

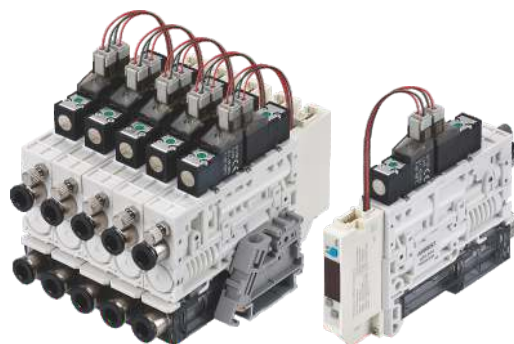
AZK Series

Combined Type Vacuum Pump



Features

- ◇ Energy saving type vacuum pump, air consumption reduces 90% (comparing with non-energy saving type), vacuum digital pressure switch with energy saving function, stop air supplying when preset vacuum value reaches.
- ◇ Efficiency of vacuum pump increases (compared with single stage vacuum pump) , vacuum flow increases 50%, air consumption reduces 30%.
- ◇ Small and light. Volume is 85cm³, weight is 90g.
- ◇ Saving lines (D type auxiliary plug), saving work time for tubing, wiring and setting.
- ◇ Transparent housing, easy to indicate degree of contamination and disassemble and clean.
- ◇ Various mounting ways, bracket for single body, DIN guide rail for both single body and combined type.



How to order

AZK - S × 8 - J - N - D
①
②
③
④
⑤
⑥

① Series	② Specification	③ Stack	④ Supply valve and release valve
AZK	S - Low vacuum level type X - High vacuum level type P - Low air supply pressure and high vacuum level type D - Pollution proof type L - Large flow type	Nil - Single body 2 3 ... 8	Nil - Supply valve NC + release valve NC J - Supply valve NC, without release valve NO - Supply valve NO + release valve NC (lead wire length 300mm, power supply DC24V)
⑤ Vacuum switch		⑥ Mounting	
Nil - Without vacuum switch N - NPN, without energy saving function P - PNP, without energy saving function NE - NPN, with energy saving function PE - PNP, with energy saving function		Nil - Without bracket F - With bracket (single body) D - With guide rail	

Remark: 1. Only NE/PE with check valve ,for pressure maintaining. Others without check valve.
 2. NE/PE do not apply to L-large flow type.
 3. NE/PE do not apply to J type-with supply valve NC but without release valve.

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Technical parameters

Model	Air supply pressure (bar)	Max vacuum level (-kPa)	Max vacuum flow (NL/min)	Air consumption (NL/min)	Noise level (dB(A))	Weight (g)		Recommended hose dia. (mm)	
						Without pressure switch	With pressure switch	Air supply (P)	Vacuum (V)
AZK-S	6.0	75	44	26	65-70	88.5	102.5	φ6	φ6
AZK-X	5.0	93	41	32	65-70	88.5	102.5	φ6	φ6
AZK-P	3.7	90	40	32	65-70	88.5	102.5	φ6	φ6
AZK-D	6.0	71	38	47	65-70	88.5	102.5	φ6	φ6
AZK-L	5.0	90	68	85	65-70	102	114	φ6	φ8

