AEX61 Sequential controller for vibrator operation manual

Application And Advantage Of Product

Most companies dealing with raw material handling and packaging will faced a material clogging problem in silo and tanks, and thus this will decrease the productivity output.
To improve productivity output and prevent material clogging, Air Vibrator is widely used to eliminate the problem.
Our sequential controller used microprocessor control, providing 10 outputs. Operators can choose the suitable process control to suit their application.

Vibration Set-Up Mode

For discharge of material, use continous vibration.
For removal of material clogging, use intermittent vibration by setting the time of vibration.

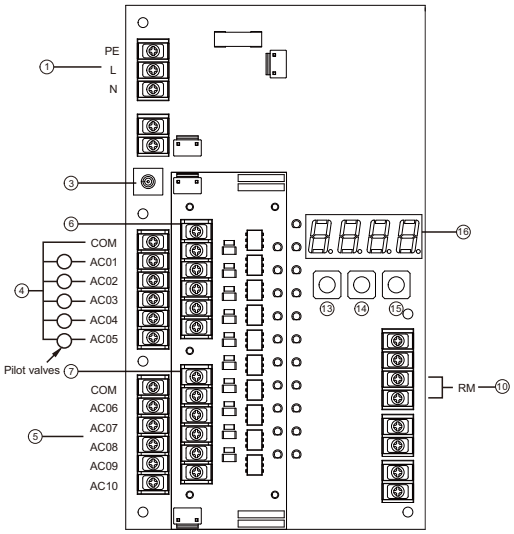
Specification

Item		Specification
Application	Product application	Sequential controller for vibrator
	Control product	Solenoid valve
Power	Power supply	AC: 100~240V @ 50~60 Hz
	Power consumption	3A
	Ambient temperature	-20°C~70°C
Output voltage	AC	Same as power supply/1A
Environ ment	Operating humidity	RH 20~85 %
Other	Output point	20(MAX)
	Output box(Opint)	ABS
	Other input	1.Relay input control 2.Remote control

1.Please choose correct voltage before start-up.
2.Verify the voltage and the specification of solenoid valve.

Wiring & Panel Instructions

Output type : AC power

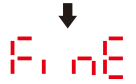


① Power input terminal: Power supply 100~24Vac±10%, PE-grounded.
③ Power switch: ON / OFF
④ Output point terminal: first group points 01~05.
⑤ Output point terminal: first group points 06~10.
⑥ Output point terminal (optional): second group points 01~05 is after first group point 10 is activated, it will jump to the second group's 01 cycle.
⑦ Output point terminal (optional): second group points 06~10.
⑩ Remote control terminal: To start the remote controller, remove the circuit breaker and connect the switch. To stop, disconnect the contact. Note! Do not remove the shorting strip when this function is not in use.
⑬ UP Button
⑭ SHIFT Button
⑮ ENT Button
⑯ Display

