Product Overview

The Axio AX-WAC is a three channel window controller providing timed forward/reverse outputs to open and close 2 wire DC window actuators. Each output can be driven from a separate 0-10 volt input, or grouped as described below, including a linear option. Cycle times from 5 to 240 seconds can be set or the window opening time can be measured. A 'Close All' input is provided to drive all windows closed overriding the control inputs. The AX-WAC is supplied in a DIN rail carrier as standard suitable for mounting on TS35 section DIN rail. The module features high quality rising clamp terminals for ease of connection.

Features

- 3 independent forward/reverse outputs
- 5 to 240 second cycle time ranges
- Close All input to close all windows
- Staggered actuator switching available

- Independent, grouped or linear modes
- 0-5, 2-10 or 0-10 volt input range selection
- Selectable output step count
- Selectable reset options

Product Specifications

Control Supply Voltage	24Vdc ±15%, 90mA
Inputs	3 control input, 0-10, 2-10 or 0-5 volts, 2mA maximum.
	Close All input, volt free contact, 0.5mA maximum
	Actuator supply voltage, 12-24Vdc as required by actuators
Display	8 character by 2 line display
Menu Options	Input range: 0-5, 2-10 or 0-10 volt Cycle time: 5 to 240 seconds
	Control mode: Independent, linear Output step count: 10, 25, 50, 100
	Output switching: Synchronous, staggered Output reset time: 5 to 600%
Outputs	3 Forward/Reverse actuator outputs protected by self resetting fuses. Maximum 5A each output, total maximum 15A. (Resistive)
Terminals	Rising clamp for 0.5-2.5mm² cable
Ambient Temperature Range	0°C to 50°C
Dimensions	102(W) x 83(H) x 48(D) mm (Maximum)
Weight	150grams
Country of Origin	United Kingdom

Order Codes

AX-WAC   3 Channel Window Actuator Controller with LCD display

Annicom Ltd
Unit 21, Highview, Bordon, Hampshire. GU35 0AX
Tel: +44 (0)1420 487788 Fax: +44 (0)1420 487799
Email: sales@annicom.com Website: www.annicom.com

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AX-WAC
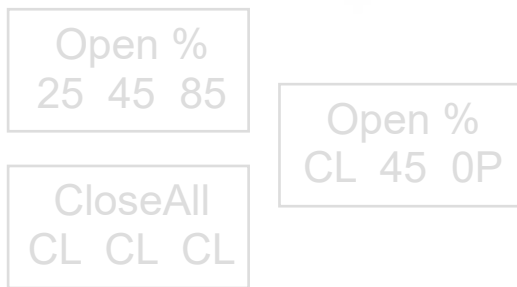## Three Channel Window Actuator Controller with LCD

Installation

The AX-WAC should be installed by a suitably qualified technician in conjunction with any guidelines for the equipment it is to be connected to and any local regulations. Field wiring should be installed to satisfy the requirements set out by the manufacturer of the equipment that the module is being connected to.

Description

Display

The default display shows the position of all three windows, as a percentage. CL indicates fully closed and OP indicates fully open. The value will flash during the window closing reset stage, see reset time.

Menu

Repeatedly press MENU to scroll through the menu options. If it is required to make an adjustment wait until the default Open % display is shown and then press and hold MENU down for ten seconds, the lower half of the display will now flash to show that adjustments can be made. The adjustment option will time out if a button has not been pressed in the last ten seconds and the settings are saved
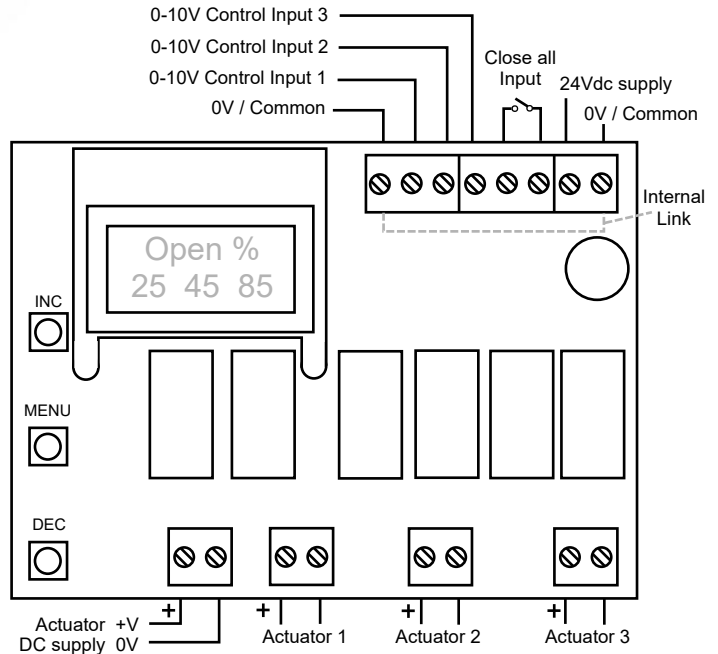
Mode

Independent
> Each window will open and close in response to their separate input signal.

