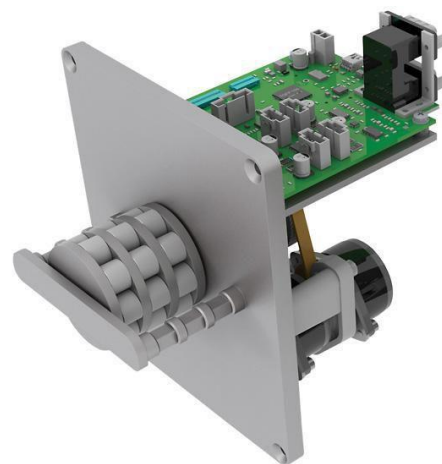


GENERAL DESCRIPTION

These multi-channel peristaltic pumps allow for individual control of flow and direction in up to four channels independently, expanding pumping capabilities in a single compact unit! Pump control is performed remotely through serial control via a PC or PLC/control system. Each channel supports continuous pumping or precision dispensing with bidirectional flow. Calibration can also be performed on each channel independently to minimize tube-to-tube flow differences, resulting in higher accuracy and repeatability. Use with a variety of Ismatec® 3-stop tubing set formulations to suit your flow rate, chemical compatibility, and fluid compliance requirements. Built-to-suit single use assemblies are also available.

The panel-mount Reglo® ICC pump offers many of the same features as the Ismatec® Reglo® ICC console pumps without the user interface touchpad and display for easily integration into customized systems.



MARKETS & APPLICATIONS

Designed for simple integration into original equipment manufactured equipment where clean, low-shear, and high accuracy fluid dispensing is needed. Key applications include cell therapy, microfluidics, bioreactor additions, protein purification, automatic sampling, and diagnostic equipment.

FEATURES & BENEFITS

- Flow rate 0.0002 to 35 ml/min per channel - flow rate depends on drive rpm, rollers, and tubing size
- USB interface for quick connection to a PC
- Flexibility of bidirectional flow in each channel
- Click-N-Go tubing cassettes allow quick changeovers
- 8-roller and 12-roller design minimize pulsation

OPERATION MODES

Operating Mode	Description
Flow Rate:	Continuous operation at a set rate and direction
Volume Over Time:	Dispensing a desired volume over a desired time
Volume:	Dispensing a desired volume at a set flow rate
Time Mode:	Dispensing for a set time duration with a set flow rate
Volume With Pause:	Dispensing a set volume over multiple cycles with defined pause time in between
Time With Pause:	Dispensing for a set time duration over multiple cycles with defined pause time in between
Calibration:	Allows each channel to be calibrated for dispensed fluid volume accuracy

ORDERING INFORMATION

Item number	Description
MFLX78001-43	Masterflex® Ismatec® Reglo ICC Digital Pump, Panel-Mount, 2-Channel, 8-Roller; 24 VDC
MFLX78001-45	Masterflex® Ismatec® Reglo ICC Digital Pump, Panel-Mount, 3-Channel, 8-Roller; 24 VDC
MFLX78001-47	Masterflex® Ismatec® Reglo ICC Digital Pump, Panel-Mount, 4-Channel, 8-Roller; 24 VDC
MFLX78001-49	Masterflex® Ismatec® Reglo ICC Digital Pump, Panel-Mount, 4-Channel, 12-Roller; 24 VDC

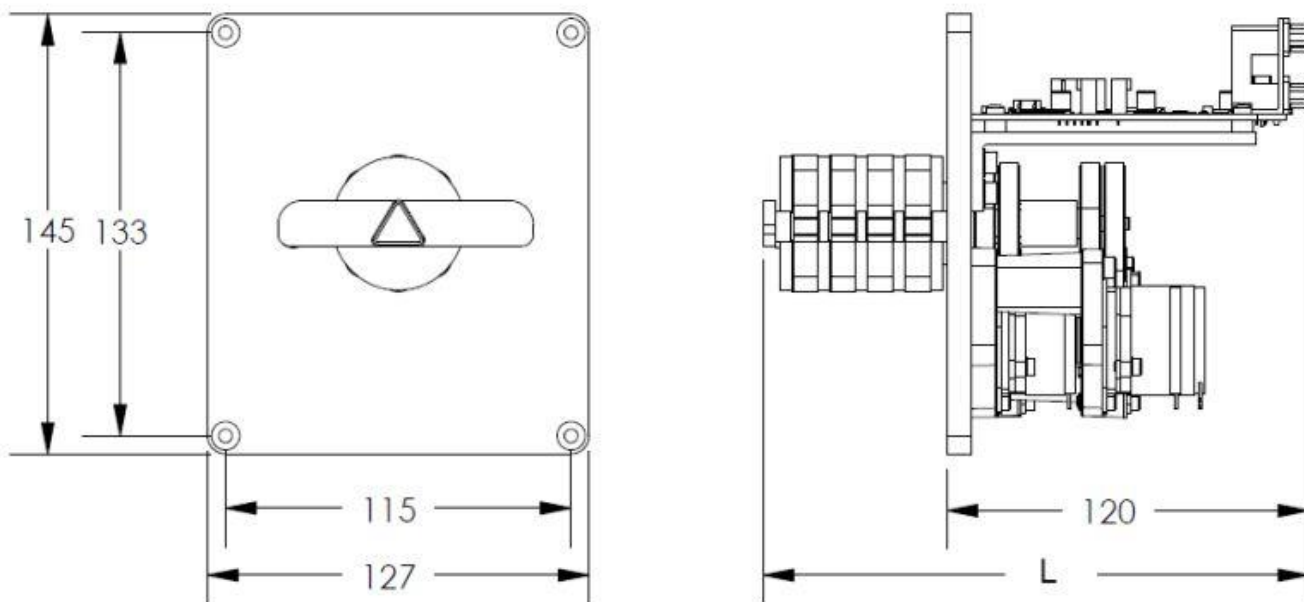
Order the three-stop tubing size and formulation to suit your application needs (sold separately).

