

250 Series DIN Rail and Wall Mounted - D.C. Voltage

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Features

- » Adjustable setpoint
- » Adjustable time delay
- » Internal differential
- » LED trip indication
- » 2 pole relay contacts

Application:

- » **Battery Supplies - to monitor correct terminal voltage and detect under or over voltage conditions**
- » **Battery Chargers - to monitor charging voltage is correct**



The Crompton D.C. voltage Protectors provide continuous surveillance of the monitored circuit. When the measured voltage moves outside the set-point limits, the relay will operate after the selected time delay or differential, giving an alarm and/or initiation signal. The protectors can protect for:

- Under voltage
- Over voltage
- Battery level control
- No external power

Introduction

Crompton D.C. Voltage Protectors provide continuous surveillance of the monitored voltage circuit, typically a battery supply or charging circuit. These products offer user adjustable trip point (setpoint) and time delay settings. The time delay setting adjustment range is typically 0 to 10 seconds, although longer delays are available.

As soon as the monitored signal moves outside of the setpoint limit, the time delay is activated, after which a trip will occur.

The time delay prevents the relay from tripping for a predetermined period to prevent nuisance tripping.

The products also feature an internal differential (hysteresis) setting of 1% to reduce nuisance tripping if the measured signal is noisy or unstable.

The units draw their operating power from the measuring inputs

Product Function

Over voltage models: When the monitored voltage exceeds the setpoint, the time delay is started. When the time has elapsed, the relay will energize and the red LED will illuminate to indicate the trip condition. The relay will automatically reset once the monitored voltage falls below the setpoint minus the differential. When reset, the LED will extinguish and the relay de-energizes. The time delay is not active when resetting.

Under voltage models: When the monitored voltage falls below the setpoint, the time delay is started. When the time has elapsed, the relay will de-energize and the red LED will extinguish to indicate the trip condition. The relay will automatically reset once the monitored voltage rises above the setpoint plus the differential. When reset, the LED will illuminate and the relay energizes. The time delay is not active when resetting.

Product customisation options

Please contact the factory.

- **Adjustment ranges** - different adjustment ranges are possible for the setpoint and time delay controls
- **Differential** - Internally fixed value between 1% and 15%
- **Relay operation** - standard models are fail safe, but the relays can be customised to energise or de-energise on trip

Crompton
INSTRUMENTS

Protector Relays

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Specification

Model 252-PDU, 253-PDC

D.C Voltage: minimum 18 to maximum 20V D.C.
minimum 20 to maximum 32V D.C.

Time Delay: Externally adjustable, specify either:
0-10 seconds, 0-20 seconds,
0-30 seconds, 0-40 seconds,
0-100 seconds

Differential: Preset to 1%
(Any value between 1 and 15%)

Model 252-PDE

D.C. Voltage: minimum 18 to maximum 20V D.C.
minimum 20 to maximum 32V D.C.

Time Delay: Optional preset up to 30 seconds
(specify) 10 seconds standard)

Differential: Externally adjustable range
1-15%

All models:

Burden: <3VA

Overload: 1.2 x continuously Setpoint

Repeatability: Better than 0.5%

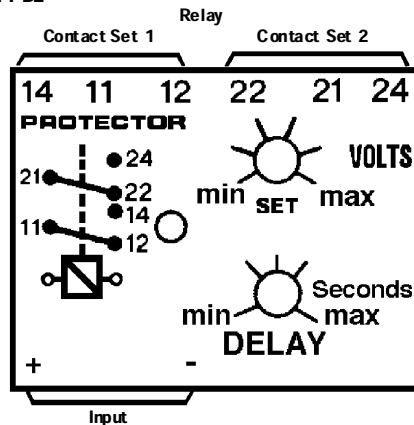
Product Code Examples

Frequency Relay	D.C. Input	Protection	ANSI No.	Catalogue No.
D.C. relay	18-20V	Under Voltage External time delay	27	252-PDUU-NABX-T1EB
D.C. relay	18-20V	Under Voltage Differential	27	252-PDEU-NA BX-E B
D.C. relay	24V	Over and Under Voltage (2 output relays)	27/59	253-PDCU-BDBX-T1-ECBD
D.C. relay	18-20V	Over Voltage External time delay	27	252-PDOU-NABX-T1EB

Connection Diagrams

252-PDU

252-PDE



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