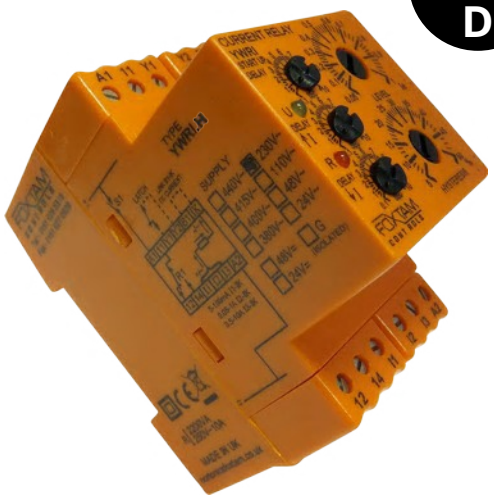
CURRENT CONTROL RELAYS WITH OUTPUT RELAY INITIALLY ENERGISED START UP PULSE & DELAY ON TRIPPING

PRODUCT GROUP D

TYPES: YWRI.H (spco)
YWRI.H.CT5 (spco)



FEATURES

- Din rail mounted
- SPCO output
- Three selectable input ranges 5mA to 10 Amps
- Dedicated 5 Amp "CT" input version
- Selectable for both AC or DC current
- Selectable manual or auto reset
- Adjustable initial start up pulse 0.1-10 secs
- Adjustable delay on rising current 0.1-10 secs
- Adjustable delay on falling current 0.1-10 secs
- Dual LED indication

SUMMARY OF UNITS

YWRI.H - Din rail current sensing relay, selectable via a wired link for either AC or DC current.

MODE OF OPERATION

YWRI.H

"Auto Reset" without latching mode. This mode is determined by terminals Y1 & Y2 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 4Amps, hysteresis at 30% will result in energisation at 4Amps 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 Y1 & Y2. 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 Y1 & Y2 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.

Adjustable Time Delays

The YWRI.H current relays have 3 independently adjustable 0.1-10 Secs time delays. Initial start up adjustable pulse timer, activated by the connection of the auxiliary supply, if the current is below the set level after the time has elapsed the relay will de-energise, if it is above the the set level the relay will stay energised. If a control circuit is going to be permanently live this time delay will only ever be active once, a delay on rising current when the monitored current rises above the set level as selected by the front potentiometer and a delay on falling current, when the monitored current falls below the set level plus the hysteresis.

OTHER APPLICATION NOTES

Selection of AC or DC Current

Din rail mounted units can be selected for either AC or DC current monitoring via a wired link between terminals B1 & IK. B1 & IK linked = DC current. B1 & IK open = AC current.

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. On applications requiring a current transformer with a 5Amp secondary use the **YWRI.H.CT5** dedicated current transformer input units. **A range of 1 Amp secondary CT's are available from our CT section page 156 to 164.**

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 Ie
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
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
YWRI . H (Din rail AC or DC current)

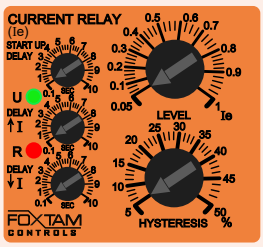
COIL VOLTAGE

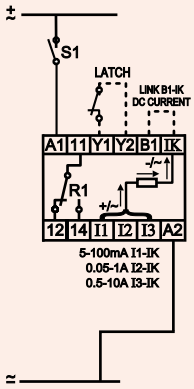
440VAC	110VAC
415VAC	48VAC
400VAC	24VAC
380VAC	*48VDC
230VAC	*24VDC

PRODUCT GROUP D

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

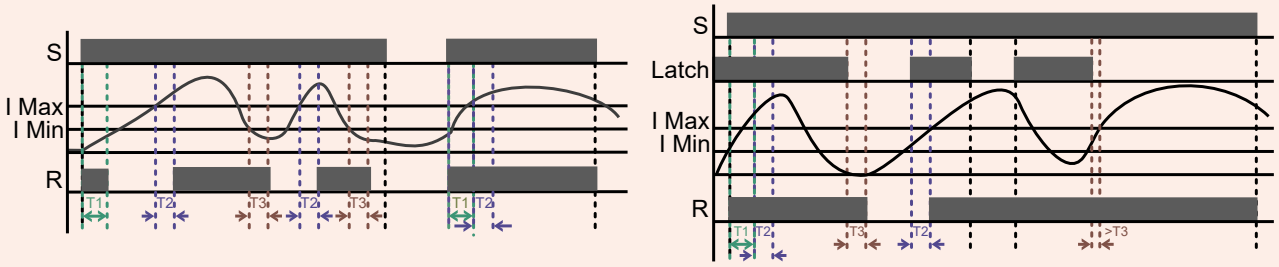
SETTINGS & CONNECTIONS





FUNCTION

YWRI.H



T1 - Start up Delay
T2 - Delay on Rising Current
T3 - Delay on Falling Current

TYPES: YWRI.H.CT5, YWRI/I.H.CT5 (spco)

As an option the YWRI.H current control relay is available with a dedicated 5 Amp input designed to work in conjunction with any C.T. with a 5 Amp secondary. The YWRI.H.CT5 has the same mode of operation as the standard versions.

SPECIFICATIONS

Supply & Measuring

Input range:	0.25-5A (max overload 2 5A for less than 1 sec)
Input impedances:	0.022 Ohm.

All other specification is the same as the standard YWRI.H.

ORDERING INFORMATION

TYPE
YWRI.H.CT5 (Din rail AC current)

COIL VOLTAGE

440VAC	110VAC
415VAC	48VAC
400VAC	24VAC
380VAC	*48VDC
230VAC	*24VDC

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

CONNECTIONS