

# AZX Series

## Large Flow Integrated Vacuum Generator



ELECTRONICS    PACKAGING    PLASTIC

### Features

- ◇ Energy-efficient nozzle design
- ◇ Integrated with control valve, vacuum gauge and regulating valve
- ◇ Modular design

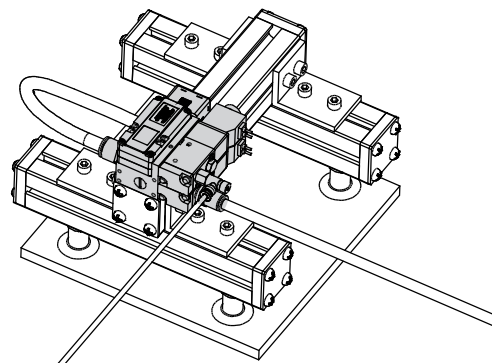
### Advantages

- ◇ Large vacuum flow can be produced under the condition of low air consumption
- ◇ Integrated design, saving piping and wiring, controlling setting time, etc.
- ◇ High reliability and stability



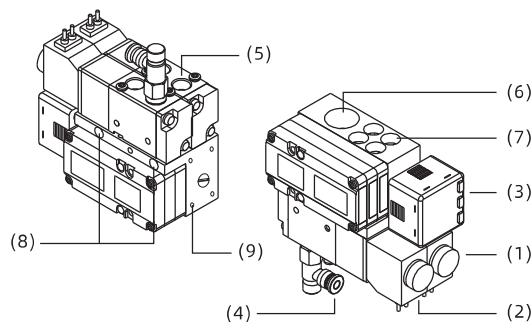
### Applications

- ◇ Integrated vacuum generator for handling porous workpieces
- ◇ Vacuum producing and monitoring in automation systems
- ◇ For robot handling applications and linear axes
- ◇ Pick and place applications with very short time
- ◇ Used for systems that require high dynamic handling of workpieces and with limited space



### Structure

- ◇ (1) Vacuum supply valve
- ◇ (2) Vacuum release valve
- ◇ (3) Vacuum pressure switch
- ◇ (4) Release port
- ◇ (5) Air supply port
- ◇ (6) Vacuum port
- ◇ (7) Exhaust port
- ◇ (8) Mounting hole
- ◇ (9) Threaded mounting hole



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### How to order

## AZX 20 - N

① ② ③

① Series	② Specification	③ Vacuum switch
AZX	20 30	N - 1NPN output+1 analog voltage output (1-5V) P - 1PNP output+1 analog voltage output (1-5V)

### Selection

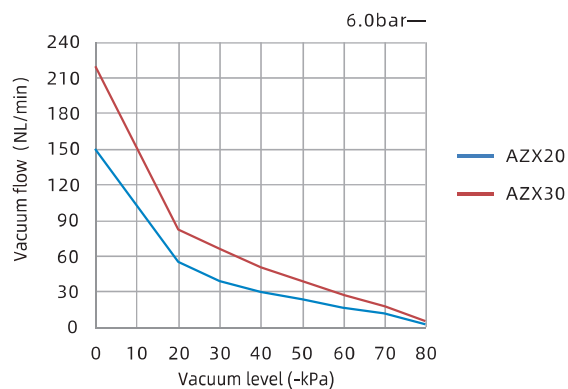
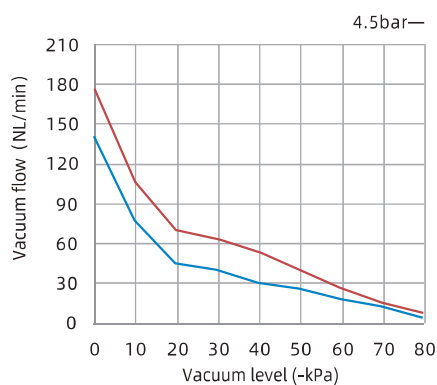
Model/ Vacuum switch N	P
AZX20-N	AZX20-P
AZX30-N	AZX30-P

### Technical parameters

Model	Air supply pressure range bar	Max. vacuum level -kPa	Max. vacuum flow NL/min	Air consumption NL/min	Noise level dB(A)	Weight g	Recommended hose dia. mm	
							Air supply port P	Vacuum port V
AZX20	4.5~6.0	85	141~150	55~85	60~70	411	φ8	φ12
AZX30	4.5~6.0	85	175~220	87~125	60~70	424	φ10	φ12

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

Model	Air supply pressure bar	Air consumption NL/min	Vacuum level (-kPa)										Max. vacuum level -kPa
			0	10	20	30	40	50	60	70	80		
AZX20	4.5	55	141	77	45	39.5	29.5	25	17.5	12	3	85	
AZX30	4.5	87	175	105	70	63	53	40	26	14	6.5	85	
AZX20	6.0	85	150	100	55	38	30	24	16	11	3.2	85	
AZX30	6.0	125	220	150	81	65	50	38	27	18	5	85	



