

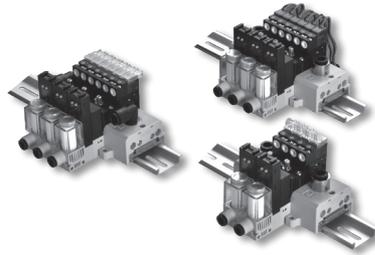
VCK series DIN Rail Type Vacuum Ejector

Product features

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Feature

- Easy to install: light and compact, easy to install.
- Multi-function: Vacuum ejector combined with breaking solenoid valve and vacuum filter.
- Visualization: Digital display of pressure sensor which can visualiz by monitor.
- Easy piping: Common supply for simplified piping.
- Expandable: Max. 8 manifolds.



Specification

Item	Model	VCK 20
Fluid		Air
Pressure range	MPa (kPa)	0.25 ~ 0.7 (250 ~ 700)
Proof pressure	MPa (kPa)	0.5 (500)
Vacuum value	kPa(mmHg)	-90 (-680)
Nozzle diameter	Ømm	1.0
Max. suction flow	L/min	22
Ambient and fluid temperature	°C	0 ~ 50
Material	Body	Copper (Nickel plating)
	Plastic	NYLON, PBT
Port size	mm	Ø8
Valve type		SR2 - 100
Rated voltage		24±10%VDC
Power consumption	W	1.2
Maximum number of manifold stations that can operate simultaneously	M	8

Pressure switch specification

Item	Model	PST 2	
Rated pressure range	kPa	- 100.0~0	
Pressure range	kPa	-100.0~100.0	
Withstanding pressure	kPa	500	
Applicable fluid		Filtered air, Non-corrosive, Non-flammable gas	
Set pressure resolution		0.1kPa, 0.001kgf/cm ² , 0.001bar, 0.01psi, 0.1inHg, 1mmHg	
Power voltage		12 to 24V DC ± 10%, Ripple ≤ 10%	
Current consumption	mA	≤ 40(With no load)	
Switch output	Output	2 NPN or 2 PNP open collector	
	Max. load current	80mA	
	Power voltage	24VDC	
	Residual voltage	≤ 1.5V	
	Response time	ms	≤ 2.5(Chattering-proof function: 25, 100, 250, 500, 1000 and 1500 selectable)
	Output short circuit protection	Yes	
Linear analogy output	Voltage	Output voltage	1~5V±2.5%F.S.
		Output impedance	Approx. 1kΩ
	Linearity		±1%F.S.
Display	Display		4-digit, 7-step display (green)
	Switch on indic ator		OUT1 green/OUT2 green
	Renewing		Approx. 0.2 sec
	Indicator accuracy		±0.2% F.S. ± 1 digit (Temperature: 25±3° C)
Repeatability		±0.2% F.S. ± 1 digit	
Environmental Resistance	Enclosure		IP40
	Ambient temp. range		0~50° C (No condensation or freezing)
	Ambient humidity range		Operation/ S storage: 35 ~ 85 % RH (No c ondensation)
	Withstand voltage		1000 V AC in 1-min (between case and lead wire)
	Insulation		≥ 50 MΩ (a t 500 V DC, between case and lead wire)
	Vibration		Total amplitude 1.5 mm, 10 Hz ~ 55 Hz sc an for 1 minute, two hours each direction of X, Y and Z
Impact		980 m/s ² (100G), 3 times each in direction of X, Y and Z	
Temperature characteristic		±2% F.S. (within 0~50° C temperature range)	
Lead wre		oil-resistant cable (0.14 mm ²)	
Weight (With 1 Meter Lead Wire)	g	33	

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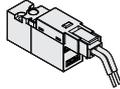
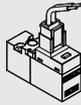
Code of order

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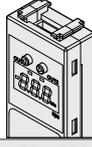
Code of order **VCK20 02 - DC24 - L - P04 - S8 - C**

1	Mark	Manifold quantity
	01	1 M
	02	2 M
	⋮	⋮
	08	8 M

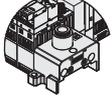
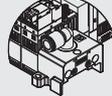
2	Mark	Voltage
	DC12	DC 12 1.2 W
	DC24	DC 24 1.2 W

