

Vacuum Generator ECV

Maximum vacuum flow: -94Kpa

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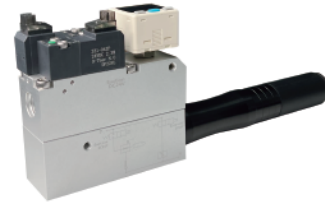


General

Product characteristics

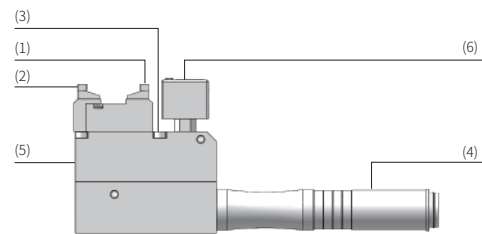
Integrated vacuum generators for handling airtight or slightly breathable workpieces in the electronics, packaging, robotics and automotive industries

- * High flow, dirt resistance, long life, high performance vacuum generator for handling airtight workpieces under extreme conditions, such as for handling sheet metal in the stamping production line
- * Pick and place application for short beat time
- * For vacuum system preparation and accurate monitoring in automated systems



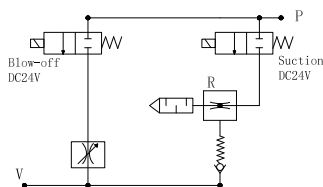
Product structure

- * Supply valve (1)
- * Damage valve (2)
- * Reverse blow adjustment button (3)
- * Silencer tube (4)
- * Compressed air intake (5)
- * Pressure switch (6)

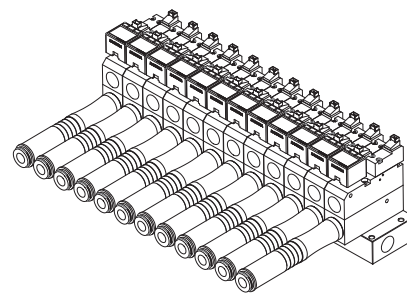


Product advantages

- * Prevent workpiece from being sucked or damaged, compact suction unit, can be directly connected, porous material can also
- Safe suction, low operating cost, no pollution process area



Schematic diagram of gas path



* Vacuum generator ECV multiple side-by-side installation examples

Vacuum Generator

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ECV-350M Ordering NO

ECV	350M	H	S	01
1	2	3	4	5

1-Series	2-Models	3-Specification
ECV	350M	H High vacuum
		L Low vacuum
		M Low admission
4-Silencer	5-Pressure switch	
S	No-pressure switch	
With silencer	01 NPN	
	03 PNP	



ECV-350M Technical Data

Models	Used fluid	Temperature [°C]	Inlet pressure [Mpa]	Air consumption [L/Min]	Vacuum pressure reached [-Kpa]	Maximum vacuum flow [L/Min]	Weight [Kg]
ECV-350M-H	air	0~60	0.5	115	94	372	0.58
ECV-350M-L	air	0~60	0.5	115	70	342	0.58
ECV-350M-M	air	0~60	0.31	113	90	336	0.58

Vacuum flow rate with different vacuum degree (-kpa)(L/min)

Models	0	10	20	30	40	50	60	70	80	90
ECV-350M-H	372	222	132	108	78	48.6	24	18	8.4	1.2
ECV-350M-L	342	198	132	84	51	37.2	21	10.8	0	0
ECV-350M-M	336	150	108	66	39	30	21	15	6	0

Pumping time with different vacuum (-kpa) (S/L)

Models	10	20	30	40	50	60	70	80	90
ECV-350M-H	0.02	0.05	0.1	0.2	0.3	0.4	0.7	1.2	2.4
ECV-350M-L	0.02	0.06	0.11	0.21	0.35	0.6	1	0	0
ECV-350M-M	0.02	0.06	0.12	0.25	0.45	0.7	1	1.6	4