Grouped normal
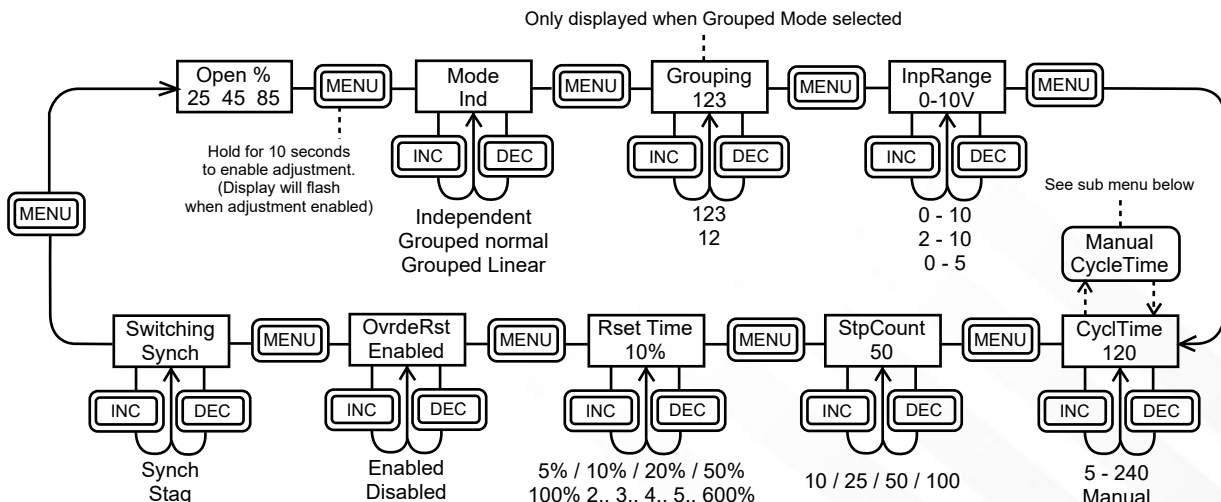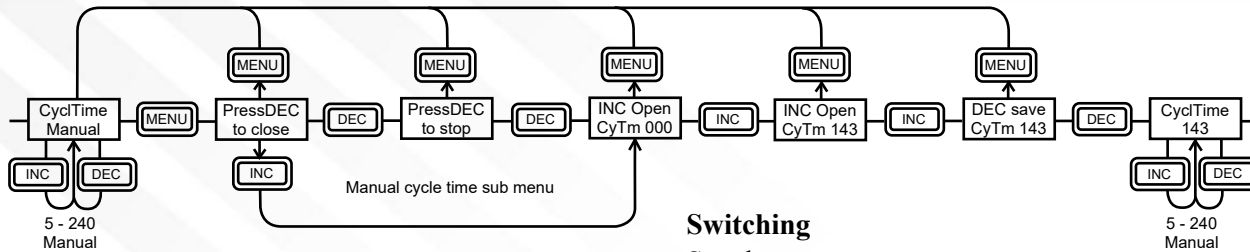> Grouped windows open and close in response to input 1.

Grouped linear
> Grouped windows open and close in response to input 1 and will open and close one after the other. The second window will not start to open until the first window is open and will close in the reverse order. The close all input will cause all windows to close together.

Group (Not available in independent mode)
123
> Windows 1, 2 and 3 are grouped together and controlled by 0-10V input 1.

Manual cycle time sub menu

Group - continued

12

Windows 1 and 2 are grouped together and controlled by 0-10V input 1. Window 3 is controlled by 0-10V input 3.

Input Range

Set the control input range for all the inputs, available options are 0-5, 2-10 or 0-10 volts.

Cycle time

Manual

Allows the cycle time menu to set manually, see Manual cycle time. Hold DEC button down to select MANUAL mode.

5-240

Sets the open and close cycle time for all windows.

Step Count

The output action is divided into a fixed number of steps between fully closed and fully open. Setting this to a lower valve will reduce the amount of actuator switching. Options are 10, 25, 50 or 100 steps.

Reset time

To help maintain synchronisation between the window position and the control input voltage every time the windows are driven closed, 0V on control input or Close All input, an additional close action will be applied. This can be set to 5%, 10%, 20%, 100%, 200%, 300%, 400%, 500% or 600% of the cycle time.

Override reset

This allows the reset stage to be overridden providing a smoother window action in the linear modes. With Override reset disabled each window reset will complete before the window can re-open, in the linear modes the next window will not open or close either. With Override reset enables the reset stage will stop if there is a demand and the window will re-open, in the linear mode the next window will open or close while the reset is running.

Switching

Synchronous

All outputs will switch together, i.e. when grouped

Staggered

There will be 1 second delay between any two outputs switching on, reducing peak inrush current demand from the actuator power supply.

Manual cycle time (Select via cycle time)

This option allows the window on OUT1 to be closed and opened manually using the AX-WAC, whilst this is being done the AX-WAC measures the opening time which can then be stored as the cycle time. The procedure is described below.

1   Enable adjustment mode, see Menu paragraph.

2   Press MENU as required to show the Cycle Time

3   Press DEC to reduce cycle time until MANUAL option appears the press MENU.

4   Ensure the window is closed, if the window is open press DEC to start window closing and press DEC again when the window is closed. If the window is already closed press INC to skip this option.

5   When ready press INC to start window opening. The AX-WAC will start measuring the time.

6   As soon as the window is fully open press INC again to stop the window. The unit will display the opening time.

7   Press DEC to save the cycle time or press MENU to repeat the procedure.

8   Pressing MENU at any time will restart the procedure.

Close All input

When input is closed the Close All input overrides the control inputs and drives all the actuators closed, all windows will close together.

Windows close overdrive at power on

When power is applied all the windows will be driven closed for 105%, 110% or 120% of the cycle time in line with the reset time setting.