3	Mark	Electrical entry
	L	
	T	
	W	

● With wire length 300mm

4	Mark	Output
	P04	2 NPN output + Analog output (1-5 V) numeric type
	P05	2 PNP output + Analog output (1-5 V) numeric type
Image		
		
P04, P05		

● With wire length 1 M

5	Mark	P port	
	S8	Ø8 Vertical air supply	
	U8	Ø8 L type supply port	

6	Mark	Bracket	
	None	Without Rail	
	C	Rail bracket	

● VCK20 series Selection table:

Model	1 Manifold quantity	2 Voltage	3 Electrical entry	4 Output	5 P port	6 Bracket
VCK20	01 • 02 • • • • 08	DC12 • DC24	L • T • W	P04 • P05	S8 • U8	C

Product weight

Model	Item	Weight(g)
VCK20	Single unit	120
	Inlet port holder	150

EV

EVM

VA□

VM□

VM□U

VHS

VSL

VKM

VKMT

VCK

VK20□

VK30□

VQ20□

VFD

VFM

VFU

ERV

ERVL

MVS

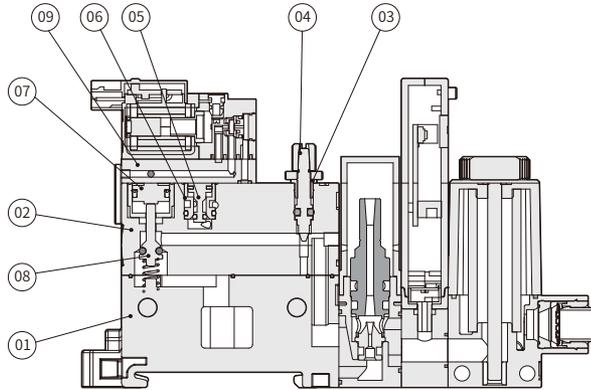
DYC

VCK series DIN Rail Type Vacuum Ejector

Product features

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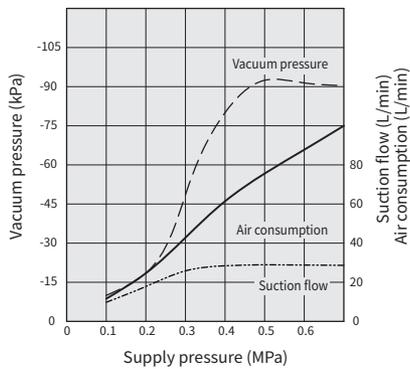
Internal structure



Components and Material list

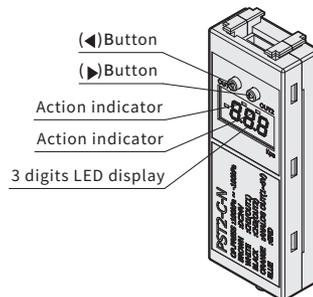
No.	Item	Material	No.	Item	Material
01	Manifold lower	PBT+Fiber 30%	06	Release holder	Copper Alloy
02	Manifold upper	PBT+Fiber 30%	07	Piston	Copper Alloy
03	Break valve adjuster	Copper Alloy	08	Acting rod	Copper Alloy
04	Vacuum break valve lever	Copper Alloy	09	Spacer	Copper Alloy
05	Break valve lever	Copper Alloy	10		

Characteristics



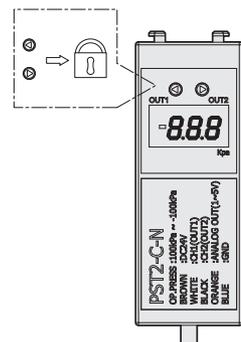
Numeric Display Pressure Switch Setting Instructions

- 2 outputs & linear analogy output (1~5V)
- Compact size: 50x10x20mm³(LxWxH)
- Key lock function



Key lock function

- Key lock mode can prevent improper operation to pressure switch.



