Blue-White®

Engineering and Technical Data

M4

FLEXFLO® Peristaltic Metering Pump



Features

> 5” touchscreen color LCD display
> User-friendly configurations
> Self priming peristaltic metering pump delivers smooth chemical feed
> Tube Failure Detection (TFD) system senses tube failure
> Inputs include: 4-20mA, Pulse Inputs, EtherNet/IP, Modbus TCP/IP, Profibus, Remote Start/Stop
> Revolution count display & user programmable alarm

Video link:

NSF Certified to NSF / ANSI Standard 61 | cETLus | CE | NEMA 4X

Highlights

Flow range
.0028 -158.5 GPH
.0108 - 600 LPH

Pressures
125 PSI
(8.6 bar)

Turndown ratio
10,000 : 1

Exclusive
Tube Failure Detection (TFD)

Motor
Brushless DC Motor

Warranty
5 Years

Control Methods

Control Methods	Manual Control	4-20mA Input	Remote Start/Stop	Pulse Input	Frequency Input	Ethernet/ IP	Modbus TCP/IP	Profibus	Alarm Outputs
M4	•	•	•	•	•	•	•	•	•

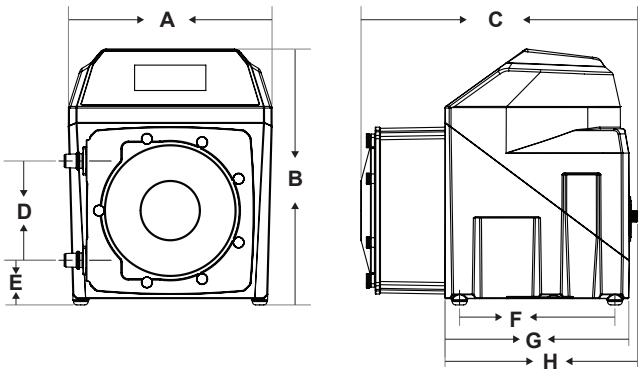
For more help and information regarding **M4**, please visit www.blue-white.com or scan this QR code.

Engineering Specifications

Maximum Working Pressure (excluding pump tubes)	125 psig (8.6 bar)
	NOTE: See individual pump tube assembly max. pressure ratings.
Maximum Fluid Temperature (excluding pump tubes)	185 °F (85 °C)
	NOTE: See individual pump tube assembly max. temperature ratings.
Maximum Viscosity	12,000 Centipoise
Maximum Suction Lift	30 ft. Water, 0 psig (9.14 m, 0 bar)
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)
Operating Voltage	115VAC/60Hz, 1ph (3.1 Amp Maximum)
	230VAC/60Hz, 1ph (1.6 Amp Maximum)
	220VAC/50Hz, 1ph (1.6 Amp Maximum)
	240VAC/50Hz, 1ph (1.5 Amp Maximum)
	230VAC/50Hz, 1ph (1.5 Amp Maximum)
Power Cord Options	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	Brushless DC, 1/4 H.P.
Motor Speed Adjustment Range	10,000:1 (0.01% - 100% motor speed) Max RPM = 125
Motor Speed Adjustment Resolution	0.1% increments > 1% motor speed and < 100%
	0.01% increments < 1% motor speed
Display	5” touchscreen color LCD, UV resistant.
Display Languages	English, Spanish, French, German, and Portuguese selectable
Maximum Overall Dimensions	12-1/8”W x 15-1/4”H x 16-1/2”D (30.8W x 38.8H x 41.9D cm)
Product Weight	45.5 lb. (20.64 Kg)
Security	Programmable 6-digit password
Approximate Shipping Weight	50 lb. (22.68 Kg)
Enclosure	NEMA 4X (IP66), Polyester powder coated aluminum & Noryl
RoHS Compliant	Yes
Standards	cETLus, CE, NSF61

Dimensions

Dim	Inch	cm	Dim	Inch	cm
A	12.1”	30.8	**E**	2.7”	6.8
B	15.3”	38.8	**F**	9.3”	23.5
C	16.5”	41.9	**G**	11.0”	27.8
D	5.9”	15.0	**H**	11.5”	29.2



Materials of Construction

Non-wetted Components:

Pump Head: Valox® (PBT) thermoplastic

Pump Head Cover: Polycarbonate

Permanently lubricated sealed motor shaft support ball bearing

Cover Screws: Stainless steel

Roller Assembly:

Rotor: Valox® (PBT)

Rollers: Nylon

Roller Bearings: SS Ball bearings

Motor Shaft: Chrome plated steel

TFD System Sensor: Hastelloy C-276

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

Mounting Brackets and Hardware: 316 Stainless steel

Wetted Components:

Pump Tube Assembly:

Tubing: Flex-A-Prene®, Flex-A-Chem® or Flex-A-Thane®

Adapter Fittings: PVDF

Ancillary Items Not Included (sold separately):
Injection Fitting, Foot Valve/Strainer, Suction Tubing/Pipe, Discharge Tubing/Pipe, Quick Disconnect Valves, or Communications Wire/Cable.