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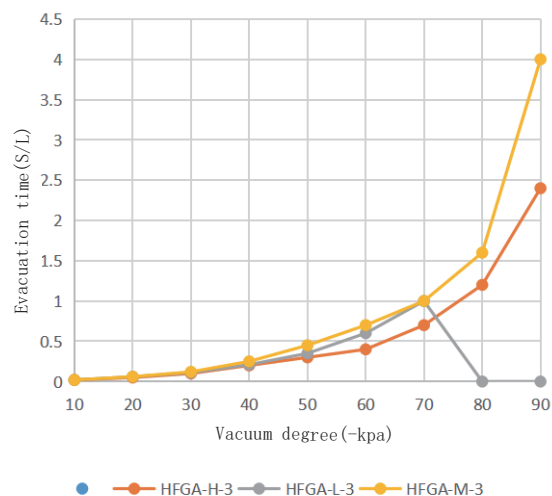
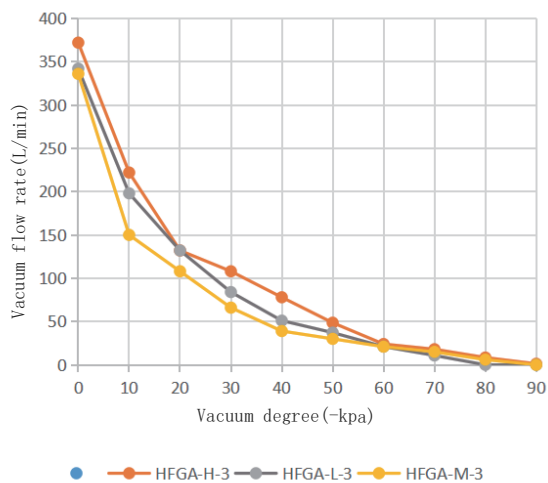
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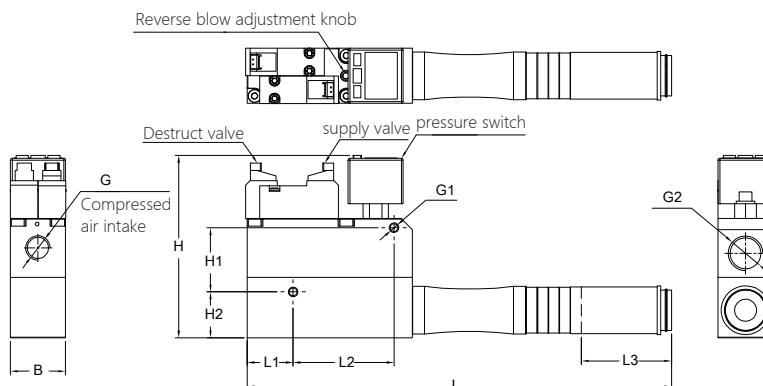

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performance parameter



ECV-350M Design Data



ECV-350M

Size[mm]

Models	G	G1	G2	H	H1	H2	L	L1	L2	L3	B
ECV-350M	P:G1/4	M5 ∇ 10(4.2through-hole)	V:G1/2	100	35	25	231.3	25	55	49.3	30


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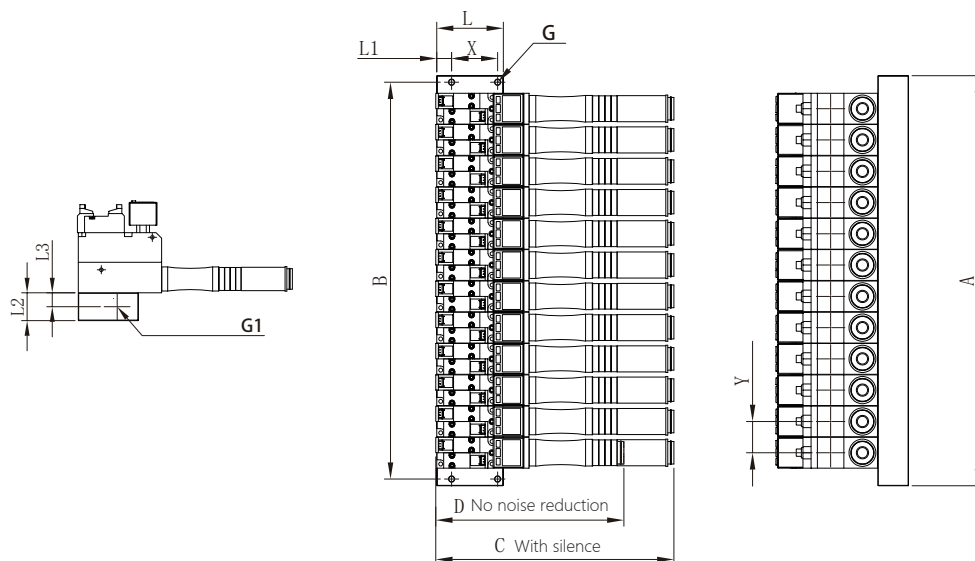


