

ACV Series

Basic Vacuum Generator

AIRBEST



UNIVERSAL

RoHS

Features

- ◇ Single stage and compact structure
- ◇ High vacuum level type and large flow type for option
- ◇ Optional pressure switch

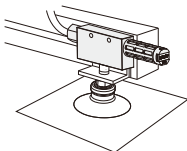


Advantages

- ◇ Long lifetime and easy maintenance
- ◇ Meeting all kinds of working conditions
- ◇ Cost-effective and simple pressure switch for detecting directly

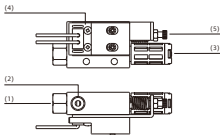
Applications

- ◇ Widely used in all kinds of vacuum systems
- ◇ Suitable for various handling operations such as automotive, metal sheet, wood, food and packaging, etc.
- ◇ High vacuum type and large flow type for different occasions
- ◇ Simple structure, the metal nozzle and body can be used in occasions of complicated environment, it is easy to maintain and clean



Structure

- ◇ (1) Air supply port
- ◇ (2) Vacuum port
- ◇ (3) Silencer
- ◇ (4) Pressure switch
- ◇ (5) Adjusting nut



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How to order

ACV - 10 HS CK

① ② ③ ④

① Series	② Nozzle diameter	③ Specification	④ Pressure switch
ACV	05 - ϕ 0.5mm	HS - High vacuum level type (-87kPa)	Nil - Without pressure switch
	10 - ϕ 1.0mm	LS - Large vacuum flow type (-57kPa)	CK - With adjustable pressure switch
	15 - ϕ 1.5mm		
	20 - ϕ 2.0mm		
	25 - ϕ 2.5mm		
	30 - ϕ 3.0mm		

Selection

Model/Pressure switch		Model/Pressure switch	
Nil-Without pressure switch	CK-With adjustable pressure switch	Nil-Without pressure switch	CK-With adjustable pressure switch
ACV-05HS	ACV-05HSCK	ACV-05LS	ACV-05LSCK
ACV-10HS	ACV-10HSCK	ACV-10LS	ACV-10LSCK
ACV-15HS	ACV-15HSCK	ACV-15LS	ACV-15LSCK
ACV-20HS	ACV-20HSCK	ACV-20LS	ACV-20LSCK
ACV-25HS	-	ACV-25LS	-
ACV-30HS	-	ACV-30LS	-

Technical parameters

Model	Rated air supply pressure bar	vacuum level -kPa	Max. vacuum flow NL/min	Max. consumption NL/min	Air level dB(A)	Noise level dB(A)	Working temperature °C	Weight(g)	Without switch	CK	Recommended hose dia. (mm)	Air supply port (P)	Vacuum port (V)
ACV-05HS	5.0	87	7	13	68	0-60	80	120	ϕ 8	ϕ 8			
ACV-10HS	5.0	90	27	44	68	0-60	80	120	ϕ 8	ϕ 8			
ACV-15HS	5.0	90	63	100	72	0-60	140	190	ϕ 8	ϕ 8			
ACV-20HS	5.0	90	110	180	72	0-60	350	460	ϕ 8	ϕ 10			
ACV-25HS	5.0	90	160	265	75	0-60	730	700	ϕ 10	ϕ 12			
ACV-30HS	5.0	90	225	385	75	0-60	870	846	ϕ 10	ϕ 12			
ACV-05LS	5.0	57	10	13	68	0-60	75	115	ϕ 8	ϕ 8			
ACV-10LS	5.0	57	36	44	68	0-60	75	115	ϕ 8	ϕ 8			
ACV-15LS	5.0	57	95	100	72	0-60	135	180	ϕ 8	ϕ 8			
ACV-20LS	5.0	57	170	180	72	0-60	330	440	ϕ 8	ϕ 10			
ACV-25LS	5.0	57	250	265	75	0-60	710	680	ϕ 10	ϕ 12			
ACV-30LS	5.0	57	350	385	75	0-60	840	816	ϕ 10	ϕ 12			

Vacuum Generator

AZK

AZQ

AZX

AZD

AGS

AGB

AGP

AGX

AGE

ABP/ABQ

ABV/ABW

ABX/ABY

ABZ/AB1

AB2/AB3

AB4/AB5

AB6/AB7

AB8/AB9

ABT

ABP

ABQ

ABVC

AZL

AZH

AZJ

AZK

AZL

ACV

ASBP

ALS

ACP

ACPF

ACPS

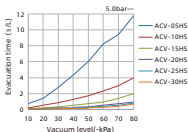
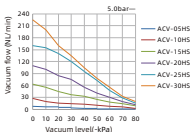
APB

Vacuum flow(NL/min) at different vacuum levels(-kPa)

Model	Air supply pressure bar	Air consumption NL/min	0	10	20	30	40	50	60	70	80	Max. vacuum level -kPa
ACV-05HS	5.0	13	7.0	5.5	4.2	3.0	1.5	0.8	0.5	0.2	0.05	87
ACV-10HS	5.0	44	27.0	19.0	16.0	14.5	13.0	10.5	8.0	6.5	2.50	90
ACV-15HS	5.0	100	63.0	55.0	44.0	37.0	32.5	25.0	18.0	14.0	9.00	90
ACV-20HS	5.0	180	110.0	100.0	85.0	75.0	55.0	40.5	30.0	20.0	12.00	90
ACV-25HS	5.0	265	160.0	155.0	140.0	120.0	95.0	72.0	47.0	28.0	15.00	90
ACV-30HS	5.0	385	225.0	200.0	160.0	135.0	105.0	78.0	55.0	33.0	19.00	90

