



**HOKKIM**  
Giving You Control

# Control & Protection Relays

**Model** :TFQ-CC

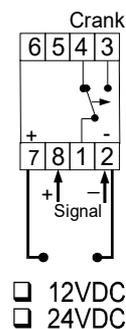
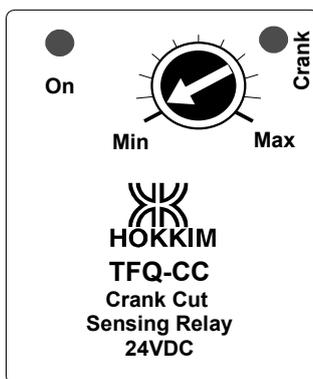
**Description** : Gen-set Crank Cut Relay

## Utilization:

The TFQ-CC provide a user adjustable crank speed trip levels with LED relay state indications. The normally open, trip contacts, closes when the gen-set speed exceed the set level. A pulse sensing pick-up taken from the W phase of the charger alternator situated at the engine, produces a high frequency pulse train directly proportional to the speed of engine's rotation. The frequency of these pulses is converted to an analogue voltage which is used to provide signal to the trip circuitry.

As the engine start, the speed rises to a level above the preset value. At this point, the TFQ-CC trips and the contact 1-3 closes. This contact is use to dis-connect the Crank Starter to prevent over cranking.

When ordering, the voltage required (12VDC or 24VDC) must be specified.



## Technical Data

Supply Voltage : 24VDC 12VDC

Approx. Crank Range: 50Hz to 1KHz

Consumption : 1VA

Indication : Power – Green LED

Crank Cut – Amber LED

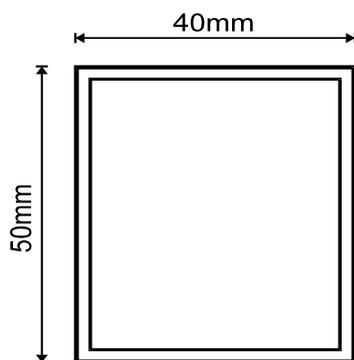
Output Contacts : 5A 240V 50Hz AC1

Normal 1-3 Open

1-4 Close

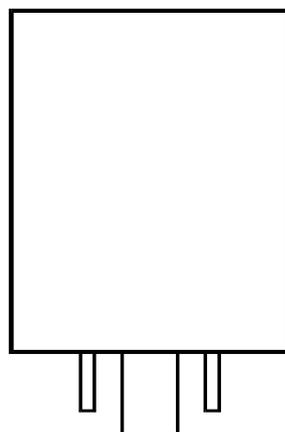
Crank Cut 1-3 Close

1-4 Open

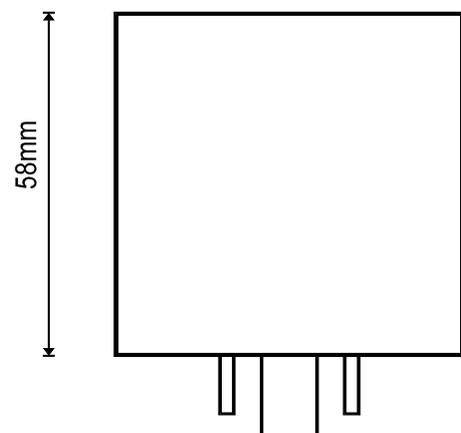


Dimensions

Top View



Front View



Side View