

RVP-P-SL

VAV RECTANGULAR VARIABLE FLOW REGULATOR FOR SMAYLAB SYSTEMS



Description:

VAV variable flow regulator with rectangular cross-section, operating from 2 m/s and equipped with the actuator and metering orifice. Specifically for the SmayLab system.

Table 1. Essential parameters.

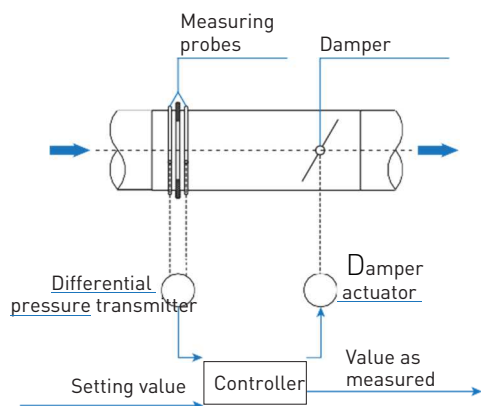
Essential Parameters	
Function	VAV
Operating range	2-10 m/s
Material	Galvanised or stainless steel 1.4301, aluminium
Operating pressure range	50-1000Pa
Air tightness class	B2/A2
Control precision	10%
Operating temperature range	0-50 °C

Intended Use

SL series VAV regulators are used for the automatic control of airflow in ventilation systems in laboratories and clean rooms covered by the SmayLab system. RVP-R-SL regulators can be made in two versions that differ in operating speed. For the standard version, the shift time of the controller damper is 150 seconds, while for the fast version it is only 3 seconds.

Design

The housing and shutter of the control damper are made of galvanised steel sheet or, if a special order, of 1.4301 stainless steel. The blades of a multi-blade damper are made of aluminium or stainless steel. They are fitted with PVC sealing, which ensures tightness when the baffle is fully closed. The regulator, in accordance with PNEN 1751, meets the requirements of B2 (for $A \leq 250$ mm and $B \leq 205$ mm) or A2 (for $A > 250$ mm or $B > 205$ mm) air tightness class.



Dimensions

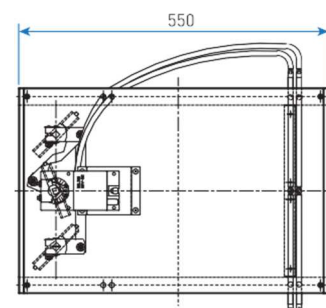
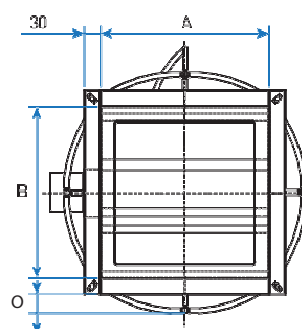


Figure 2. RVP-P-SL dimensions.

In the insulated version, insulation does not protrude outside the outline of the frame. In the non-insulated version $O=30$ mm and in the insulated version $O=60$ mm. The minimum clearance for dismantling the actuator is 100 mm and the recommended distance is 300 mm.



The airflow presets are set at the factory by the manufacturer and may not be modified by any unauthorised personnel.



Table 2. Specific data of the RVP-P-SL regulator

		Performance range, V [m ² /h]							
L _c [mm]	B [mm]	A [mm]							
		200	250	315	400	500	630	800	1000
550	105	150-750	190-940	240-1190	300-1510	380-1890	x	x	x
	205	290-1480	360-1850	460-2330	590-2960	730-3690	920-4650	x	x
	305	440-2200	540-2750	690-3460	870-4400	1090-5490	1380-6920	1750-8790	2190-10980
	405	580-2920	720-3650	910-4600	1160-5840	1450-7290	1830-9190	2330-11670	2910-14580
	505	720-3640	900-4550	1140-5730	1450-7280	1810-9090	2290-11460	2900-14550	3630-18180



It is possible to make a regulator of non-standard width (at intervals of 50 mm) for special orders.

Installation Recommendations

To ensure proper operation of the device, please observe the following rules when installing the regulators:

- 1) The regulators should not be mounted directly behind elbows, tee branches, diffusers and confusers with vertical angle greater than 15°.
- 2) Minimum distances should be as follows: 2 x the longer side from arcs, elbows and tees before the regulator, 1 x the longer side after the regulator.
- 3) If a differential pressure static sensor is being used, the only permitted way of installation is such that the plane where the sensor is attached is positioned vertically.

