

INDUSTRIAL ROTAMETERS RDN TYPE



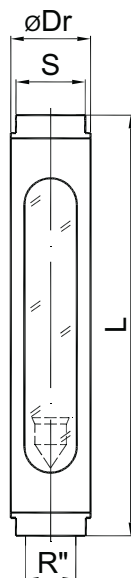
EXEMPLARY MEASURING RANGES

Type	Measuring range				Permissible conditions (pressure, temperature)	Pressure drop (max) kPa
	Air dm ³ /h 293 K, 0,1013 MPa		Water dm ³ /h 293 K, 0,1013 MPa			
	min	max	min	max		
RDN-06	1	10	2,5	25	1 MPa 363 K	0,45
	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					
RDN-10	100	1 200	2,5	25	1 MPa 363 K	0,77
	140	1 400	4,0	40		
	170	1 700	6,3	63		
	190	1 900	8	80		
	200	2 200	10	100		
	250	2 700				
	300	3 400				
RDN-15	200	2 200	10	100	1 MPa 363 K	1,22
	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					

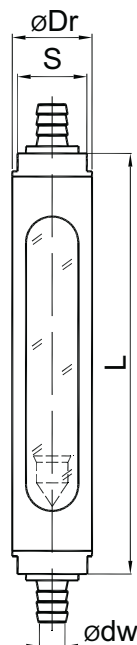


RDN-20	560	5 600	40	400	0,8 MPa 363 K	1,67
	750	7 500	63	630		
	900	9 000	100	1 000		
	1 200	12 000				
	1 300	13 000				
	1 400	14 000				
	2 100	21 000				
RDN-20P	-	-	63	630		1,38
RDN-25	1 400	14 000	100	1 000	0,8 MPa 363 K	2,39
	2 000	20 000	160	1 600		
	3 300	33 000	250	2 500		
	3 700	37 000				
	4 500	45 000				
	5 500	55 000				
	8 000	80 000				
RDN-40	4 000	40 000	250	2 500	0,6 MPa 363 K	3,45
	7 000	70 000	400	4 000		
	11 000	110 000	630	6 300		
	18 000	180 000				
RDN-40P	6 000	60 000	320	3 200		2,73
	9 000	90 000				
RDN-50	7 000	70 000	400	4 000	0,6 MPa 363 K	4,14
	10 000	100 000	630	6 300		
	11 000	110 000	1000	10 000		
	18 000	180 000				
RDN-65	17 000	170 000	1 000	10 000	0,4 MPa 363 K	5,06
	25 000	250 000	1 600	16 000		
	30 000	300 000				
	45 000	450 000				
RDN-80	40 000	400 000	2 500	25 000		6,13

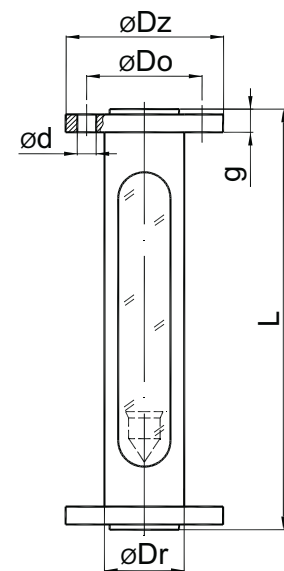
Thread connection



Connection on hose



Flanged connection





The main dimensions in mm

Type	L	D _r	s	R	d _w	D _z	D _o	d	g	mass, kg
RDN-06	370	32	24	3/8"	12,5	90	60	14	12	2
RDN-10	370	32	24	3/8"	12,5	90	60	14	12	2
RDN-15	370	38	30	1/2"	16	95	65	14	14	2,5
RDN-20	390	57	36	3/4"	20	105	75	14	16	4
RDN-20 P	390	48	36	3/4"	20	105	75	14	16	4
RDN-25	390	66	46	1"	25	115	85	14	16	5
RDN-40	400	84	60	1 1/2"	39	150	110	18	16	9,5
RDN-40P	400	76	60	1 1/2"	39	150	110	18	16	9,5
RDN-50	400	101	75	2"	-	165	125	18	18	14
RDN-65	420	114	90	2 1/2"	-	185	145	18	18	18
RDN-80	470	133	110	3"	-	200	160	18	20	24

CONSTRUCTION MATERIALS

Basic elements of rotameters: 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.

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.

INSTALLATION DIRECTIONS

- 1)The rotameter should be install in vertical position. The permissible deviation: 1.
- 2)In all types of rotameters the most profitable is (in case of industrial rotameters it is necessary) shunt of rotameters (fig.1). It makes possible to exchange rotameter without the interruption in technological process. The detour valve in closed condition must be completely tight.
- 3)The rotameter's stresses and vibrations are not allowed. In industrial constructions it is necessary (in front of and behind of rotameter) to join the pipeline with supporting structure and installing the elastic parts in adjoining segments.
- 4)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.
- 5)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 producent. The sediments in rotameter causes falsility measurements.
- 6)The strong blows of floats by buffer can cause breakage of glass pipe. We can avoid this situation by installing additional cut-off valve (fig.2). In periods, in which occur strong changes of flux the cut-off valve should be open. After fixing of flux the cut-off valve has to be closed and the rotameter indication should be read.
- 7)The rotameter which works in higher temperature should be protected against sudden cooling down for example treated by cold water.

