



PROCOM®

TCS Installation Guide



Installation Guide

Rev.-01

Introduction :

Trip Circuit Supervision is used for monitoring healthiness of the circuit breaker (CB) trip circuit, CB trip coil. TCS is designed for the supervision of trip circuits and other important control and monitoring circuits. The injected current is sensed by two opto-couplers. The circuit drives a small current through the breaker trip coil and monitors it continuously. If there is any failure in the trip circuit or trip coil circuit, the relay will sense and operate its output contacts. About 500ms delay is introduced to prevent false indication during circuit breaker operation. A test button is provided to test the relay contacts for trip in healthy condition only.

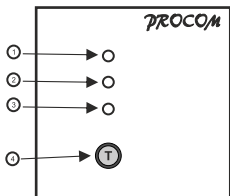
Features :

- Continuous supervision of complete trip circuit
- Operation delay to avoid spurious signals.
- Complete range of rated voltages either AC or DC.
- Operation indication by colour LEDs.
- Sensing by electronic circuit.
- Low level measuring current.
- Immune to breaker position.

Specifications :

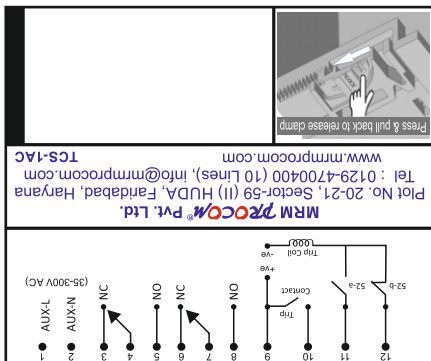
Rated Voltage	: 35-300 VAC / 9-35 VDC
Operative Voltage Range	: 80-110% of rated auxiliary voltage.
Mechanical Durability	: 1 Million switching operations.
Terminals	: Suitable for 2x2.5 mm ² wires.
Weight	: 170 gms
Contact configuration	: 2C/O

Function / Wiring Diagram :



TCS-1 / TCS-2

1. Power On Led Indication
2. Circuit is Healthy
3. Circuit is Unhealthy
4. Test Switch

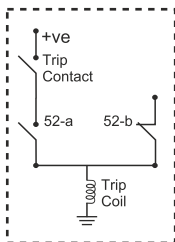


PRODUCT	TCS-1	TCS-2
Auxiliary Supply	35V-300V AC	9V-35V DC
Power Consumption	>4 VA	>0.5 VA
Trip Time	Less than 500ms	
Power ON Delay	Less than 200ms	
Test Function	Yes	
Mechanical Life Explantancy	3x10 ⁶ Operations	
Operating Temperature	-20°C to +70°C	
Storage Temperature	-25°C to +80°C	
Pollution Degree	2	
Degree of Protection	IP-20 for Terminals, I P-40 for Housing	
Mounting	Panel cut-out(92x92)	
Dimensions in mm(WxHxD)	100x100x49.5 (mm)	
Weight	170 gms	

About :

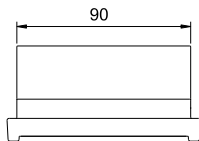
- Initially, when unit is ON, the unit will be in unhealthy state.
- Healthy unit becomes unhealthy with change of relay contacts after pressing test switch.
- Unit will be healthy again only if unit get restart.

Supervision circuit :

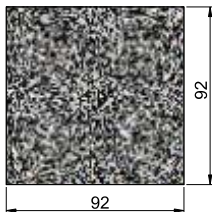


Caution:

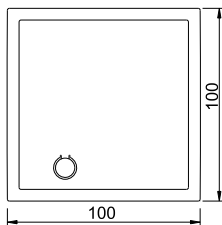
1. Always follow instruction stated in this product catalogue.
2. Before installation, check to ensure that specification are in agreement with the intended application.
3. Installation to be done by skilled electrician.
4. Suitable dampers should be used in case of excessive vibrations.

Diagram :

Top View



Panel Cutout



Front View



Side View

All dimension are in mm.

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