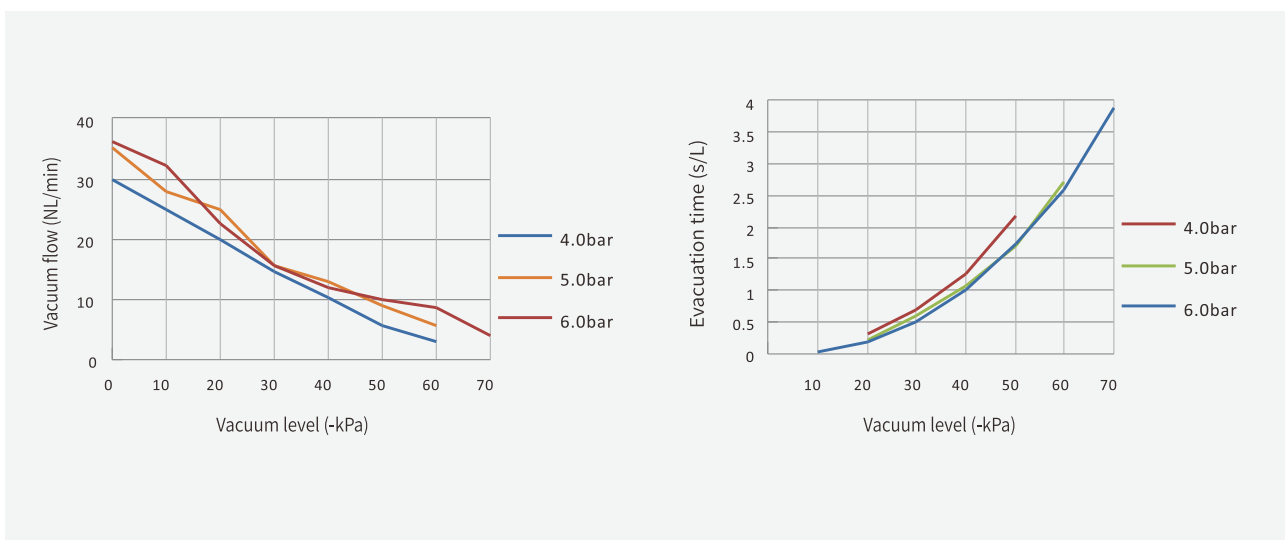
◇ Note:Max.operating pressure 7bar,air supply pressure 3~6bar.

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

Model	Air supply (bar)	Air consumption (NL/min)	Vacuum level (-kPa)								Max vacuum level (-kPa)
			0	10	20	30	40	50	60	70	
AZK-S	4.0	19	41	30	19.7	14.4	10.2	5.5	3	-	60
	5.0	23	44	34	24.8	15.4	12.9	9	5.5	-	70
	6.0	26	44	38	32	22	12	10	8.5	4	75

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

Model	Air supply pressure (bar)	Air consumption (NL/min)	Vacuum level (-kPa)							Max vacuum level (-kPa)
			10	20	30	40	50	60	70	
AZK-S	4.0	19	-	0.3	0.7	1.25	2.18	-	-	60
	5.0	23	-	0.22	0.6	1.07	1.7	2.72	-	70
	6.0	26	0.01	0.19	0.5	1.02	1.72	2.6	3.88	75



AZK Series

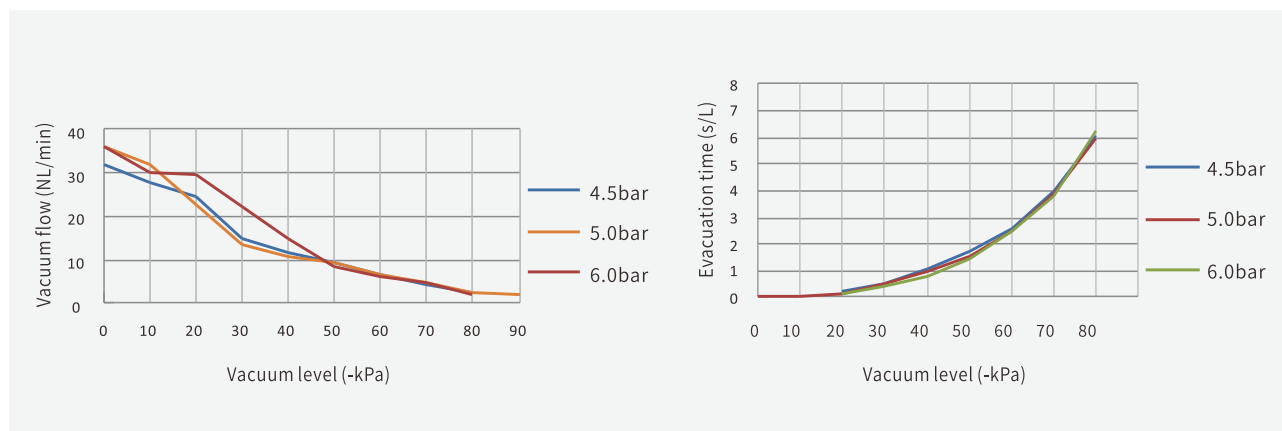
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Vacuum flow (NL/min) at different vacuum levels (-kPa)

