



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

General data

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/+60 Degrees Celsius



MML2500	
System Voltage:	18-30VDC
Fuse	0,5A automatic
Current consumption	<50mA
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.

Function

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:**
- 1 of **MML2500**, main power unit
 - 1 of **MEGA2506**, a 6mm DC clamp meter
 - 1 of **MEGA2523**, a 23mm DC clamp meter
 - 1 set of cables (red, black & yellow/green 2m)
 - 1 of crocodile clamp.

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. The 6mm jaw limits the measured cable dimensions to app. 1,5mm². It measures leakage currents from 0,5-120mA.



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



Operation instruction:

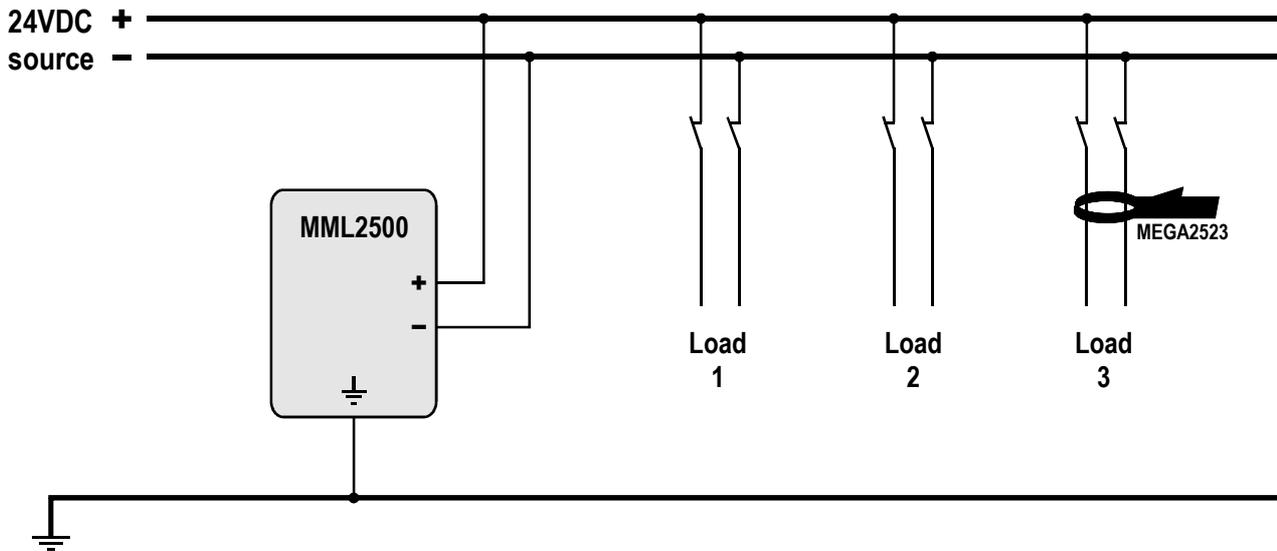
- 1 - Connect the **MML2500** to positive and negative pole (see page 2) and PE (earth). Use the crocodile clamp/wire for the ground (PE) connection. A solid common earth terminal is essential for correct measurement.
- 2 - Check that power lamp is lit for correct connection.
- 3 - Turn on the clamp meter and do a zero calibration.
- 4 - Put the jaw to the first circuit (both pos. and neg. wire).
- 5 - If no reading, press sense button (MML2500) to verify the negative pole.
- 6 - If still no reading continue to the next circuit.

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

Importance:

It is important to keep the jaws clean to obtain correct measurement. Use a fabric cloth to wipe off dust and particles.

Connection and measuring principle



Technical data of Clamp Meters



MEGA2523 Specifications

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 Specifications

DC A	20/120mA (Auroranging)
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.

