

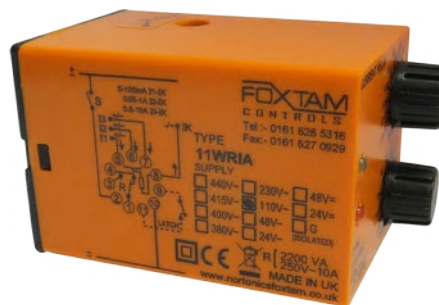
11 PIN PLUG IN CURRENT CONTROL RELAYS WITH INITIAL START UP DELAY

PRODUCT
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TYPES: 11WRIA, 11WRID 11WRIA/I, 11WRID/I,(spco)

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
- Initial start up adjustable time delay 0.1-10 secs



SUMMARY OF UNITS

- **Dual LED indication** 11WRIA - 11 pin plug in current sensing relay AC current only.
- 11WRID - 11 pin plug in current sensing relay DC current only.
- 11WRIA/I - Din rail "inverse" acting current sensing relay AC current only.
- 11WRID/I - Din rail "inverse" acting current sensing relay DC current only.

MODE OF OPERATION

11WRIA, 11WRID

"Auto Reset" without latching mode. This mode is determined by terminals pins 9 & 11 left open. The output relay is energised when the monitored current rises above the selected set level, set via the front potentiometer. The output relay will de-energise when the current falls back below the level selected less the set hysteresis adjustable 5 to 50%, set via a second potentiometer. For example set level at 4 Amps, hysteresis at 30% will result in energisation at 4 Amps and de-energisation at 2.8Amps. If the auxiliary supply is lost at any time the relay will also de-energise.

"Manual Reset" without latching mode. This mode is determined by a wired link between terminals pins 9 & 11. The output energises when the monitored current rises above the level selected via the front potentiometer. Once energised the relay will remain latched even if the monitored current falls below the set level less any selected hysteresis. Resetting is achieved by opening the link between terminals pins 9 & 11 or by removing the auxiliary supply. If whilst resetting the monitored current is still above the set level a reset will not be achieved. It is normally preferable in the latching mode to have the adjustable hysteresis set at minimum.

11WRIA/I, 11WRID/I

"Auto Reset" without latching. This version is only possible as an "auto reset" device and the output relay acts in an "inverse" way, i.e. the output relay is normally energised and de-energises when the monitored current rises above the level selected via the front potentiometer. It will re-energise when the monitored current falls below the set level less the set hysteresis adjustable 5 to 50%, set via a second potentiometer. It should be noted that on first connection of the auxiliary supply the relay will energise for 0.1 secs (i.e. current below the set level), whilst the scanning circuit is determining the level of current being measured. This time can be extended up to 10 secs via the adjustable "start up delay" thus allowing a longer stabilisation period.

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 1 Amp secondary CT's are available from our CT section page 156 to 164.**

Adjustable Initial Start Up Time Delay

The current relays have an adjustable 0.1-10 sec initial start up delay timer, activated by the connection of the auxiliary supply, therefore if a control circuit is going to be permanently live the time delay will only ever be active once. In this scenario it may be preferable to use the versions **11WRIx5x** on pages 74 & 75, these versions have a time delay that activates every time a monitored current exceeds or falls below the set levels.

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:	100 mSec on make 200 mSec 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
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

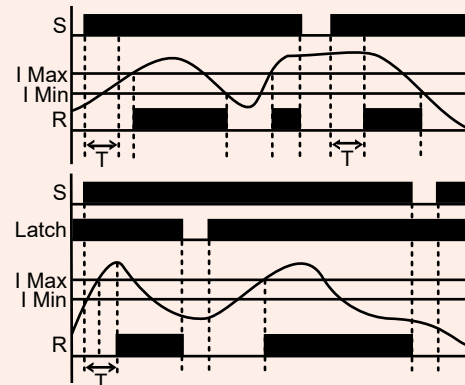
ORDERING INFORMATION

TYPE	COIL VOLTAGE	
11WRIA (11 pin AC current)	440VAC	110VAC
11WRID (11 pin DC current)	415VAC	480VAC
11WRIA/I (11 pin AC current inverse output)	400VAC	24VAC
11WRID/I (11 pin DC current inverse output)	380VAC	*48VDC
	230VAC	*24VDC

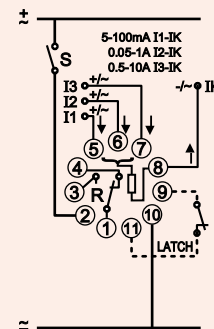
* No isolation on DC versions as standard, on request at extra cost isolated versions are available

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FUNCTION



CONNECTIONS



11WRIx