Model	Air supply (bar)	Air consumption (NL/min)	0	10	20	30	40	50	60	70	80	90	Max vacuum level (-kPa)
AZK-X	4.5	27	40	34	24.5	15	11.5	9.5	6.8	4.5	2.5	-	92
	5.0	29	41	36	26	13.7	11	9.3	6.6	4.6	2.7	2	93
	6.0	32	39	38	30	22.4	15	8.3	6.2	4.6	1.9	-	92

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

Model	Air supply (bar)	Air consumption (NL/min)	10	20	30	40	50	60	70	80	Max vacuum level (-kPa)
AZK-X	4.5	27	-	0.2	0.56	1.1	1.7	2.56	3.95	6.08	92
	5.0	29	0.02	0.14	0.47	0.96	1.56	2.50	3.87	6	93
	6.0	32	-	0.13	0.40	0.8	1.5	2.47	3.85	6.25	92



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

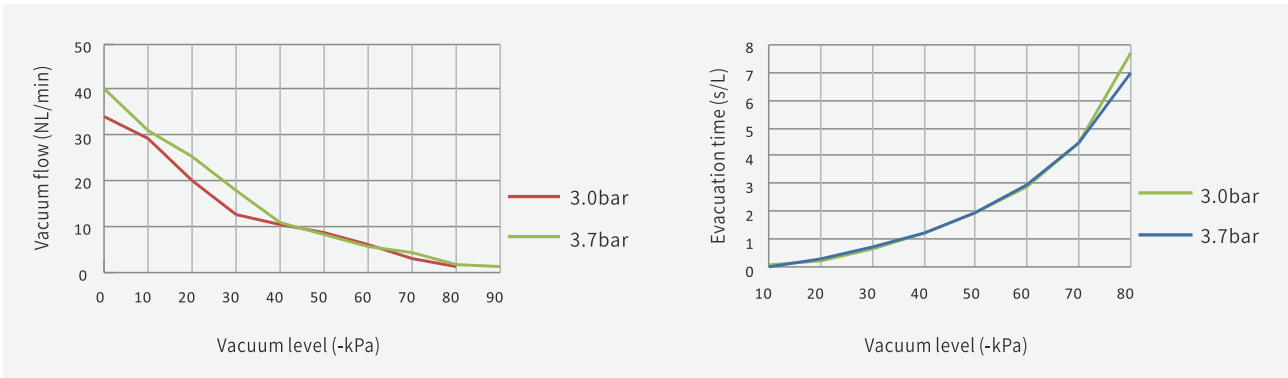
Model	Air supply (bar)	Air consumption (NL/min)	0	10	20	30	40	50	60	70	80	90	Max vacuum level (-kPa)
AZK-P	3.0	29	36	29	19.8	12.5	10.3	8.5	6.1	3.1	1.1	-	89
	3.7	32	40	35	25.2	17.7	10.9	8	5.6	4.2	1.5	1	90

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

Model	Air supply (bar)	Air consumption (NL/min)	10	20	30	40	50	60	70	80	Max vacuum level (-kPa)
AZK-P	3.0	29	0.08	0.25	0.67	1.25	1.93	2.9	4.44	7.7	89
	3.7	32	0.05	0.3	0.71	1.26	1.95	2.97	4.49	6.95	90

