

RVM mini

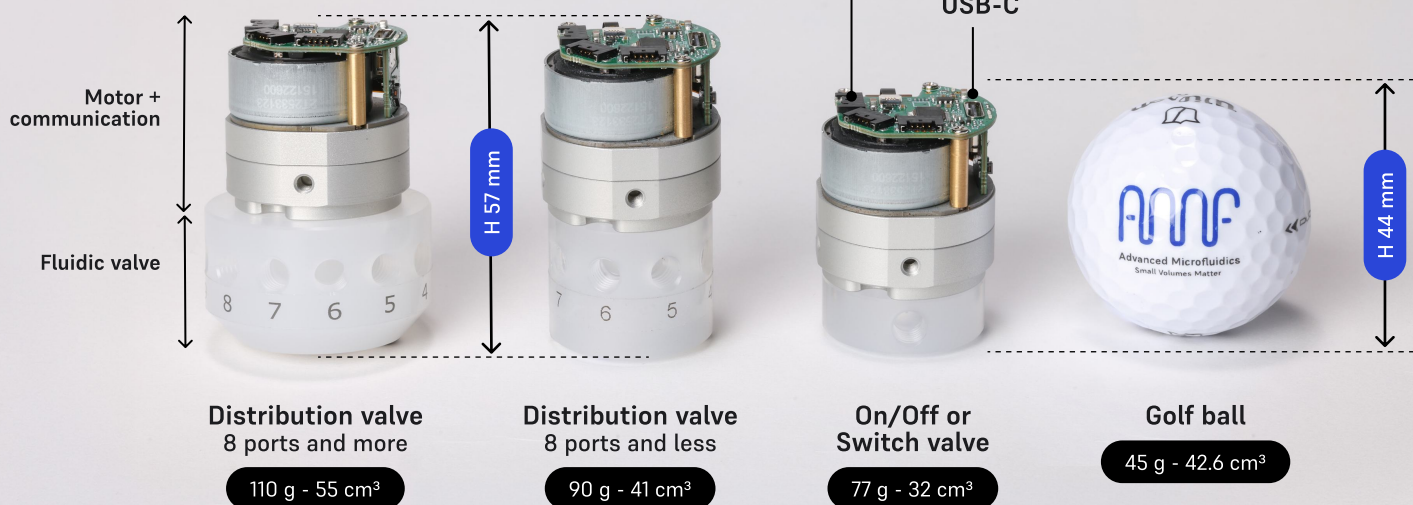
Compact OEM Microfluidic Rotary Valve

World's smallest OEM rotary valve

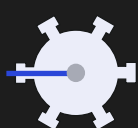


- ✓ Ultra-compact industrial-grade rotary valve
- ✓ Zero-dead-volume fluidic path
- ✓ Up to 12 ports
- ✓ High-precision positioning with integrated angular encoder
- ✓ Designed for seamless OEM integration

Designed for compact integration & minimized footprint



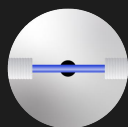
Microfluidic design that makes the difference



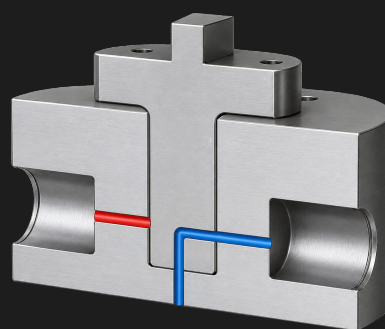
Distribution / selection valve
For multi-port fluid routing and multiplexing - min int. vol. 2.5 μ L



Switch / injection valve
For sequential port-to-port connections and loop-based injection workflows - min int. vol. 2.8 μ L



On/Off valve (2/2)
For opening or closing fluid paths - min int. vol. 2.4 μ L



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 conditions)	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 conditions) 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 conditions) 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	Series	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	13.8 µL	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	13.8 µL	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	6 ports low carryover vol.	PCTFE, PTFE	2.4 µL	0.6 µL	0.5 mm	7 bars

Valve heads are interchangeable. Other models and custom configurations available upon request. Check our website [amf.ch](https://www.amf.ch)

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 upon 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)