VCK series DIN Rail Type Vacuum Ejector

Component Replacement

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EV

EVM

VA□

VM□

VM□U

VHS

VSL

VKM

VKMT

VCK

VK20□

VK30□

VQ20□

VFD

VFM

VFU

ERV

ERVL

MVS

DYC

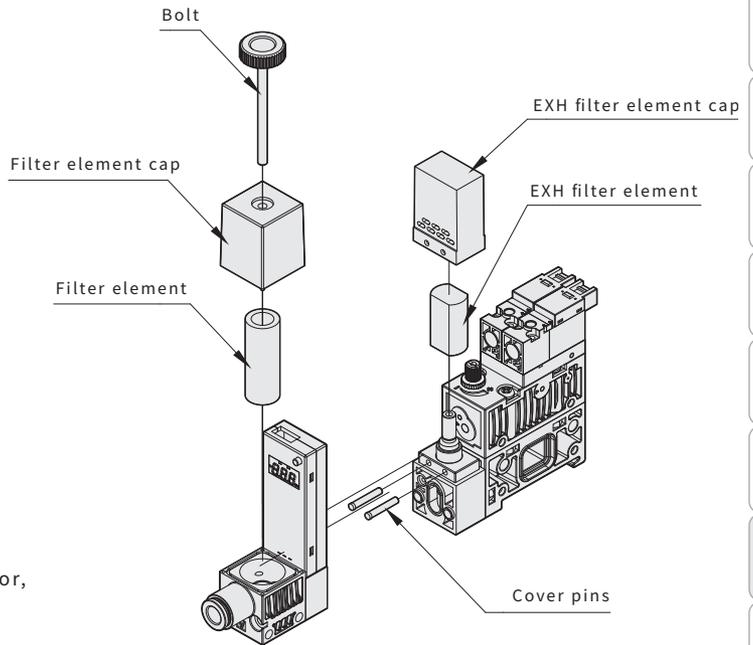
Filter replacement instruction

Exhaust filter replacement:

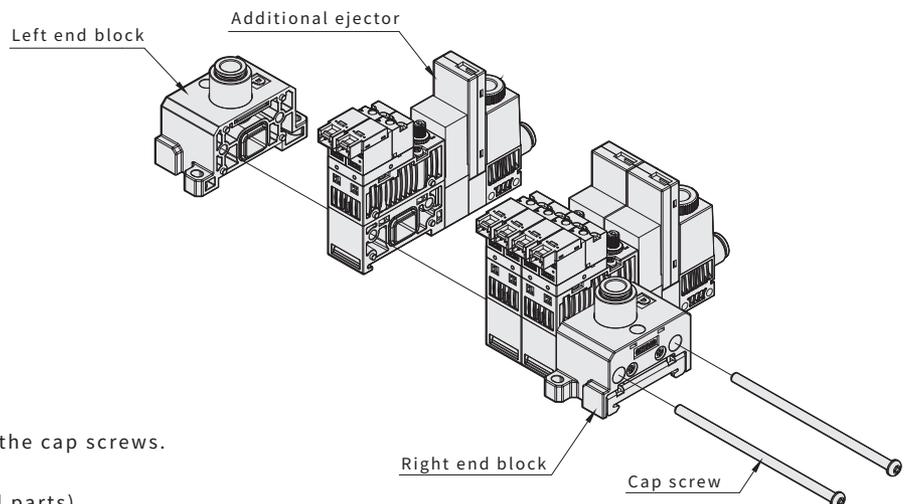
- (1) Dismantling cover pins.
- (2) Take out filter cap, then put into new element.
- (3) Place new filter onto ejectors and put back the pins.

Port filter replacement:

- (1) Pull out the bolt.
- (2) Take out the element and replace .
- (3) Position the element into the ejector, then rotate the bolt to tighten.