Pressure Drop

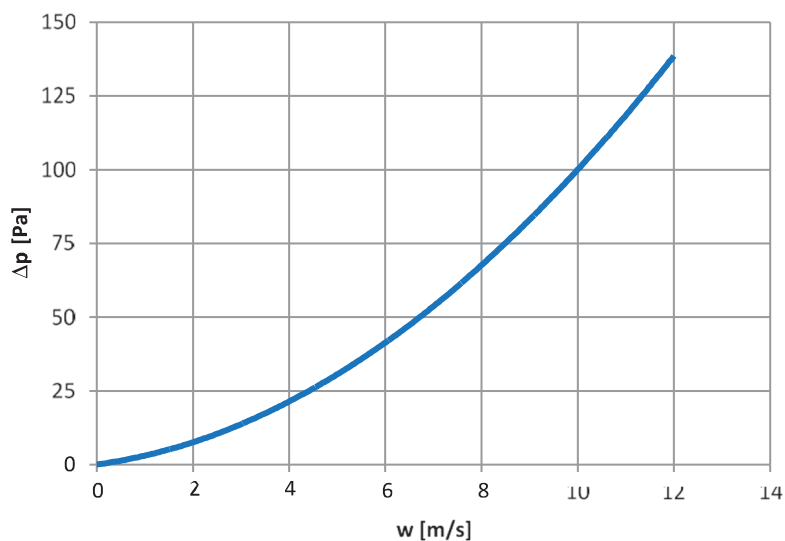


Chart 1. Pressure drop in RVP-P-SL regulator (damper fully open).

Sound Power Level

Table 3. Sound power level LW [dB] and sound pressure level L Pa [dB(A)] emitted by RVP-P-SL regulator

