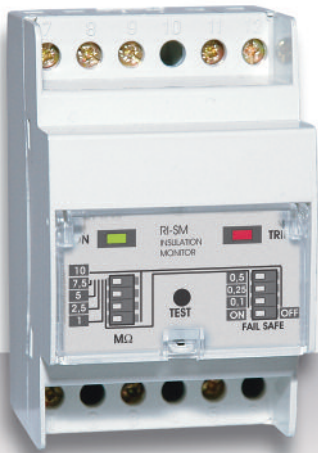


RI-SM series

INSULATION MONITORING
VERSIONS FOR OUT-VOLTAGE NETWORK

MICROENER

GENERAL



The devices allow insulation monitoring to earth of out-voltage networks in order to carry out a preventive monitoring on insulation level of device. Preventive monitoring is really important in case of applications which are not used permanently (for example: motors, fire-engines, and so on). In these applications, humidity and condensate can cause a serious decrease in insulation's level and obstruct correct functioning at the moment of applications' activation.

Insulation resistance's monitoring is carried out applying a measure's signalling in direct-current component between isolated network and earth. Surveying leakage current to earth it's possible to measure insulation's level.

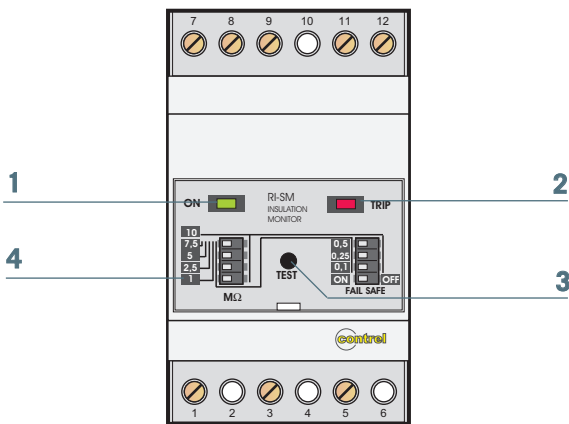
This device allow regulation of trip threshold by micro switches. Devices have on frontal panel signal of active device ON, signal TRIP (low insulation), a test button and micro switches series for regulating trip threshold.

MODELS

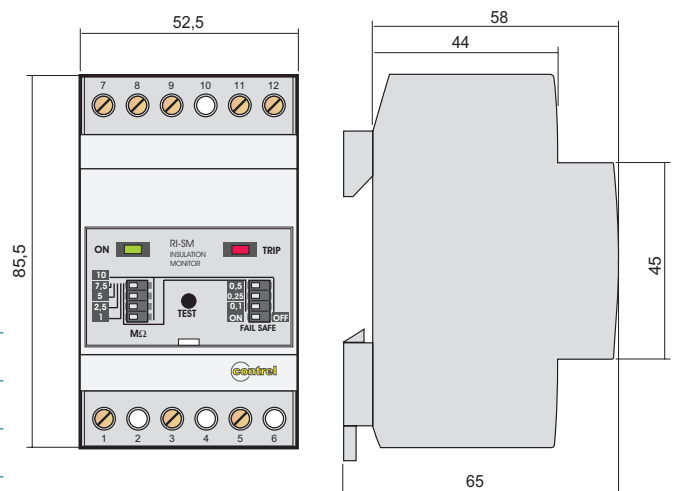
- RI-SM** Vaux: **230 V** 50-60 Hz (standard version)
- RI-SM** Vaux: **115 V** 50-60 Hz (optional version)

FUNCTIONS AND OPERATORS - LEGEND

DIMENSIONS



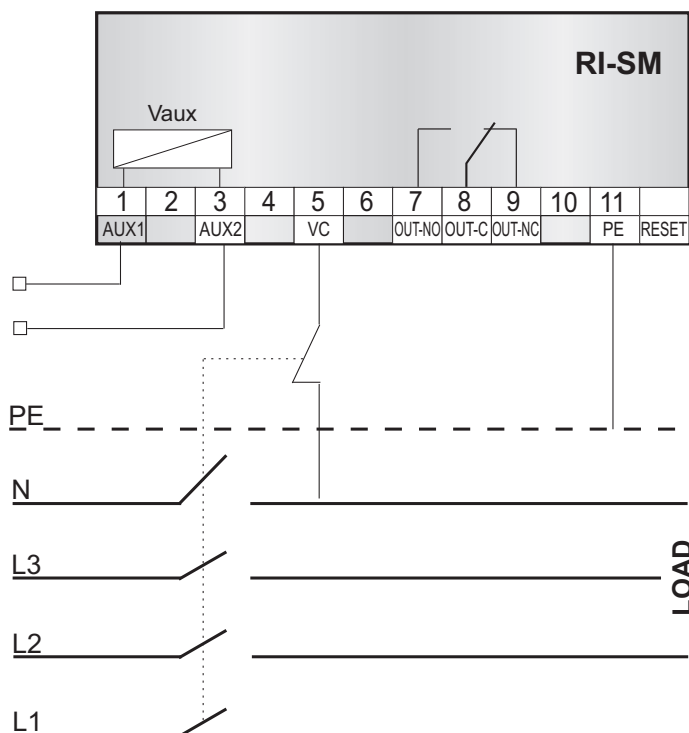
- 1** green led ON indication of active device
- 2** red led TRIP trip signal for low insulation
- 3** test button for testing device's serviceability
- 4** micro switches for selecting trip threshold



ELECTRIC CHARACTERISTICS

Auxiliary supply	230 V 50-60 Hz $\pm 20\%$ 115 V 50-60 Hz $\pm 20\%$ (optional)
Self-consumption	5 VA MAX
Network voltage	MAX 700 Vac/dc
Voltage's measure	20 V MAX
Current's measure	15 μ A dc MAX
Internal impedance	dc 1.5 Mohm - ac 1 Mohm
Trip threshold	0.1 - 0.25 - 0.5 - 1 - 2.5 - 5 - 10 Mohm (by microswitch)
Delay trip	1 - 2.5 sec
Type of monitoring signal	direct current component
Output	auxiliary output relay with possibility of fail safe function programming NO-C-NC MAX 5 A 250 Vac - It could be activated for low insulation
Visualizations	green led ON - red led TRIP
Working temperature	- 10 ... + 60 °C
Storing temperature	- 25 ... + 70 °C
Relative humidity	< 95 %
Insulation test	2.5 kV 60 sec
Assembling position	indifferent
Connection type	by screw terminals - wire section MAX 2.5 mm ²
Protection's degree	IP 50 frontal with cap (sealable) - IP 20 case
Mounting according with DIN 50022	easy connection snap on DIN rail 35 mm / 3 modules of 17.5 mm
Weight	approximately 100 g
Standard reference	CEI-EN 61010-1 / CEI-EN 61557-8 / VDE 0413 part.8 / CEI-EN 61326-1

WIRING DIAGRAMS



AUXILIARY SUPPLY - terminals 1-3
 auxiliary supply available from under-control network

INSULATION MONITORING - terminals 5-11
 both terminals have to be connected between under-control network and referring earth.
 Terminal 5 have to be connected to under-control network single phase or three phase and to neutral conductor. If three phase network is three wires, it is required to connect single phase network.
 Maximum applicable voltage between these terminals is 700 V ac/dc.

CONNECTIONS RELAY OUTPUT - terminals 7-8-9.
 connections for remote signal by relay with switch voltage-free, max 5 A 250 V on resistive load