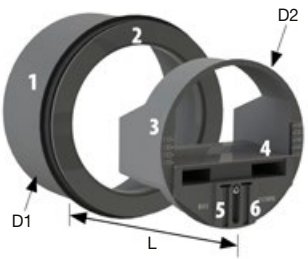
RDR – constant flow controllers



1 – regulator body with gasket
2 – seat of the regulator insert
3 – regulator insert body
4 – flapper
5 – control element
6 – screw to secure the setpoint
L – length of the regulator housing
D1 – nominal diameter
D2 – diameter of the regulator housing

Technical parameters

RDR – constant flow regulator
is designed to be built into the ductwork by inserting, it is used for automatic flow control for supply or exhaust air from offices, in residential buildings, schools, etc. It ensures a constant value of air flow irrespective of the pressure conditions in the pipe network.

- pro přívod nebo odvod
- for supply or discharge
- simple controller design
- good control characteristics
- easy regulation of large-scale installations
- easy cleaning and maintenance
- low noise level
- easy Installation

Construction
The flow regulator consists of a plastic body and a control unit that is set to the desired flow rate. When the air flow rate is increased, the pressure difference in the regulator increases (the tappings are on the face of the regulator), the damper is closed and the valve flow area is reduced. This causes the flow rate to drop back to its original value.

Installation
The air flow controller is installed by inserting it into the pipe at the prescribed distance from the distribution element. In the discharge pipe, this distance is at least one times the diameter of the regulator. In the supply pipe, this distance shall be at least three times the diameter of the regulator. The sealing in the wall or pipe shall be done by means of a sealing ring which is part of the regulator on its circumference. The integrity of the ring must be checked before installation. Horizontal and vertical mounting. Adjustment of the desired flow rate using the screw and scale on the sides of the regulator insert.

Notice
When designing and installing, care must be taken to ensure that the working pressure lies within the working range of the regulator and does not exceed the recommended values of 50–200 Pa. Otherwise, the regulator will not perform its function and may be a source of noise.
Regulators must not be installed in the piping without the possibility of inspection and replacement.

Example of order execution

R	D	R	–	1	0	0	–	1	5

product
pipe diameter
flow m^3/h

size	[m^3/h] *	D1 [mm]	D2 [mm]	L [mm]	regulated range [m^3/h]	part scale
80/15	15	76	76	55	15–50	2.5
80/30	30	76	76	55	15–50	2.5
80/45	45	76	76	55	15–50	2.5
100/15	15	96	93	70	15–50	5
100/30	30	96	93	70	15–50	5
100/45	45	96	93	70	15–50	5
100/50	50	96	93	70	15–50	5
100/60	60	96	93	70	50–100	5
100/75	75	96	93	70	50–100	5
100/90	90	96	93	70	50–100	5
125/15	15	120	117	86	15–50	5
125/30	30	120	117	86	15–50	5
125/45	45	120	117	86	15–50	5
125/60	60	120	117	86	50–100	5
125/75	75	120	117	86	50–100	5
125/90	90	120	117	86	50–100	5
125/120	120	120	117	86	100–180	5
125/150	150	120	117	86	100–180	5
125/180	180	120	117	86	100–180	5
160/120	120	146	148	91	100–180	5
160/150	150	146	148	91	100–180	5
160/180	180	146	148	91	100–180	5
160/210	210	146	148	91	180–300	5
160/240	240	146	148	91	180–300	5
160/270	270	146	148	91	180–300	5
160/300	300	146	148	91	180–300	5
200/210	210	190	195	91	180–300	10
200/240	240	190	195	91	180–300	10
200/270	270	190	195	91	180–300	10
200/300	300	190	195	91	180–300	10
200/350	350	190	195	91	300–500	10
200/400	400	190	195	91	300–500	10
200/450	450	190	195	91	300–500	10
200/500	500	190	195	91	300–500	10
250/300	300	245	236	127	300–500	25
250/350	350	245	236	127	300–500	25
250/400	400	245	236	127	300–500	25
250/450	450	245	236	127	300–500	25
250/500	500	245	236	127	300–500	25
250/550	550	245	236	127	500–750	25
250/600	600	245	236	127	500–750	25
250/650	650	245	236	127	500–750	25
250/700	700	245	236	127	500–750	25