RVP-P-SL				dP = 100 Pa									dP = 300 Pa									dP = 500 Pa																	
				Noise emitted by the flow into the duct									Through the housing			Noise emitted by the flow into the duct									Through the housing			Noise emitted by the flow into the duct									Through the housing		
				In frequency bands, Lw [dB]									Total	w/o insul.	w.insul.	In frequency bands, Lw [dB]									Total	w/o insul.	w.insul.	In frequency bands, Lw [dB]									Total	w/o insul.	w.insul.
A × B [mm]	Airflow	Rate	V [m/s]	V [m³/h]	V [l/s]	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	LpA [dB(A)]	LpA [dB(A)]	LpA [dB(A)]	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	LpA [dB(A)]	LpA [dB(A)]	LpA [dB(A)]	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	LpA [dB(A)]	LpA [dB(A)]	LpA [dB(A)]	
																																							63 Hz
200 × 105	4	302	84	54	53	52	49	49	46	43	37	45	36	23	60	60	62	60	59	59	57	54	57	47	34	63	64	67	65	64	64	64	61	63	53	39			
	6	454	126	59	57	55	52	52	49	46	40	48	37	24	66	68	68	64	62	60	59	56	60	49	36	69	72	74	69	67	66	65	63	66	55	41			
	8	605	168	62	61	58	54	54	51	48	41	51	38	24	70	73	71	66	64	62	60	57	62	51	37	73	79	77	70	68	67	66	65	67	56	43			
	10	756	210	65	63	60	56	55	52	49	43	52	39	25	73	77	72	67	65	63	61	58	63	52	38	77	83	78	70	67	67	66	66	68	58	44			
250 × 105	4	378	105	54	53	52	50	49	47	43	38	46	36	23	60	61	62	60	60	59	57	54	58	48	34	63	65	67	65	65	64	64	62	63	53	40			
	6	567	158	59	58	56	52	52	49	46	40	49	38	24	66	68	68	64	62	61	59	56	60	50	36	70	73	74	69	67	66	65	63	66	55	42			
	8	756	210	63	61	58	54	54	51	48	42	51	39	25	70	73	72	67	64	62	60	58	62	51	38	74	79	77	70	68	67	66	65	67	57	44			
	10	945	263	65	64	60	56	56	53	50	43	53	40	25	74	77	73	67	65	63	61	59	64	52	39	78	84	78	70	67	67	66	66	68	59	45			
315 × 105	4	476	132	54	54	53	50	50	47	44	38	46	37	24	61	62	63	61	60	59	58	54	58	48	35	64	65	68	65	65	65	64	62	63	54	40			
	6	714	198	59	58	56	53	53	50	47	41	49	38	25	67	69	68	64	63	61	59	56	61	50	37	70	74	74	69	67	66	65	64	66	56	43			
	8	953	265	63	61	58	55	55	52	49	43	51	39	25	71	74	72	67	65	62	61	58	63	52	38	75	79	77	70	68	67	66	65	67	58	45			
	10	1191	331	66	64	60	56	57	53	50	44	53	40	26	74	77	73	67	65	63	62	59	64	53	40	78	84	78	71	67	68	67	66	68	60	46			
400 × 105	4	605	168	55	54	53	51	50	48	44	39	47	37	24	62	62	63	61	60	60	58	55	58	49	36	65	66	68	66	65	65	64	62	64	54	41			
	6	907	252	60	59	56	53	53	50	47	41	50	39	25	68	69	69	65	63	61	60	57	61	51	38	71	74	74	69	67	66	66	64	66	56	43			
	8	1210	336	63	62	58	55	55	52	49	43	52	40	26	72	74	72	67	65	62	61	58	63	52	39	76	80	77	70	67	67	67	65	67	58	45			
