

DET14C and DET24C Digital Earth Clamps



- Elliptical clamp shape improves access to earth cables and straps up to 50 mm
- Low maintenance flat jaw interface
- Measures ground resistance from 0.05 Ω to 1500 Ω
- Measures true RMS ground leakage current from 0.5 mA rms to 35 A rms
- CAT IV 600 V safety rating
- Backlit LCD Display

DESCRIPTION

The DET14C and DET24C represent a new generation of earth/ ground clamp-on resistance testers. These instruments induce a test current into earth systems and measure ground resistance in multi ground installations without needing to disconnect the ground. They offer market leading access, advanced features, simple operation and CAT IV 600 V safety protection.

Designed with flat core ends they prevent dirt build up, ensuring measurement integrity and improved reliability over products with interlocking teeth. Other enhancements over current generation products include improved accuracy and up to 300% increase in battery life. In electrically noisy environments the built-in filter function offers increased noise immunity.

DET14C and DET24C also offer a true RMS AC current measurement facility up to 35 Amps. The instrument's ability to measure current flowing in an earth cable is a useful safety feature, especially if the earth cable has to be disconnected. A high current flow to earth could draw an arc on dis-connection with potentially severe consequences.

The elliptical shaped head design offers improved access to cables and earth straps in space constrained locations. The clamp head accommodates up to 37 mm diameter cable and 50 mm earth tapes making them suitable for use in power stations, substations, towers and many more facilities. Operation in dark and restricted areas is facilitated by a display with backlight and an audible tone associated with the hold key. Optimised jaw opening mechanism ensures proper jaw closure without excessive use of force when opening the jaws.

The DET14C offers storage of results for later on-screen recall and the DET24C supports a download of results via Bluetooth® into PowerDB and PowerDB Lite, Megger's acceptance and maintenance test data management software. Stored data is indexed using a sequential serial number together with a time and date stamp for each record.

APPLICATION

The earth resistance clamp meters are particularly suitable for measuring earth resistance in various installations such as buildings, pylons and RF transmitter sites without system disconnection. In addition, they can be used for the inspection and verification of lightning protection systems and virtually any installation where a current loop can be generated.

FEATURES AND BENEFITS

- Auto-current measurement safety feature
- Memory to record and view results
- Automatic self calibration
- Auto ranging
- High and low alarms
- Real time clock for date and time stamping of results

DET24C ADDITIONAL FEATURES

- Bluetooth® stored test results transfer to PC
- Advanced memory functionality with download
- Megger PowerDB/PowerDB Lite™ compatible

DET14C and DET24C

Digital Earth Clamps

SPECIFICATIONS

Resistance measurements

Ground resistance	Resolution	Intrinsic range uncertainty*
0.05 Ω to 0.99 Ω	0.01 Ω	$\pm 1.5\% \pm 0.05 \Omega$
1.00 Ω to 9.99 Ω	0.01 Ω	$\pm 1.5\% \pm 0.1 \Omega$
10.0 Ω to 99.9 Ω	0.1 $\Omega \pm 2\%$	$\pm 0.5 \Omega$
100.0 Ω to 199.9 Ω	0.1 $\Omega \pm 5\%$	$\pm 1 \Omega$
200 Ω to 400 Ω	1 $\Omega \pm 10\%$	$\pm 10 \Omega$
400 Ω to 600 Ω	1 $\Omega \pm 10\%$	$\pm 10 \Omega$
600 Ω to 1200 Ω	10 Ω	$\pm 20\%$
1200 Ω to 1500 Ω	10 Ω	$\pm 35\%$

Frequency of measurement 1390 Hz.

* Unless otherwise specified, reference conditions are: 20 $\pm 3^\circ\text{C}$, 50% humidity, centred conductor.

The specification stated above is only maintained if the Jaws of the DET14C and DET24C are kept clean at all times.

Alarm settings

Alarm type	Range	Resolution
Threshold 1	1 Ω to 1500 Ω	1 Ω
Threshold 2	1 Ω to 1500 Ω	1 Ω

Current range (RMS)

Current range	Resolution	Intrinsic Certainty
0.5 mA to 0.99 mA	0.01 mA	$\pm 2\% \pm 0.05 \text{ mA}$
1.00 mA to 9.99 mA	0.01 mA	$\pm 2\% \pm 0.05 \text{ mA}$
10.0 mA to 99.9 mA	0.1 mA	$\pm 2\% \pm 0.1 \text{ mA}$
100 mA to 999 mA	1 mA	$\pm 2\% \pm 1 \text{ mA}$
1.00 A to 9.99 A	0.01 A	$\pm 2\% \pm 0.01 \text{ A}$
10.0 A to 35.0 A	0.1 A	$\pm 2\% \pm 0.1 \text{ A}$

True RMS readings up to a crest factor of 5.0 (peak current 40 A).

