



## **DETECTION / MEASUREMENT**

INSTALLATION CONTROLLERS	96
PHASE ROTATION INDICATOR	101
LOW VOLTAGE DETECTORS	102
SAFETY TEST PROBES AND ACCESSORIES	107
MEDIUM VOLTAGE DETECTORS	109
HIGH VOLTAGE DETECTORS	114
MV-HV NON-CONTACT VOLTAGE DETECTORS	116
DISTANCE LIVE-LINE ALARM	116
EARTHING CONNECTIONS	117





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### **DIGITAL MULTIMETER**

The MX-701 is a digital display multimeter (LCD screen 3+1/2 backlit digits) high reliability and automatic selection of the measuring range. Indication of low battery level.

#### **Delivered with:**

- 2 test probes with right-angled connector IP2X.
- 2 alligator clips.
- 2 thermometric probes.

It measures DC and AC voltages, current continuous and alternating, resistance, inductance, temperature and to test the diodes and the continuity (buzzer).



Reference		$\wedge$	(A)+	Ω measure			Ш	ß	°C ) °F	888		Â,	(mm)	kg
	Voltage	Frequency	Intensity	Resistance	Capacity	Class	Category	T°C	Measure	Screen	Battery	Probes	Dimensions	Weight
MX-701 *	200 mV to 600 V AC / DC	40 - 400 Hz	200 μA to 10 A AC / DC	200 Ω to 20 MΩ	20 nF to 1 000 μF	III	III 600 V	Usage: 0 °C to +40 °C	-20 to 1000°C 0 to +1 800°F	Display 3 + 1/2 digits	3 batteries AAA 1.5 V	x 2	75 x 158 x 35	0.20

\*Supplied with batteries and a soft bag.

## **DIGITAL CLAMP METER**

The MX-702 is a compact clamp digital multimeter with display LCD 3+1/2 digits with backlight and automatic selection of the measurement range. It measures alternating voltages and continuous, alternating current, resistance, diodes, continuity and temperature. It automatically indicates the polarity and the range overshoot: OL or -OL.

Low battery warning.

#### **Sensor for AC measurements:**

- Max. Opening jaws: 36 mm.
- Ø max. conductor width: 30 mm.

#### **Delivered with:**

- 2 test probes with angled connector IP2X.
- 1 thermometric probe.





Reference	$_{ m e}$	$\wedge$	r\(\begin{array}{c} \rightarrow \\ \	Ω mesures	Ω Ψ)))		Ш	ß	° ° F	888		Ĥ	(mm)	kg
	Voltage	Frequency	Intensity	Resistance	Capacity	Class	Category	T°C	Measure	Screen	Battery	Probes	Dimensions	Weight
MX-702	2 to 600 V AC 0.2 to 600 V DC	40 - 400 Hz	2 to 600 A AC	200 Ω to 20 MΩ	"buzzer" < 50 Ω	III	III 600 V	Usage: 0 °C to +40 °C	40 to +1000°C -40 to +1832°F	affichage 3 + 1/2 digits	2 batteries AAA 1,5 V	x 2	70 x 190 x 38	0.22

\*Supplied with batteries and a soft bag.





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## INFRARED THERMOMETER



#### **Application:**

- High performance infrared thermometer, suitable for detecting abnormal hot spots in electrical installations.
- Automatic measurement of the target temperature (°C and/or °F) without knowing the emissivity of the material or surface properties.
- Not suitable for human temperature measurement.

#### **Features:**

- Ratio distance/measure point: 12:1.
- Temperature range: from 32°C à +535 °C (-25°F 995°F).
- Response time: 500 ms.

Reference	A	°C ) °F		(mm)	kg		
	T°C	Measure	Battery	Dimensions	Weight		
MX-704 *	from 0 to +50°C	-32 to + 535°C -25 à + 995°F	1 batte- ry 9 V 6 LR61	130 x 180 x 40	0.19		
*Cumplied with hottories and a coft has							

\*Supplied with batteries and a soft bag.

IEC 61000-4-2 IEC 61000-4-3 IEC 61000-4-8 EN 61326











## SCAN-ELEC: DETECTS LIVE AC WIRES AND

#### **Application:**

**METALLIC PARTS** 

- Detects live AC wires until 51 mm depth.
- Detects:
  - ferrous metallic parts until 75 mm depth.
  - non-ferrous metallic parts (ex: copper) until 38 mm depth.

#### Features:

- Easy start : a unique push button is used to do both calibration and detection.
- SpotLite function: a red arrow is displayed along the wall to indicate the position of the targeted object.
- LCD ColorTrip dsiplay: it lights in BLUE when detecting metal and in RED when detecting live AC wires.
- Power supply: 1 x 9 V battery, type 6LR61 (non included).