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ECV-350M Design Data



ECV-350Mpackaging

Size[mm]

Models	Modular unit	A	B	C	D	L	L1	L2	L3	X	G	G1
ECV-350M-**-F12	12	400	387	232.5	183.5	65	14.5	30	15	45	4-φ5.5	2-G1/2
ECV-350M-**-F10	10	339	326	232.5	183.5	65	14.5	30	15	45	4-φ5.5	2-G1/2
ECV-350M-**-F8	8	278	265	232.5	183.5	65	14.5	30	15	45	4-φ5.5	2-G1/2
ECV-350M-**-F6	6	217	204	232.5	183.5	65	14.5	30	15	45	4-φ5.5	2-G1/2
ECV-350M-**-F4	4	156	143	232.5	183.5	65	14.5	30	15	45	4-φ5.5	2-G1/2

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General

Pressure Switch Technical Data

Models		47C-□ (continuous pressure)
Rated pressure range		-100.0~100.0 kPa
Set pressure range		-103.0~103.0 kPa
Compression resistance		500 kPa
Applicable gas		air, non-corrosive, non-flammable
Pressure unit Minimum scale value	kPa	0.1
	MPa	—
	kgf/cm ²	0.001
	bar	0.001
	psi	0.01
	inHg	0.1
	mmHg	1
Mains input		12 to 24V DC $\pm 10\%$, ripple peakless than 10%
Consumption current		≤ 40 mA (off load)
Switched out put	Output type	open collector output (NPN or PNP)
	load current	Max.125mA
	Internal pressure drop	≤ 1.0 V
	Response time	≤ 2.5 ms (false action prevention function: 25ms, 100ms, 250ms, 500ms, 1000ms and 1500ms optional)
Linear analogy exportation	Output voltage	1 ~ 5V $\pm 2.5\%$ F.S. (under the rated pressure range)
	Output impedance	About 1k Ω
	Linearity	$\pm 1\%$ F.S.
Display	Display	3 colors (red/green/orange) display (sampling rate: 5 times/SEC, 2 times/SEC, 1 time/SEC optional)
	Display accuracy	$\pm 1\%$ F.S. ± 1 digit (at ambient temperature: 25 $\pm 3^\circ$ C)
	Repeated accuracy	$\pm 0.3\%$ F.S. ± 1 digit
	Action light	orange (1 indicator) OUT1
Environmental proof	Protective structure class	IP 40
	Ambient temperature	0 ~ 50 $^\circ$ C
	Temperature characteristic	$\pm 3\%$ F.S. comparison parameter Temperature 25 $^\circ$ C (0~50 $^\circ$ C temperature range)
	Storage temperature	storage: -10 ~ 60 $^\circ$ C (no dew and no icing)
	Ambient humidity	operation and storage: 35~85% RH (dew free)
	Withstand voltage	1000V AC 1 min (between leads and plastic housing)
	Insulation resistance	50M Ω 以上 (500V DC) (between leads and plastic housing)
	Vibration resistance	complex amplitude 1.5mm or 10G, 10Hz ~ 150Hz~10Hz every minute, 2 hours in each direction X, Y and Z
Impact resistance	100m/s ² (10G), X, Y, Z three times in each direction	
Nozzle diameter		R1/8", M5
Wire specification		$\Phi 4$ oil resistant PVC (0.15mm ²)-4 cores
Weight		approx. 67g (including 2 meters of wire)