VARIMETER IMD

DOLD

Insulation monitor RN 5897/010 -
Insulation monitoring for modern IT systems

The demand for the availability of machines and apparatus in the region of factory machinery and process technology is constantly increasing. The requirement for this is a functioning and reliable power supply. Unexpected insulation faults in the system can lead to unwanted power supply failures, and even cause personal injury or property damage. This is why insulation monitoring equipment is typically used in IT systems.

The **insulation monitor RN 5897/010** from the **VARIMETER IMD** series by DOLD was developed especially for use with modern power supplies. These are often comprised of converters, thyristor regulators, and direct current components. Through EMV interference suppression measures, high leakage capacitance onto the ground is present. The RN 5897/010 is suited for system leakage capacitances of up to 1000 µF, and for voltages up to AC/DC 230 V. Using the additional ballast unit RP 5898, it is possible to install the unit in systems with voltages of up to AC 690 V and DC 1000 V.

Besides an adjustable alarm threshold, the insulation monitor also has an adjustable pre-alarm threshold. A multicoloured LCD screen constantly updates stating the current insulation value. The insulation monitors guarantee additional surveillance over current-free networks. A selective earth fault detection of L+ and L- enables quick fault localisation.

Advantages and customer benefit

- Recognition of symmetrical and asymmetrical insulation faults
- Quick error localization through selective earth fault detection based on L+ und L-
- Preventive fire and plant protection
- Multi-color display to show the insulation value
- Universal use in ungrounded AC-, DC- and AC/DC networks
- Suitable for system leakage capacitance of up to 1000 µF
- Easy to adjust parameters with a rotary dial and menu organization

Our experience. Your safety.

Insulation monitor RN 5897/010

Technical features

- Insulation monitoring in accordance with IEC/EN 61557-8
- Standard type RN 5897/010 with option to connect an external ballast unit RP 5898 for voltages up to AC 690 V, DC 1000 V
- 2 separated, adjustable response thresholds (e.g. can be used for pre-alarm and alarm)
- Adjustment range
  1. Response value (pre-alarm): 20 kΩ … 2 MΩ
  2. Response value (alarm): 1 kΩ … 250 kΩ
- 1 changeover each for insulation fault pre-alarm and insulation fault alarm
- Load or closed current principle adjustable for signaling relay
- Multi-colored display to show the current insulation resistance, the device status, and for setting parameters
- Setting for maximum system leakage capacitance to shorten response times
- Automated and manual device self test
- Selectable alarm memory
- Manipulation protection through sealed clear cover
- External control input for combined Test / Reset button
- 3 wide voltage ranges for the auxiliary voltage
- Construction width 52.5 mm

Order information

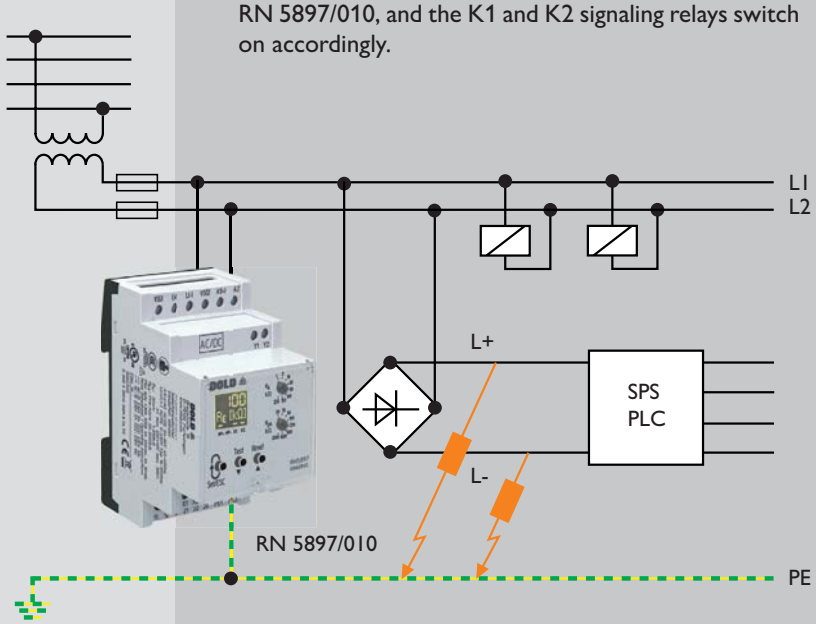
Standard type: RN 5897.12/010 AC/DC 24 … 60 V
Item number: 0066940

Standard type: RN 5897.12/010 AC/DC 85 … 230 V
Item number: 0066941

Standard type:	RP 5898	/	RL 5898/61
Item number:	0066944	/	0068315

Examples of application

Monitoring of a mixed IT network for insulation faults with the RN 5897/010. The insulation monitor is connected to L1 and L2 on the AC side and measures the insulation resistance against PE. If threshold values set on the device (pre-alarm or alarm) are exceeded, this is displayed on the multi-color screen of the RN 5897/010, and the K1 and K2 signaling relays switch on accordingly.



Further information

RN 5897/010 Start

www.dold.com

*If you have high **system leakage capacitances up to 3000 µF,** you need a second **additional measuring circuit** or **analog outputs?***

LK 5896

Insulation monitor RN 5897/010

Accessories

Coupling device RL 5898

Coupling device RP 5898

Buzzer RK 8832

Areas of application

- UPS systems / battery networks
- Networks with frequency converters
- Elevators
- Hybrid and battery-powered vehicles
- Mobile generators

E. Dold & Söhne GmbH & Co. KG
Bregstraße 18 • D-78120 Furtwangen
T +49 7723 654-0 • F +49 7723 654-356
dold-relays@dold.com • www.dold.com

FE96 / 0139 co