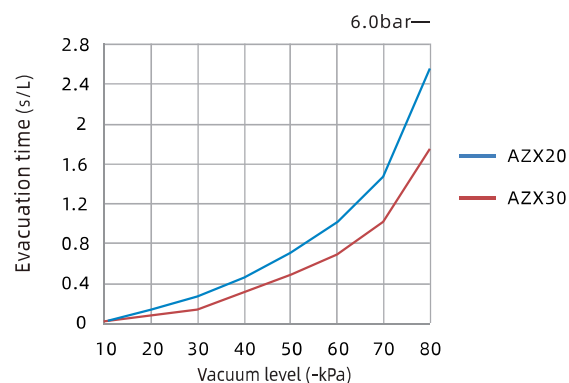
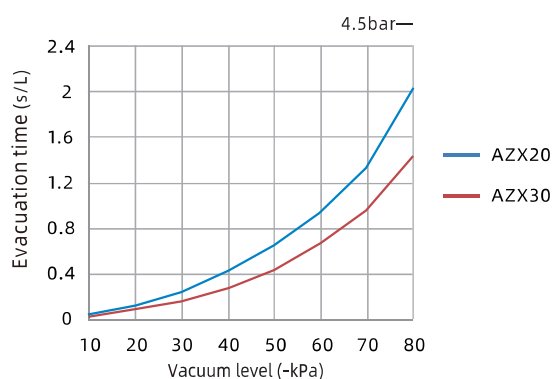
# AZX Series



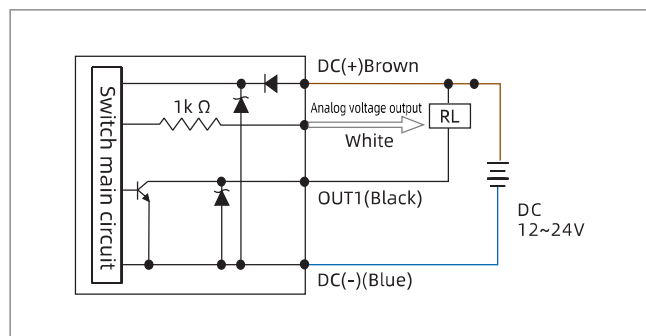
## Large Flow Integrated Vacuum Generator

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

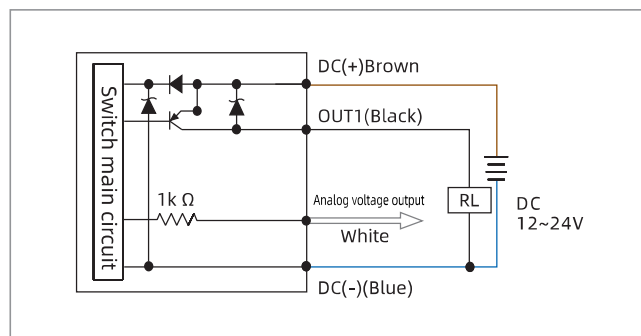
Model	Air supply pressure bar	Air consumption NL/min	10	20	30	40	50	60	70	80	Max. vacuum level -kPa
AZX20	4.5	55	0.04	0.12	0.23	0.41	0.65	0.93	1.33	2.03	85
AZX30	4.5	87	0.03	0.09	0.16	0.27	0.43	0.66	0.95	1.43	85
AZX20	6.0	85	0.02	0.15	0.28	0.46	0.71	1.02	1.48	2.55	85
AZX30	6.0	125	0.02	0.08	0.14	0.31	0.49	0.69	1.02	1.75	85



### Output circuit wiring diagrams



ZPDT-CNV-R1M 1NPN+Analog voltage output(1-5V)



ZPDT-CPV-R1M 1PNP+Analog voltage output(1-5V)

