

#### Product overview

The Axio AX-RL3R converts a raise lower control signal into a 3 relay staged output. The raise and lower inputs are fully isolated from the control side of the module, in case separate ground connections are required. The module is powered by 24Vac or 24Vdc. Jumpers for Auto/Hand/Off are provided to aid commissioning with individual LEDs to indicate the relay states. The AX-RL3R is supplied in a DIN rail carrier for mounting on TS35 section DIN rail and features high quality rising clamp terminals for ease of connection.

#### **Features**

- Isolated Raise Lower Inputs
- 3 SPCO relays

- DIN rail carrier as standard (TS35 DIN rail)
- High quality rising clamp terminals

### **Product specifications**

Input Signals	12 to 24Vac/dc or volt free Raise and Lower signals
Input Load	Approximately 50mA at 24Vac
Cycle Time	30 to 300 seconds (see table)
Output Contacts	3 SPCO relays. NO contact 12A, NC contact 3A, 250Vac resistive load
Power Supply	24Vac ±10% at 140mA maximum
	24Vdc ±10% at 100mA maximum
Mode of Operation	Sequential, Staged or Binary Output
Manual Override	Auto / Hand (On) / Off
LED Indicators	On when relay energised
Terminals	Rising clamp for 0.5-2.5mm <sup>2</sup> cable
Ambient Temperature Range	0°C to 50°C
Dimensions / Weight	68(W) x 83(H) x 45(D)mm / 110gms
Country of Origin	United Kingdom

### **Order codes**

AX-RL3R

Raise Lower to Three Stage Relay Output Module

Order Online at: www.annicom.com Email orders and enquiries to: Sales@annicom.com

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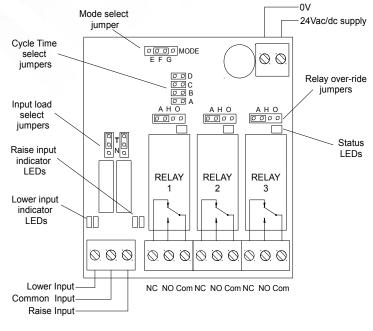
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Page 1 of 3

### Installation

The AX-RL3R should be installed by 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 and Connections**



The unit accepts AC or DC voltages or switching signals on the raise-lower inputs. If the input is connected to 24Vac the switching signal could be from a relay, triac, switch etc. If the input is connected to 24Vdc the switching signal could be from a relay, open collector transistor, switch, etc.

J1 (Input 1) and J2 (Input 2) 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.

Two input LEDs provide indication of input activity on the raise-lower inputs.

#### **Output relay**

The table shows the jumper positions for over-riding the relay functions.

Jumper Position	Relay Function		
А	Auto		
Н	Hand (Relay permanently on)		
0	Relay off		

#### **Raise-Lower timing**

The table shows the switching actions provided by application of cumulative signals to the Raise/Lower inputs. Should repeated use of one of the inputs extend beyond the full scale timing, then this overrun is ignored.

Α	В	С	D	(Seconds)
0	0	0	0	30
0	0	0	Χ	35
0	0	Х	0	60
0	0	Х	Х	70
0	Х	0	0	80
0	Х	0	Х	90
0	Х	Х	0	95
0	Х	Х	Х	100
Х	0	0	0	105
Х	0	0	Х	120
Х	0	Х	0	125
Х	0	Х	Х	140
Х	Х	0	0	150
Х	Х	0	Х	180
Х	Х	Х	0	200
Χ	Х	Х	Х	300

Table 1 Raise-lower cycle times

Positions of Jumpers A,B,C and D X - jumper fitted 0 - Jumper not fitted

#### **Output mode**

The output tables show the switching actions provided by the different modes, referred to the input timing. The relay off state is shown by a small dash.

Mode Jumper	Е			G		
	Stage			Sequence		
Input time	Relay			Relay		
	1	2	3	1	2	3
0	-	-	-	-	-	-
1/3	On	-	-	On	-	-
2/3	On	On	-	-	On	-
>=Full scale	On	On	On	-	-	On

Table 2	Stage	and	Sequence	operation
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Mode Jumper	F			
	Binary			
Input time	Relay			
	1	2	3	
0	-	-	-	
1/7	On	-	-	
2/7	-	On	-	
3/7	On	On	-	
4/7	-	-	On	
5/7	On	-	On	
6/7	-	On	On	
>=Full scale	On	On	On	

Table 3 Binary operation

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