How to assemble smf dismental manifold



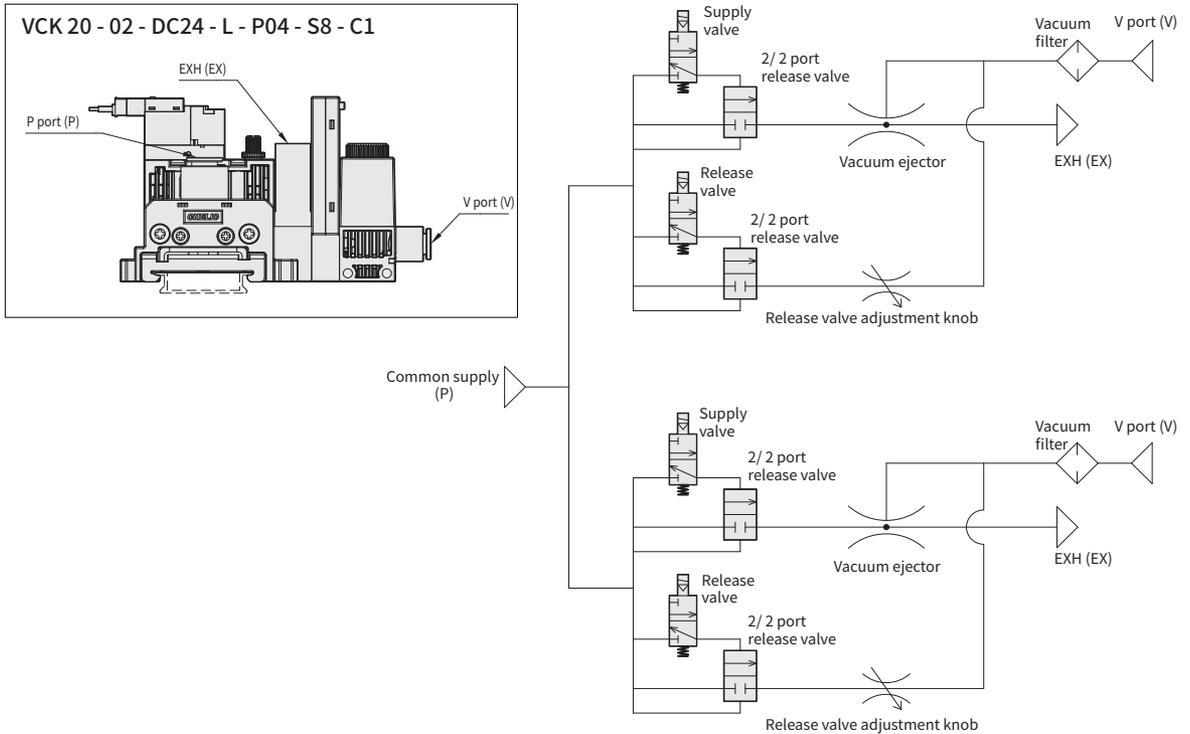
- (1) Loosen and remove the cap screws.
- (2) Take left end block.
(pay attention small parts)
- (3) Put on additional ejector.
(pay attention small parts)
- (4) Align all parts and fasten the cap screws.

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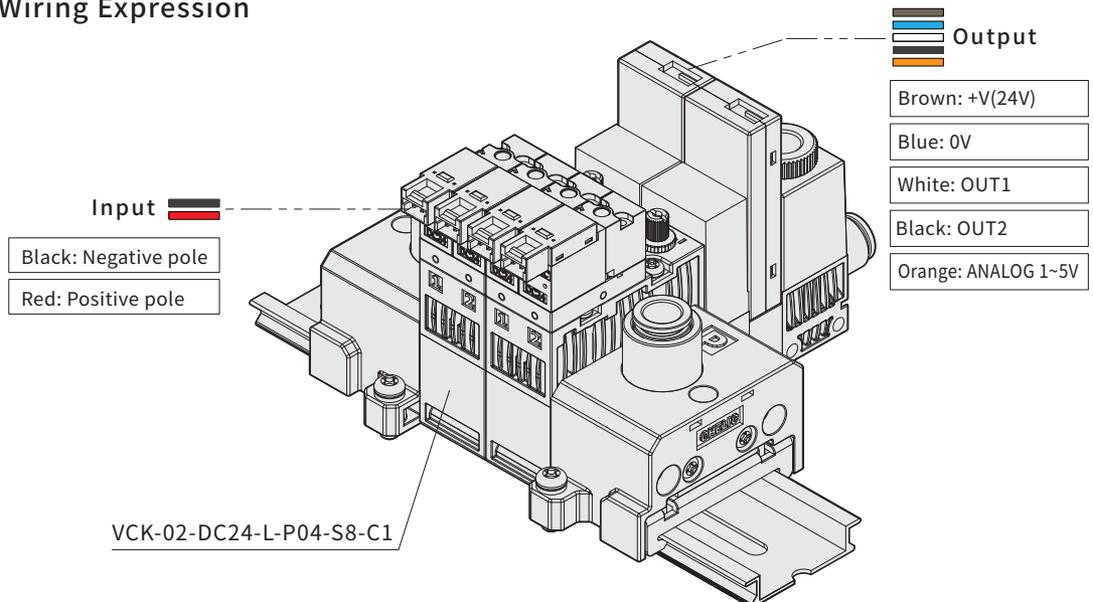
Circuit/ Wiring expression