Reference	A		(mm)	kg
	T°C	Battery	Dimensions	Weight
MX-710	Usage: 7°C to +41°C	1 battery 9 V 6 LR61	160 x 80 x 32	0.2



















- SAFETY: ensures the absence of dangerous parts (live wires, fluid lines).
- TIME SAVING: Thanks to SpotLite<sup>™</sup> pointer and its LCD display screen, SCAN ELEC quickly locates hidden parts.
- EFFICIENCY: Easy to use: a push on the side button allows both calibration and detection.







### INSULATION CONTROLLER CATEX™ DT-500

The DT-500 controls the insulation resistance of installations and devices. IEC 60364 standard recommends to check the insulation resisatnce regulary. Insulation resistance is measured between each active conductor and the ground (when not live). Its value should be 500 k $\Omega$  for a DC testing voltage of 500 V.

The DT-500 device is designed to easily, quickly and safely measure the insulation resistance.

It provides a safety system that prevents a measurement when connected to a live installation.

#### Measures insulation resistance below 500 V DC

The insulation resistance value is indicated by illuminating a light:

- RED for values including 0, 300, 400 k $\Omega$ .
- GREEN for values including 500, 600, 700, 800, 900, 1 000 k and  $k\Omega$  and  $\infty$ .

IP2X test-lead point YELLOW/GREEN (ground).

3 large opening alligator clips:

RED, YELLOW/GREEN, BLUE.



Picture of installation without presence voltage.



M-951981

## **Accessories**

710000001100	
Reference	Characteristics
M-951981	BLUE probe for replacement *
M-87292	Carrying bag *
M-881602	BLUE alligator clip for replacement
M-881601	YELLOW/GREEN alligator clip for replacement

\* To be ordered separately.





The DT-500 is supplied with a belt clip and storage slots for the test-lead points.



IP2X test-lead point BLUE (neutral) independent and connected by a safety terminal.

## **BENEFITS**

- · Battery status indicator light.
- The DT-500 can bypass the phase and neutral in order to protect sensitive equipment (electronics, computers, etc.).

	500 V•	Ω mesures			III	Ą		Ĥ	(mm)	kg
Reference	Output voltage	Resistance	Protection	Class	Category	T°C	Battery	Test-end points	Dimensions	Weight
DT-500 *	< 500 V DC	from 0 to ∞	IP54 IK06	II	Cat III 600V IEC 61010-1	Use: -15 °C to +45 °C	4 LR6 batteries	IP2X	213 x 75 x 46	0.60 with batteries and accessories

\* Controller delivered with 3 probes, 3 alligators clips and batteries.











# EARTH AND CONTINUITY MEASUREMENT DEVICE CATOHM™ DT-300

CATOHM $^{\text{TM}}$  DT-300 is designed based on the IEC 61557-4 standard. The device measures earth resistance using the "default loop" principle.

The CATOHM<sup>™</sup> DT-300 shows the following on its LCD display:

- The presence of voltage and compliance,
- The position of the phase,
- The earthing of the production conductor, the main functions being to measure the ground resistance value and to thus check the continuity of metal grounds by sound signal.

Once connected to properly connected installation, the earthing value is instantly measured and displayed at the top of the LCD display, indicating ground resistance values:

- 0 to 100  $\Omega$ , BLUE numbers (< the 100 threshold  $\Omega$ )
- 101 to 1999  $\Omega$ , RED digits

The measurement is taken with an accuracy of  $\pm$  4 digit for pure resistance, ranging 0-200  $\Omega$ , at 23°C  $\pm$  5°C.

Uses 2P+T 10/16 A or LV panel for single-phase 230V circuits between phases and neutral. IP2X connection wells on the test-lead point. 4-digit display of the grounding value in  $\Omega$ . Continuity extended 7 m along the roller (Ø 105 x H 62 mm). IP2X test-lead point with retractable sheathing. Checks the continuity of metal grounds.





 $\text{Value} < 100 \ \Omega.$ 



Connection between phases under 400 V.



Grounding value  $> 100 \ \Omega.$ 



#### **Accessories in option:**

Reference	Characteristics
M-952271	Lead set for checks on L.V. distribution board. Length 80 cm.

Reference	$\sim$	$\setminus$	Ω (P)	<u></u>			Ш	J	888	丰	(mm)	kg
	Voltage	50-60 Hz	Continuity	Voltage present	Protection	Class	Category	T°C	Screen	Grounding	Dimensions	Weight
DT-300*	230 V TT network		Measured	400 V	IP40	_	Cat. III	Use: -15 °C to	4-digit	< 2 000 Ω	71 x 210 x 51	0.62
D1-300	system		at ≤ 2 Ω	400 V	IK06	II	600 V	+45 °C	screen display	< 2 000 52	71 X 210 X 31	0.36

<sup>\*</sup> Controller delivered with probes and extension on roller.



### PHASE ROTATION INDICATOR



## PHASE ROTATION INDICATOR DETEX MS-152 +

Signalling via the successive lighting of diodes symbolising the rotation.

"FAULT" diode lits: phase cut off or incorrectly connected. Phase rotation activated  $\geq$  85 V.

A set of diodes is turned on and off successively.

