

# شیر وکیوم پنوماتیک

MODEL : CV



عاز صنعت

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# ACV Series

## Basic Vacuum Generator



UNIVERSAL

RoHS

### Features

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

### Advantages

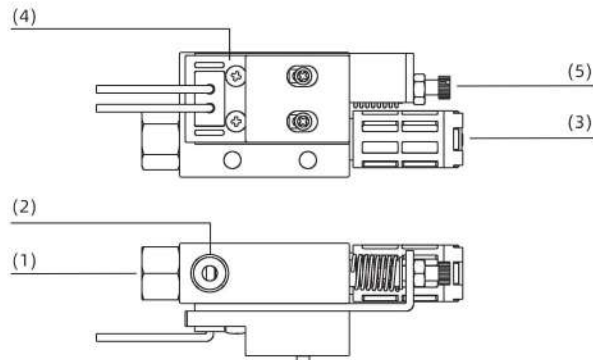
- ◇ Long lifetime and easy maintenance
- ◇ Meeting all kinds of working conditions
- ◇ Cost-effective and simple pressure switch for detecting directly

### 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



Vacuum Generator

AZK

AZX

AZD

AGS

AGB

AGP

AGX

AGE

ABM/ABX

ABM/ABX  
Combined Type

AMC

AM/AL/AH

AM/AL  
Combined Type

AMD

AZW

AZR

ABT

ABP

ABQ

AEVC

AZL

AZH

AZU

**ACV**

ASBP

ALS

ACP

ACPF

ACPS

APB

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## Basic Vacuum Generator

### How to order

ACV - 10 HS CK  
①      ②      ③      ④

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

### Selection

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

## ACV Series

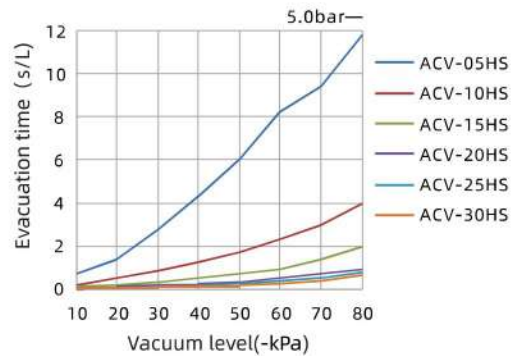
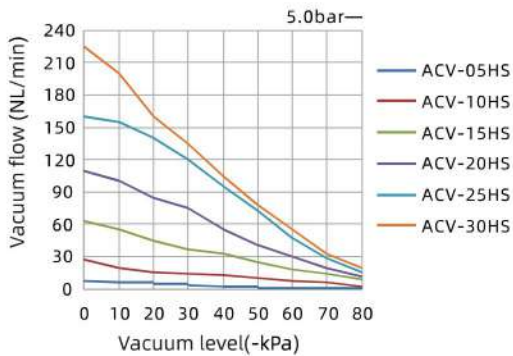
### Basic Vacuum Generator

#### 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                     |

Vacuum Generator

AZK

AZX

AZD

AGS

AGB

AGP

AGX

AGE

ABM/ABX

ABM/ABX Combined Type

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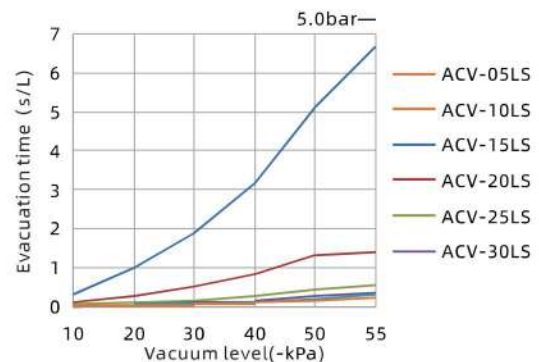
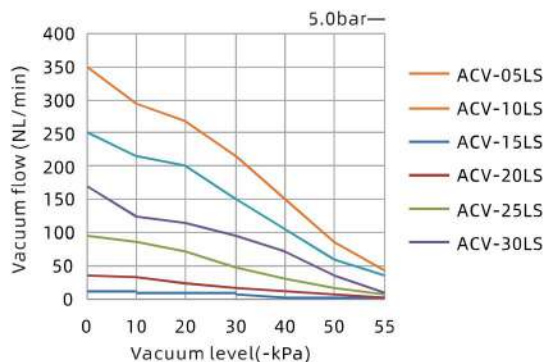
APB

