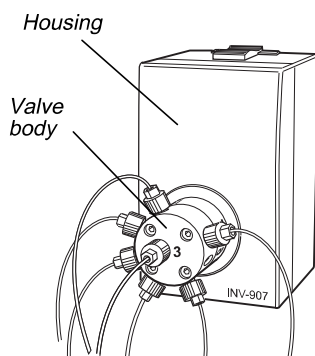


## Reference information

### 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

#### 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 x W x D

135 x 80 x 120 mm

##### Weight

1.2 kg

##### EMC Standards

This product meets the requirement of the EMC Directive 89/336/EEC through the harmonized standards EN 50081-1 (emission) and EN 50082-1 (immunity)

**Note:** The declaration of conformity is valid for the instrument when it is

- used in laboratory locations
- used in the same state as it was delivered from Amersham Pharmacia Biotech except for alterations described in the user manual
- connected to other CE labelled Amersham Pharmacia Biotech instruments or other products as recommended.