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VCK Manifold type vacuum ejector



Wiring Expression

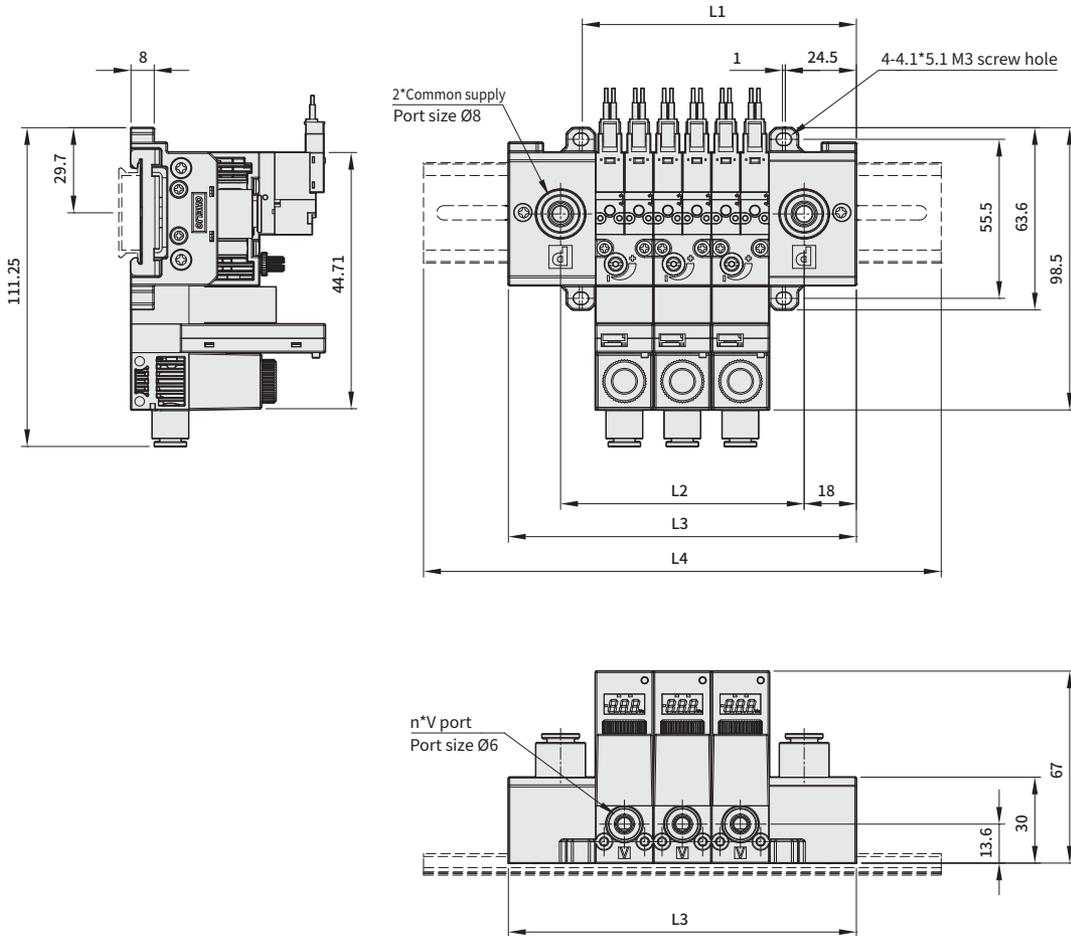


VCK series DIN Rail Type Vacuum Ejector

Dimensions

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VCK Manifold type vacuum ejector



Unit: mm

Mark	Manifold no.	1	2	3	4	5	6	7	8
L1		54.5	74.5	94.5	114.5	134.5	154.5	174.5	194.5
L2		44	64	84	104	124	144	164	184
L3		80	100	120	140	160	180	200	220
L4		142.8	142.8	178.5	178.5	214.2	214.2	249.9	249.9

EV

EVM

VA □

VM □

VM □ U

VHS

VSL

VKM

VKMT

VCK

VK20 □

VK30 □

VQ20 □

VFD

VFM

VFU

ERV

ERVL

MVS

DYC