Evacuation time(s/L) to reach different vacuum levels(-kPa)

Model	Air supply pressure bar	Air consumption NL/min	10	20	30	40	50	60	70	80	Max. vacuum level -kPa
ACV-05HS	5.0	13	0.68	1.38	2.77	4.32	6.02	8.25	9.44	11.82	87
ACV-10HS	5.0	44	0.20	0.49	0.82	1.25	1.74	2.32	2.95	4.00	90
ACV-15HS	5.0	100	0.08	0.19	0.32	0.48	0.69	0.92	1.38	1.95	90
ACV-20HS	5.0	180	0.04	0.10	0.17	0.23	0.34	0.49	0.71	0.92	90
ACV-25HS	5.0	265	0.03	0.07	0.11	0.17	0.24	0.35	0.49	0.75	90
ACV-30HS	5.0	385	0.03	0.06	0.09	0.14	0.20	0.27	0.41	0.63	90



Vacuum flow(NL/min) at different vacuum levels(-kPa)

Model	Air supply pressure bar	Air consumption NL/min	0	10	20	30	40	50	55	Max. vacuum level -kPa
ACV-05LS	5.0	13	10.0	9.0	8.0	6.5	2.5	1.8	0.7	57
ACV-10LS	5.0	44	36.0	31.5	23.5	16.5	10.0	6.5	2.5	57
ACV-15LS	5.0	100	95.0	85.0	70.0	47.5	30.5	15.5	5.5	57
ACV-20LS	5.0	180	170.0	125.0	115.0	95.0	70.0	35.5	7.5	57
ACV-25LS	5.0	265	250.0	215.0	200.0	150.0	105.0	60.0	36.0	57
ACV-30LS	5.0	385	350.0	295.0	267.0	215.0	150.0	85.0	41.0	57

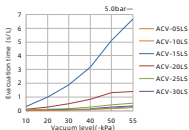
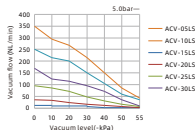
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Evacuation time(s/L) to reach different vacuum levels(-kPa)

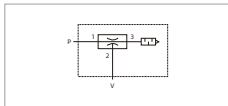
Model	Air supply pressure bar	Air consumption NL/min	10	20	30	40	50	55	Max. vacuum level -kPa
ACV-05LS	5.0	13	0.31	0.98	1.89	3.17	5.12	6.70	57
ACV-10LS	5.0	44	0.12	0.28	0.51	0.83	1.32	1.40	57
ACV-15LS	5.0	100	0.45	0.10	0.15	0.26	0.42	0.56	57
ACV-20LS	5.0	180	0.03	0.06	0.11	0.14	0.25	0.34	57
ACV-25LS	5.0	265	0.02	0.05	0.08	0.12	0.18	0.30	57
ACV-30LS	5.0	385	0.02	0.04	0.06	0.09	0.13	0.22	57



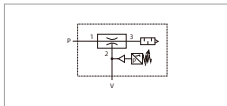
Technical parameters-Pressure switch

Model	ACV-CK (Adjustable pressure switch)
Fluid	Air
Set pressure range(-kPa)	20~53
Ambient temperature	0~60°C (Non-freezing)
Operating accuracy(-kPa)	±5.3
Hysteresis(-kPa)	4.0~13.3
Operating voltage(V)	DC24V below
Load current(A)	0.2
Effective length of lead wire(m)	0.7

Air circuit schematic diagram



ACV Standard



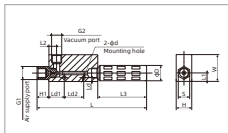
ACV - CK With pressure switch

ACV Series

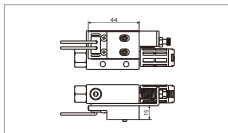
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Dimensions(mm)



ACV Standard



ACV - CK With pressure switch

Model/Size	L	H	W	G1	H1	L1	S	G2	L2	φd	Ld	Ld1	Ld2	φD	L3
ACV-05	85	16	33	Rp1/8	10	10	14	Rp1/8	8	4.5	4.5	14	20	15	30
ACV-10	85	16	33	Rp1/8	10	10	14	Rp1/8	8	4.5	4.5	14	20	15	30
ACV-15	129	20	35	Rp1/4	15	11	17	Rp1/4	10	4.5	5.0	20	25	19	51
ACV-20	161	30	40	Rp1/4	20	15	24	Rp3/8	13	6.0	7.0	28	32	28	56
ACV-20CK	161	30	50	Rp1/4	20	15	24	Rp3/8	13	6.0	7.0	28	32	28	56
ACV-25	236	40	60	Rp3/8	17	20	27	Rp1/2	16	6.0	5.5	20	50	40	119
ACV-30	257	40	60	Rp1/2	20	20	30	Rp3/4	20	6.0	5.5	33	50	40	119

Repair kits

Model of silencer	Connection thread	Color	Applicable vacuum generator
Z5B-X-G1M	G1/8Male thread		ACV-05HS, 10HS
Z5B-F-G1M	G1/8Male thread		ACV-05LS, 10LS
Z5B-X-G2M	G1/4Male thread		ACV-15HS
Z5B-F-G2M	G1/4Male thread		ACV-15LS
Z5B-X-G4M	G1/2Male thread		ACV-20HS
Z5B-F-G4M	G1/2Male thread		ACV-20LS
Z5A-G6M	G3/4Male thread		ACV-25HS /LS, 30HS / LS