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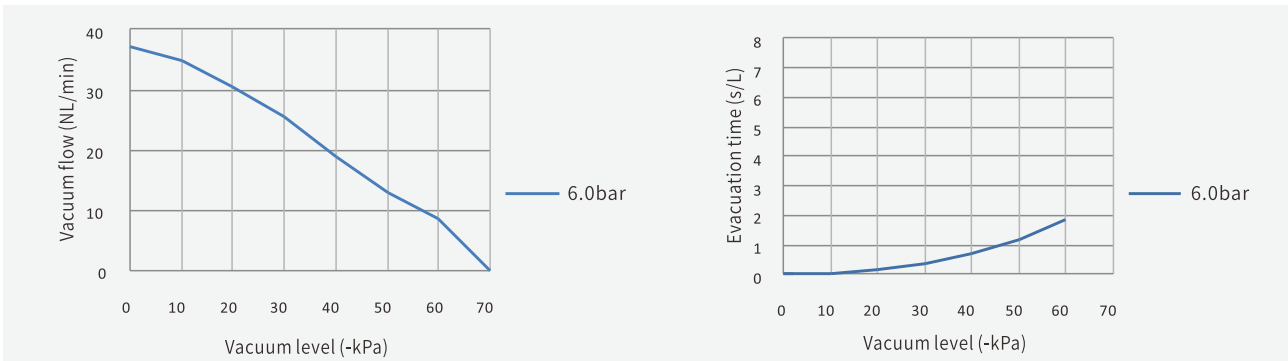


Vacuum flow (NL/min) at different vacuum levels (-kPa)

Model	Air supply (bar)	Air consumption (NL/min)	0	10	20	30	40	50	60	Max vacuum level (-kPa)
AZK-D	6.0	47	38	35	30.5	25.5	19	13	8.5	71

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

Model	Air supply (bar)	Air consumption (NL/min)	10	20	30	40	50	60	Max vacuum level (-kPa)
AZK-D	6.0	47	0.01	0.14	0.35	0.67	1.15	1.85	71



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

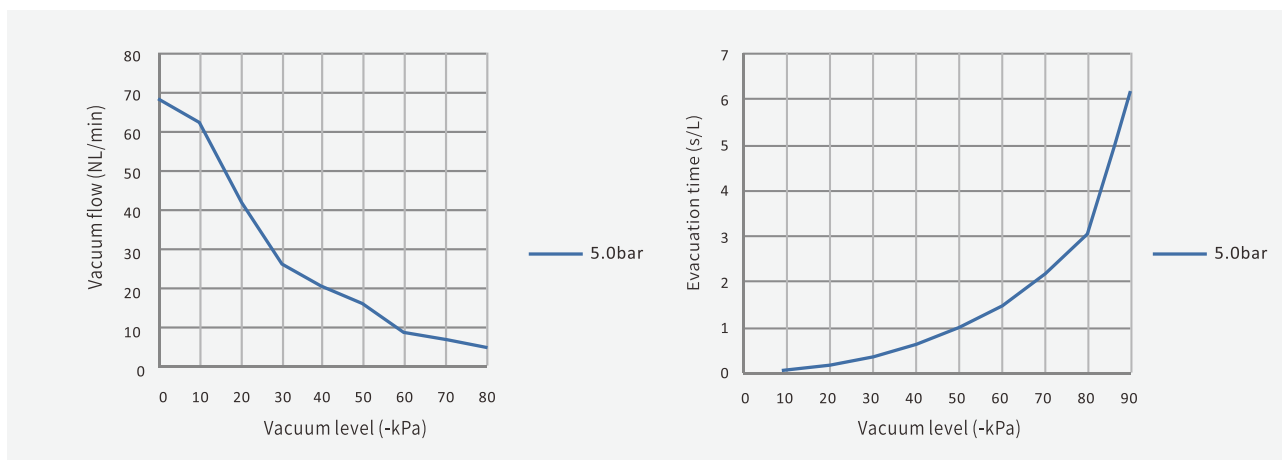
Model	Air supply (bar)	Air consumption (NL/min)	0	10	20	30	40	50	60	70	80	90	Max vacuum level (-kPa)
AZK-L	5.0	85	68	62	42	26	20.6	16.2	9	7.2	7.2	5	90

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

Model	Air supply (bar)	Air consumption (NL/min)	10	20	30	40	50	60	70	80	90	Max vacuum level (-kPa)
AZK-L	5.0	85	0.06	0.16	0.33	0.60	0.95	1.43	2.14	3.03	6.16	90