	10	1512	420	66	64	60	57	57	54	51	45	54	40	26	75	78	73	67	66	63	62	59	64	54	40	79	84	78	71	67	68	67	66	68	61	47			
500 × 105	4	756	210	55	55	54	51	51	48	45	39	47	38	25	62	63	64	61	61	60	58	55	59	49	36	66	67	69	66	66	65	65	63	64	55	41			
	6	1134	315	60	59	57	54	54	51	48	42	50	39	26	68	70	69	65	63	62	60	57	61	51	38	72	75	74	69	67	67	66	64	66	57	44			
	8	1512	420	64	62	59	56	56	53	50	44	52	40	26	73	74	72	67	65	63	61	58	63	53	40	77	80	77	70	68	67	67	65	68	59	46			
	10	1890	525	67	64	60	57	58	54	51	45	54	41	27	76	78	73	67	66	64	62	59	64	55	41	80	84	79	71	68	68	68	66	69	61	48			
200 × 205	4	590	164	55	54	53	51	50	48	44	39	47	37	24	62	62	63	61	60	60	58	55	58	49	35	65	66	68	66	65	65	64	62	64	54	41			
	6	886	246	60	59	56	53	53	50	47	41	50	39	25	68	69	69	65	63	61	60	57	61	51	37	71	74	74	69	67	66	66	64	66	56	43			
	8	1181	328	63	62	58	55	55	52	49	43	52	40	26	72	74	72	67	65	62	61	58	63	52	39	76	80	77	70	68	67	67	65	67	58	45			
	10	1476	410	66	64	60	57	57	54	51	45	53	40	26	75	78	73	67	66	63	62	59	64	54	40	79	84	78	71	67	68	67	66	68	60	47			
250 × 205	4	738	205	55	55	54	51	51	48	45	39	47	38	25	62	63	64	61	61	60	58	55	59	49	36	66	67	69	66	66	65	65	63	64	55	41			
	6	1107	308	60	59	56	54	54	51	48	42	50	39	26	68	70	69	65	63	62	60	57	61	51	38	72	75	74	69	67	67	66	64	66	57	44			
	8	1476	410	64	62	59	56	56	53	50	44	52	40	26	72	74	72	67	65	63	61	58	63	53	40	76	80	77	70	68	67	67	65	68	59	46			
	10	1845	513	67	64	60	57	58	54	51	45	54	41	27	76	78	73	67	66	64	62	59	64	54	41	80	84	78	71	67	68	67	66	69	61	48			
315 × 205	4	930	258	56	55	54	52	51	49	45	40	48	38	25	63	64	64	62	61	60	59	56	59	50	37	66	68	69	66	66	66	65	63	64	55	42			
	6	1395	387	61	59	57	54	54	51	48	43	51	39	26	69	70	69	65	63	62	60	57	61	52	39	73	75	75	69	68	67	66	64	66	58	45			
	8	1860	517	64	62	59	56	57	53	50	44	53	41	27	73	75	72	67	65	63	62	59	63	54	41	77	80	77	70	68	68	67	65	68	60	47			
	10	2325	646	67	64	60	57	58	55	52	46	54	41	27	76	78	73	68	66	64	63	60	64	55	42	81	84	79	71	68	68	68	66	69	62	49			
400 × 205	4	1181	328	56	56	55	52	52	49	46	40	48	39	26	64	64	65	62	62	61	59	56	59	50	37	67	68	70	66	66	66	65	63	65	56	43			
	6	1771	492	61	60	57	55	55	52	49	43	51	40	27	70	71	69	65	64	62	61	58	62	52	40	74	76	75	69	68	67	66	64	67	58	46			
	8	2362	656	65	62	59	56	57	54	51	45	53	41	27	74	75	72	67	65	63	62	59	63	54	41	78	81	77	71	68	68	67	65	68	61	48			
	10	2952	820	67	65	60	58	59	55	52	47	55	42	28	77	78	73	68	66	64	63	60	65	56	43	82	85	79	72	68	68	68	66	69	63	50			
500 × 205	4	1476	410	57	56	55	53	52	50	46	41	49	39	27	64	65	65	62	62	61	59	56	60	51	38	68	69	70	67	67	66	65	64	65	56	43			
	6	2214	615	62	60	57	55																																