#### The diodes indicate:

- Clockwise rotation indicated by the green arrow "OK",
- Anti-clockwise rotation indicated by the red arrow "INVERSE",
- Default: the **DEFECT** diode (DEFAUT) indicates an error of connection such as the cut off or absence of phase or the presence of neutral between phases.

Probes with retractable protector with 1.20 flexible cable.

GREEN - CX-35811.

YELLOW - CX-45411.

**BROWN** - CX-34211.

Isolated crocodile clamp IP2X:

YELLOW - CX-01422.

























Rotate right (clockwise)

IK06



Rotate left (anti clockwise)





## **BENEFITS**

- Compact.
- User friendly visualization viewing the rotation LED.
- · Works on generators.

**Carrying bag** with strap, included. (ref. M-87290)





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	2	$\sim$	(	IV	(a) (b)	Ĥ		ĝ
Reference	Voltage	Frequency	Protection	Category	Phase rotation direction	IP2X test-lead points. IEC 61010-31	Dimensions (mm)	Weight
MS-152 +	90-400 V	45/60 Hz	IP54	600 V	•	•	200 x 120 x 50 = storage	100

EN 61010-1

\* Delivered in storage bag with 3 probes (GREEN, YELLOW, BROWN) 2 crocodile clamps (YELLOW BROWN). Test probes and crocodile clamps also available separately.







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## **Detex**<sup>⋆</sup> MS-918-L



IEC 61243-3:2015 EN 50110-1 会

Voltage LED display. for 24 to 900 V AC (1000 DC).

Multifunctional LED 12 V / + range 12 V / - range.

Phase identification light (unipolar).





Hazardous voltage light (> 50 V). Information is displayed even if batteries are discharged.



Probes.



M-952325



Lighting lamp at the measuring point.



MS-918-L

- Lighting unit.
- Phase rotation detection check (two-wire method).
- Voltage light for 12 to 900 V AC (1000 DC).

#### **Accessories in option**

	•				
Reference	Characteristics				
M-87285	5 Carrying bag with belt loop				
M-952325	Board hanger				
M-762118	Ergonomic adapter				



M-87285



Ergonomic adapter.

Reference		$\sim$	C P	(		IV			<b>6</b>	Ĥ	) <u>()</u>	g
Hererenee	Voltage	Hz	Continuity	Protection	Class	Category IV	T°C	2 AAA batteries	Rotary Field	Suitable for standard 2P+T.	Lighting unit	Weight
MS-918-L*	12 - 900 V AC 12 - 1 000 V DC	50/60 +/- 10 %	100 Ω	IP65 IK06	II	600 V	Use: -15 °C to +45 °C (class N)	1,5 V	•	19 mm	•	210

<sup>\*</sup> Supplied without accessories.





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## AC & DC LOW VOLTAGE DUAL POLE TYPE MS-918-L

The versatile MS-918-L provides operator with voltage detection (compliant with IEC 61243-3:2014) and additional functions such as continuity, phase rotation and phase detection.

Fitted with safety probes, the MS-918-L covers a wide voltage range from 12 to 900 V AC and 12 to 1 000 V DC.



Robust and ergonomic.
 With a protection (IP65) and a good impact resistance (IK06) the MS-918-L range is suitable for all environment.

Wide range of use. Voltage detector from 12 to 900 V AC and 1000 V DC – CAT IV 600 V and CAT III-1000V.

3 Self-test function. Enables full verification of the adequate unit functioning (batteries, cords, electronics).

4 LED display.



## DETEX™ 917-L AND 918-L VOLTAGE DETECTORS AND TESTERS

The DetexTM MS-917-L and 918-L are compliant with the IEC 61243-3 standard, in response to the requirements of the EN 50110-1 European standard.

Optical and acoustic signalling, suitable for indoor/ outdoor use. It enables to detect presence of voltage and:

- Checks voltage levels from 12 to 690 V AC, 750 V DC (MS 917-L) and from 12 to 900 V AC, 1 000 V DC (MS-918-L).
- Sound and light continuity for a non-live circuit (threshold of 200  $\Omega$  for MS-917-L and 100  $\Omega$  for MS-918-L),
- Unipolar phase identification,
- Search for the polarities of a DC circuit,
- Phase rotation by the two-wire method only for MS-918-L.

#### 1 m long double-insulated flexible cords.



The configuration with both test lead points mounted on the detector allows for a 19 mm gap to reflect the standardized EU power sockets.

# PRO

IEC 61243-3:2015 EN 50110-1

 $C\epsilon$ 

Detex<sup>™</sup>

MS-917-L



## **BENEFITS**

#### MS 917-L

- Test-lead points. Point Ø 2 mm and 19 mm lengths for socket contact
- Hazardous voltage indicator light (> 50 V).
- Phase identification light (unipolar).
- Self test button.
- Completely compatible with the following socket types : C, D, E, F, K, N.



