

DC Rate of Rise Relay

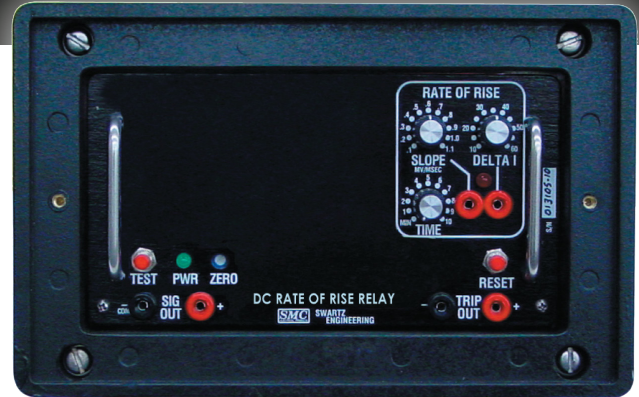
The SWARTZ® Type 150 DC Rate of Rise OC Relay from SMC is one of the most widely accepted protective overcurrent device used in the transit industry today, having been successfully used in every major transit systems. The Rate of Rise relay provides maximum protection for trolley wires, third rails, feeder and substations from remote overload conditions such as bolted faults, arcing faults and severe overloads while allowing for normal train starts. The solid state design and rugged construction ensure dependable low maintenance operation under adverse conditons.

FEATURES

- ▶ Uni-Bi directional: mode indicating, field switchable
- ▶ Draw out construction
- ▶ Detector channel: rate of rise only
- ▶ Calibration controls: allows preset slope, Delta I and time delay
- ▶ Internal Power Supply operates on and autocompensates for a range of DC inputs
- ▶ Use with any shunt
- ▶ For use with positive & negative conductors in DC Networks
- ▶ Field Calibration

DESCRIPTION

The Type 150 DC Rate of Rise Relay is an isolated current monitor and overcurrent relay that may be used for either the positive or negative conductors in DC power distribution networks. The device is designed as a stand-alone relay or may be used in conjunction with a Type 82 automatic recloser relay. In combination with a recloser relay, it will automatically interrupt a fault and then reclose to continue service. SMC's unique rate of rise channel detects arcing faults on systems too far removed to be detected by the instantaneous overcurrent relay. The Type 150 DC Rate of Rise Relay front panel controls are calibrated in millivolts so that the relay is compatible with any type of shunt. The built-in calibration components allow accurate field calibration of feeder current settings.



SPECIFICATION

Input Power	Operates on 24-125 VDC
Supply Current	40 mA at 125 VDC 200 mA at 24 VDC
Ambient Temperature	-20 C to +55 C
Design Test	SWS ANSI/IEEE C37 90
Isolation Dielectric	5400 V, 60 Hz, 1 min
Threshold Setting Error	+/- .5 mV
Isolation Error	+/- 1 mV
SCR Output	100 mA to 6 A (1 sec.) 200V
Annunciation	Reed Relay 100 VA, 2A 500 VDC

INTERFACE DIAGRAM

