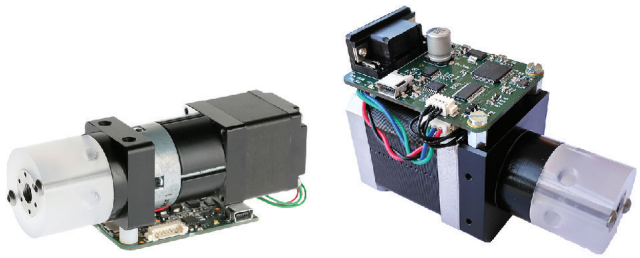
ADVANCED MICROFLUIDICS

RVM – Ultra-Low Internal Volume Rotary Valve

DESCRIPTION

Our OEM valve is a precise low-pressure electric rotary valve designed for automated microfluidic applications. Its small channels and accurate positioning system are ideal for precise liquid handling.

Showing an unrivaled low internal/carryover volume and exceptional ease of use, this valve is the perfect cost efective companion for liquid distribution in your instrument or laboratory experiments. A low power model is available for a minimum battery use and a fast one for your time-specific applications.



FEATURES

- Optimised to limit contamination between sequential injections
- Excellent biochemical compatibility
- Replaces multiple manifolds with a single valves
- Light and compact
- Easy to use and integrate
- Swiss quality

ACCESSORIES

Power supply

C100
Needs to be sold with C2xx
(01 - Plug CH, 02 - Plug EU, 03 - Plug UK, 04 - Plug US)

Mini USB

C101
Including ferrite

K100-6

6 connector - Quick Start Kit:
- Standard ¼-28 UNF, flat-bottom connector
- PTFE tubing 0.5 x 1.6 mm (1/16') – 25cm long

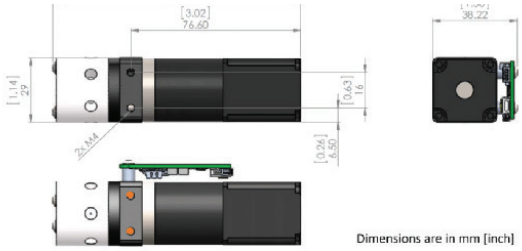
K100-12

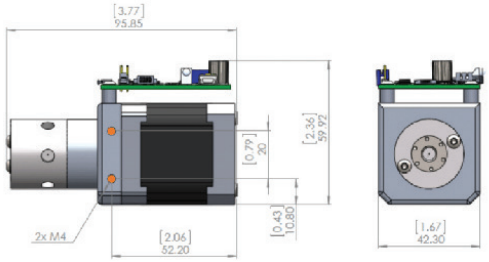
12 connector - Quick Start Kit:
- Standard ¼-28 UNF, flat-bottom connector
- PTFE tubing 0.5 x 1.6 mm (1/16') – 25cm long

SPECIFICATIONS

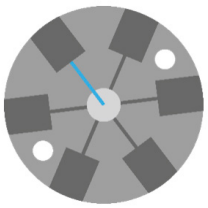
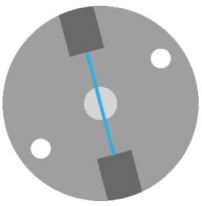
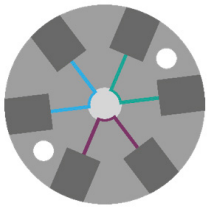
Number of channels	2 - 12 (Configuration dependent)
Operating temperature	5 - 40°C (41-104°F)
Operating humidity	20 - 80%, non-condensing
Maximum pressure	5 bars (72 psi)
Wetted materials	PTFE or UHMW-PE, PCTFE
Channel diameter	0.5 mm (0.020 in) / 0.4-1 mm(0.015-0.039 in) (upon request)
Internal volume	2.5 - 13.7 µL port-to-port (Configuration dependent)
Carryover volume	0.55 - 6.7 µL port-to-port (Configuration dependent)
Dead volume	None
Tube port fittings	Standard 1/4-28 UNF, flat-bottom
Electrical interface	USB mini, 9-pin D-Sub

LOW POWER MODULE / FAST MODULE





DRAWINGS & TABLES

DISTRIBUTION series	ON/OFF series	SWITCH series
Lets you choose 1 among N channels.	Simple switch. Flow or no flow.	Channels are linked two by two.
		
Known aliases: (N+1)-port/1-channel valve, N-port distribution valve, N-port selection valve, (N+1)-port/N-position valve	Known aliases: isolation valve, shutoff valve	Known aliases: N-port/(N/2)-channel valve, switch valve, loop valve

DISTRIBUTION SERIES (Table A)						
Referrance	Configuration	Wetted Materials	Internal vol.	Carryover vol.	Channel ø	Max. pressure
V-D-1-6-050 C-P	6 ports	PCTFE,PTFE	2.5 µL	1.5 µL	0.5 mm	7 bars
V-D-1-8-050-C-P	8 ports	PCTFE,PTFE	2.5 µL	1.5 µL	0.5 mm	7 bars
V-D-1-10-050-C-U	10 ports	PCTFE,UHMW-PE	3.5 µL	1.7 µL	0.5 mm	7 bars
V-D-1-12-050-C-U	12 ports	PCTFE,UHMW-PE	3.5 µL	1.7 µL	0.5 mm	7 bars

ON/OFF SERIES (Table B)						
Referrance	Configuration	Wetted Materials	Internal vol.	Carryover vol.	Channel ø	Max. pressure
V-O-1-2-050-C-P	2 ports	PCTFE,PTFE	3.0 µL	-	0.5 mm	7 bars
V-O-1-2-075-C-P	2 ports	PCTFE,PTFE	6.6 µL	-	0.75 mm	7 bars

SWITCH SERIES (Table C)						
Referrance	Configuration	Wetted Materials	Internal vol.	Carryover vol.	Channel ø	Max. pressure
V-S-1-4-050-C-P	4 ports	PCTFE,PTFE	2.8 µL	0.8 µL	0.5 mm	7 bars
V-S-1-6-050-C-P	6 ports	PCTFE,PTFE	2.5 µL	0.5 µL	0.5 mm	7 bars

Other configurations are available upon request. Valve heads are interchangeable.

The wetted materials being PTFE or UHMW-PE and PCTFE, the valves offer an exceptional compatibility to most chemicals and biological samples.

MOTOR OPTIONS						
Reference	Configuration	Power	Weight	Dimensions	Min. switching time 180°	PCB functionalities
P200-O	Low power motor	5-10 VDC, 0.5 A peak	250 g	29 x 38.3 x 111.8 mm	1.5 s	Driver, Encoder
P201-O	Fast motor	18-24 VDC, 2 A peak	450 g	42.3 x 60 x 95.9 mm	400 ms	Driver, Encoder

ORDERING INFORMATION

Motor	Valve Head- Configuration	Power Supply	Connector Kits
P200-0	See valve reference (Tables A, B, or C)	C100	K100-6
P201-0	See valve reference (Tables A, B, or C)	C101	K100-12