

AX-RLA-24-ACT

Raise-Lower to Analogue Converter - 24Vac

AXIO



Product overview

The Axio AX-RLA-24-ACT converts 24Vac raise-lower input signals into a 0-10 volt analogue output. The unit provides various cycle times that are jumper selectable. The AX-RLA-24-ACT is powered from 230Vac and provides a 24Vac supply for valve actuators, etc. to simplify cabling. The unit features a manual preset for commissioning purposes. The AX-RLA-24-ACT is supplied in a DIN rail carrier suitable for mounting on TS35 section DIN rail and features high quality rising clamp terminals for ease of connection.

Features

- 24Vac Raise Lower inputs
- 24Vac output at 2.5VA
- Manual override preset for commissioning
- Selectable cycle times
- 230Vac powered
- DIN rail carrier (TS35 DIN rail)

Product specifications

Supply voltage	230Vac ($\pm 15\%$), 50-60Hz
Inputs (Raise and Lower)	24Vac ($\pm 15\%$), 50-60Hz
Input load	10mA nominally with J1 or J2 in position N 60mA nominally with J1 or J2 in position T
Raise-Lower timing	30 to 300 Seconds – see table 1
Analogue output	0 - 10Vdc at 5mA maximum load
Power output	24Vac at 2.5VA maximum. Typical regulation 25%
Fuse	Transformer output protection - 250mA anti-surge
Terminals	Rising clamp for 0.5-2.5mm ² cable
Ambient Temperature Range	0°C to 50°C
Dimensions	68(W) x 83(H) x 58(D)mm maximum
Weight	250 grams
Country of Origin	United Kingdom

Order codes

AX-RLA-24-ACT	Raise-Lower to Analogue converter - 24Vac signals, 230Vac powered with 24Vac auxiliary Output
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Installation

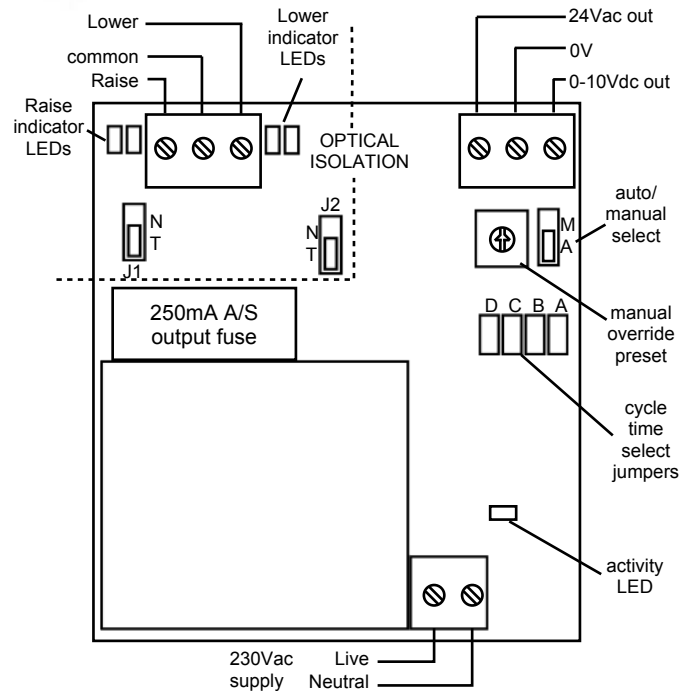
The AX-RLA-24-ACT should be installed by a suitably qualified technician in conjunction with any guidelines for the equipment it is to be connected to. Field wiring should be installed to satisfy the requirements set out by the manufacturer of the equipment that the module is being connected to.

Connections

The Raise and Lower inputs share a Common connection. These inputs are optically isolated from all other connections on the module for complete versatility. The Common of these signals can be connected to the 0V or the 24Vac Output terminals if required.

Operation

The raise and lower inputs are converted using the selected cycle time to produce a proportional 0-10V analogue output. Assuming a cycle time of 150 seconds has been selected, and the output is initially at 0V, on recognition of an input signal at the raise input, the output will start to rise towards 10V. After 75 seconds of a signal being continuously applied to the raise input, the output will be at 5V. If the raise signal is then removed from the input, the output will remain at 5V, and will do so until another signal is applied to either the raise or lower inputs. If a signal is now applied continuously to the lower input, the output will ramp down towards 0V, and after 75 seconds will reach 0V. The signal will remain at 0V until a raise signal is applied again. Even if a lower signal is applied again, the unit remains at 0V.



Connections

The unit requires 230Vac power at the terminals marked Live and Neutral. The raise and lower inputs require two switched 24Vac input signals.

A supply of 24Vac is available between the 24Vac OUT and 0V terminals. This can be used to power a valve. This supply is protected by the on-board fuse. Refer to the product specification table overleaf for the correct type of replacement fuse.

J1 (Raise input) and J2 (Lower input) select the input load resistors and can be set independently. If the raise-lower inputs signals are provided by triacs it is recommended to place both J1 and J2 in position T to increase the input loading. Otherwise put these jumpers in position N.

Setup

When power is applied to the unit, the activity LED will pulse on and off at one second intervals during normal operation.

For commissioning purposes, move the Auto/Manual jumper to position M. The 0-10V output can now be varied over the range 0 to 10V by adjusting the manual override preset.

In normal operation the Auto/Manual jumper must be in position A. The 0-10V output then responds to the raise-lower inputs.

The cycle time select jumpers A,B,C and D must be selected according to the valve opening time. See Table 1 for the time ranges available (X = jumper fitted).

Cycle time select jumpers

A	B	C	D	Cycle time seconds
-	-	-	-	30
-	-	-	X	35
-	-	X	-	60
-	-	X	X	70
-	X	-	-	80
-	X	-	X	90
-	X	X	-	95
-	X	X	X	100
X	-	-	-	105
X	-	-	X	120
X	-	X	-	125
X	-	X	X	140
X	X	-	-	150
X	X	-	X	180
X	X	X	-	200
X	X	X	X	300

Table 1 Raise Lower Cycle times

Every effort has been taken in the production of this data sheet to ensure accuracy. Axio do not accept responsibility for any damage, expense, injury, loss or consequential loss resulting from any errors or omissions. Axio has a policy of continuous improvement and reserves the right to change this specification without notice.