RVP-P-SL		dP = 100 Pa											dP = 300 Pa											dP = 500 Pa																			
		Noise emitted by the flow into the duct											Through the housing			Noise emitted by the flow into the duct											Through the housing			Noise emitted by the flow into the duct											Through the housing		
		In frequency bands, L _w [dB]									Total	w/o insul.	w. insul.	In frequency bands, L _w [dB]									Total	w/o insul.	w. insul.	In frequency bands, L _w [dB]									Total	w/o insul.	w. insul.						
A × B [mm]	Airflow V [m ³ /s]	Rate V [m ³ /h]	V [l/s]	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	L _{pA} [dB(A)]	L _{pA} [dB(A)]	L _{pA} [dB(A)]	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	L _{pA} [dB(A)]	L _{pA} [dB(A)]	L _{pA} [dB(A)]	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	L _{pA} [dB(A)]	L _{pA} [dB(A)]	L _{pA} [dB(A)]							
																																					250 × 305	4	1098	305	56	56	54
	6	1647	458	61	60	57	54	55	52	48	43	51	40	27	69	70	69	65	63	62	61	58	62	52	39	73	75	75	69	68	67	66	64	67	58	45							
	8	2196	610	64	62	59	56	57	54	51	45	53	41	27	74	75	72	67	65	63	62	59	63	54	41	78	81	77	71	68	68	67	65	68	61	48							
	10	2745	763	67	65	60	58	59	55	52	46	55	42	28	77	78	73	68	66	64	63	60	64	56	43	81	85	79	72	68	68	68	66	69	63	50							
315 × 305	4	1383	384	57	56	55	52	52	50	46	41	49	39	26	64	65	65	62	62	61	59	56	60	51	38	68	69	70	67	66	66	65	63	65	56	43							
	6	2075	576	62	60	57	55	55	52	49	44	52	40	27	70	71	69	65	64	63	61	58	62	53	40	74	76	75	70	68	67	67	65	67	59	46							
	8	2767	769	65	63	59	57	58	54	51	45	54	41	28	74	75	72	67	65	64	62	59	63	55	42	79	81	78	71	68	68	67	65	68	61	49							
	10	3459	961	68	65	60	58	59	56	53	47	55	42	28	77	78	74	68	66	64	63	60	65	56	44	82	85	80	72	68	68	68	66	69	64	51							
400 × 305	4	1757	488	57	57	55	53	53	50	46	41	49	39	27	65	66	66	62	62	61	59	57	60	51	38	69	70	70	67	67	67	65	64	65	57	44							
	6	2635	732	62	60	58	55	56	53	49	44	52	41	28	71	71	69	65	64	63	61	58	62	53	41	75	77	75	70	68	68	67	65	67	60	47							
	8	3514	976	65	63	59	57	58	55	52	46	54	42	28	75	76	72	67	65	64	63	59	64	55	43	79	81	78	71	68	68	68	66	68	62	50							
	10	4392	1220	68	65	60	58	60	56	53	48	56	43	29	78	79	74	68	66	65	64	60	65	57	44	83	85	80	72	68	69	69	66	70	65	52							
500 × 305	4	2196	610	58	57	56	53	53	51	47	42	50	40	28	66	66	66	63	63	62	60	57	60	52	39	69	71	71	67	67	67	66	64	65	57	45							
	6	3294	915	62	61	58	56	56	53	50	45	53	41	28	71	72	69	65	64	63	62	59	62	54	41	76	77	75	70	68	68	67	65	67	60	48							
	8	4392	1220	66	63	59	57	59	55	52	47	55	42	29	76	76	72	67	65	64	63	60	64	56	44	80	82	78	71	68	68	68	66	69	63	51							
	10	5490	1525	68	65	60	59	60	57	54	48	56	43	30	79	79	74	68	66	65	64	61	65	58	45	84	85	80	73	69	69	69	66	70	66	53							
