

# OEM Module

# RVM

## Rotary valve



Selection



Switch



ON / OFF

This is an OEM product.  
It can be tailored for the needs of your instrument.



### BENEFITS

- Straightforward integration
- Low power
- Small footprint
- Fast switching speed
- Chemically resistant and biocompatible materials



### APPLICATIONS

- Sample preparation automation
- Multiplexing
- Sample loops
- Adapted for battery operated devices



### FUNCTIONS

- Select channel
- Change flow path
- Stop flow or isolation

## THE ULTRA-LOW INTERNAL VOLUME ROTARY VALVE HANDLE SMALLER SAMPLES. REDUCE CONTAMINATION.

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

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

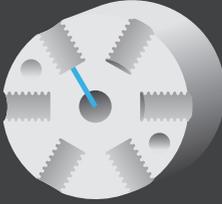
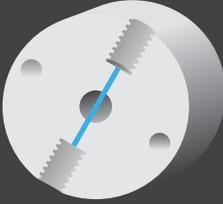
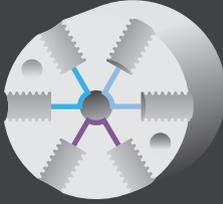
### Model specifications

CONFIGURATION	POWER	ROTATION TIME FOR 180°	WEIGHT (TOTAL MODULE)	DIMENSIONS
Low power motor	5-10 VDC, 0.5 A peak	1.5 s	300 g	29 x 38.3 x 111.8 mm
Fast motor	18-24 VDC, 1.15 A peak	200 ms	650 g	42.3 x 60 x 95.9 mm

### Other specifications

Operating temperature	5-40°C (41-104°F)
Operating humidity	20-80%, non condensing
Max. pressure	5 bars (72 psi)
Wetted materials	PTFE, PCTFE
Channel diameter	0.5 mm (0.020 in) / 0.4-1 mm (0.015-0.039 in) available upon request
Internal volume	2.32-2.84 µL port-to-port (Configuration dependent)
Carryover volume	0.55-1.07 µL port-to-port (Configuration dependent)
Dead volume	None
Tube port fittings	Standard 1/4-28 UNF, flat-bottom
Electrical interface	USB mini, (RS-232, RS-485 upon request)
Communication type	Serial, I2C (other upon request)

# Valves types

REF. #	VD1-6	V01-2	VS1-6
NAME	7-PORT/6-POSITION	ON/OFF	6-PORT/2-POSITION
LIQUID PATH			
INTERNAL VOLUME	2.84 $\mu$ L	2.75 $\mu$ L (0.5 mm channels) 3.98 $\mu$ L (0.75 mm channels)	2.32 $\mu$ L
CARRYOVER VOLUME	1.07 $\mu$ L	0.98 $\mu$ L (0.5 mm channels) 2.21 $\mu$ L (0.75 mm channels)	0.55 $\mu$ L
DEAD VOLUME	None		

Other models available upon request

## Fast liquid switching

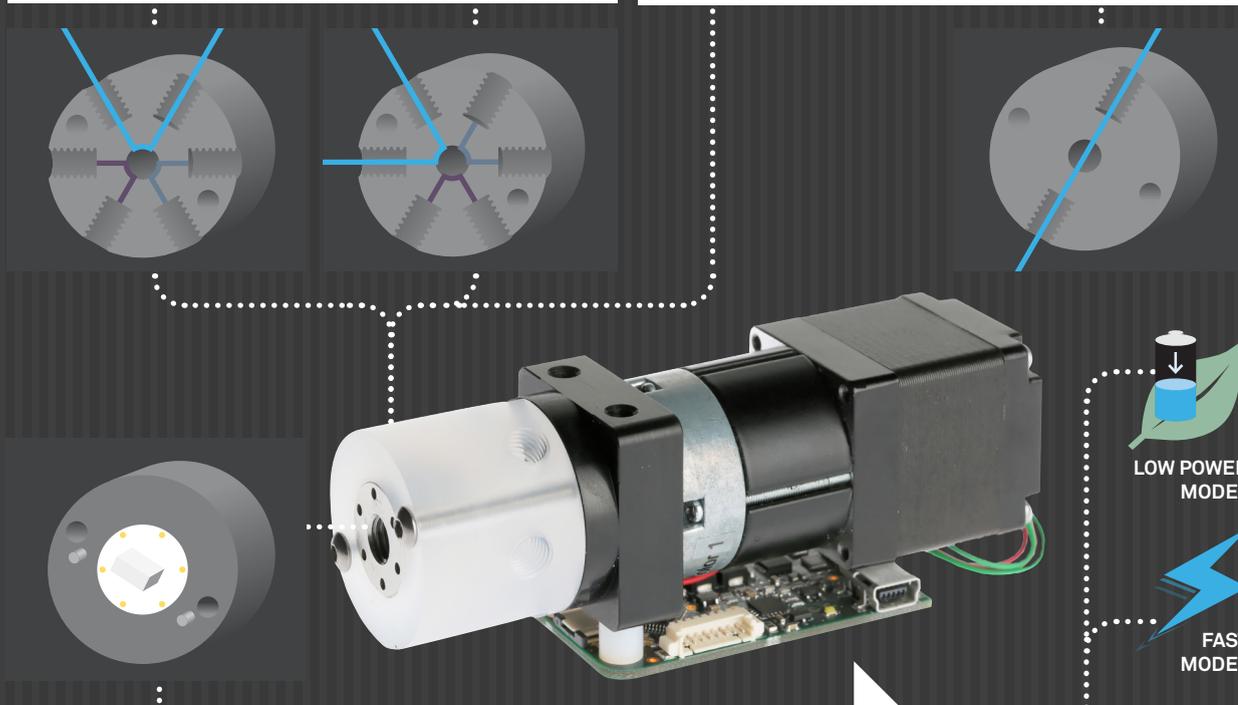
This extremely small internal volume selection valve allows to rapidly switch liquid, while maintaining an ultra low carryover.

Valid for all models.

## Ultra-low internal volume

Our unique precise valves exhibit an internal volume (port-to-port) of 2.3 to 2.9  $\mu$ L due to their exceptionally small 0.5 mm diameter channels.

Valid for all models.



## Integrated sensor

The position sensor is directly integrated into the valve to ensure precise positioning. An automatic procedure at power-up allows the valve to know its precise location. This is called the «homing».

## Choice of motor

### LOW POWER MODEL

This valve was designed in the most simple way to reduce its power consumption. It is USB powered. A smaller power consumption allows for a smaller power supply, and thus better portable device integration.

### FAST MODEL

This valve is designed to reduce the switching speed, taking no more than 200 ms.