Reference		$\sim$	C P			IV	P		Ĥ	ĝ
neielelle	Voltage	Hz	Continuity	Protection	Class	Category IV	T°C	2 AAA batteries	Suitable for standard 2P+T.	Weight
MS-917-L*	12-690 V AC 12 -750 V DC	50/60 +/- 10 %	200 Ω	IP65 IK06	II	600 V	Use: -15 °C to +45 °C (class N)	1.5 V	19 mm	210

\* Supplied without accessories.







## DETEX™ MS-920-EX VOLTAGE DETECTOR **AND TESTER**

The Detex<sup>™</sup> MS-920-EX is designed based on IEC 61243-3 standard, in response to the requirements of the EN 50110-1 European standard.

Sound and lighting equipment, suitable for indoor/ outdoor use. It enables to detect absence of voltage and:

- Check of voltage levels > 50 V DC and AC,
- Up to 690 V AC and 950 DC,
- Continuity sound control for a non-live circuit ( $< 100 \Omega$ ),
- Unipolar identification of the phase,
- Search for the polarities of a DC circuit,
- Rotary field by the two-wire method.
- Resolution: 1 V - Precision: ± 5 %

• Test button.

• Lighting unit.

IEC 61243-3:2015  $\diamondsuit$ EN 50110-1 Detex**\*** →

CE MS-920-EX





















The configuration with both test lead points mounted on the detector housing allows for a 19 mm gap between points, enabling the simultaneous double contact for standardized sockets (2P+T, 10/16 A).

## CONTACT PROBES FOR L.V. TESTER

19 mm lengths for socket contact.

• Three digit colour LCD screen display.

Light and rigid contact probes for Detex™: MS-917-L, MS-918-L and MS-920-EX. Contact probes to be used as suspension hooks (MS-8014). Round tip contact (MS-8013).

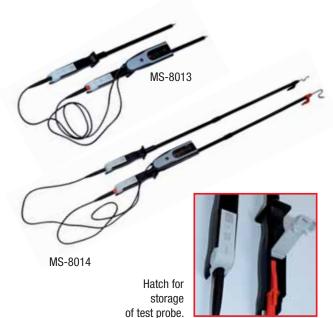
**BENEFITS** 

• Test-lead points according to IEC 61010-031 Point Ø 2 mm and

Hazardous voltage indicator light when voltage > 50 V.

• Completely compatible with socket types: C, D, E, F, K, N.

Reference	<b>←→</b>	kg				
	Length (cm)	Weight				
For installations and sidewalk boxes						
MS-8013	50	0.40				
For overhead lines						
MS-8014	<b>4</b> 125 0.75					
Delivered in storage bag 50 x 150 x 550 mm.						





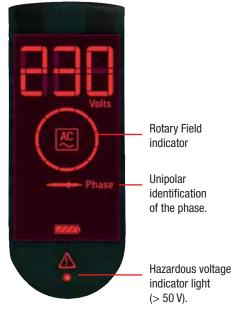








Example of 24 V DC detection, display is **BLUE** because < 50 V.



Example of detecting 230 V AC, displayed in RED.



M-952325 Board hanger provided on the back of the device.



Lighting lamp at the measuring point.

M-87285

#### **Accessories in option:**

	•
Reference	Characteristics
M-87285	Carrying bag with belt loop
M-952325	Board hanger





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Reference	Voltage	Hz	Continuity $< 100 \Omega$	Protection	Class	Category IV	T°C	Display	2 AAA batteries	Rotary Field	Suitable for standard 2P+T.	Lighting unit	Weight
MS-920-EX*	12-690 V AC 12-950 V DC	50-60	200	IP65 IK06	II	600 V	Use: -15 °C to +55 °C (class N)	3 digits	1,5 V	•	19 mm	•	210

## **SAFETY TEST PROBES AND ACCESSORIES**



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## HAND STICK

For distance working 2 removable elements. Field of use:1 000 V max. Ergonomic handle. Connecting test probe via standard socket.

Deference	Ohavastaviatiaa	<b>→</b>	kg		
Reference	Characteristics	Length (cm)	Weight		
M-951143	Hand stick	80	0.24		
M-952439	Extension	40	0.12		
Delivered in storage bag.					









## AC AND DC VOLTAGE CONTROLLER

#### **Application:**

- Ergonomically optimized voltage tester, ideal for use in tight spaces thanks to its electrode extensions (250 mm and 500 mm).
- It provides a wide detection range for maximum nominal voltages: from 50 to 4 200 V DC and from 50 to 3 000 V AC.

#### **Features:**

- Maximum nominal voltage: 3 500 V DC, 2 500 V AC.
- Detection voltage: 50 to 4 200 V DC, 50 to 3 000 V AC.
- Threshold voltage: 50 V +0, -10% (DC and AC).
- Permanent standby status mode (no on / off switch).
- Built in testing system (including the lead check).
- High brightness green LED to indicate the good status of your voltage detector and display the standby state (during 2 min).
- Frequency range: 50-60 Hz ±10%.
- Relative humidity: 20% to 95%.
- Protection degree: IP40 / IK06.
- Double isolation class II.
- Conical test points: diameter 6 mm, lenght 19 mm.
- Delivered assembled.