* constant air flow at controller pressure 50–200 Pa

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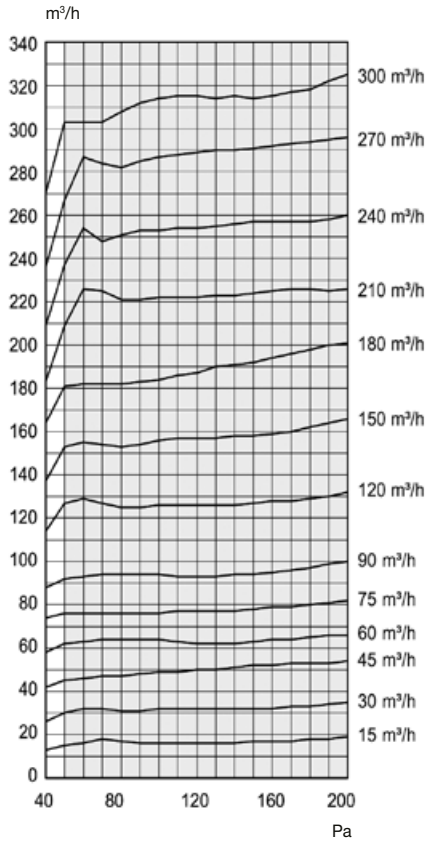
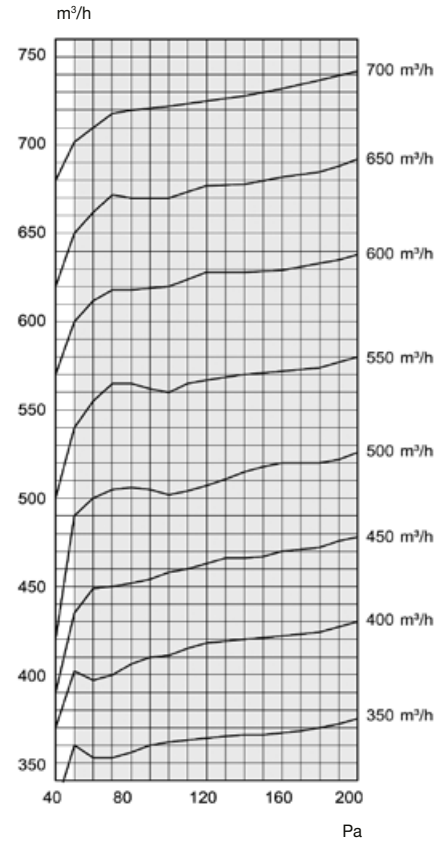
Characteristics



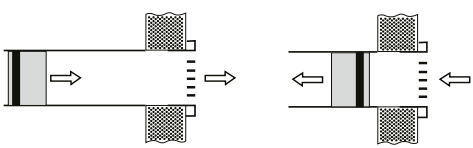


flow	L_{WA} [dB(A)]			
m³/h	50 Pa	100 Pa	150 Pa	200 Pa
15	25	29	32	35
30	26	31	35	38
45	27	33	36	39
60	32	37	39	42
75	32	37	40	42
90	32	38	41	44
120	30	34	39	42
150	33	37	41	45
180	34	40	44	47

flow	L_{WA} [dB(A)]			
m³/h	50 Pa	100 Pa	150 Pa	200 Pa
210	34	40	42	44
240	35	41	44	47
270	37	43	45	49
300	33	37	42	45
350	35	40	44	47
400	37	42	45	50
450	38	44	46	51
500	39	46	48	53

Additional illustration

RD – instabox



the correct direction of flow through the regulator must be observed