Expertise, our source of energy

LIGHTNING AND SURGE PROTECTION SPECIALISTS

CONFIGURABLE GROUNDING SYSTEM MONITORING

GMD®

GMD® is a control device that continuously monitors the state of the ground connection:

- Ensures proper operation of surge protection devices (SPDs) that discharge energy through the facility ground connection.
- Provides additional safety information to avoid indirect contact.
- Reduces preventative maintenance costs.

By the loop resistance calculation method, GMD® checks the impedance of the actual leakage path of an indirect contact, enabling it to **detect the following possible incidents,** both in the installation itself and in transformer centre to which it is connected:

- **Deterioration of the ground connection** due to ageing of the earth rods, due to theft or increased soil resistivity during dry periods.
- **Breakage or incorrect wiring of the neutral cable.**

Ratings and features

- The system of grounding measurement by loop impedance can be applied to the various neutral configurations: TT, TNS and TNC-S
- Un (L-N/L-L): 120/208 V, 230/400 V
- Monobloc DIN rail format
- Alarm function on the ground value (PE). Activates the output if it detects a value shown on the display exceeding a maximum preset by the user

24/7

Grounding system monitoring

Easy to install

Panel mounting

Assists with maintenance

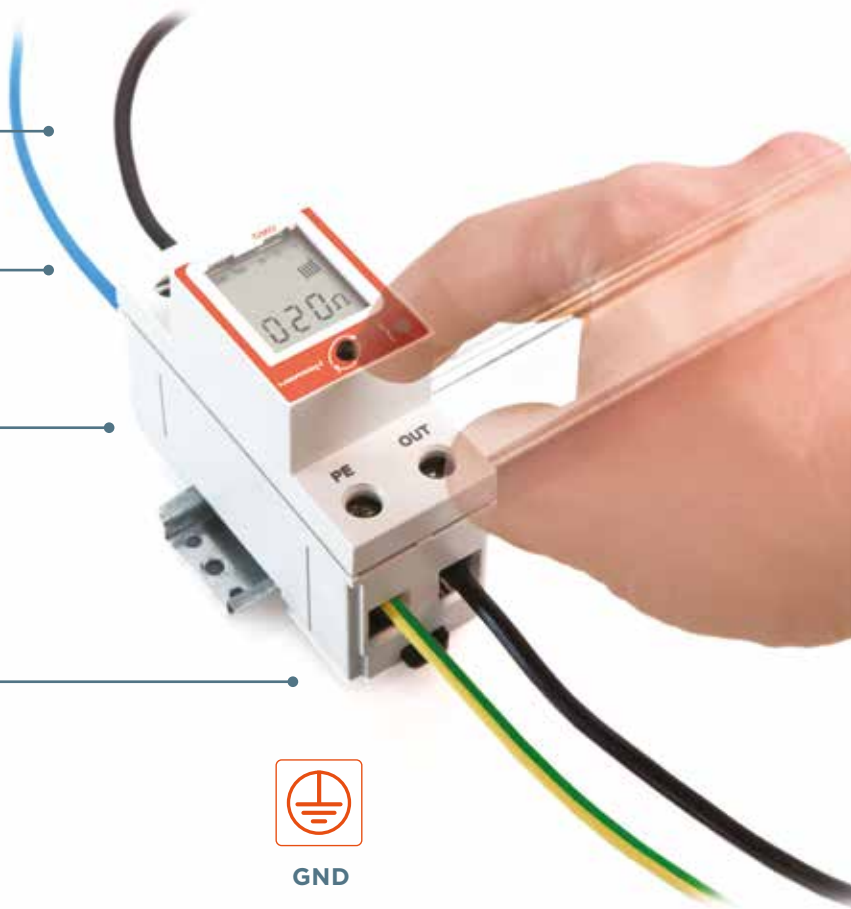
Complementary to regular grounding system maintenance