# ACV Series

## Basic Vacuum Generator

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

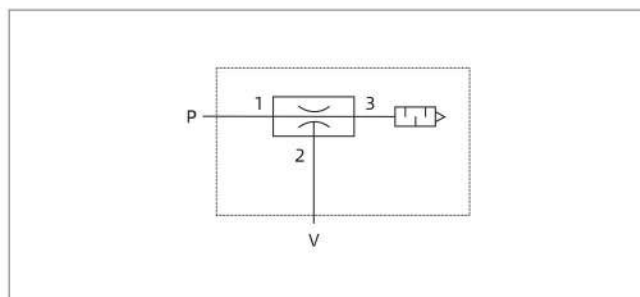
| Model    | Air supply pressure bar | Air consumption NL/min | 10   | 20   | 30   | 40   | 50   | 55   | Max. vacuum level -kPa |
|----------|-------------------------|------------------------|------|------|------|------|------|------|------------------------|
| ACV-05LS | 5.0                     | 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                     |



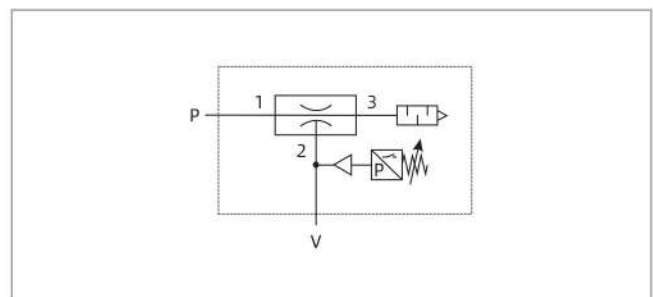
### Technical parameters-Pressure switch

|                                  |                                     |
|----------------------------------|-------------------------------------|
| 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

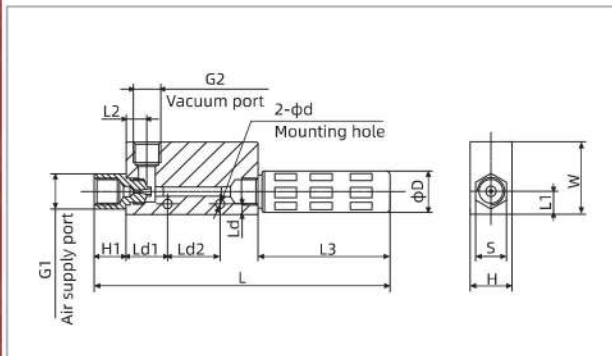


ACV - CK With pressure switch

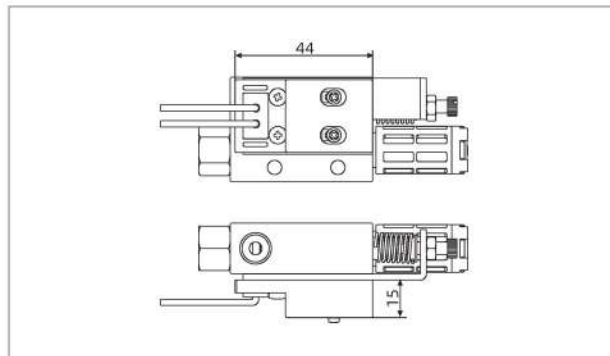
## ACV Series

### Basic Vacuum Generator

#### 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 |
|-------------------|-------------------|-------------------------------------------------------------------------------------|-----------------------------|
| ZSB-X-G1M         | G1/8Male thread   |  | ACV-05HS, 10HS              |
| ZSB-F-G1M         | G1/8Male thread   |  | ACV-05LS, 10LS              |
| ZSB-X-G2M         | G1/4Male thread   |  | ACV-15HS                    |
| ZSB-F-G2M         | G1/4Male thread   |  | ACV-15LS                    |
| ZSB-X-G4M         | G1/2Male thread   |  | ACV-20HS                    |
| ZSB-F-G4M         | G1/2Male thread   |  | ACV-20LS                    |
| ZSA-G6M           | G3/4Male thread   |  | ACV-25HS /LS, 30HS / LS     |

#### Vacuum Generator

AZK

AZX

AZD

AG5

AGB

AGP

AGX

AGE

ABM/ABX

ABM/ABX  
Combined Type

AMC

AM/AL/ALH

AM/AL  
Combined Type

AMD

AZW

AZR

ABT

ABP

ABQ

AEVC

AZL

AZH

AZU

**ACV**

ASBP

ALS

ACP

ACPF

ACPS

APB



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