630 × 305	4	2657	738	58	58	56	54	54	51	47	42	50	40	28	66	67	67	63	63	62	60	57	61	52	40	70	71	71	67	67	67	66	64	66	58	45							
	6	3985	1107	63	61	58	56	57	54	50	45	53	42	29	72	72	70	65	64	64	62	59	63	55	42	76	78	75	70	68	68	67	65	67	61	49							
	8	5314	1476	66	64	59	58	59	56	53	47	55	43	30	76	76	72	67	65	64	63	60	64	57	44	81	82	78	72	69	69	68	66	69	64	52							
	10	6642	1845	69	65	61	59	61	57	54	49	57	44	30	79	79	74	68	66	65	64	61	65	59	46	84	86	81	73	69	69	69	66	70	67	54							
800 × 305	4	3514	976	59	59	57	54	54	52	48	43	51	41	29	67	68	67	64	63	63	60	58	61	53	40	71	72	72	68	68	68	66	65	66	59	46							
	6	5270	1464	63	62	58	57	58	54	51	46	54	42	30	73	73	70	65	65	64	62	59	63	55	43	77	78	75	70	68	68	67	65	67	62	49							
	8	7027	1952	67	64	60	58	60	56	53	48	56	43	30	77	77	72	67	65	65	64	60	64	58	45	82	82	78	72	69	69	68	66	69	65	53							
	10	8784	2440	69	66	61	59	62	58	55	50	57	44	31	80	79	75	69	66	65	65	61	66	60	47	85	86	81	74	69	69	69	66	71	68	56							
1000 × 305	4	4392	1220	59	59	57	55	55	52	48	43	51	41	29	68	69	68	64	64	63	60	58	62	54	41	72	73	72	68	68	68	66	65	66	59	47							
	6	6588	1830	64	62	59	57	58	55	51	46	54	43	30	73	73	70	65	65	64	63	60	63	56	44	78	79	75	70	68	69	68	66	68	62	50							
	8	8784	2440	67	64	60	58	60	57	54	49	56	44	31	78	77	72	67	65	65	64	61	64	58	46	83	83	78	72	68	69	69	66	69	66	54							
	10	10980	3050	69	66	61	60	62	58	55	50	58	45	31	81	80	75	69	66	66	65	61	66	60	48	86	86	81	74	70	69	70	66	71	69	57							
200 × 405	4	1166	324	56	56	55	52	52	49	46	40	48	39	26	64	64	65	62	62	61	59	56	59	50	37	67	68	70	66	66	66	65	63	65	56	43							
	6	1750	486	61	60	57	55	55	52	49	43	51	40	27	70	71	69	65	64	62	61	58	62	52	40	74	76	75	69	68	67	66	64	67	58	46							
	8	2333	648	65	62	59	56	57	54	51	45	53	41	27	74	75	72	67	65	63	62	59	63	54	41	78	81	77	71	68	68	67	65	68	61	48							
	10	2916	810	67	65	60	58	59	55	52	47	55	42	28	77	78	73	68	66	64	63	60	65	56	43	81	85	79	71	68	68	68	66	69	63	50							
250 × 405	4	1458	405	57	56	55	52	38	32	28	27	44	39	26	64	65	65	62	50	46	43	37	54	51	38	68	69	70	67	56	52	50	41	59	56	43							
	6	2187	608	62	60	57	55	40	33	30	28	46	40	27	70	71	69	65	51	46	44	37	57	53	40	74	76	75	70	56	52	51	41	62	59	46							
	8	2916	810	65	63	59	57	41	33	30	28	48	41	28	74	75	72	67	51	46	44	37	59	55	42	79	81	78	71	56	51	51	41	65	62	49							
	10	3645	1013	68	65	60	58	41	34	30	28	49	42	28	78	79	74	68	51	46	45	37	61	57	44	82	85	80	72	56	51	52	41	67	64	51							
315 × 405	4	1837	510	57	57	55	53	53	50	47	41	49	39	27	65	66	66	63	62	62	59	57	60	51	39	69	70	71	67	67	67	65	64	65	57	44							
	6	2756	765	62	61	58	55	56	53	50	44	52	41	28	71	72	69	65	64	63	61	58																					

