

General Characteristics



Features

INDICATION OF FUNCTIONING INSTRUMENT

TEST PUSHBUTTON

LOW INSULATION LED

FAIL SAFE SETTING

TRIP THRESHOLD SETTING

The RI-SM allows insulation monitoring to earth of out-voltage networks. This device must carry-out a preventive check of the insulation level for out-voltage devices, not used permanently, in the way to avoid damage when they start to function (ex. fire-engines, lift, etc.).

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

The instrument is useful for networks and devices from 20 to 700 VAC/DC. A changeover contact relay is available to signal the low insulation to a remote panel.

On front panel there is the signaling of device ON, the signaling of TRIP for low insulation, the TEST push-button and the micro-switches to select the tripping threshold and FAIL SAFE function.

The RESET of the device is automatic when the condition of low insulation disappears.

The device must be connected to the network to survey using a normally closet contact in the way to disconnect from the network when it's turning on.

The output relay can be used to signal the alarm or to avoid the insertion of the load.

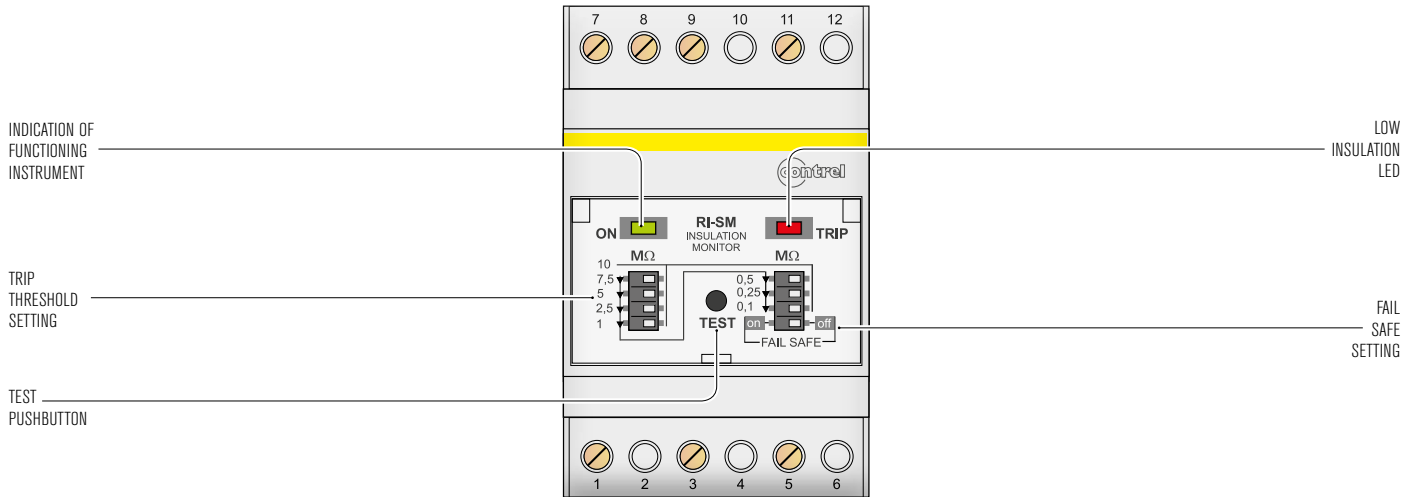
Technical characteristics

Power consumption	3 VA
ALARM threshold setting	-
TRIP threshold setting	0,1÷1000 kΩ
Tripping delay	< 5 sec
Max measuring current	0,015 mA
Max measuring voltage	20 VDC
Internal impedance	1,5 MΩ DC 1 MΩ AC
TRIP Relay number NO-C-NC	1
ALARM Relay number NO-C-NC	-
Max relay contact capacity	250V - 5A

