

RVM mini

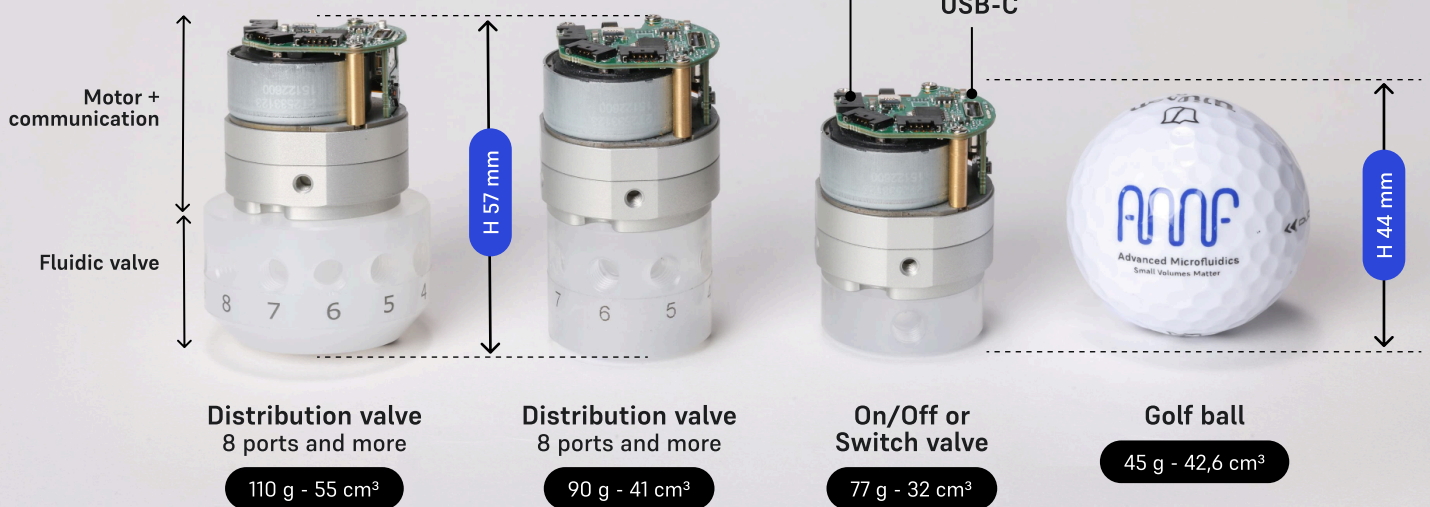
Compact OEM Microfluidic Rotary Valve

World's smallest OEM rotary valve



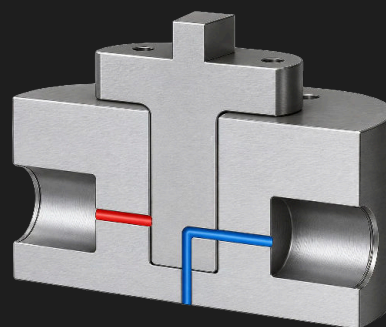
- ✓ Ultra-compact industrial-grade rotary valve
- ✓ Zero-dead-volume fluidic path
- ✓ Up to 12 ports
- ✓ High-precision positioning with integrated angular encoder
- ✓ Designed for seamless OEM integration

Designed for compact integration & minimized footprint



Microfluidic design that makes the difference

- Distribution / selection valve**
For multi-port fluid routing and multiplexing - min int. vol. 2.5µL
- Switch / injection valve**
For sequential port-to-port connections and loop-based injection workflows- min int. vol. 2.8 µL
- On/Off valve (2/2)**
For opening or closing fluid paths - min int. vol. 2.4 µL



AMF Valve

- ✓ Zero dead volume
- ✓ Minimized internal volume
- ✓ Reduced carryover
- ✓ Optimized fluid path (90° design)
- ✓ Designed for true microfluidic performance

