

POWERLINK



ERC4 & ERC7 Single Phase Thyristor Controller instruction manual

1) Installation

The controller should be mounted to allow airflow through the heatsink naturally. The maximum ambient temperature should not exceed 40 Deg. C.

2) Protection Fuse

Suitable fuse should be fitted to protect a ERC4 or ERC7 from overloading. The fuse level depends on the load current rating. The maximum fuse value for an ERC4 is 20A. The maximum fuse value for an ERC7 is 30A.

A 100mA delay fuse which is on the print circuit board is used to protect the low voltage supply of the electronic control circuit.

3) Wiring

An ERC4 or ERC7 controller should be connected according to the wiring diagram as shown in fig. 1. The size of cables for controlling signals should be larger than 0.5 mm sq. and the cable to L, N and cables to the load must be sufficient to withstand the maximum current rating of the LOAD and meet the IEE WIRING REGULATIONS.

4) Set-up procedure

After connecting the load to a power controller, set the input signal to minimum (0V). Switch on the mains supply, the output voltage or current to the load should be zero (except the leakage current or snubber circuit current which is less than 10mA). Gradually increase the input signal and check that the output is switching ON and OFF according to the input signal.

5) ALL STANDARD UNITS ARE FACTORY SET UP AS FOLLOWS

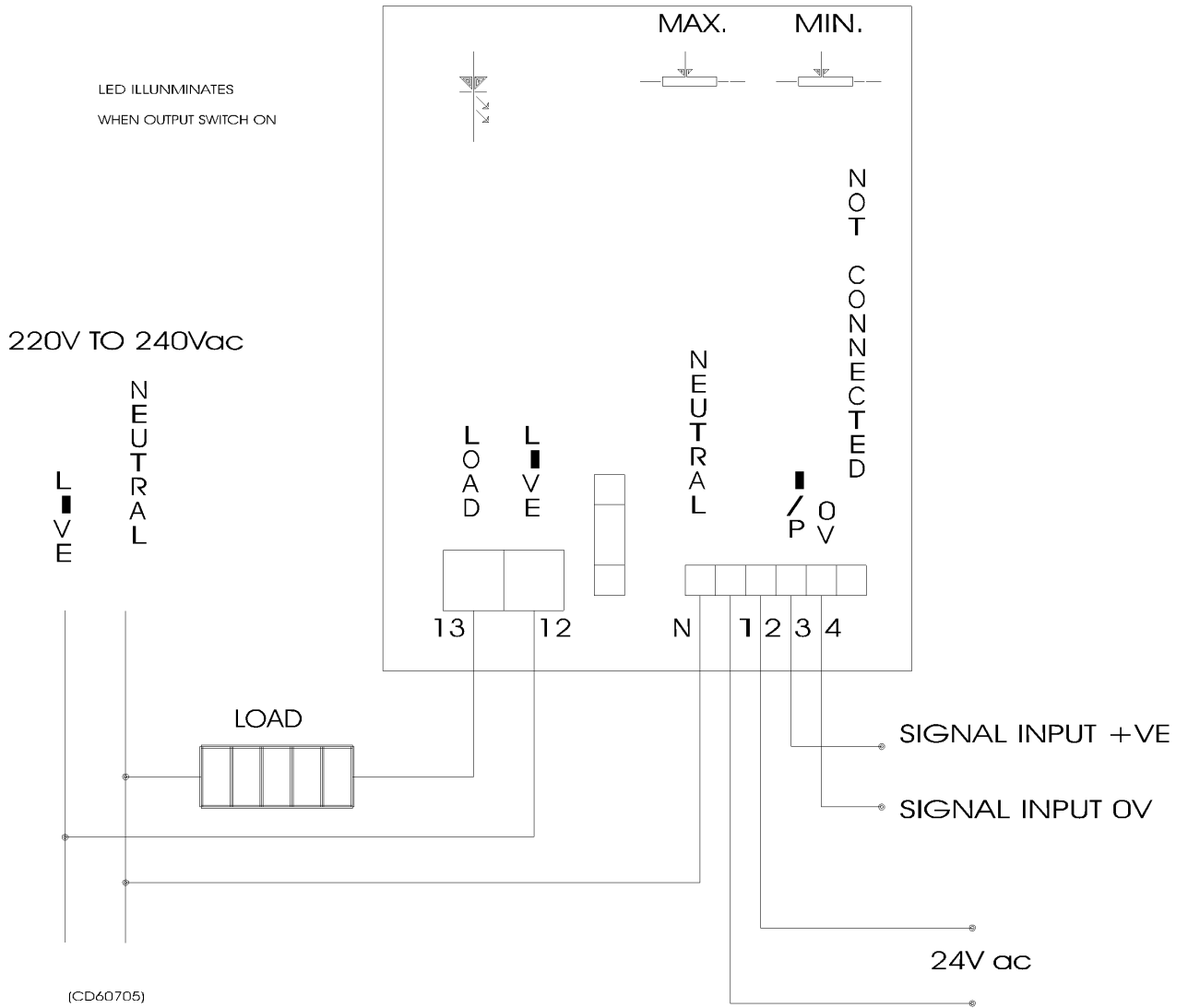
- a) With the input at minimum (0V), switch on the mains supply to an ERC unit.
- b) With an input of 9V for 0-10V input range (for other input range, set the input to 90% of the max. input), adjust the SPAN pot clockwise until the output voltage or current is at maximum.
- c) With input signal at 8V, output should be nearly fully on with slightly off.
- d) With the input at 1V for 0-10V input range (for other input range, set the input to 10% of the max. input), adjust ZERO POT until the output is zero.
- e) With input signal at 2V, the output should be nearly fully off with slightly on.
- d) Repeat step b) and c) until the output is at maximum and zero.

Specification

Supply voltage	192V to 264Vac, 47 to 63Hz
Input signal	0-10V as standard, 22 kilo-ohm min. input impedance
Current ratings	Natural cooling ERC4 - 17A max. ERC7 - 30A max. per phase
Cycle Time	typical 3 sec.
Isolation	2500Vrms between input and output
Min. holding current	30mA
Repetitive peak voltage	600V
Operating temp.	0 to 45 Deg. C
Storage temp.	-10 to 80 Deg. C
Dimensions	ERC4 W: 85mm x H: 130mm x D: 65mm ERC7 W: 120mm x H: 130mm x D: 80mm
Mounting	DIN rail mounted, positive screw locking

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ERC4 & ERC7 WIRING



AUX. 24Vac, 1VA FOR OTHER CONTROLLER
e.g. TC1

0-10V INPUT SIGNALS STANDARD
4-20mA INPUT SIGNAL ON REQUEST