

## LABORATORIAL ROTAMETERS ROS TYPE



The rotameters ROS are used to measurement of volume fluxes or mass of gases in experimental and laboratorial installations. The rotameters can be produced with scale or with graph of flow for another gases. It is possible to produce this rotameters with control valve.

### EXEMPLARY MEASURING RANGES

Type	Connection on hose ø mm	Air dm <sup>3</sup> /h 293 K, 0,1013 MPa		Water dm <sup>3</sup> /h 293K, 0,1013MPa		Length of measuring pipe	Permissible conditions (pressure, temperature)
		min	max	min	max		
ROS 06	6	1	10	2,5	25	300	0,6 MPa  363 K
		2	20	3,1	31,5		
		3	30	4	40		
		5	50				
		10	100				
		12	120				
		15	150				
		20	200				
		25	250				
		30	300				
		35	350				
		40	400				
		50	500				
		60	600				
80	800						
100	1 000						
ROS 10	10	100	1 200	2,5	25		
		140	1 400	4,0	40		
		170	1 700	6,0	63		
		190	1 900	8	80		
		200	2 200	10	100		
		250	2 700				
		300	3 400				

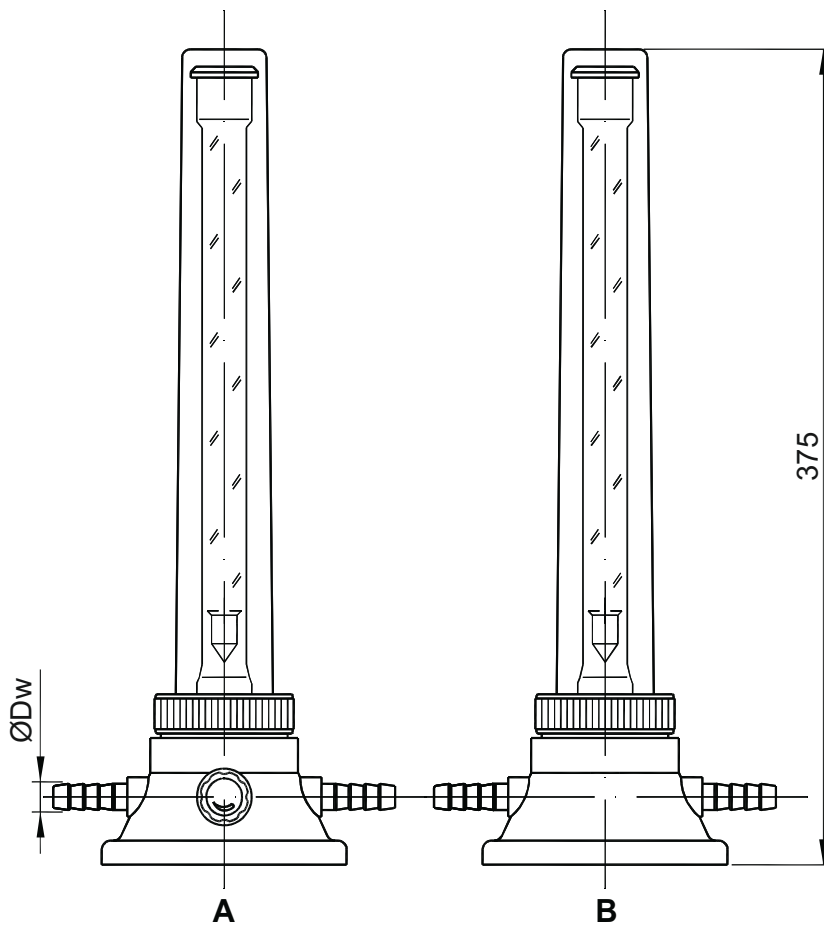
<b>ROS 16</b>	15	200	2 200	10	100	300	0,6 MPa
		250	2 800	12,5	125		
		300	3 400	16	160		
		315	3 150	20	200		
		400	4 000	25	250		
		400	4 300				
		500	5 600				
		700	7 000				
		750	7 700				
							363 K

On demand it is possible to fit the measuring range to individual needs of customer.

### ACCURACY OF READING

The standard accuracy class is 2,5 according with PN-85/M-42371.

On demand there is possible to execute the rotameter in higher accuracy class with calibration certificate from our laboratory, Weights and Measures Office or from Accredited Laboratory.



**A** – rotameter with valve

**B**- rotameter without valve



## CONSTRUCTION MATERIALS

Basic elements of rotameters are glass pipe and float.

Material of pipe: glass (alloy of boron and silicon) in sort simax or termisil.

Float's material: alloy of Al, chromium-nickel steel sort 1H18N9T, tarflen, PCV.

Seal of glass pipe: rings for suitable factor.

Connections, including hose ends, may be manufactured from the same material than floats.

In standard version it is aluminium. Flanges and pipe are made of carbon steel.

The rotameter's shield is made from plexiglass.

## INSTALLATION DIRECTIONS

- 1) The rotameter's stresses and vibrations are not allowed.
- 2) For rotameter reading we used the biggest dimension of float. Very often it is the upper edge of float. In reading time the float has to assume a steady position without vertical oscillation. The flux of fluid can not contains the gas bubbles.
- 3) Pollutants which flows through the rotameter creating the sediments on measuring elements so it is necessary disassemble the rotameter and flush it by dissolving substances. If the user is not able to clean up the rotameter there is possible to clean the rotamater by manufacturer. The sediments in rotameter causes falsility measurements.
- 4) The rotameter should be install in vertical position. The permissible devotion: 1.

## ORDER OF ROTAMETERS

The necessary information in order:

- 1) data of medium which flows through the rotameter: type, name, density, absolute pressure, temperature, viscosity
- 2) measuring range and kind of scale execution type: (standard or acid-proof steel) with valve or without valve