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Technical parameters

Model		ZPDC-*	ZPDC-*-E
Rated pressure range		-100~100kPa	-100~100kPa
Setting pressure range		-105~105kPa	-105~105kPa
Pressure proof		500kPa	500kPa
Fluid		Air, Non-corrosive, non flammable gas	Air, Non-corrosive, non flammable gas
Current consumption		24V Dc ± 10%, RIPPLE (P-P) 10% or less	24V Dc ± 10%, RIPPLE (P-P) 10% or less
Power supply		≤ 40mA (Without load)	≤ 40mA (Without load)
Switch output	Output mode	2NPN or 2 PNP open collector output	NPN or PNP open collector output
	Max load current	125mA	125mA
	Max supply voltage	30VDC (NPN) , 24VDC (PNP)	24VDC
	Residual voltage	≤ 1.5V	≤ 1.5V
	Response time	≤ 2.5ms (chattering-proof function : 2.5ms, 20ms, 100ms, 500ms, 1000ms, 1999ms selectable)	2.5ms (chattering-proof function : 20ms, 100ms, 250ms, 500ms, 1000ms, 1500ms selectable)
Output short circuit protection		Yes	OUT switch: Yes; V-Sol/D-Sol: No
Repeatability		± 0.2% F.S. ± 1 digit	
Display		3½ LED 7 segment display (Red) display (Sampling rate: 5 times/sec)	
Indicator accuracy		± 2% F.S. ± 1 digit	
Switch ON indicator		OUT1: Green / OUT2: Red	
Environment	Enclosure	IP40	
	Ambient temp.range	Operation: 0~50°C	
	Withstand voltage	1000V AC in 1 minute (between case and lead wire)	
	Insulation resistance	50MΩ min. (at 500V DC, between case and lead wire)	
Temperature characteristic		± 2% F.S. (at temperature range of 0~ 50°C)	
Lead wire		Oil proof PVC cable (0.15mm ²)	