RVP-P-SL		dP = 100 Pa												dP = 300 Pa												dP = 500 Pa																		
		Noise emitted by the flow into the duct												Through the housing			Noise emitted by the flow into the duct												Through the housing			Noise emitted by the flow into the duct												Through the housing
A × B [mm]	Airflow V [m³/s]	Rate V [m³/h]	V [l/s]	In frequency bands, L _w [dB]								Total	w/o insul.	w. insul.	In frequency bands, L _w [dB]								Total	w/o insul.	w. insul.	In frequency bands, L _w [dB]								Total	w/o insul.	w. insul.								
				63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	L _{pA} [dB(A)]	L _{pA} [dB(A)]	L _{pA} [dB(A)]	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	L _{pA} [dB(A)]	L _{pA} [dB(A)]	L _{pA} [dB(A)]	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	L _{pA} [dB(A)]	L _{pA} [dB(A)]	L _{pA} [dB(A)]								
630 × 405	4	3674	1021	59	59	57	54	54	52	48	43	51	41	29	67	68	67	64	64	63	60	58	61	53	41	71	72	72	68	68	68	66	65	66	59	46								
	6	5511	1531	63	62	58	57	58	55	51	46	54	42	30	73	73	70	65	65	64	62	59	63	55	43	77	78	75	70	68	68	67	66	67	62	50								
	8	7348	2041	67	64	60	58	60	56	53	48	56	43	30	77	77	72	67	65	65	64	60	64	58	45	82	83	78	72	69	69	69	66	69	65	53								
	10	9185	2552	69	66	61	59	62	58	55	50	57	44	31	80	79	74	69	66	66	65	61	66	60	47	85	86	81	74	69	69	69	66	71	68	56								
800 × 405	4	4666	1296	59	59	57	55	55	53	48	44	52	42	29	68	69	68	64	64	63	61	58	62	54	41	72	73	72	68	68	68	66	65	67	59	47								
	6	6998	1944	64	62	59	57	58	55	52	47	54	43	30	74	74	70	66	65	64	63	60	63	56	44	78	79	75	70	68	69	68	66	68	63	51								
	8	9331	2592	67	64	60	59	61	57	54	49	56	44	31	78	77	72	67	65	65	64	61	65	59	46	83	83	79	73	69	69	69	66	69	66	54								
	10	11664	3240	70	66	61	60	62	58	56	51	58	45	31	81	80	75	69	66	66	65	61	66	61	48	86	86	82	75	70	69	70	66	71	69	57								
1000 × 405	4	5832	1620	60	60	58	55	55	53	49	44	52	42	30	69	69	68	64	64	63	61	59	62	54	42	73	74	73	68	68	68	66	65	67	60	47								
	6	8748	2430	64	63	59	57	59	56	52	47	55	43	31	74	74	70	66	65	65	63	60	63	57	45	79	79	75	70	68	69	68	66	68	63	51								
	8	11664	3240	67	65	60	59	61	57	54	49	57	45	32	78	77	72	67	66	65	64	61	65	59	47	84	83	79	73	69	69	69	66	70	67	55								
	10	14580	4050	70	66	61	60	63	59	56	51	58	45	32	82	80	75	69	66	66	66	62	66	62	49	87	86	83	75	70	69	70	67	72	70	58								
200 × 505	4	1454	404	57	56	55	52	52	50	46	41	49	39	27	64	65	65	62	62	61	59	56	60	51	38	68	69	70	67	66	66	65	63	65	56	43								
	6	2182	606	62	60	57	55	55	52	49	44	52	40	27	70	71	69	65	64	63	61	58	62	53	40	74	76	75	70	68	67	67	65	67	59	46								
	8	2909	808	65	63	59	57	58	54	51	46	54	41	28	74	75	72	67	65	64	62	59	63	55	42	79	81	78	71	68	68	68	66	68	62	49								
	10	3636	1010	68	65	60	58	59	56	53	47	55	42	28	78	79	74	68	66	64	63	60	65	57	44	82	85	80	72	68	68	68	66	69	64	51								
250 × 505	4	1818	505	57	57	55	53	53	50	46	41	49	39	27	65	66	66	63	62	62	59	57	60	51	39	69	70	70	67	67	67	65	64	65	57	44								
	6	2727	758	62	61	58	55	56	53	50	44	52	41	28	71	72	69	65	64	63	61	58	62	54	41	75	77	75	70	68	68	67	65	67	60	47								
	8	3636	1010	65	63	59	57	58	55	52	46	54	42	29	75	76	72	67	65	64	63	59	64	56	43	80	81	78	71	68	68	68	66	68	62	50								
	10	4545	1263	68	65	60	58	60	56	53	48	56	43	29	78	79	74	68	66	65	64	60	65	57	45	83	85	80	72	68	69	69	66	70	65	52								
315 × 505	4	2291	636	58	58	56	53	53	51	47	42	50	40	28	66	67	66	63	63	62	60	57	60	52	39	69	71	71	67	67	67	66	64	66	58	45								
	6	3436	954	62	61	58	56	56	53	50	45	53	41	29	72	72	70	65	64	63	62	59	62	54	42	76	77	75	70	68	68	67	65	67	60	48								
	8	4581	1273	66	63	59	57	59	55	52	47	55	42	29	76	76	72	67	65	64	63	60	64	56	44	80	82	78	71	68	68	68	66	69	63	51								
	10	5727	1591	68	65	60	59	61	57	54	48	56	43	30	79	79	74	68	66	65	64	61	65	58	45	84	85	80	73	69	69	69	66	70	66	54								
400 × 505	4	2657	738	58	58	56	54	54	51	47	42	50	40	28	66	67	67	63	63	62	60	57	61	53	40	70	72	71	68	67	67	66	64	66	58	45								
	6	3985	1107	63	61	58	56	57	54	51	45	53	42	29	72	73	70	65	64	64	62	59	63	55	42	77	78	75	70	68	68	67	65	67	61	49								
	8	5314	1476	66	64	60	58	59	56	53	48	55	43	30	76	76	72	67	65	65	63	60	64	57	44	81	82	78	72	69	69	68	66	69	64	52								
	10	6642	1845	69	65	61	59	61	57	54	49	57	44	30	80	79	74	68	66	65	64	61	65	59	46	85	86	81	73	69	69	69	66	70	67	55								
500 × 505	4	3636	1010	59	59	57	54	54	52	48	43	51	41	29	67	68	67	64	63	63	60	58	61	53	40	71	72	72	68	68	68	66	65	66	59	46								
	6	5454	1515	63	62	58	57	58	55	51	46	54	42	30	73	73	70	65	65	64	62	59	63	55	43	77	78	75	70	68	68	67	66	67	62	50								
	8	7272	2020	67	64	60	58	60	56	53	48	56	43	30	77	77	72	67	65	65	64	60	64	58	45	82	83	78	72	69	69	69	66	69	65	53								
	10	9090	2525	69	66	61	59	62	58	55	50	57	44	31	80	79	75	69	66	66	65	61	66	60	47	85	86	81	74	69	69	69	66	71	68	56								
630 × 505	4	4581	1273	59	59	57	55	55	52	48	43	51	42	29	68	69	68	64	64	63	61	58	62	54	41	72	73	72	68	68	68	66	65	66	59	47								
	6	6872	1909	64	62	59	57	58	55	52	47	54	43	30	74	74	70	65	65	64	63	60	63	56	44	78	79	75	70	68	69	68	66	68	62	50								
	8	9163	2545	67	64	60	59	61	57																																			