Accuracy guaranteed for 50 Hz and 60 Hz.

Measurement over the range 16 Hz to 400 Hz.

Maximum current is 100 A rms continuous and 200 A rms for 60 s max at 50 Hz and 60 Hz

Maximum jaw opening 39 mm

Maximum jaw inner 39 mm x 55 mm dimensions

Display 4 + 6 digit with backlight

Battery type 4 x 1.5 V IEC LR6/AA alkaline

Battery life 24 hours continuous testing

Note 1: Whilst measuring a 25 Ω resistance without backlight

Auto power down 300 s (reset by jaw action or button press)

Data logging DET14C 256 records DET24C 2 k records

Data download Bluetooth® interface (DET24C only)

Range Selection: Automatic within each mode

Sampling time <1 s

Hold function Yes with visual indicator

Alarm function Yes with visual indicator

Alarm/warning Buzzer: Yes

Operating temperature -20 $^\circ\text{C}$ to +50 $^\circ\text{C}$, <85% RH range and humidity

Storage temperature -40 $^\circ\text{C}$ to +60 $^\circ\text{C}$, <75% RH range and humidity

IP rating IP30 with jaws closed

Safety EN 61010-2-032

CATIV 600 V

Pollution degree 2

EMC Class B Compliant, IEC 61326, BSEN 61326

Dimensions 248 mm (l) x 114 mm (b) x 49 mm (h)

Weight 985 g

The Bluetooth ® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc and are used under licence.

ORDERING INFORMATION

Description	Order Code	Description	Order Code
DET14C Digital earth test clamp-on meter	1000-761	Included accessories for DET14C and DET24C	
DET24C Digital earth test clamp-on meter	1007-331	Carrying case	1001-715
		Carrying strap (wrist loop)	1001-716
		Calibration check	
		Battery AA (Alkaline) (4 required)	

SALES OFFICE

Megger Limited
Archcliffe Road Dover
CT17 9EN England
T +44 (0) 1304 502101
E UKsales@megger.com

DET14C--DET24C_DS_en_V14

www.megger.com
ISO 9001
The word 'Megger' is a registered trademark

Megger [®]

Services d'EURO-INDEX

EURO-INDEX est un fabricant, importateur et distributeur de diverses marques A dans le domaine des instruments de test et de mesure. Nous fournissons également une large gamme de services pour optimiser l'utilisation de ces instruments dans vos activités. Ces services comprennent naturellement l'entretien, la réparation et l'étalonnage des instruments, mais nous proposons aussi une assistance sous forme de formation via notre EURO-INDEX Academy et la location d'instruments.

Centre de Service Agréé

EURO-INDEX est un Centre de Service Agréé pour toutes les marques représentées. Cela signifie que vos instruments sont pris en charge par des techniciens formés par le fabricant et disposant des outils et logiciels adéquats. Seules des pièces d'origine sont utilisées et la garantie de votre instrument, ainsi que les certifications (ATEX, EN50379, etc.) restent intactes.

Laboratoire de maintenance et de calibrage

Le laboratoire des Pays-Bas est accrédité RvA selon la norme EN-ISO/IEC 17025. Cette accréditation est valable pour différentes grandeurs, telles que spécifiées dans le champ d'application associé au numéro d'accréditation K105. Les certificats de calibrage RvA sont acceptés à l'international et équivalents à ceux de BELAC.



Service Mobile

Outre les laboratoires d'étalonnage fixes de Zaventem et de Capelle aan den IJssel, nous disposons également d'un laboratoire itinérant appelé "Service mobile". Nos services peuvent venir vers vous, en offrant une qualité équivalente.

MQS®

MQS® est une formule d'entretien exclusive comportant un entretien et un calibrage périodiques de vos instruments de mesure à un coût fixe et faible. Via un portail Web gratuit (monmq.be), vous avez toujours accès à vos certificats de calibrage.

Location d'instruments de mesure

- Vaste assortiment
- Précision démontrable par le certificat d'étalonnage actuel
- Conseils avisés
- Les instruments sont livrés avec leurs accessoires

EURO-INDEX Academy

- Formations et séminaires
- Vidéos de démonstration et d'instruction
- Notes d'application



Comptoir de service



Entretien, réparation et calibrage



Formations et séminaires



Service Mobile

Sous réserve de modifications EURO-INDEX® FR 23001



BELGIQUE

Chaussée de Louvain 607
1930 Zaventem
T: 02 - 757 92 44
F: 02 - 757 92 64
sales@euro-index.be
www.euro-index.be

PAYS-BAS

Rivium 2e straat 12
2909 LG Capelle a/d IJssel
T: +31 - (0)10 - 2 888 000
F: +31 - (0)10 - 2 888 010
verkoop@euro-index.nl
www.euro-index.nl