Real-time monitoring of the grounding system condition

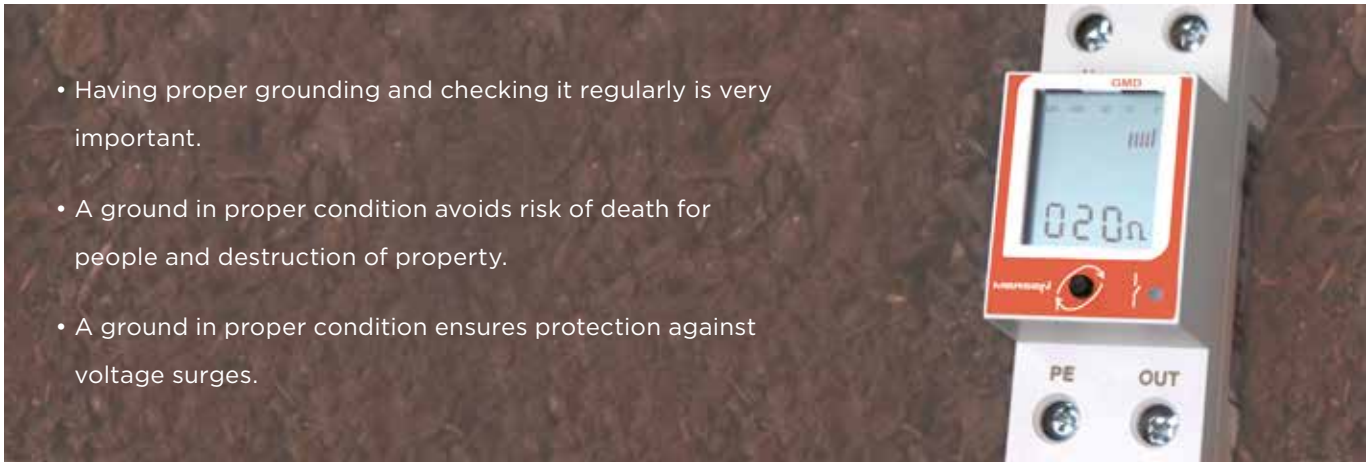
Monitors

Cable theft / Soil resistivity

Cable breakage / poor connection



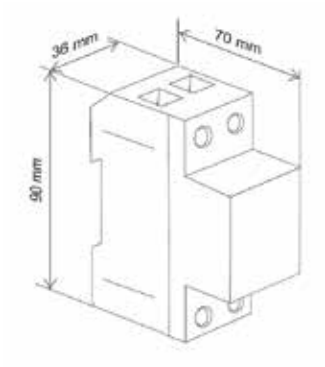
Importance of grounding systems



Catalogue numbers / Reference numbers

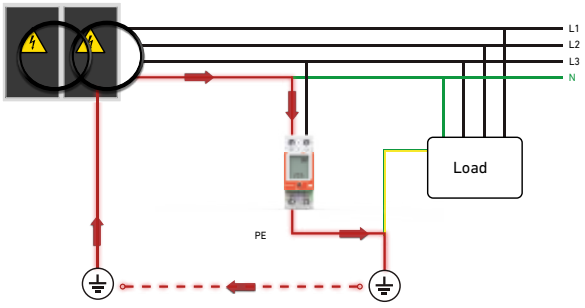
REFERENCE NUMBER	CATALOGUE NUMBER	Un [V]	FREQUENCY [Hz]	SETTING THRESHOLD	OUTPUT RELAY	RESPONSE TIME
83060251	**GMD-120V**	120	50 / 60	1...500 Ω	1 (OUT-N)	inst.
83060250	**GMD-230V**	230	50 / 60	1...500 Ω	1 (OUT-N)	inst.

Dimensions



Measurement

Measurement loop or leakage current loop in TT systems.

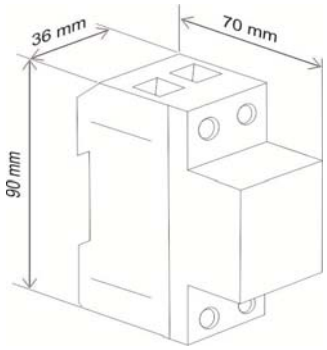


TELECOM	WATER TREATMENT	COMMERCIAL	DATA CENTER	INDUSTRIAL
				

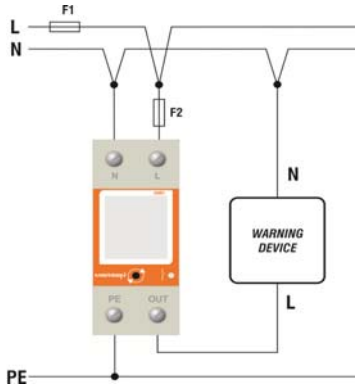
Continuous earth tester

GMD-230V

Data Sheet



Dimensions



Wiring diagram

Catalog number Reference number		GMD-230V 83060250
Supply voltage		
Nominal system voltage AC 50-60 Hz	Un [Vac]	230 ±20%
Power consumption	[VA]	3
Rated impulse voltage/Category	Uimp [kV]	4/III
Measuring circuit		
Internal AC resistance	Ri [Ω]	≥100
Internal impedance (at 50 Hz)	Zi [Ω]	≥100
Permissible extraneous DC voltage without influence	[V]	0
Maximum peak current	[A]	7
Response values		
Response value	Ran [Ω]	0…500
Response time	t [ms]	<10s (Ce=1 µF)
Relative uncertainty	[%]	10 ±2Ω (0...999Ω)
Hysteresis	[%]	5
Open Earth indication	[EOP]	User defined 50Ω (default)
Loop impedance resolution (N-PE)	[Ω]	0,1
Maximum power of OUT	IOUT [VA]	70
System leakage capacitance (N-PE)	Ce [µF]	≤ 4

Catalog number Reference number		GMD-230V 83060250
Connection		
DIN rail mounting		EN 60715
Section of flexible wiring connection (MIN-MAX)	[mm²]	6-25
Section of rigid wiring connection (MIN-MAX)	[mm²]	6-35
Stripping lenght	[mm]	10
Opening force	[Nm]	4
Environment/EMC		
EMC Harmonics inmunity		EN 61000-4-13 Class 2
EMC Electrostatic discharge inmunity		EN 61000-4-2
EMC Emission		EN 55011
EMC Surge inmunity		EN 61000-4-5
EMC Voltage variations inmunity		EN 61000-4-11
EMC environment inmunity		EN 61000-6-2 ; EN 61000-6-3
Operating temperature		-20°C … +60°C
Others		
Enclosure and flamability class		PC V0
Software version		V0.7
Degree of protection		IP20

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GLOBAL EXPERT
IN ELECTRICAL POWER
AND ADVANCED MATERIALS

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