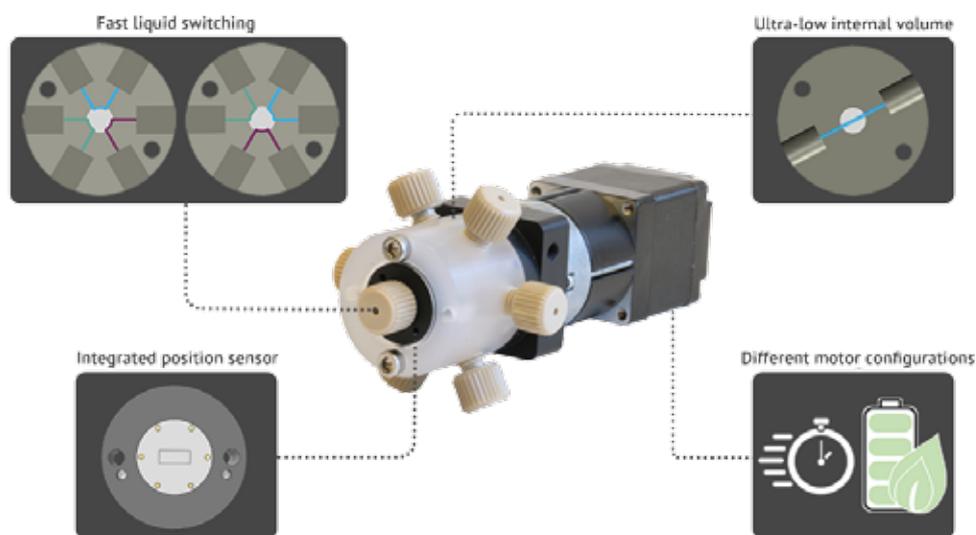


ROTARY VALVES

Sample collection, selection, sample loop injection

The special positioning technology (encoder) with signal transmitters on the pump heads, enables channels with a diameter of 0.5 mm, internal volumes from 2.32 μl (from port connection to port connection) and carry over volumes from 0.55 μl (from port connection to port connection). Highly inert materials (PCTFE, PTFE) allow for their use with aggressive fluids. The miniature version of the rotary valve requires only a USB power supply. Due to its size, it is also suitable for mobile applications and microfluidics.



Fast liquid switching with very low carryover volume

Small diameter channels minimise the internal volume in the valve head and reduce the carryover volume between the port connections. This allows for a rapid switching between different media.

Integrated position sensor (encoder)

Each rotary valve has an integrated position sensor (encoder), which allows for very precise positioning of the valve head. When starting the valve, an automatic position detection recognizes the current valve position - also called "homing".

Valve head configurations

Valve head configurations are available in different versions for sample collection, sample loop injection or channel selection. Customer specific solutions are also possible.

Ultra-low internal volume

Channels with a diameter of only 0.5 mm enable a small internal volume of only 2.3 to 2.9 μl (from port connection to port connection) and a very small carryover volume.

Different motor configurations: miniature motor and fast rotating motor

The miniature low-power rotary valve version P200-O is operated using USB voltage and is specially designed for low power consumption and portable applications. This version is also used for the miniaturisation of applications and in microfluidics.

The high-speed rotary valve P201-O offers a solution that allows fast switching between the individual channels with a rotation speed of 400 ms for a 180° rotation.

ROTARY VALVES

Sample collection, selection, sample loop injection

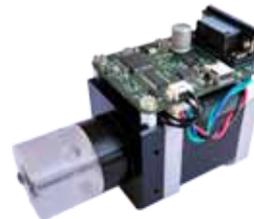
07

ROTARY VALVES

Miniature rotary valve low power - P200-0



Rotary valve fast rotating - P201-0



SPECIFICATIONS

	P200-0	P201-0
Motor	Stepper motor	
Rated voltage	5 - 10 VDC	18 - 24 VDC
Power consumption	0.5 A (peak)	2 A (peak)
Rotation speed	1500 ms for 180°	400 ms for 180°
Wetted materials	PTFE (valve body) and PTFE (plunger)	
Fluid temperature range	5 - 40°C	
Ambient temperature range	5 - 40°C	
Operating humidity	20 - 80% (non condensing)	
Operating pressure (max.)	5 bar 10 bar (on request)	
Channel diameter	0.5 mm 0.4 - 1.0 mm (on 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	
Port connection	1/4-28 UNF (flat-bottom)	
Electrical interface	USB mini RS-232 RS-485 (on request)	
Communication type	Serial I ² C (others on request)	
Weight	approx. 250 g	approx. 450 g
Outer dimensions	29.0 x 38.3 x 111.8 mm	42.3 x 60.0 x 95.9 mm