



## IMD-2R

IMD-2R, Monitoring relay for offline insulation. It controls and monitors the insulation resistance of the receivers that are occasionally disconnected from the electrical network,

Code: P33020.

### Description

It is an **IMD** (insulation monitoring device), ohmic insulation relay, which is used to protect and monitor the insulation ( $k\Omega$ ,  $M\Omega$ ) between the phase/s of the receiver and the protection cable reference. It is not a permanent monitor (at rated voltage of the electrical installation). It is only used for loads disconnected from the voltage system. If it detects an installation fault, it prevents the connection of the network, anticipating a trip of the other protections through a circuit breaker with control coil.

### Application

Ideal for critical continuous service electrical installations:

- Tunnels
- Street lights
- Pumping systems
- Generators
- Hospitals
- etc.



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### Specifications

#### AC power supply

Installation category	CAT III 300 V
Consumption	2,2 ... 7 VA
Frequency	50 ... 60 Hz
Nominal voltage	90 ... 276 V~

#### DC power supply

Installation category	CAT III 300 V
Consumption	1,3 ... 1,9 W
Nominal voltage	90 ... 276 Vdc

#### Mechanical characteristics

Size (mm) width x height x depth	35 x 112 x 84 (mm)
Envelope	Polycarbonate V0
Weight (kg)	0,16

#### Environmental characteristics

Protection class	IP 20
Relative humidity (without condensation)	5 ... 95 %
Storage temperature	-30 ... +80 °C
Working temperature	-10 ... +55 °C

#### Electrical characteristics

Earthing system	TT-TN-IT
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#### Measurement circuit with insulation monitoring

Impedance $Z_i$ at 50 Hz	0,43 M $\Omega$
DC ( $R_i$ ) internal resistance	0,35 M $\Omega$
Maximum $I_m$ measured current (With $R_F = 0 \Omega$ )	10 $\mu$ A
Permanent allowable extraneous voltage ( $U_{fg}$ )	300 Vcc
Response time ( $t_{an} = 0.5 \times R_{an}$ and $C_e = 1 \mu$ F)	< 2 s
Peak value measuring voltage ( $U_m$ )	10 Vcc
Response value ( $R_{an}$ )	100
Hysteresis	+ 25%

#### Standards

Electrical safety, Maximum height (m)	2000
Electrical safety, Contamination level/class	Category 2
Standards	IEC 61557-1, IEC 61557-8, IEC 61326-1, IEC 61010-1



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### User interface

LED	7 LED: ON, AL1 (LED bar), AL2
Keyboard	3 keys
Display type	LCD (Backlight bicolor)

### PE connection fault measurement

Fault detection	Open circuit (> 100 kΩ)
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### Digital relay outputs

Quantity	2
Maximum current	5 A
Maximum open contact voltage	250 V~
Electrical life	1 x 10 <sup>5</sup> ciclos (250 Vca / 5A)
Mechanical life	15 x 10 <sup>6</sup> Cycles
Maximum switching capacity	1250 VA

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## Dimensions



## Connections