Accessories:

Item number	Description
MFLX07013-04	Replacement MS/CA Click-N-Go Cassette Cartridge, 3-Stop, POM-C
MFLX07624-64	MS/CA Pressure Lever Cassette Cartridge, 3-Stop, POM-C
MFLX07624-96	MS/CA Pressure Lever Cassette Cartridge, 3-Stop, PVDF
MFLX78016-96	MS/CA Click-N-Go Cassette Cartridge, 3-stop, PVDF

POM-C = polyoxymethylene copolymer, PVDF = polyvinylidene fluoride

DIMENSIONS/DRAWING



Dimension	
Overall Height:	145 mm (~5.7")
Overall Width:	127 mm (~5.0")
Overall Length:	157 mm (~6.2") - 2-channel
	169 mm (~6.7") - 3-channel
	182 mm (~7.2") - 4-channel

SPECIFICATIONS

Specification	MFLX78001-43	MFLX78001-45	MFLX78001-47	MFLX78001-49
Performance specifications				
Flow capacity	0.0002 to 35 mL/min			0.0001 to 24 mL/min
Tubing	0.13mm to 3.17mm ID – Microbore 3-stop tubing			
Number of channels	2	3	4	
Number of rolles	8			12
Maximum pressure	1 Bar (15 psi)			
Speed Range	0.1 to 100rpm			
Rear panel controls & connections	RS-232 In/Out, on/off switch, USB port, power supply connection			
External Control	RS-232; USB-Mini B			
Electrical specifications				
Resolution	0.01 rpm			
Accuracy	+/- 1%			
Motor	Stepper motor (1 per channel)			
Power	100 - 240 VAC; 24 VDC			
Physical specifications				
Dimensions (L x W x H)	157 x 127 x 145 mm	169 x 127 x 145 mm	182 x 127 x 145 mm	
Weight	2,7 kg (6 lbs.)			
Approvals	CE, RoHS 2; Power supply is UL, cUL			

SUPPORTED COMMUNICATION PROTOCOL

USB or RS-232 interface.

Connections (at rear of printed wire circuit board)

RS-232 In (DB9-female)

RS-232 Out (DB9-male)

USB 2.0, Mini-B



DB-9 Serial
Communication Port



USB-B Port

NOMINAL FLOWRATES

3-stop	Stopper Color	6-Roller		8-Roller		12-Roller	
ID mm		0.1rpm	100rpm	0.1rpm	100rpm	0.1rpm	100rpm
0.13	orange-black	0.0002	0.14	0.0002	0.11	0.0001	0.093
0.19	orange-red	0.0003	0.28	0.0003	0.23	0.0003	0.21
0.25	orange-blue	0.0005	0.48	0.0005	0.41	0.0004	0.38
0.38	orange-green	0.0011	1	0.001	1	0.0009	1
0.51	orange-yellow	0.0019	2	0.0017	2	0.0016	2
0.64	orange-white	0.003	3	0.0026	3	0.0024	2
0.76	black-black	0.0042	4	0.0036	4	0.0033	3
0.89	orange-orange	0.0057	6	0.0049	5	0.0044	4
1.02	white-white	0.0073	7	0.0063	6	0.0056	6
1.14	red-red	0.009	9	0.0078	8	0.0067	7
1.33	grey-grey	0.011	11	0.01	10	0.0083	8
1.42	yellow-yellow	0.013	13	0.011	11	0.0094	9
1.52	yellow-blue	0.015	15	0.013	13	0.01	10
1.65	blue-blue	0.017	17	0.015	15	0.012	12
1.85	green-green	0.021	21	0.017	17	0.013	13
2.06	purple-purple	0.025	25	0.02	20	0.015	15
2.29	purple-black	0.029	29	0.024	24	0.017	17
2.79	purple-white	0.037	37	0.031	31	0.021	21
3.17	black-white	0.043	43	0.035	35	0.024	24

