop
- > Signal outputs: Relay (3 amp), 4-20mA, Motor Status
- > Heavy duty PVDF pump head and valves are standard
- > Protective LCD snap-on cover (UV, in field wear and tear)



NEMA 4X

Highlights

Flow range

.13 - 40.6 GPH
.5 - 154 LPH

Pressures

150 PSI
(10.3 bar)

Turndown ratio

200 : 1

Exclusive

Diaphragm Failure Detection (DFD)

Motor

Brushed DC

Warranty

2 Years

Control Methods

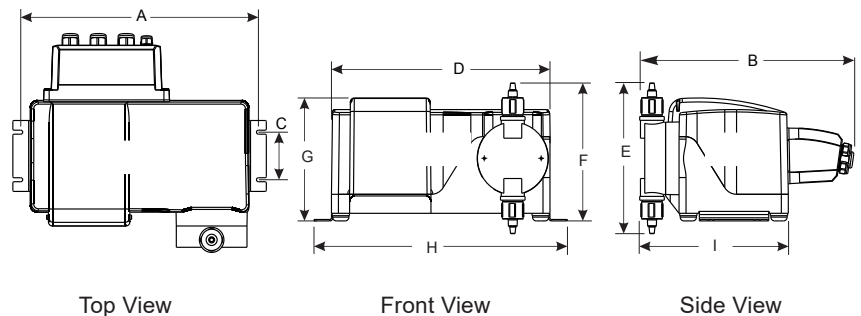
Control Methods	Manual Control	4-20mA Input	Remote Start/Stop	Alarm Output	FVS	Motor Status Output	Frequency Input	Pulse Batching
MC3	•	•	•	•	•	•	•	•



Maximum Working Pressure	175 psig (12 bar)
	NOTE: see individual pump model maximum pressure ratings
Maximum Fluid Temperature	130 °F (54 °C)
Ambient Operating Temperature	14 °F to 115 °F (-10 °C to 46 °C)
Ambient Storage Temperature:	-40 °F to 158 °F (-40 °C to 70 °C)
Maximum Viscosity	1,000 Centipoise
Maximum Suction Lift	15 ft. Water, 0 psig (4.5 m, 0 bar)
Operating Voltage (Model Specific)	115VAC/60Hz, 1ph (1.5 Amp Maximum)
	230VAC/60Hz, 1ph (0.7 Amp Maximum)
	220VAC/50Hz, 1ph (1.0 Amp Maximum)
	240VAC/50Hz, 1ph (1.0 Amp Maximum)
Power Cord Options (Model Specific)	115V60Hz = NEMA 5/15 (USA)
	230V60Hz = NEMA 6/15 (USA)
	220V50Hz = CEE 7/VII (EU)
	240V50Hz = AS 3112 (Australia/New Zealand)
	230V50Hz = BS 1363/A (UK)
Motor	Brushed DC, 1/8 H.P.
Duty Cycle	Continuous
Motor Speed Adjustment Range	200:1, 0.5% - 100% motor speed
Motor Speed Adjustment Resolution	0.1% increments
Display	Backlit LCD, UV resistant
Keypad	Five button positive action tactile switch keypad
Approximate Overall Dimensions	13-1/8" W x 9" H x 10-3/4" D
Approximate Shipping Weight	29 lb. (13.1 Kg)
Enclosure	NEMA 4X (IP66), Powder coated aluminum
RoHS Compliant	Yes
Standards	NSF 61, cETLus, CE

Dimensions

Dim	Inch	cm	Dim	Inch	cm
A	14.1"	35.8	F	7.8"	19.8
B	12"	30.5	G	6.5"	16.4
C	2.5"	6.4	H	15"	38.1
D	13.1"	33.2	I	8"	20.3
E	9"	22.9			



Non-wetted Components:

Enclosure: 413 Aluminum (Polyester powder coated)

