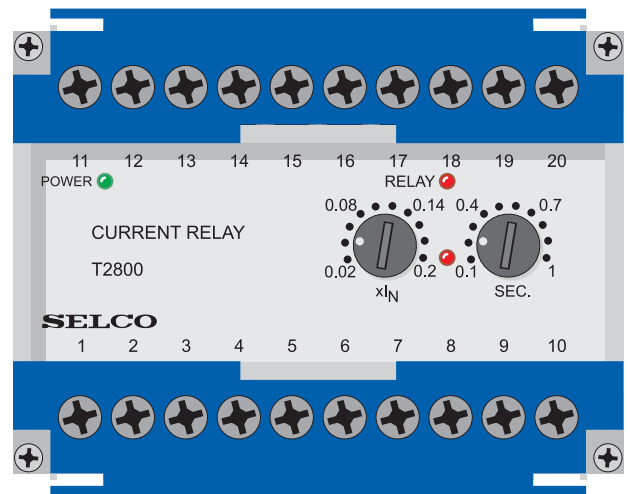


T2800 Overcurrent or Earth Fault Relay



- Protection of generators against earth faults or overcurrent
- Visual indication of power, pick-up and relay tripping
- Wide range of settings for current and delay, both in two steps.
- High precision digital countdown timer for delayed output
- Accepts high supply voltage variations: 60 - 110%
- Cost effective and highly reliable compact design
- 50 hours burn-in before final test
- Flame retardant enclosure



Application

The T2800 Overcurrent or Earth Fault Relay has a broad application as an earth fault or a single phase overcurrent detection relay. It has a wide setting range for protection, control and monitoring.

The T2800 is part of the SELCO T-Line series with modular units for protection, control and monitoring of generators.

Function

The T2800 detects the magnitude of the current and, if this exceeds the preset level (0.02 - 2 x IN), the pick-up LED will indicate and the delay timer will be started.

After the preset time (0.1 - 10 sec.) has expired the output relay and the corresponding LED will be activated, provided that the current level was exceeded for the entire delay time.

The T2800 has a normally energized output relay. The relay is a latching relay which can be reset or disabled.

Installation

terminals 1 and 3 or terminals 2 and 3, according to the supply source.

The T2800 is connected to the measuring current coming from the current transducer(s) secondary via terminals 5 and 6. See application diagram.

The latching of the output relays is reset or disabled by bridging terminals 15 and 16. The current setting range (0.02 - 0.2 x IN) is multiplied by 10 (0.2 - 2.0 x IN) by bridging terminals 18 and 19.

The delay setting range (0.1 - 1.0 sec.) is multiplied by 10 (1.0 - 10 sec.) by bridging terminals 12 and 13.

The current setting can be calculated according to the following example:

Overcurrent protection of a generator.
 Required trip level: 110%
 Generator rating: 695A
 Current transformer: 800/5A
 Setting: $110 \times 695 / 800 = 96\% = 0.96 \times I_N$

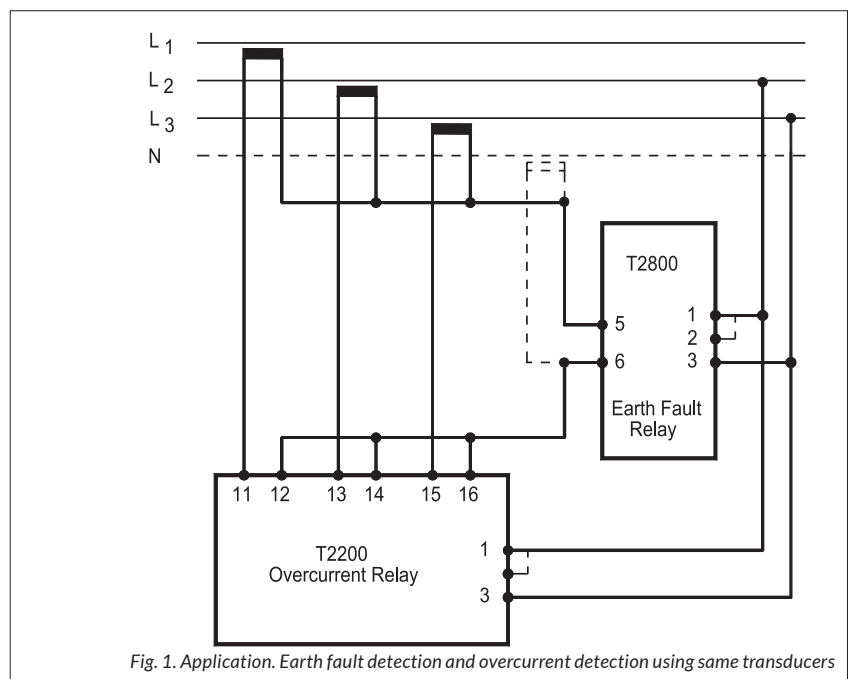


Fig. 1. Application. Earth fault detection and overcurrent detection using same transducers

Specifications

T2800 Overcurrent or Earth Fault Relay

Trip level	0.02 - 0.2 x I _N or 0.2 - 2 x I _N
Delay	0.1 - 1.0 sec. or 1.0 - 10 sec.
Max. voltage	660V
Voltage range	60 - 110%
Consumption	Voltage 5VA at U _N Current 0.3VA at I _N
Continuous current	2 x I _N
Frequency range	45 - 400Hz
Output relay	Normally energized, latching, resetable
Contact rating	AC: 400V, 5A, 2000VA DC: 150V, 5A, 150W
Overall accuracy	±5%
Repeatability	±1%
Operating temperature	-20°C to +70°C
Dielectric test	2500V, 50Hz
EMC	According to IEC/EN 61000-6-1/2/3/4
Burn-in	50 hours before final test
Enclosure material	Polycarbonate. Flame retardant
Weight	0.5kg
Dimensions	70 x 100 x 115mm (H x W x D)
Installation	35mm DIN rail or 4mm (3/16") screws

The specifications are subject to change without notice.

Type Selection Table

Standard types: I_N = 5A

Type	Terminals		
	1-3	2-3	I _N
T2800-00	230V		5A
T2800-01	450V	400V	5A
T2800-02	127V	120V	5A
T2800-04	24V DC+AC		5A
T2800-05	480V	415V	5A
T2800-08	230V		1A

Other combinations and voltages are available on request.

Approvals & Certificates

The T2800 has been approved by major marine classification societies.

For more information about the individual certificates, please visit selco.com

Troubleshooting

- 1) If the relay is not operating please check that the power LED is on, ensuring that the supply is present.
- 2) Measure the supply voltage which must be compatible with the information label on top of the enclosure.
- 3) Measure the current levels in terminals 5 and 6 and check that the current is above setting.

For example:

$$0.08 \times I_N = 0.4A; 1 \times I_N = 5A$$