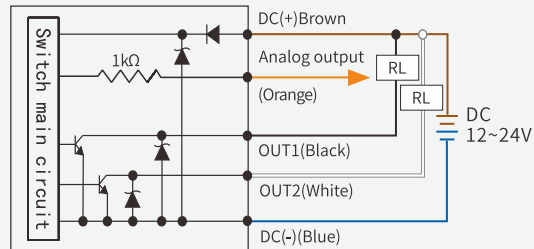
AZK Series

Combined Type Vacuum Pump

Output circuit wiring diagrams

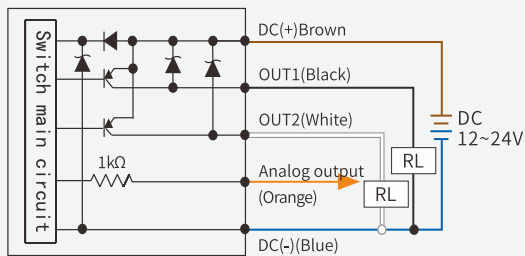
ZPDC-N

2 NPN+Analog voltage output(1-5V)



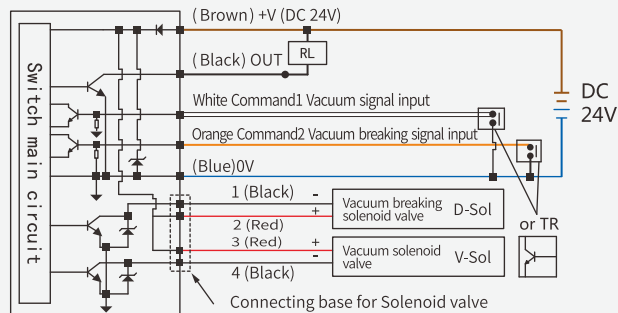
ZPDC-P

2 PNP+Analog voltage output(1-5V)



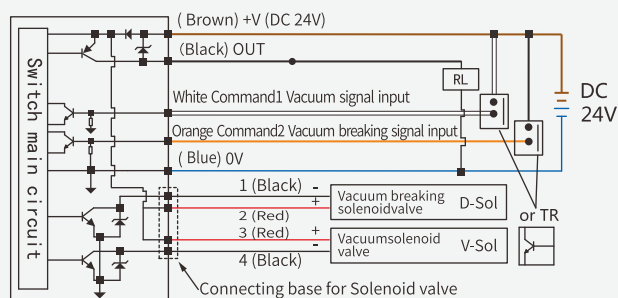
ZPDC-N-E

NPN output



ZPDC-P-E

PNP output

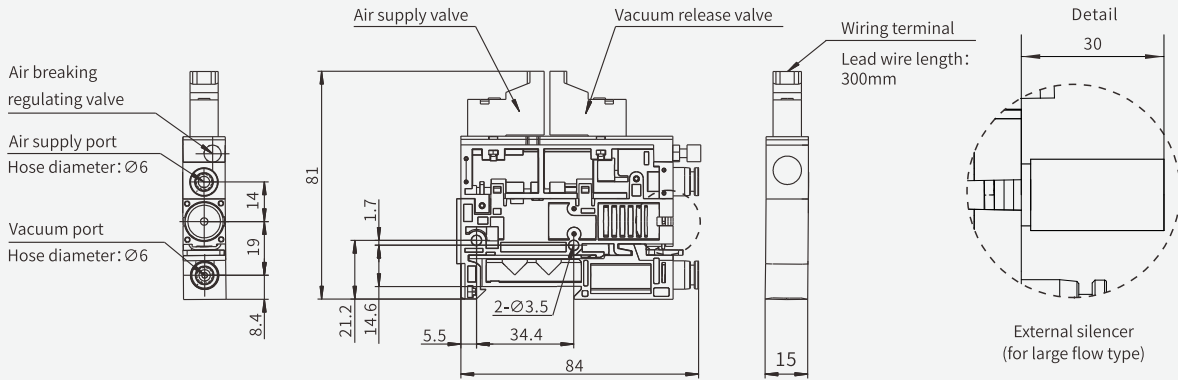


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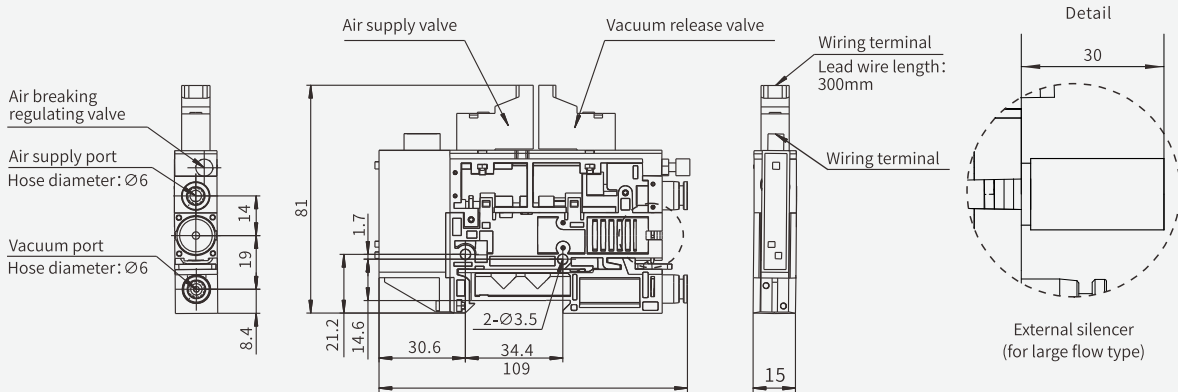
Combined Type Vacuum Pump

Dimensions (mm)