RVM mini SPECIFICATIONS

MODEL SPECIFICATIONS

Reference	Configuration	Power	Weight	Dimensions	Min. switching time 180	Switching time Port to Port	PCB functionalities
P202-O	On/Off valve	22-32 VDC, 0.5 A peak	77 g	H: 44 mm - Ø32 mm up - Ø29 mm down	N/A	580 ms in extended lifetime (down to 480 ms in some condition)	Driver, Encoder
P202-O	Switch valve	22-32 VDC, 0.5 A peak	77 g	H: 44 mm - Ø32 mm up - Ø29 mm down	N/A	390 ms in extended lifetime (down to 310 ms in some condition) for a 6 ports valve	Driver, Encoder
P202-O	Distribution valve (8 ports and less)	22-32 VDC, 0.5 A peak	90 g	H: 57 mm - Ø32 mm up - Ø29 mm down	850 ms in extended lifetime (down to 600 ms in some condition)	300 ms in extended lifetime (down to 230 ms in some condition) for a 8 ports valve	Driver, Encoder
P202-O	Distribution valve (8 ports and more)	22-32 VDC, 0.5 A peak	110 g	H: 57 mm - Ø32 mm up - Ø39,5 mm down	850 ms in extended lifetime (down to 600 ms in some condition)	220 ms in extended lifetime (down to 180 ms in some condition) for a 12 ports valve	Driver, Encoder

VALVE SPECIFICATIONS

Reference	Serie	Config.	Wetted materials	Internal volume	Carryover volume	Fluid path diameter	Maximum Pressure
V-D-1-6-050-C-P	Distribution	6 ports low carryover vol.	PCTFE, PTFE	2.5 µL	1.5 µL	0.5 mm	7 bars
V-D-1-8-050-C-P	Distribution	8 ports low carryover vol.	PCTFE, PTFE	2.5 µL	1.5 µL	0.5 mm	7 bars
V-D-1-8-100-C-P	Distribution	8 ports low carryover vol.	PCTFE, PTFE or UHMW-PE	13.8µL	6.7 µL	1 mm	7 bars
V-D-1-10-050-C-P	Distribution	10 ports low carryover vol.	PCTFE, PTFE or UHMW-PE	3.5 µL	1.7 µL	0.5 mm	7 bars
V-D-1-10-100-C-P	Distribution	10 ports low carryover vol.	PCTFE, PTFE or UHMW-PE	13.8µL	6.7 µL	1 mm	7 bars
V-D-1-12-050-C-P	Distribution	12 ports low carryover vol.	PCTFE, PTFE or UHMW-PE	3.5 µL	1.7 µL	0.5 mm	7 bars
V-O-1-2-050-C-P	On/Off	2 ports	PCTFE, PTFE	2.8 µL	-	0.5 mm	7 bars
V-O-1-2-075-C-P	On/Off	2 ports	PCTFE, PTFE	6.6 µL	-	0.75 mm	7 bars
V-S-1-4-050-C-P	Switch	4 ports low carryover vol.	PCTFE, PTFE	2.6 µL	0.8 µL	0.5 mm	7 bars
V-S-1-6-050-C-P	Switch	4 ports low carryover vol.	PCTFE, PTFE	2.4 µL	0.6 µL	0.5 mm	7 bars

Description

RVM mini

Operating temperature	15 – 40°C (59-104°F)
Storage temperature	5 – 45°C (41-113°F)
Operating humidity	20-80%, non condensing
Maximum pressure	7 bars (102 psi)
Wetted materials	PTFE or UHMW-PE, PCTFE (other open request)
Dead volume	None
Channel diameter	0.5 mm (0.020 in) or 1 mm (0.039 in) (other upon request)
Internal volume	2.5 – 13.8 µL port-to-port (configuration dependent)
Carryover volume	0.6 – 6.7 µL port-to-port (configuration dependent)
Tube port fittings	Standard 1/4 – 28 UNF, flat-bottom
Electrical interface	USB-C, 3 x Pico-Lock™ 1 mm pitch 4 pos.
Communication type	UART via USB or Serial (RS232/RS485), I2C, TTL (CAN upon request)