Pump Head Cover: 316 Stainless Steel

Cover Screws: 300 Series Stainless Steel

DFD System Sensor pins: Hastelloy C-276

Power Cord: 3 conductor, SJTW-A water-resistant

Mounting Brackets and Hardware: 316 Stainless Steel

Wetted Components:

Pump Head: PVDF

Adapter Fittings: PVDF

Valve Cartridges: PVDF

Pump Head Assembly:

Valve Balls: Ceramic (optional EP)

O-Ring Seals: TFE/P (optional EP)

Diaphragm: DiaFlex® (optional Flex-A-Prene®)

Body & Adapter: PVDF

Check Ball: Ceramic

Foot Valve / Strainer: Spring: Hastelloy C-276

O-Ring Seals: TFE/P (optional EP)

Filter Screen: PVDF

Output Specifications

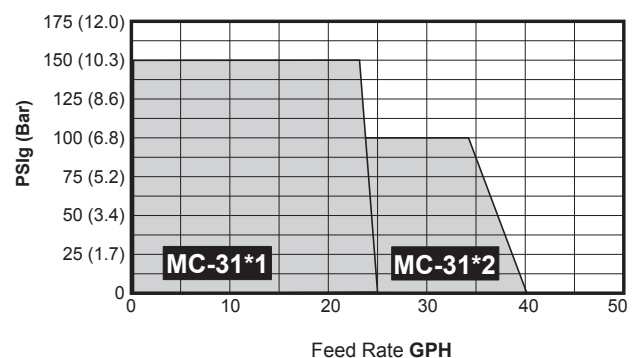
CAM Stroke Length	Feed Rate Range at 0 PSig			Max Pressure	Diaphragm Size
	GPH	LPH	mL/MIN	PSI (bar)	
1	.13 - 26.2	.5 - 99	8.3 - 1650	150 (10.3)	.060" stroke / large diaphragm
2	.20 - 40.6	.77 - 154	12.8 - 2560	100 (6.8)	.100" stroke / large diaphragm

Performance

CHEM-FEED® MC3 Diaphragm Metering Pump

NOTE: All tests performed after approximately 30 minutes diaphragm break-in period.

MC3 Models



Model Number Matrix

MC3

CHEM-FEED® Model Number

MC	CHEM-FEED® Diaphragm metering pump										
Input Voltage / Power Cord											
4	115V / 60Hz, power cord NEMA 5/15 plug (US)					8	240V / 50HZ, power cord AS 3112 plug (AU/New Zealand)				
5	230V / 60Hz, power cord NEMA 6/15 plug (US)					9	230V / 50HZ, power cord BS 1363 plug (UK)				
6	220V / 50HZ, power cord CEE 7/VII plug (EU)										
Stroke Length / Diaphragm size											
1	.060" stroke / large diaphragm .13–26.2 GPH 150 PSI										
2	.100" stroke / large diaphragm .20–40.6 GPH 100 PSI										
Elastomer Material (o-rings)											
V	TFE/P										
E	EP (Ethylene Propylene)										
Pump Head Fitting and Injection Fitting / Check Valve Connections											
1	1/2" ID x 3/4" OD tubing pump head										
2	1/4" ID x 3/8" OD Tubing pump head										
3	1/2" Male NPT inlet and outlet, with 1/2" M/NPT injection fitting										
4	1/2" Female NPT inlet and outlet, with 1/2" M/NPT injection fitting										
Miscellaneous Options (leave blank if not used)											
A	Hastelloy C check valve balls, standard injection fittings										
B	Single 1/2" ceramic ball & Hastelloy C spring P/head check valve for viscous fluids										
H	PTFE balls (double ball check valve, injection fitting) low viscosity/density fluids only										
J	PTFE balls (single ball w/Hastelloy spring check valve, injection fitting)										
S	Flex-A-Prene® Diaphragms (Caustic Soda resistant diaphragms)										
MC	3	1	4	1	X	V	1	A	Sample Model Number		

Accessories