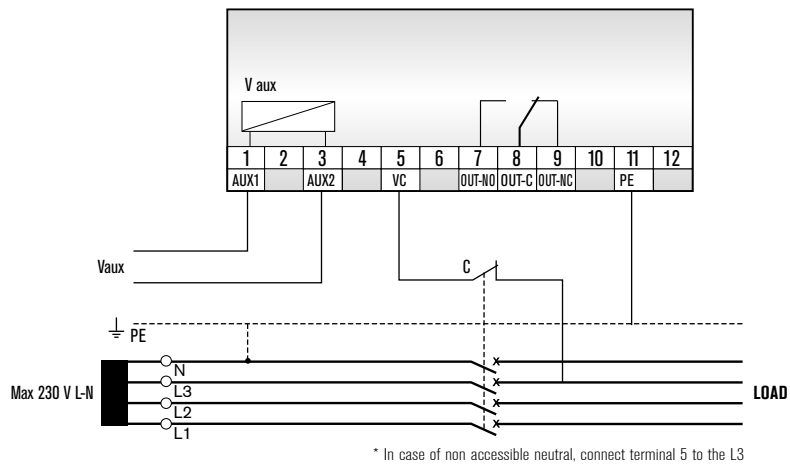
Operating temperature	-10 ÷ 60 °C
Storage temperature	-20 ÷ 80 °C
Relative humidity	≤ 95%
Max terminal section	4 mm ²
Protection degree	IP40 front IP20 housing
Insulation test	2,5 kV 60 sec 4 kV imp 1,2/50 μs
Modules	3
Weight	200 g
Standards	EN 61010-1, EN 61557-8, EN 61326-1

ORDER CODE	VERSION	Vaux	DESCRIPTION	MODULES
RI-SM 24	TRIP threshold setting, FAIL SAFE setting	24 VDC	Voltageless networks insulation control	3
RI-SM 115	TRIP threshold setting, FAIL SAFE setting	115 VAC	Voltageless networks insulation control	3
RI-SM 230	TRIP threshold setting, FAIL SAFE setting	230 VAC	Voltageless networks insulation control	3

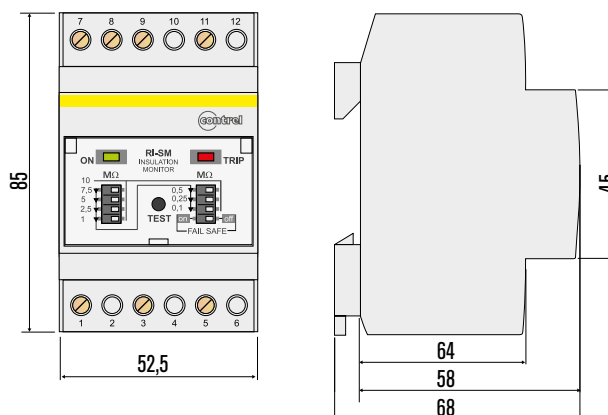
Operators



Wiring diagrams



Mechanical dimensions (mm)



General Characteristics



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 application's activation. Insulation resistance's monitoring is carried out applying a measure's signaling in direct-current component between isolated network and earth. Surveying leakage current to earth it's possible to measure insulation's level. A very compact housing allows you to place the RI-SM485 in small spaces, optimizing the layout of the installation.

The RI-SM485 is also provided with a RS-485 interface with Modbus protocol to consent the integration in supervision systems..

Features

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LOW INSULATION LED

FAIL SAFE SETTING

TRIP THRESHOLD SETTING

OUTPUT RELAY

RS485 SERIAL INTERFACE (MODBUS RTU)

Technical characteristics

Power consumption	2 VA
ALARM threshold setting	-
TRIP threshold setting	0,1÷1500 kΩ
Tripping delay	< 2,5 sec
Max measuring current	0.015 mA
Max measuring voltage	13 VDC
Internal impedance	1.5 MΩ DC 1 MΩ AC
TRIP Relay number NO-C-NC	1
ALARM Relay number NO-C-NC	-
Max relay contact capacity	250V - 5A

Operating temperature	-10 ÷ 60 °C
Storage temperature	-20 ÷ 80 °C
Relative humidity	≤ 95%
Max terminal section	2,5 mm ²
Protection degree	IP40 front IP20 housing
Insulation test	2.5 kV 60 sec 4 kV imp 1.2/50 μs
Modules	2
Weight	200 g
Standards	EN 61010-1, EN 61557-8, EN 61326-1

