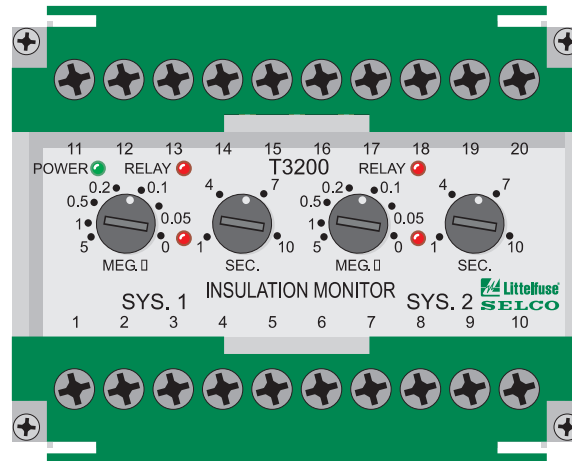


T3200 Insulation Monitoring Relay

Double Insulation Monitoring Relay

- Price competitive due to the combined functions
- Visual indication of power, pick-up and relay tripping on both relays
- High precision digital countdown timer for delayed output
- Cost effective and highly reliable compact design
- 50 hours burn-in before final test
- Operating temperature range: -20°C to +70°C
- Certified by major marine classification societies
- Flame retardant enclosure
- DIN rail or screw mounting



Application

The T3200 Insulation Monitoring Relay is intended for continuous insulation monitoring on three-phased insulated networks on board ships.

The T3200 continuously monitors two systems, galvanically separated from each other, e.g. the busbar and the lighting system, or two busbar systems.

The unit features two output relays for alarm purposes and two analog outputs for instrument reading. Instruments are available from SELCO as standard sized switchboard instruments.

Function

For each insulation system (I and II) the electronic measuring circuit will compare the measured insulation value to the preset value of the relay. An insulation drop to a value lower than the preset value will cause activation of the corresponding output relay resulting in alarm signals to be obtained between terminals 6 and 7 or 9 and 10 (system I or system II respectively).

Consequently, the output relays will be deactivated when the insulation values are satisfactory, while insulation values lower than the preset value will cause activation of the output relays. This means that power supply interruptions will not result in alarm signals as the output relays normally are deactivated.

The alarm signal can be delayed by means of a presetting function on the

front of the unit. In this way only continuous earth faults will cause alarm signals.

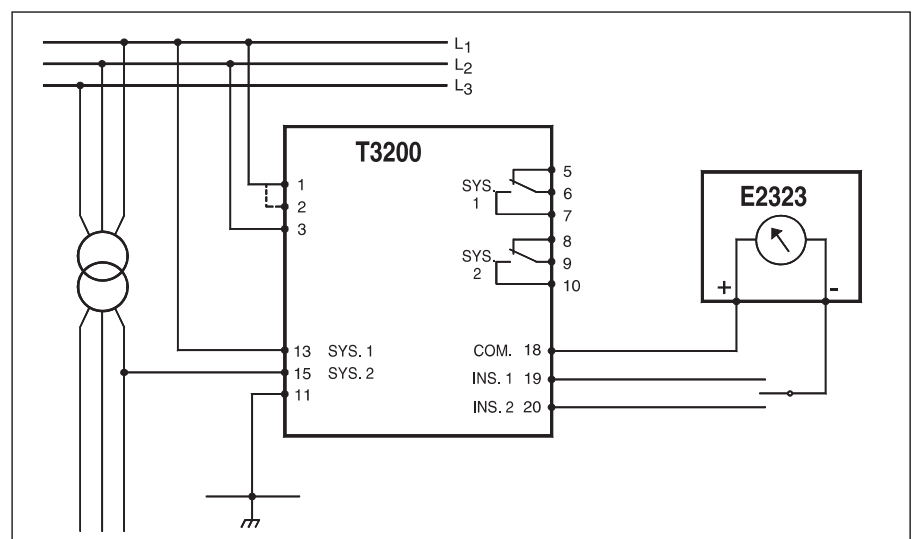
The instrument output has been adapted for connection of a megohmmeter which indicates the actual insulation level, either by means of two instruments simultaneously indicating for both insulation systems (I and II), or by means of one instrument which can be connected to the two instrument outputs via a change-over switch. See connection diagram.

NOTE: The T3200 operates only on AC installations. Insulation faults in connection with thyristor controls and other semiconductor devices can cause errors in measurements.

Installation

The measuring circuits for the two insulation systems I and II are connected to the network as shown on the connection diagram.

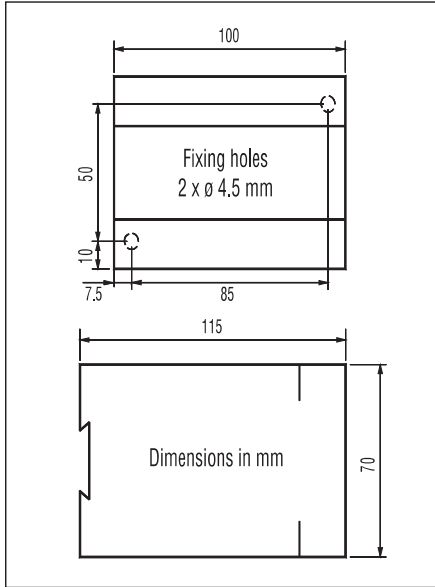
The supply voltage is connected to terminals 1-3 or 2-3 according to the supply source.



Connection Diagram.

Specifications

T3200 Insulation Monitoring Relay



Dimensions.

Type Approvals and Certificates

The T3200 has been designed and tested for use in harsh environments. The unit is based on standard components, providing long term durability.

The T3200 carries the CE label and has been approved by the following marine classification societies:



Bureau Veritas
Polish Register of Shipping
Romanian Register of Shipping
Russian Maritime Register of Shipping

Insulation level	0 - 5M Ω
Delay	1 - 10 sec.
Max. voltage	690V
Voltage range	80 - 110%
Consumption	Max. 2VA
Frequency range	45 - 65Hz
Measuring voltage	15V DC
Internal resistance	200k Ω
Instrument output	0 - 1mA
Instrument resistance	Max. 100 Ω
Output relays	Normally de-energized
Contact ratings	AC: 400V, 2A, 250VA DC: 110V, 2A, 100W
Overall accuracy	\pm 5% of preset value
Operating temperature	-20°C to +70°C
Dielectric test	2500V, 50Hz
EMC	CE according to EN50081-1, EN50082-1, EN50081-2, EN50082-2
Approvals	Certified by major marine classification societies
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

Type	Terminals		Function
	1-3	2-3	
T3200.0010	230V		
T3200.0020	450V	400V	
T3200.0030	480V	415V	
T3200.0040	24V DC		With 24V DC/DC converter
T3200.0050	110V	100V	
T3200.0060	127V	120V	

Other voltages are available on request.

Accessories

	Dimensions	Weight
E2323.0010 Megaohmmeter	96x96mm	0.5kg
E2324.0010 Kiloohmmeter	96x96mm	0.5kg
E2333.0010 Megaohmmeter	144x144mm	0.8kg

Main office:
SELCO A/S
Betonvej 10
DK-4000 Roskilde
Denmark
Phone: + 45 7026 1122
Fax: + 45 7026 2522
e-mail: selco.dk@selco.com
www.selco.com