



Periodic inspections in accordance with DGUV regulation 3 (BGV A3)

Practical solution with residual current technology

A prerequisite for the safe, fault-free operation of electrical systems and equipment is the permanent assurance of their proper condition. The test types and intervals required for this are specified in the accident prevention regulation DGUV Regulation 3 (formerly BGV A3). Corresponding implementation instructions help to achieve the protection goals.

The test types include:

- ▶ Visual inspection for externally recognisable defects
- ▶ Testing and measuring protective measures, insulation resistances and loop resistance
- ▶ Functional test

The test results must always be documented, e.g. by means of a test report.

Monitoring the insulation resistance Switch-off required?

In conventional insulation testing, the electrical systems and equipment to be tested must be switched off. This time-consuming and cost-intensive requirement can hardly be realised in high-availability systems. The accident prevention regulations DGUV, Regulation 3 and the DIN VDE 0100-600:2015-05 standard offers an interesting alternative. By using a permanently installed residual current monitoring system (RCMS), it is possible to abstain from disconnection. In this case, suitable evidence must be kept available, which is provided by the permanent residual current measurement or the permanent measurement of the insulation resistance. **A permanently installed RCMS offers the system operator a safe solution for insulation monitoring without system shutdown!**

Visualisation of insulation faults

Insulation faults that occur can be evaluated via an analogue output if the residual current transformers are installed selectively.

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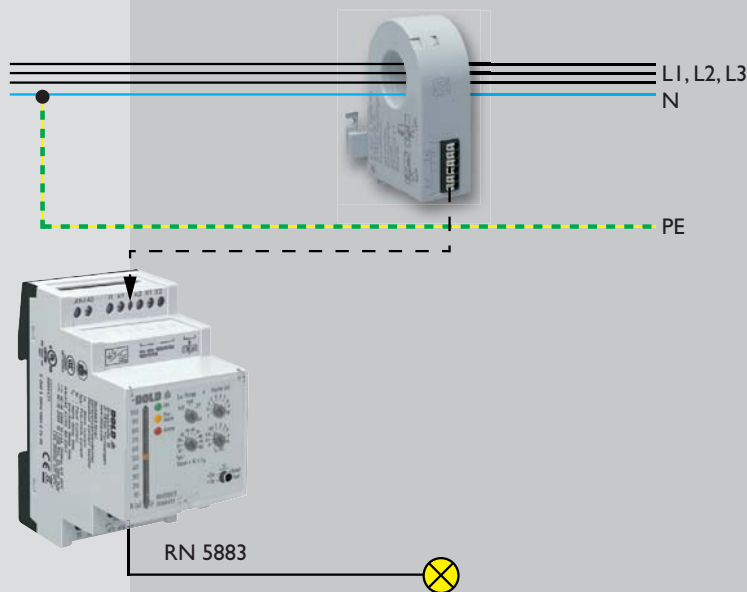
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Cost security	<ul style="list-style-type: none"> ▶ Time and cost-saving thanks to continuous monitoring ▶ Monitoring without system shutdown, uninterrupted operation ▶ Plannable, preventive maintenance ▶ Evaluation via analogue output
Legal certainty	<ul style="list-style-type: none"> ▶ Permanent transparency of the system status, constant monitoring of all connected electrical equipment ▶ Automatic error message at a central location
Evaluation security	<ul style="list-style-type: none"> ▶ Continuous measured value recording instead of one measured value per test ▶ Early signalling of insulation deterioration ▶ Reliable fault detection during installation and maintenance ▶ Minimised fire risk
Order information	<p>Standard type: RN 5883.12/61 AC/DC 80 ... 230 V Item number: 0066451</p> <p>Standard type: ND 5015/035/61 Item number: 0066841</p>

Permanent system monitoring protects personnel and machine

Continuous measurement of the insulation resistance or residual current also fulfils the requirement for continuous monitoring of fixed electrical installations and equipment in accordance with the employers' liability insurance association and TÜV. If insulation problems occur, a message is automatically sent to a central location. A qualified electrician then immediately checks the system and rectifies the fault.

Compliance with these specifications allows the test intervals for the insulation measurement to be adjusted in line with practical requirements during the periodic test. This applies equally to industrial installations and power distribution networks.



Further information

VARIMETER RCM

Start

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Record



Measure



Visualise

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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