Regulation and Actuating System

This unit is controlled by the SmayLab system controller.

The regulators are manufactured in two versions:

A) Standard automation design – a standard version of the RVP-P-SL (with the total shift time of the shutter equal to 150 seconds) and is used for local exhaust systems, exhaust arms, etc.:

VAV – Compact

In this version, the regulation and actuating system of the device consists of the differential pressure dynamic sensor, actuator and damper drive. It constitutes a compact unit with the designation GDB181.1E and is mounted to the RVP regulator depending on the nominal diameter Dn.

B) High-speed automation design – a standard version of the RVP-P-SL (with the total shift time of the shutter equal to 3 seconds) and is used for air supply, air exhaust and fume ventilation hoods.

In this version, the regulation and actuating system of the device consists of a differential pressure static sensor with an actuator with the designation GAP191.1E. All the components are mounted to the RVP regulator depending on the nominal diameter Dn.



The control and actuating system is connected at the factory by the manufacturer but the purchaser is required to connect the power supply to the regulator and controller, as well as the control signal from the controller.

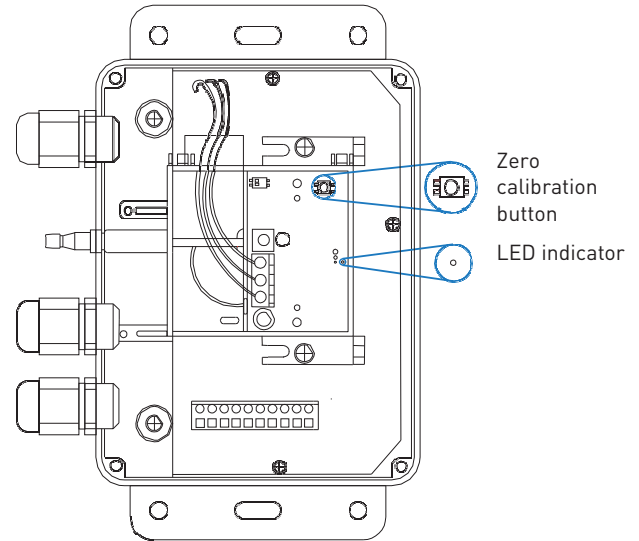


Figure 4. Localization of the calibration button.

RVP-P-SL - VAV Rectangular Variable Flow Regulator for SmayLab systems

When ordering, please provide information as follows:

RVP-P<I> - SL - <A> x - <V_{MAX}> / <V_{MIN}> - <T_S> - <Z> - <P>

Table 4. Actuator technical data.

Technical Data		Actuator	
		GDB 181.1E	GAP 191.1E
Nominal voltage		24 V AC, 50/60 Hz	24 V AC/DC (with QBM 3460-1)
Power consumption	Duty	2.5 [W]	22 [W]
	Idle	0.5 [W]	5 [W]
	Rated power	3 [VA]	22 [W]
Torque		5 [Nm] (10 [Nm])	6 [Nm]
Run time from 0 to 100%		150 secs	2 secs
Connection diagram		SmayLab diagram	SmayLab diagram/Figure 3

Additional technical data is provided in the data sheets of individual actuators and in the full data sheet.

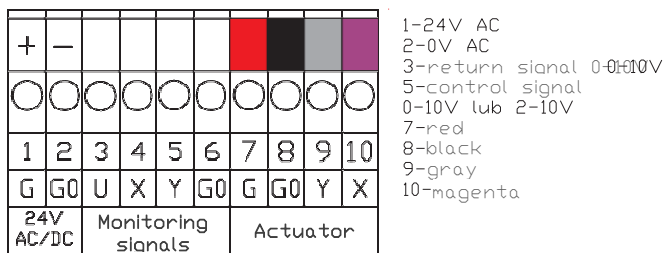


Figure 3. GAP 191.1E actuator – transmitter chip connection diagram.

Where:

I	Insulation*	None – non-insulated t – Acoustic insulation
A	Clear width [mm]	
B	Clear height [mm]	
V_{MAX}	Maximum airflow [m³/h]	
V_{MIN}	Minimum airflow [m³/h]	
T_S	Actuator	GAP – GAP191.1E (actuator 3s), QBM-3460-1 (pressure transmitter) GDB – GDB181.1E (actuator 150s)
Z	Application	N – Air supply W – Exhaust O – Local exhaust system
P	Material*	None – Galvanised steel SN – Stainless steel

* Optional sizes – if none, default values will be used

Example product marking:

RVP-Pt-SL-400x205-1100/700-O-SN