Panel Function

Power on

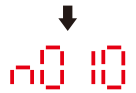
The display will light lasting 1sec



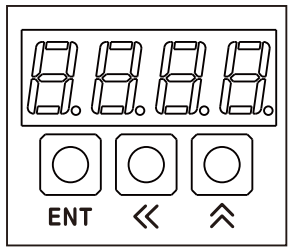
Fine 3sec

AEX6
Showing product item for 3sec

D01
Showing product version for 3sec



Back to main menu

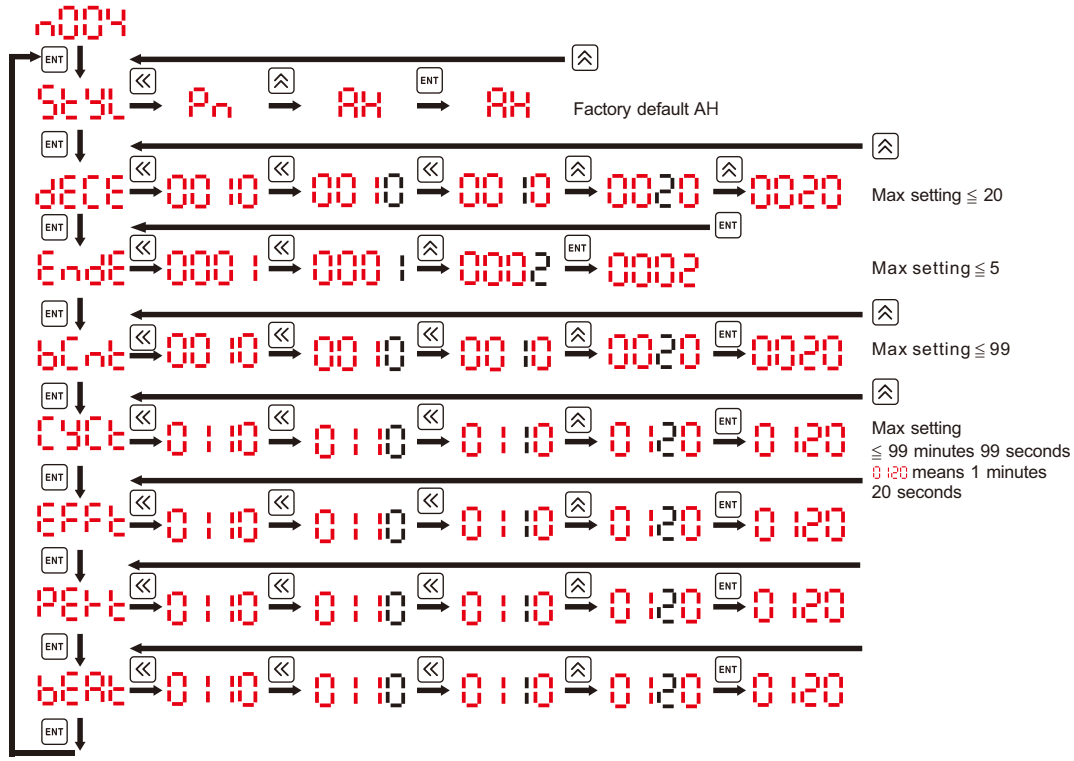


Buttons	Selection	Settings
ENT ENT button	Enter to menu	Confirmation
≪ Shift button	Enter to setting	Position shift
≫ Up button	Escape	Increment

Code

A:	B:	C:	D:	E:	F:
G:	H:	I:	J:	K:	L:
M:	N:	O:	P:	Q:	R:
S:	T:	U:	V:	W:	X:
Y:	Z:				

