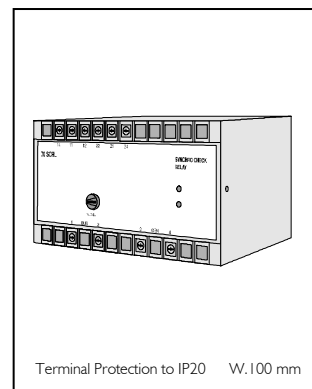


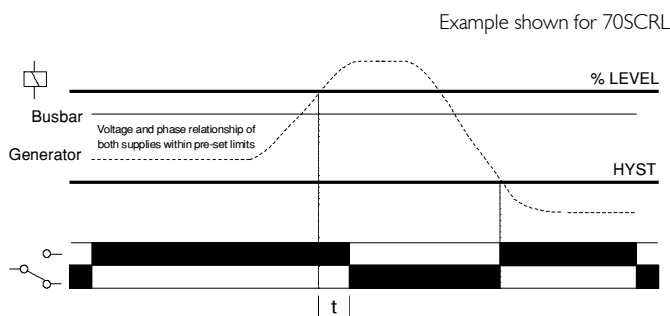
# Type: 70 SCRD & 70 SCRL

## Synchronising Check Relay

The 70SCRD and SCRL synchronising check relays (also known as paralleling relays) are designed to monitor two AC supplies in a system. For a system to be "synchronised", the voltage, frequency and phase angle of both supplies have to be within pre-set limits. The 70SCRL can monitor either mains busbar and generator, or two generator supplies. When the voltage and phase relationship of both supplies are within the pre-set limits (user adjustable), the relay will energise and the red LED will illuminate. The 70SCRD functions as the SCRL but incorporates a "dead bus" facility which allows the relay to energise with a generator supply only, which is a common requirement during mains failure.



### TIMING DIAGRAM



### INSTALLATION AND SETTING

#### 70SCRL:

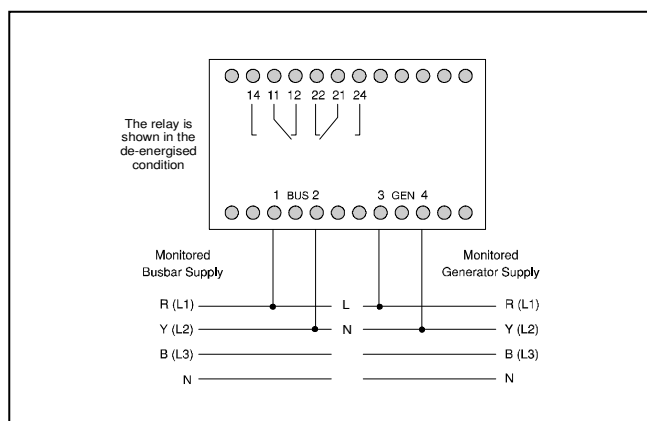
**BEFORE INSTALLATION, ISOLATE THE SUPPLY.** Connect the Generator and Busbar supplies as shown in the diagram below. Apply power and the green LED should illuminate. The red 'relay' LED should illuminate and the relay energise providing the voltage and phase angle difference between both supplies is below the set '% level'.

#### 70SCRD:

**BEFORE INSTALLATION, ISOLATE THE SUPPLY.** Connect the Generator supply as shown in diagram below. Apply power and the green LED should illuminate. The red 'relay' LED should illuminate and the relay energise.

If either unit fails to operate as described, check all connections and voltages present. **Note:** Both units can be used on 1 or 3 phase supplies.

### CONNECTION DIAGRAM



### TECHNICAL SPECIFICATION

Supply Voltage Un:	110, 220, 230, 380, 400V AC 45 - 65Hz (Galvanic isolation by transformer)
Supply Variation:	75 - 125% of Un
Isolation:	Over voltage cat. III (IEC 664)
Overload:	1.5 x Un continuous 2 x Un for 3 seconds
Power	
Consumption:	<4VA @ Un (Generator Supply) <2VA @ Un (Busbar Supply)
Trip Level:	10 - 30% of Un (6 - 20 electrical degrees)
Hysteresis:	5% (factory set)
Repeat Accuracy:	± 0.5% at constant conditions
Reaction Time (t):	≈ 500mS
Ambient	
Temperature:	-20 to +60°C
Relative Humidity:	+95%
Contact Rating:	DPDT AC 1 250V AC 8A (2000VA) AC 15 250V AC 3A DC 1 25V DC 8A (200W)
Electrical Life:	Minimum 150,000 ops at rated load
Housing:	Grey flame retardant UL94 VO
Weight:	590g approx.
Mounting Option:	Onto 35mm symmetric DIN rail to BS5584:1978 (EN50 002, DIN 46277-3) Or direct surface mounting via 2 x M3.5 or 4BA screws using the fixing slots provided on the unit
Terminal	
Conductor Size:	Max 2 x 2.5mm <sup>2</sup> solid or stranded
Approvals:	Conforms to: UL, CUL, CSA, IEC CE Compliant

### MOUNTING DETAILS