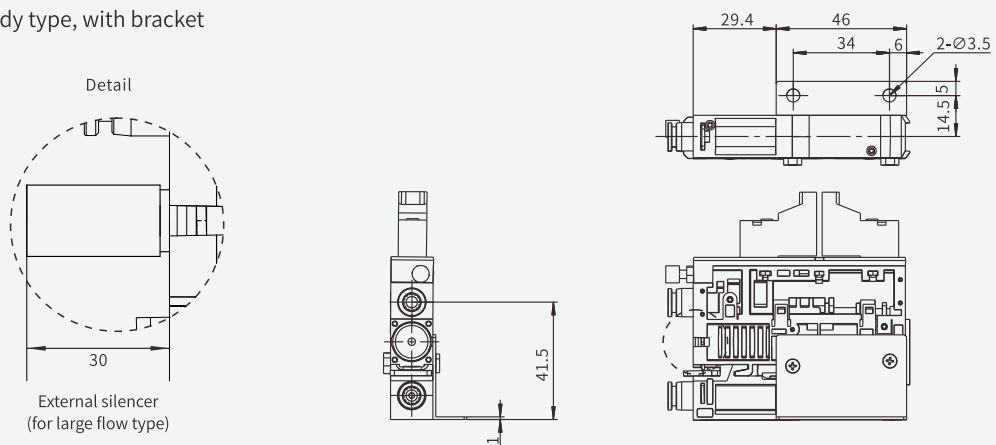
AZK - Single body type, without pressure switch



AZK - Single body type, with pressure switch



AZK - Single body type, with bracket

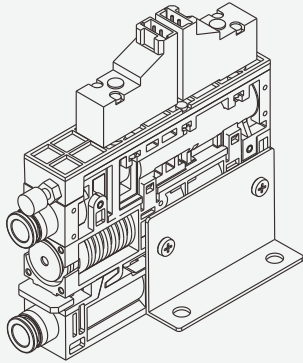


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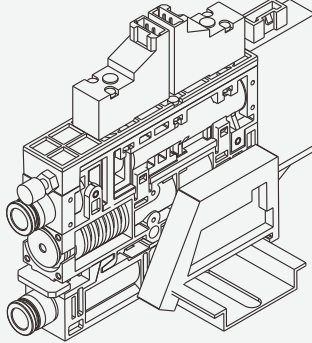
Combined Type Vacuum Pump

Installation diagram

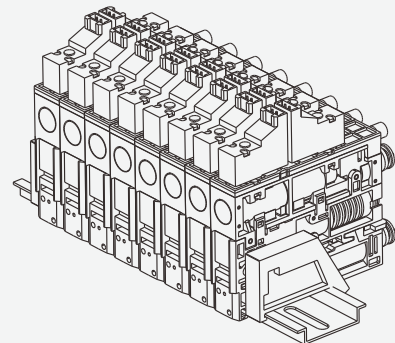
Mounting with bracket for single body



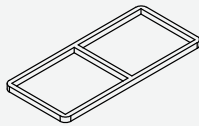
Mounting with DIN guide rail for single body



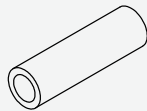
Mounting with DIN guide rail for combined type



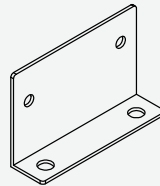
Repair kits



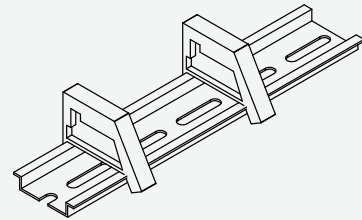
Sealing gasket



Filter element



L bracket



Guide rail

Item	Model	Remark
Filter parts	AZK-FE	Filter element+sealing gasket
Wiring terminal	AZK-N	Lead wire length 300mm
Wiring terminal	AZK-NE	Ends lead wire
Bracket mounting parts	AZK-NE	L bracket+M3.5x20 screw/nut (2pcs each)
Guide rail mounting parts (2,3 layers)	AZK-2-D	Length 130mm
Guide rail mounting parts (4,5 layers)	AZK-4-D	Length 165mm
Guide rail mounting parts (6,7 layers)	AZK-6-D	Length 200mm
Guide rail mounting parts (8 layers)	AZK-8-D	Length 235mm