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### Technical parameters

Model		ZPDT-C (Compound)
Rated pressure range		-100.0~100.0kPa
Setting pressure range		-103.0~103.0kPa
Withstand pressure		500kPa
Fluid		Air, Non-corrosive gas/Non-flammable gas
Pressure unit	kPa	0.1
Set pressure resolution	MPa	-
	kgf/cm <sup>2</sup>	0.001
	bar	0.001
	psi	0.01
	inHg	0.1
	mmHg	1
Power supply voltage		12 to 24V Dc±10%, ripple(P-P)10% or less
Current consumption		≤40mA (Without load)
Switch output	Output type	Open collector output (NPN or PNP)
	load current	Max.125mA
	Residual voltage	≤1.0V
	Response time	≤2.5ms (Chattering-proof function: 25ms,100ms,250ms, 500ms, 1000ms, 1500ms selectable)
Analog output	Output Voltage	1-5V ±2.5%F.S (within rated pressure range)
	Output impedance	1kΩ
	Linearity	±1% F.S.
Display	Display	Three colors (Red/ Green/ Orange)Sampling rate:5 times/sec,2 times/sec,1 time/sec for choice.)
	Indicator accuracy	±1%F.S.±1 digit (ambient temperature: 25±3°C)
	Repeatability	±0.3%F.S.±1 digit
Environmental resistance	Switch ON Indicator	Orange (1 indicator)OUT1
	IP Grade	IP40
	Ambient temperature	0~50°C
	Temperature characteristic	±3% F.S. Comparative parameter temperature 25°C (at temp. range of 0~50°C)
	Storage temperature	Storage: -10-60°C (No condensation or freezing)
	Ambient temperature	Operation/ storage: 35-85%HR (No condensation)
	Withstand voltage	1000VAC1 minute (between case and lead wire)
	Insulation resistance	More than 50MΩ (500V DC) (between case and lead wire)
	Vibration resistance	Complex amplitude 1.5mm Or 10G, 10Hz~150Hz~10Hz for 1 minute, two hours each direction of X, Y and Z
	Impact resistance	100m/s <sup>2</sup> (10G) 3 times each direction of X, Y and Z
Lead wire		Oil-resistance cable (0.15mm <sup>2</sup> )
Weight		67g (with 2 meters lead wire)

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

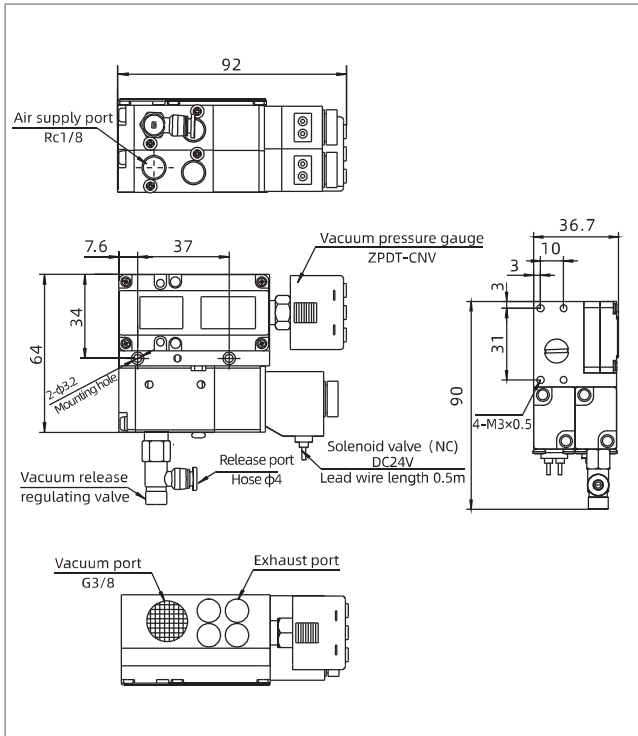
APB

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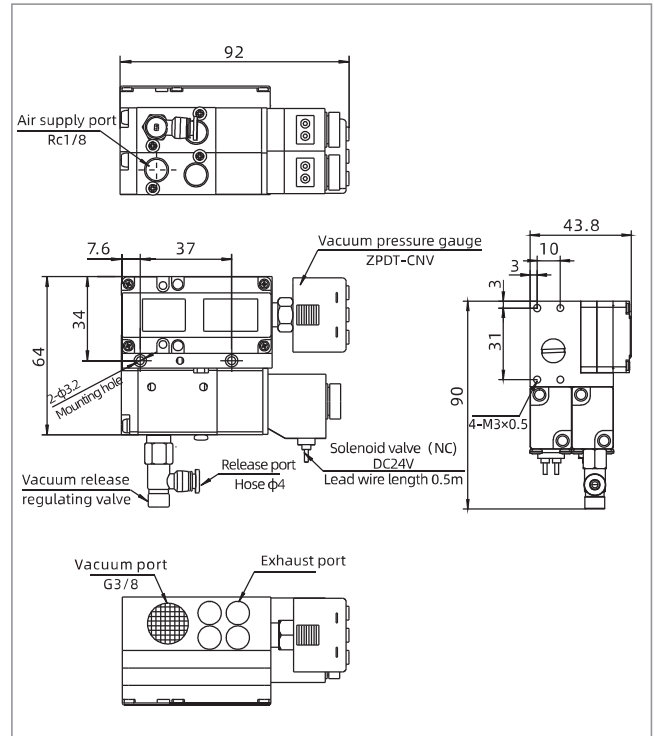


## Large Flow Integrated Vacuum Generator

### Dimensions(mm)



AZX20-N      AZX20-P



AZX30-N      AZX30-P