



- The ISO-pathfinder for 24VDC non-grounded systems
- Measures earth fault without breaking the loop
- Only for energised circuits
- Indicates polarity of leakage
- 6mm DC clamp for app. 0,5-120mA range
- 23mm DC clamp for app. 5mA-4A/30A range
- Easy operation

Specifications

SmartCase-ELD250	
Enclosure	Pelicase 1450
Dimensions	406x330x174mm
Weight	4,2kg
Approval standards	EN60529:1991, IEC60529:1989 IP67, ATA, Stanag 4280 Defstan 81-41
Temperature	-20 to +60°C



MML2500	
System Voltage:	24VDC
Fuse:	0,5A automatic
Current consumption:	<300mA
Temperature:	-10 to +50°C
Front protection:	IP40
Dimensions:	200x120x92mm
Weight:	0.82kgs
Standards:	Comply with IEC60092-54, IEC60068/60092 and IEC61000/60533



Application tip:

The MEGA-2506 is suitable for verification of mA signals (like 4-20mA) without breaking the loop.

Description

The SmartCase-ELD250 is a portable tool for location of ground faults in 24VDC battery systems or on 24V circuits in alarm systems.

The SmartCase-ELD250 can only detect earth leakages in live circuits. All components come in a waterproof and unbreakable Pelicase 1450.

SmartCase-ELD250 contains:

- MML2500 main power unit
- MEGA2506 DC clamp meter (Ø 6mm)
- MEGA2523 DC clamp meter (Ø 23mm)
- Cables (1 x Red, 1 x Black & 1 x Yellow/Green, 2m)
- Crocodile clamp (1 x)
- Test pins (2 x Grey)

Benefits of using ELD-250

You may use the most advanced alarm and monitoring system to obtain total overview and control. However, unknown insulation grounds fault may give erroneous readings distorting your comfort zone.

Use the ISO-pathfinder ELD-250 to easily map the status of leakage paths to ground, verifying the

MML2500 is a self-powered earth current reference unit giving a feedback loop for the DC clamp sensors to be able to locate first failure. Measured feedback current is limited to approx. 225mA.

Only one circuit can be measured at the time, and default it is set to read positive pole leakage.

Operator must press the sense button to check for earth leakage current on the negative pole.

MEGA2506 is a small high resolution clamp meter to detect very low leakage currents from app. 0,5-120mA. The 6mm jaw limits the measured cable dimensions to app. 1,5mm².

MEGA2523 have a 23mm jaw for larger cable dimensions. Mainly use the DC mA range. Measures leakage currents from app. 5-10mA and up.



Operation Instruction

- 1 - Connect **MML2500** to positive and negative pole and PE (earth).
- 2 - Use the crocodile clamp/wire for the ground (PE) connection. A solid common earth terminal is essential for correct measurement.
- 3 - Check that GREEN LED (Power) is lit for correct connection.
- 4 - Turn on the clamp meter **MEGA2506** or **MEGA2523** (depending on cable dimension) and do a zero calibration first.
- 5 - Put the jaw to the first load feeder (both positive and negative wire must go throw the clamp meter).

NB! If shielded cable is used, the shield must not be grounded during earth fault

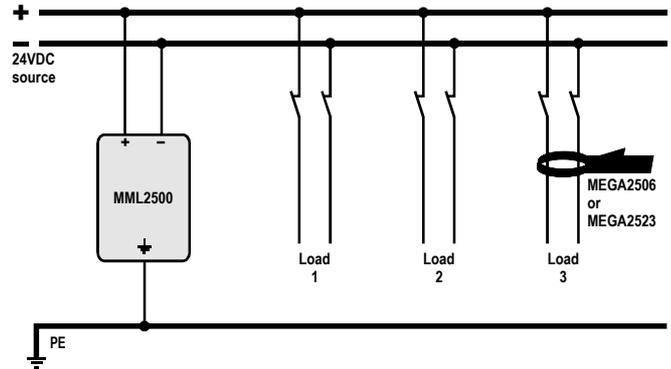
- 7 - Press the black push button (NEG sense) on **MML2500** to measure the negative pole. If there is still no mA reading both the poles on this circuit is healthy.
- 8 - Move the clamp meter to the next feeder and do step 4, 5, 6 and 7 again.
- 9 - Continue through all your 24VDC feeders to locate and map your DC leakages.

NB! Any reading on **MEGA2506** below app. 0,5mA is negligible. For **MEGA2523** expected leakage current to be located is about 5-10mA and up to amps.

Importance:

- It is important to keep the clamp meter jaws clean to obtain correct measurement.

Connection of MML2500 to DC system



Specifications for Clamp Meters



MEGA2523	
DC A	4/30A (manual range), True RMS
DC A resolution	1 mA
Accuracy	+/-2% +3d
Conductor size	Ø23mm max.
Applicable standards	IEC 1010 Category III 300V, Category II 600V
Operating/storage temperature & humidity	-10 to +50 degrees <75%
Power source	2 x LR6(AA) 1,5V
Current consumption	Approx. 10mA
Dimensions	183x64x36mm
Weight	App. 190g (Incl. batteries)



MEGA2506	
DC A	20/120mA (Autoranging)
DC A resolution	0,01mA
Conductor size	Ø6mm max.
Accuracy	+/-0,2%rdg +/-5dgt (0,00-21,00mA) +/-1% +/-5dgt (21-120mA)
Applicable standards	IEC 61010-1, 61010-2-030 CAT.II 300V, IEC 61010-0-032, IEC 61326-1, 61326-2-2 IEC 60529 IP40
Operating/storage temperature & humidity	-10 to +50 degrees <85%
Power source	4 x LR6(AA) 1,5V, battery life is app.60 hours (with backlight and LED off)
Dimensions	111x61x40mm (Display unit) 104x34x20mm (Sensor) 700mm: Sensor cable
Weight	App. 290g (Incl. batteries)

The MEGACON policy is one of continuous improvement, consequently equipment supplied may vary in detail from this publication.