#### **Accessories included:**

1 set of peak test tip diameter 3 mm, length 19 mm.

Reference	Description	(mm)	kg
		Dimension	Weight
MS-415	Voltage controller with storage bag. 2 contact electrodes extension (L: 250 and 500 mm)	550 x 160 x 50	0.78
MS-415-P	Voltage controller with telescopic probes. (Folded: 625 mm, deployed: 982 mm) and storage bag. Cable length: 2 500 mm, 1 set of peak test tip.	950 x 200 x 70	1.22
MS-415-P5	Same as MS-415-P with cable length : 5 000 mm.	950 x 200 x 70	1.5



## **SAFETY TEST PROBES AND ACCESSORIES**



## **VOLTAGE TAKE-OFF PUNCH**

The voltage take-off punch is able to make an insulated piercing on a low voltage wire to plug a measurement device. Steel pin. Insulated body. Female socket for safety test probe Ø 4 mm.

Reference	→ (mm)	ĝ
	Clamping capacity	Weight
MS-62	Ø 5.6 - 14.4	54
MS-63	Ø 12 - 31	58





## LEAD SET FOR CHECKS ON L.V DISTRIBUTION BOARD

Earthing connection via alligator clip. Safety test probes with retractable sleeve. Female socket Standard 2P+T.

Reference	Characteristics					
M-952271	Lead set for checks on L.V distribution board * L 0.80 cm					
	* For DT-300 and DT-170.					



### **STORAGE BAG**

Reference	(mm) Dimensions	Characteristics
M-87285	180 x 70 x 45	Storage bag with belt loop for MS-917, MS-918, MS-920
<b>M-87290</b> 200 x 120 x 50		Storage bag with strap for MS-152+
M-87292	250 x 200 x 70	Flexible storage bag with handle





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## **VOLTAGE DETECTOR FOR CAPACITIVE TERMINALS** OF ELBOW MV CONNECTOR

In compliance with the standard SPS EDF N° 42. Maximum operating network voltages: 30 kV . Rated voltage max. : 36 kV.

Note: This detector is directly positionned on networks but behind a capacitive divider. Recommended insulating stick: CC-45-K (length: 1,25 m).

Reference	Characteristics	(mm) with case	kg			
		Dimensions	Weight			
CC-161-K*	Voltage detector for test points of the separable connectors networks from 10 to 30 kV	120 × 100 × 40				
CC-162-K*	Voltage detector for test points of the separable connectors networks from 3 to 36 kV.	130 x 180 x 40	0.82			
CC-45-K	Insulating stick 45 kV.	1.25 m	0.6			
* Davice delivered in hard shall case						

Device delivered in hard shell case













## **VOLTAGE DETECTOR FOR M.V. SUBSTATION** (INDOOR USE)

Built-in device for the checking operation. The indication "voltage presence" is visualized on 360° by a high brightness red LED.

High environmental resistance:

Shocks, drop, vibration. Rugged molded thermoplastic housing. External Ø 58.5 mm length (detector equipped with its insulating pole): 1.25 m.

Telescopic stick version for reduced space requirement.

## **BENEFITS**

- Battery lifetime : above 8 years.
- The indication "voltage presence" is visualized on 360°.

Reference	2	Folded up (m)	(m)	kg			
	Voltage	Length	Length	Weight			
CL-465-10/30-M *	10 - 30 kV	-	1.35	1			
CL-465-10-36-M	10 - 36 kV		1.35	1			
CL-465-10/30-2 **	10 - 30 kV	0.75	1.18	0.9			
CL-465-10-36-C	10-36 kV		0.27	0.4			
* Delivered in vinyl cheath with wall mounting brackets CLOS D							

Delivered in vinyl sheath with wall mounting brackets CI-06-D. \*\* Delivered in canvas bag, waterproofed with ramp.



CL-465-10-36-M



We can deliver complete set with foot capacitance, head capacitance and wirings to your own specifications. Please consult us.



IEC 62271-206

## INTEGRATED VOLTAGE PRESENCE INDICATING SYSTEM (V.P.I.S)

Indicates the voltage presence on M.V. cubicles by being installed on the capacitive dividers. Voltage of use behind capacitive dividers: 1 000 V (beetween phase and neutral). Light threshold: 90 V. Signaling: 3 neons. Attachment: male/female plugs. Sound phase comparator. MX-404.

Reference	Characteristics	(mm)	kg
		Dimensions	Weight
CL-495-3	Delivered complete with connector assembly	130 x 30	0.85

Every order has to be verified and validated by CATU.



IEC 62271-206 🕎

EN 61243-5 📯



## INTEGRATED VOLTAGE DETECTING SYSTEM (V.D.S)

Indicates the voltage presence on M.V cubicles by being installed on the capacitive dividers. Voltage of use behind capacitive dividers: 1 000 V (beetwen phase and earth). Light threshold: 70/90 V. Input impedance: 36 M $\Omega$ . Signalling by 3 red diodes. Sound phase comparator.

