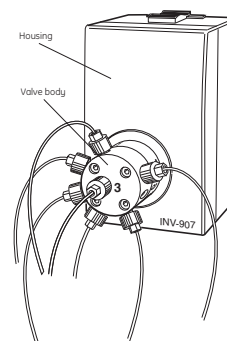


6 Reference information

Description

The valve consists of two main parts:

- Housing which encloses the motor and electronics.
- Valve body with a rotating central core.



As the channel plate is turned by the motor, different ports are connected.

Valve switching is controlled from UNICORN by reading the actual position of the channel plate.

The geometry of the valve assures that the flow path is completely swept so that solvent or sample "memory effect" is virtually non-existing. The valve rotates the shortest way to the next position (max. 180°). The material used in the switching parts ensures both long mechanical and chemical lifetime.

The valve housing contains no user replaceable items.

Technical specifications

Operating data

Max Flow rate	100 ml/min
Max Pressure	25 MPa (250 bar, 3600 psi)
Back pressure	<50 kPa at 100 ml/min with water
Leakage	<0.1 µl/min at 25 MPa
pH stability range	1–13, 1–14 (<1 day exposure)
Viscosity	Max. 5 cP
Switch time	<260 ms between two adjacent positions
Operating life time	>50 000 cycles, two adjacent positions
Environment	+4 to +40 °C 20–95% relative humidity 84–106 kPa (840–1060 mbar) atmospheric pressure

6 Reference information

Physical data

Internal volume	
Pos 1 LOAD	
Port 1-7	9 µl
Port 2-3	5 µl
Port 4-6	8 µl
Pos 2 INJECT	
Port 1-2	7 µl
Port 3-5	6 µl
Port 6-7	9 µl
Pos 3 WASH	
Port 2-4	8 µl
Port 5-7	9 µl
Flow channel diameter	0.8 mm
Valve principle	Motor controlled valve
Functions	Switching 3 positions controlled from UNICORN
Degree of protection	IP 43
Wetted materials	PEEK (polyetheretherketone)
Chemical resistance	The wetted parts are resistant to organic solvents and salt buffers commonly used in chromatography of biomolecules, except 100% ethylacetate, 100% hexane and 100% tetrahydrofuran (THF)
Power requirement	32 V DC ±10% from the system pump
Power consumption	Up to 9 W
UniNet 2 address	0-9
Inlet and outlet tubing	UNF 10-32 2B "Fingertights" for capillary tubing 1/16" outer diameter
Dimensions,	
H × W × D	135 × 80 × 120 mm
Weight	1.2 kg
EMC Standards	This device meets the requirement of the EMC Directive 89/336/EEC through the following harmonized standards: <ul style="list-style-type: none">• EN 61326 (emission and immunity)• EN 55011, GR 2, Class A (emission)• This device complies with part 15 of the FCC rules (emission). Operation is subject to the following two conditions:<ol style="list-style-type: none">1 The device may not cause harmful interference.2 This device must accept any interference received, including interference that may cause undesired operation.