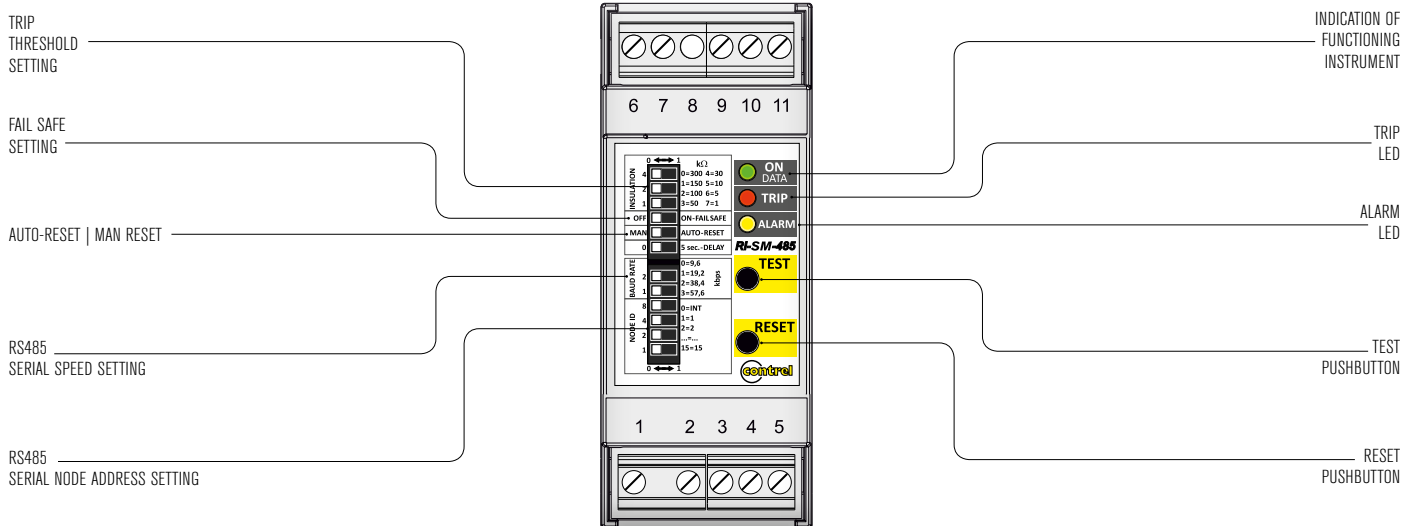
ORDER CODE	VERSION	Vaux	DESCRIPTION	MODULES
RI-SM-485	TRIP threshold setting, FAIL SAFE setting, RS485 serial interface	230 VAC	Voltageless networks insulation control	2

RI-SM485

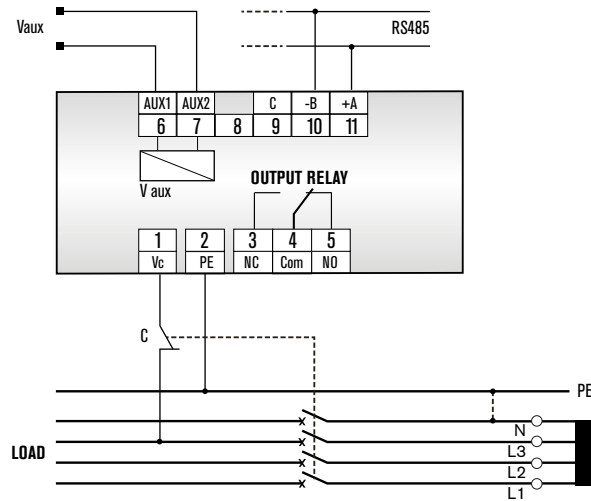
VOLTAGELESS NETWORKS INSULATION CONTROL, RS485



Operators



Wiring diagrams



Mechanical dimensions (mm)