Reference	Characteristics	(mm)	kg
		Dimensions	Weight
CL-497-00	Delivered complete with connector assembly	146 x 30	0.90

Every order has to be verified and validated by CATU.



## SOUND PHASE COMPARATOR\*

The MX-404 sound phase comparator checks the concordance between 2 phases. The comparator's operation is indicated by: Emission of an audible signal when there is discrepancy between the two phases. Absence of an audible signal when there is no discrepancy between the two phases. Power supply: 9 V type 6LR battery.

Reference	Characteristics	(mm)	kg
		Dimensions	Weight
MX-404 * Delivered with case		145 x 80	0.90
*This comparator does not work on Schneider electric cells V2 type.			







# IEC ELECTRONIC VOLTAGE DETECTORS (MV), "COMPACT SERIE" FOR INDOOR AND OUTDOOR USE

## Ultimate technology of voltage detector "Head Capacitive Technology»

Compact and light, it offers a wide band (10/36 kV).

#### **Operating check**

By pressing the TEST button:

- A RED LED flashes on.
- Powerful rated audible signal > 67 dB(A)/2 m (aligned with IEC 61243-1 and to protect emloyee from too strong signal).
- When loosening the button, the timed GREEN LED lights up. While remaining on, it indicates the good working order of the detector.

#### **Characteristics**

- Precise and stable operating threshold.
- High environmental resistance (impacts, vibrations, moisture).
- Temperature conditions: class N (IEC 61243-1 standard).
- Use from 50 to 60 Hz.

#### Composition

- Robust housing.
- Weight: 350 g.
- Dimensions: Ø 59 x 270 mm.

Supplied in a rigid packaging to protect the device.

## **BENEFITS**

 Results visible over 360° with a powerful light. Voltage range pre-selected to your application.

Reference	$\wedge$	Operating		kg
neierence	Frequency	voltage	Type 6 LR-61	Weight
CC-765-2/72-(*)	50/60 Hz	2 - 72 kV	9 V	0.35
CC-765-3/10-(*)	50/60 Hz	3 - 10 kV	9 V	0.35
CC-765-5/18-(*)	50/60 Hz	5 - 18 kV	9 V	0.35
CC-765- 5,5/20-(*)	50/60 Hz	5.5 - 20 kV	9 V	0.35
CC-765-10/30-(*)	50/60 Hz	10-30 kV	9 V	0.35
CC-765-10/36-(*)	50/60 Hz	10 - 36 kV	9 V	0.35
CC-765-11/33-(*)	50/60 Hz	11 - 33 kV	9 V	0.35
CC-765-15/45-(*)	50/60 Hz	15-45 kV	9 V	0.35
CC-765-20/66-(*)	50/60 Hz	20 - 66 kV	9 V	0.35
CC-765-30/66-(*)	50/60 Hz	30 - 66 kV	9 V	0.35
CC-765-44/132-(*) (1)	50/60 Hz	44 - 132 kV	9 V	0.35
CC-765-63/90-(*) (1)	50/60 Hz	63 - 90 kV	9 V	0.35

(\*) Specify type of mounting when ordering: C or K.

(1) supplied with 1 hook-shaped contact electrode CC-ANT 120 (Ø120 mm).

Packaging: unit supplied complete in a case with batteries and contact electrodes (straight and V-shaped).

For other voltages, please consult us.



CC-775: 2 voltage ranges detector, in compliance with IEC 61343-1

Reference	1st voltage range		2nd voltage range		
neierence	Un min (uu)	Un Max (vv)	Un min (xx)	Un Max (yy)	
CC-775-2/7-12/25-(*)	2 KV	7 KV	12 KV	25 KV	
CC-775-2/72:12/36-(*)	2 kV	7.2kV	12 kV	36 kV	
CC-775-2/72-34/115-(*)	2 KV	7.2 KV	34 KV	115 KV	
CC-775-33/11:22/66-K	3.3 kV	11 kV	22 kV	66 kV	
CC-775-4/14-24/69-K	4 KV	14 KV	24 KV	69 KV	
CC-775-4/144-25/69-K	4 KV	14.4 KV	25 KV	69 KV	
CC-775-47/15-25/69-K	4.7 KV	15 KV	25 KV	69 KV	
CC-775-6/12-22/66-C	6 kV	12 kV	22 KV	66 KV	
CC-775-11/22-33/66-K	11 kV	22 kV	33 kV	66 kV	
CC-775-12/24-52/132-(*)	12 KV	24 KV	52 KV	132 KV	
	(*) End fitting : C or K				



End fittings:

C: hexagonal 12 mm, for hexagonal end-fitting sticks, K: universal, for universal end-fitting sticks.

Recommended stick: CE-4-21, CE-75, CE-9.