Program Commands List / View / Setting

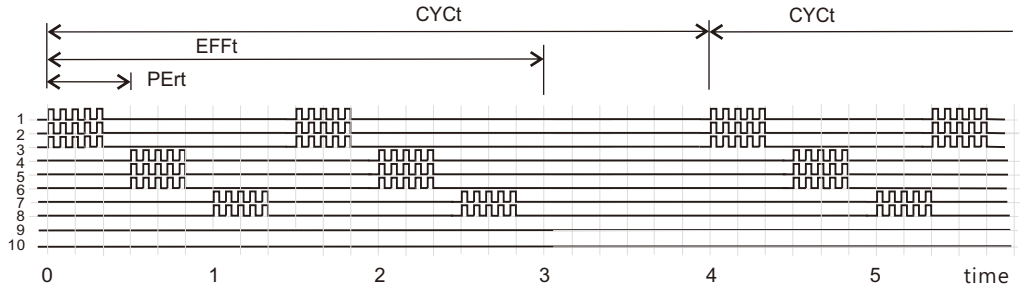


Program Commands List

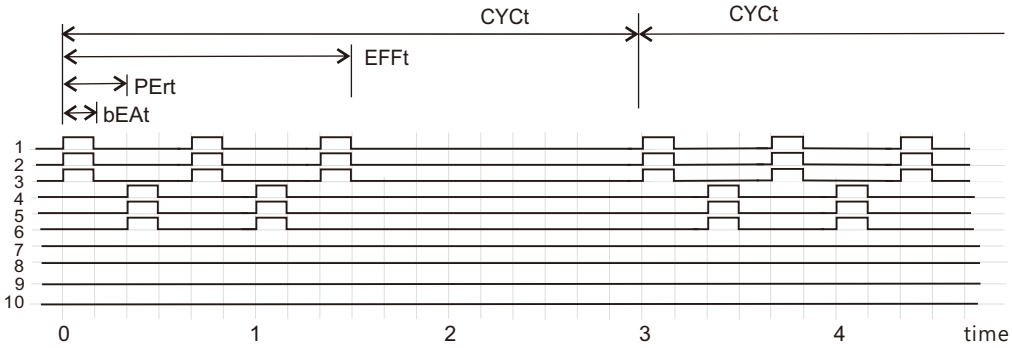
StyL: StyL: Style of vibrator action
dECE: dECE: Total number of vibrators in use (includes both connected and unconnected vibrators) (1≦dECE≦20).
EndE: EndE: Group of vibrators (Number of vibrators that action together) (1≦Ende≦5)
bCnt: bCnt: Number of vibrations (Number of vibration in a cycle, only applicable to AH modes.
CyCt: Cyct: Cycle Time. (Includes both working and idling time in a cycle)
EFFt: EFFt: Effective vibration time for each vibrator in a cycle. (Exact timing of vibration in a cycle)
PErt: PErt: Interval vibration time for each group (Exact timing of vibration of a group in a cycle.
bEAt: BEAt: Individual working time (exact timing of vibration in a sequence) (Only applicable to to PN modes.

Working Mode

(AH Working mode)



(PN Working mode)



Item	Function Description	AH Working mode	PH Working mode
StYL	Working modes of vibration, AH/PN mode	AH	PN
dECE	Number of total working vibrators (1~20pcs)	8 pieces	6 pieces
EndE	Number of vibrators working at same time (1~5pcs)	3 pieces	3 pieces
bCnt	Number of vibrations (one cycle, only AH mode, max.99pcs)	5 times	x
CYCt	Time of one cycle (working time + idling time) (max. 99 min. 99sec.)	CYCt-EFFt=1 mins (Interval time)	CYCt-EFFt= 1min 30secs (Interval time)
EFFt	Exact time of vibration in one cycle (max. 99 min. 99sec.)	3 mins (Cycle action time)	1min 30secs (Cycle action time)
PErt	Interval time between each group of working vibrators(max. 99 min. 99sec.)	20 secs+10 secs (Action time + Interval time)	10 secs+10 secs (Action time + Interval time)
bEAt	Working time for individual vibrator (only PN mode) (max. 99 min. 99sec.)	x	10secs(Action time)

※Correct method of setting:CYCt≧EFFt≧PErt≧bEAt

Take Note When Using Vibration PLC

1.When using vibrator for discharge of raw material, make sure that the outlet of silo/tank must be opened before vibration starts. If the outlet of silo/tank is closed, the material will be compacted and caused difficulty in discharging. Therefore, we highly suggest that the control of opening outlet and vibration electrical circuit to be linked together.

2.Choose the correct vibration modes for your application:
- ●Single Impact Model ----BAH
- ●Continuous Impact Model ----BVP
- ●Rotational Vibration Model----BVK, BVR, BVT

3.The AEX61 provides 20 sets control contact outputs to program and control solenoid valves or other pneumatic devices. Due to different modes of vibration, the internal control functions are also different.

BAH Model

Under this category, internal control is set to action once per 4 seconds as it is due to the complete air discharge of solenoid valve before it can activate the next impact.

Examples are our company's :

BAH-30、BAH-40、BAH-60、BAH-80

PN Model

Output contact action timing is customizable according to user, used in rotational or continuous type vibrators.

Examples are our company's :

BVP-30C, BVP-40C, BVP-60C,BVP-30S, BVP-40S, BVP-60S
BVK-10, BVK-13, BVK-16, BVK-20,BVK-25, BVK-32,
BVR-050, BVR-065,BVR-080, BVR-100
BVT-08, BVT-10, BVT-13, BVT-16, BVT-20, BVT-25, BVT-30, BVT-36

Frequently Asked Questions & Troubleshooting

Problem	Probable reasons	Solution
Indication doesn't lights up	No Power Supply	Check terminals for electrical voltage.
	Burnt Fuse	Change fuse
Vibrator is not working	Working mode and vibrator type are not compatible	Change to right modes for AH or PN
	Wrong voltage for Solenoid Valve	Change to correct voltage
Part of vibrator not working	Wrong setting of timing or not sufficient	Inspect setting values and correct errors.

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