# **EARTH FAULT RELAY**

## TYPE: YWRI/EF 30 AMPS

#### FEATURES

- Earth fault range 1.5 to 30Amps
- Fixed hysteresis at 5% (other values on request)
- Latching facility (manual or auto reset)
- Test input
- Adjustable time delay on tripping 0.1-10sec
- LED for output relay status & supply healthy
- SPCO output rated 10Amps

### DESCRIPTION & MODE OF OPERATION

Din rail mounted current sensing relay dedicated for earth fault monitoring in conjunction with a core balance CT. The YWRI/EF 30Amps has an adjustable earth fault range of 1.5-30Amps.

On connection of the auxiliary supply the green LED illuminates. Exceeding the set earth fault level and after the adjustable tripping time has elapsed, the output relay energises and the red LED illuminates. The YWRI/EF has a fixed hysteresis of 5% of the set value, should the earth fault level fall below the set value less 5%, the output relay will de-energise and the red LED will extinguish (auto reset). However, should the optional latch facility be utilised between terminals Y1 and Y2 via a remote NC contact, the NC contact has to be opened or the auxiliary supply removed to reset the unit (manual reset). The YWIR/EF 30Amps via terminals Y2 and B1 also has a remote test input operated by a NO contact.

## SPECIFICATIONS

Auxiliary supply: 400VAC, 230VAC, 110VAC, 48VAC, 24VAC

48VDC, 24VDC

Supply tolerance: +/-15%
Isolation: Via transformer
Power consumption: Max 3VA
Earth fault range: 1.5-30A
Input impedance: 30 0 hms

**Hysteresis:** Fixed at 5% of set value (other values on request)

Tripping delay: Adjustable 0.1-10secs

**Repeat accuracy:**  $\pm 2\%$  at constant ambient, to VDE0435  $\pm 5\%$ 

**Operating temperature:**  $-10^{\circ}$ C to  $+65^{\circ}$ C

Response time: 100mSec on make, 200mSec on break
Output relay: Max power 2200VA, 30W DC

250VACDC @ 10A AC, 1A DC

Mechanical life: 30 Million ops / max 600 ops / hr Electrical life: 200 000 at 2200VA (resistive)

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

### NOTE

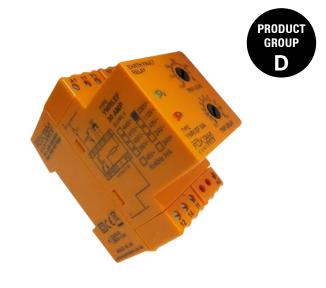
The YWRI/EF 30Amps and its associated CT is designed to monitor insulation break down.

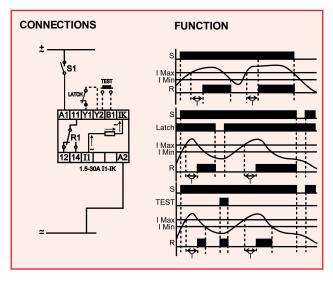
IT MUST NOT BE USED AS THE MAIN SAFEGUARD FOR LIFE PROTECTION

## ORDERING INFORMATION

TYPE AUXILIARY SUPPLY OPTIONS

YWRI/EF 30 Amps 400VAC, 230VAC, 110VAC, 48VAC, 24VAC, 48VDC, 24VDC





#### CORE BALANCE CURRENT TRANSFORMER

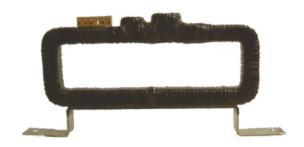
The K1021 (with an ID of 290x70mm) core balance current transformer must be used with the earth fault relay type YWRI/EF 30 Amps. One core balance current transformer is required per YWRI/EF, all conductors must pass through the CT. Core balance CTs are not sensitive to polarity either on the primary or secondary. However, the primary conductors must all pass in the same direction together.

#### SPECIFICATIONS

**Conforms to:** IEC44-1, IEC185, BS7676

Rated system voltage: 720VAC Insulation: 3KV Frequency range: 50/60Hz Max secondary cable size: 2.5mm

Internal dimensions: 290W x 70H (mm)
External dimensions: 350W x 220H (mm)
Including feet 425W (mm)



The above core balance CT, type K1021 must be used with the YWRIEF/30 Amps, do not use any other CT or manufacturer of CT's.

Tel: 0161 626 5316 / 01276 25858 www.foxtamcontrols.co.uk