

11 PIN PLUG IN CURRENT CONTROL RELAYS WITH TRIPPING TIME DELAYS

PRODUCT
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**TYPES: 11WRIA5A, 11WRID5A (over current relays)
11WRIA5C, 11WRID5C (under current relays)**

FEATURES

- 11 pin plug in
- SPCO output
- Three selectable input ranges 5mA to 10 Amps
- Available for both AC or DC current
- Selectable manual or auto reset
- Adjustable time delay on tripping 0.1-10 secs
- Dual LED indication



SUMMARY OF UNITS

11WRIA5 - 11 pin plug in current sensing relay AC current only.

11WRID5 - 11 pin plug in current sensing relay DC current only.

Suffix A - With delay to energise on a rising current.

Suffix C - With delay to de-energise on a falling current.

MODE OF OPERATION

11WRIA5A, 11WRID5A

"With delay to energise on a rising current". The output relay delays to energise for up to 10 secs when the monitored current rises above the set level as selected by the front potentiometer. It will de-energise when the current falls below the set level less any hysteresis adjustable 5 to 50% against the set level. De-energisation will also occur if the auxiliary supply is lost. The units can be set to be either "manual" or "auto" reset (latched or non latched), achieved by a link or no link between terminals or pins 9 & 11. For "manual" reset (latched) a link is required, when reaching the set level plus the set time delay the relay will latch and the link will need to be opened or the auxiliary supply removed to achieve a reset. Reset is only possible if the monitored current has fallen below the set level minus the set hysteresis.

11WRIA5C, 11WRID5C

"With delay to de-energise on a falling current". The output relay will energise when the monitored current reaches the set level as set via the potentiometer. The output relay will de-energise up to 10 secs after the monitored current has fallen and remains below the set hysteresis, adjustable 5 to 50% of the set current level. Should the auxiliary supply be lost the output relay will also de-energise. **Whilst the latch circuit is fitted to the units on the 5C versions it cannot be utilised and therefore link pin 9 & 11 should be left open.**

OTHER APPLICATION NOTES

Use of Current Transformers

The three current ranges are determined by wiring to different terminals. For monitoring currents above 10Amps AC a current transformer is required. It is recommended that preferably a 1Amp secondary current transformer is used and connected to the 50mA to 1Amp input range, thus giving 100% resolution. **A range of 1Amp secondary CT's are available from our CT section pages 156 to 164.**

Adjustable Time Delay on Tripping

The current relays have an adjustable 0.1-10 sec delay on tripping timer which activates every time the set level is exceeded, or falls below the set level, as the case may be. This feature is extremely useful on applications where the control circuit is always live.

DC Auxiliary Supply Versions

DC auxiliary supply versions are as standard non isolated. For these versions the supply and the measured current must be isolated from each other and must not exceed 50V DC. On request at extra cost isolated versions can be manufactured utilising internally a DC to DC converter.

SPECIFICATIONS

Supply & Measuring

Nominal supply tolerance:	± 15%
Isolation AC versions:	Via transformer
Isolation DC versions:	No as standard or:- Yes via optional internal DC to DC converter
Power consumption:	3VA max
Hysteresis:	Adjustable 5 to 50% of I_e
Repeat accuracy:	± 2% at constant ambient ± 5% across temperature range
Response time:	5A version adjustable 0.1-10secs on make 5A version 200mSec on break 5C version 100mSec on make 5C version 0.1-10secs on break
Input ranges selectable:	5-100mA (max overload 5A for less than 1 sec) 50mA-1A (max overload 17A for less than 1 sec) 0.5-10A (max overload 55A for less than 1 sec)
Input impedances:	100mA range 1 Ohm 1A range 0.1 Ohm 10A range 0.01 Ohm

Relay output

Output contacts:	SPCO 10Amps/250V AC1
Mechanical life:	30 Million ops
Electrical life:	200K ops at max rated load

General

Operating temperature:	-20°C to +65°C
Storage temperature:	-20°C to +65°C
Max cable size:	4mm
CE marked	Yes
In accordance with:	EN61000-6-1: 2007 EN61000-6-3: 2007 EN61010-1: 2002
Housing material	Polycarbonate, Auto extinguishable to UL 94 V-0

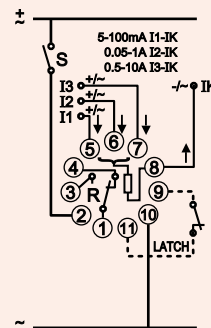
ORDERING INFORMATION

TYPE	COIL VOLTAGE	
11WRIA5A (11 pin AC rising current)	440VAC	110VAC
11WRID5A (11 pin DC rising current)	415VAC	48VAC
11WRIA5C (11 pin AC falling current)	400VAC	24VAC
11WRID5C (11 pin DC falling current)	380VAC	*48VDC
	230VAC	*24VDC

* No isolation on DC versions as standard, on request at extra cost isolated versions are available.

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FUNCTION



11WRIx5

CONNECTIONS