112









Mechanical and dielectric tests Compliant with NF EN 61243-2 📯

























## BIPOLAR VOLTAGE DETECTOR FOR DIRECT VOLTAGE

#### **Application:**

- Bipolar DC voltage detector: 100 V to 30 kV DC.
- The low threshold set to 100 V makes it possible to detect any voltage exceeding the limits of the low voltage DC.
- Indoor use (Use only on laboratory and workshop type installations).

#### **Characteristics:**

- Voltage presence indicated by:
- Lighting of 6 red diodes.
- Acoustic signal (60 dB (A) / 2 m).
- 380 mm contact electrode.
- Overall length of the detector: 840 mm.
- Indication group: III.

#### **Composition:**

- 2 elements with removable probes, connected by a cable.
- 1 transport case.

Deference	2	Contact	<b>+</b>	kg
Reference	DC Voltage	elec- trode	Length (cm)	Weight
CL 6-120-5000 *	120-5 000 V	ANTP	910	1.5
CL 6-100-30000**	100-30 000 V	ANTP	910	1.5

\*Delivered in a heavy duty plastic case.



- Total length: 1.075 m. - Probe length: 350 mm.

- Cable length: 1.9 m.

- Weight complete device: 2 kg.



<sup>\*\*</sup> Delivered in a heavy duty plastic case with 2 types of electrodes (tulip and tapered).



#### HIGH VOLTAGE DETECTORS



## IEC VOLTAGE DETECTORS (HV) FOR OUTDOOR USE

Precise and stable operating threshold. Insensitivity to induced voltages by limiting the operating voltage range. Remarkably resistant to impacts, vibrations, extreme temperatures, humidity.

Double signalling.

Voltage presence indicated at the same time by:

- 4 bright RED flashing electro-luminescent diodes (visible at more than 50 meters even in direct lighting),
- a powerful rated acoustic signal (60 dB/2 m).

The CC-265 detector is supplied with 3 end fittings for stick mounting:

W: Hexagonal 20 mm,

C: Hexagonal 12 mm,

K: Universal.

Robust housing made from polycarbonate with high mechanical properties and dielectric strength.

Check that the device is working by pressing the TEST button. This test all of the detector's active components once the TEST button is released.

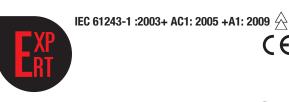
Two GREEN illuminated lights, indicating that the device is on. These lights turn off, and four RED lights illuminate when a voltage is detected.

Power supply: 1 battery 9 V type 6LR61 (included).

Storage temperature : - 25 /+ 55°C.

## **BENEFITS**

- Illuminated display Broadcast over 360°.
- Use in rain conditions.
- Shock Absorber fitting.
- New fixation ring (for the hook).









End fitting K

End fitting C

End fitting W



CC-265-90/225

CC-265-90/245

#### **NEW**

- 360° vision for optimal visibility.
- Delivered with 3 end fittings.



Deference	$\wedge$	Housing Colour   IEC 61243-1		Contact	Contact electrode	kg
Reference	Voltage range	Housing Colour	IEU 01243-1	electrode	(Ø mm)	Detector weight
CC-265-44/132 (*)	44 - 132 kV		•	CC-ANT120	120	0.68
CC-265-60/90 (*)	60 - 90 kV		•	CC-ANT60 & CC-ANT120	60 - 120	0.68
CC-265-60/150 (*)	60 - 150 kV		•	CC-ANT60 & CC-ANT120	60 - 120	0.68
CC-260-60/235 (*)	60 - 235 kV		-	CC-ANT120	120	0.68
CC-265-90/225 (*)	90 - 225 kV		•	CC-ANT120	120	0.68
CC-265-120/245 (*)	120 - 245 kV		•	CC-ANT200	200	0.68
CC -260-132/380 (*)	132 - 380 kV		-	CC-ANT200	200	0.68
CC-260-150/420 (*)	150 - 420 kV		-	CC-ANT200	200	0.68
CC-265-225/420 (*)	225 - 420 kV		•	CC-ANT60, CC-ANT120, CC-ANT200	60, 120, 200	0.68
CC-260-225/550 (*)	225 - 550 kV		-	CC-ANT200	200	0.68

Delivered with modern, lightweight and impact-resistant case. (\*) Please specify type of mounting when ordering: C or K

For other voltage ranges, please consult us.



## HIGH VOLTAGE DETECTORS



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IEC 61243-1 :2003+ AC1: 2005 +A1: 2009





















## IEC ELECTRONIC VOLTAGE DETECTOR WITH PROBE, FOR INDOOR AND OUTDOOR USES

#### Ultimate "head capacitive technology" of voltage detector.

- Universal application 50 / 60 Hz and wide band of voltage from 5 to 30 kV.
- Type S (Substation) with electrode extension.

The electrode extension is designed to ensure no inside failure.

- Equipped with its insulating stick: Assembly by screwing.

#### Voltage presence is indicated by:

RED flashing LED (very bright, visible at more than 20 m in direct lighting).