Output Specifications

Feed Rate			Max Speed	Max Pressure	Max Temperature	Tube Material / Size
GPH	LPH	mL/Min	RPM	PSI (bar)	°F (°C)	
Flex-A-Prene® M4 Tube Pumps						
.0028 - 28.5	.0108 - 108	.180 - 1800	125	125 (8.6)	185 (85)	NH
.0028 - 28.5	.0108 - 108	.180 - 1800	125	65 (4.5)	185 (85)	NHL
.0050 - 50.7	.0192 - 192	.320 - 3200	125	80 (5.5)	185 (85)	NK
.0054 - 54.4	.0204 - 204	.340 - 3400	125	100 (6.9)	185 (85)	NHH
.0054 - 54.0	.0204 - 204	.340 - 3400	125	65 (4.5)	185 (85)	NHHL
.010 - 100.0	.0378 - 378	.630 - 6300	125	50 (3.4)	185 (85)	NL
.015 - 158.5	.0600 - 600	1.00 - 10000	125	30 (2.1)	185 (85)	NP
Flex-A-Chem® M4 Tube Pumps						
.0025 - 25.40	.0096 - 96	.1600 - 1600	125	30 (2.1)	130 (54)	TH
.0054 - 54.00	.0204 - 204	.3400 - 3400	125	30 (2.1)	130 (54)	TK
.0126 - 126.0	.0477 - 477.0	.800 - 8000	125	30 (2.1)	130 (54)	TKK
Flex-A-Thane® M4 Tube Pumps						
.0039 - 39.6	.0150 - 150	.250 - 2500	125	65 (4.5)	130 (54)	GH
.0071 - 71.0	.0269 - 269	.448 - 4480	125	65 (4.5)	130 (54)	GHH
.0055 - 55.5	.0210 - 210	.350 - 3500	125	65 (4.5)	130 (54)	GK
.010 - 100.0	.0378 - 378	.630 - 6300	125	65 (4.5)	130 (54)	GKK

Model Number Matrix

FLEXFLO® Model Number

M4	FLEXFLO® M4 Peristaltic Metering Pump

Power Cord (operating voltage requirement 96VAC to 264VAC)

4	115V / 60HZ, power cord NEMA 5/15 plug (US)
6	220V / 50HZ, power cord CEE 7/VII plug (EU)
X	No Power Cord

Inlet/Outlet Connection Size, Connection Type, Connection Material

M	1/2” Male NPT Fitting, Natural PVDF (Kynar)
B	1/2” ID Tubing Barb Fitting, Natural PVDF (Kynar)
C	1/2” - 3/4” Tri-clamp connections, Natural PVDF (Kynar)
Q	Quick Disconnect, Natural PVDF (Kynar), NP flow rate reduced 16.5% with Quick Disconnect connections (Valves sold separately)
MB	1/2” Male BSPT Fitting, Natural PVDF (Kynar)

Pump Tube Material, Pump Tube Size

NOTE: * = Dual tube

NH	Flex-A-Prene® .250 ID | .01–28.5 GPH | 125 PSI	**GH**	Flex-A-Thane® .312 ID | .01–39.6 GPH | 65 PSI
NHH*	Flex-A-Prene® .250 ID | .02–54.0 GPH | 100 PSI	**GHH***	Flex-A-Thane® .312 ID | .03–71 GPH | 65 PSI
NHHL*	Flex-A-Prene® .250 ID | .02–54.0 GPH | 65 PSI	**GK**	Flex-A-Thane® .375 ID | .02–55.5 GPH | 65 PSI
NHL	Flex-A-Prene® .250 ID | .01–28.5 GPH | 65 PSI	**GKK***	Flex-A-Thane® .375 ID | .04–100 GPH | 65 PSI
NK	Flex-A-Prene® .375 ID | .02–50.7 GPH | 80 PSI	**TH**	Flex-A-Chem® .250 ID | .01–25.4 GPH | 30 PSI
NL	Flex-A-Prene® .500 ID | .04–100.0 GPH | 50 PSI	**TK**	Flex-A-Chem® .375 ID | .02–54.0 GPH | 30 PSI
NP	Flex-A-Prene® .750 ID | .06–158.5 GPH | 30 PSI	**TKK***	Flex-A-Chem® .375 ID | .05–126 GPH | 30 PSI

Pumphead Orientation

(Blank)	Standard - Left facing
R	Right facing pumphead
D	Down facing pumphead

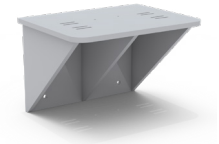
M4	**S**	**2**	**4**	**-**	**M**	**NH**	**R**	**Sample Model Number**

Accessories



1/2” Hose Barb “B” Fitting
1/2” MNPT “M” Fitting

Quick Disconnects
*KIT-QBV FKM O-rings *KIT-QBE EP *KIT-QBA Aflas
*KIT-QMV FKM *KIT-QME EP *KIT-QMA Aflas



KIT-PSM
Wall Mount Bracket, HDPE



KIT-M12
Two M12 Cables - 9.8 ft.

90010-663 115V/60Hz NEMA 5/15
90010-664 220V/50Hz CEE 7/V11
90010-665 230V/50Hz BS 1363/A
90010-666 240V/50Hz AS 3112
90010-696 230V/60Hz NEMA 6/15
90010-711 115V Lockable

POWER CABLES - 6 ft



A-014NK-6A
Injector, PVDF, 1/4” “S” Conn.



KIT-DP3
Profibus Cable, 3 ft

Visit Accessory Pages for More Options

P.N. 85000-158 M4 REV 6 20240109

M4 is sold and serviced exclusively by highly skilled, factory authorized technicians.

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