Powerful rated audible signal > 67 dB (A) / 1.5 m.

#### **Characteristics:**

- Temperature conditions: class N (-25 to 55°C).
- Type S (with electrode extension).
- Electrode extension diameter: 14 mm.
- Power supply: 1 standard 9 V battery 6LR61.
- Network frequencies: 50 and 60 Hz.
- Contact electrodes fitted by screwing and easily interchangeable.
- Packaging: supplied in a carrying bag with zip (930 mm x 200 mm) and transparent side pocket (CM-1-10).
- CE marking complies with EMC immunity regulations.

Reference	Characte-	>	<b>←→</b>	ĝ
	ristics	Frequency	(m)	Weight
CC-965-10/30	With stick and probe	10 - 30 kV	Length: 1.55 m Diameter: 59 mm	850
CC-965-5/15	With stick and probe	5 - 15 kV	Length: 1.45 m Diameter: 59 mm	820
CC-965-5/15-C	With probe	5 - 15 kV	Probe length: 590 mm	530
CC-965-10/30-C	With probe	10 - 30 kV	Probe length: 690 mm	530
CC-965-10/30-K	With probe	10 - 30 kV	Probe length: 690 mm	530

#### Accessories

Reference	Characteristics		
M-78723	Plastic carrying case		
CM-1-10	Canvas bag		





## **BENEFITS**

- 360 ° light indication.
- Delivered in a waterproof canvas bag.
- With insulating stick.



#### MV-HV NON-CONTACT VOLTAGE DETECTORS



#### NON CONTACT VOLTAGE DETECTOR



#### **Application:**

Non-contact voltage detector, voltage range from 3 to 765 kV. Ultra-compact, switchless series for indoor and outdoor use.

#### Features:

Nominal network range: 3-765 kV. Precise and stable operating threshold.

Reduced sensitivity to induced voltages and to interference field.

Temperature conditions: class N (-25 to 55°C). Power supply: 1 standard 9 V battery 6LR61.

Network frequencies: 50 and 60 Hz.

Switchless device to ensure permanent operator safety.

Reference	$\wedge$	g
	Voltage range	Weight
CN-7-003-012-K	3 kV to 12 kV	300
CN-7-005-036-K	5 kV to 36 kV	300
CN-7-010-036-K	10 kV to 36 kV	300
CN-7-011-066-K	11 kV to 66 kV	300
CN-7-066-410-K	66 kV to 410 kV	300
CN-7-220-500-K	220 kV to 500 kV	300
CN-7-315-765-K	315 kV to 765 kV	300



IEC 61326-1  $\epsilon$ 

## **BENEFITS**

- High environmental resistance (impacts, vibrations, moisture) due to robust thermoplastic housing.
- Approximate detection distances (varying with the environment): 150 mm min (11 kV) to 700 mm min
- 360° light indication.
- Self test function.

#### **DISTANCE LIVE-LINE ALARM**

#### **Application:**

- ALED3 is an additional device ensuring safety to the operator within live powered environments warning him about a risk of danger.
- Improved safety of the operator: presence of an electric field (1kV to 66 kV) as identified by a sound and visual warning.
- Flexibility: 360° detection sensor depending on the position of the device which can be installed in different ways (on a helmet, on the arm, on the belt, on the body).
- Easy to use : compact and light with an in-built antenna.

#### **Caracteristics:**

- The alarm is automatically triggered when the operator approaches an electric field and turns off when he moves away from the source.
- 360° detection according to the positioning of the device which has multiple fixing possibilities (helmet, arms, belt, body).
- Compact and light with integrated antenna.
- Sound intensity: 75 dB - Response time : < 1 s.

Reference	2	$\wedge$	(mm)	ĝ
	Voltage	Frequency	Dimensions	Weight
ALED3	1 - 66 kV	1 - 60 Hz	66 x 56 x 39	85



EN 61326-1:2013 EN 63211-1:2008 📯











## **EARTHING CONNECTIONS**







The MX-430-M allows the measurement of earth resistance and earth specific resistivity and also the parasite voltages caused by grounding parasitic voltage presence.

This equipment is suitable for fast and easy measurement of the grounding resistance in home, industrial buildings, substations,...

#### **Technical features**

- Application: measurement of grounding resistances (with 3 earth rods), earth resistivity (with 4 earth rods) and parasite voltage presence.
- Range of measurement: 0 20  $\Omega$  ; 0-200  $\Omega$  ; 0-2000  $\Omega$ and 20 K $\Omega$ .
- Voltmeter: voltmeter function in AC range as a conventional voltmeter 0-200 V AC.
- Operation frequency: 1470 Hz.
- Current in and out put power: less than 0.5 W and the output current is limited to less than 15 mA (peak to peak).
- Operation temperature: -10°C / +50°C.
- Storage temperature: -25°C / +65°C.
- Humidity: 95% RH (non-condensing).

#### **Composition**:

- 230 V charger.
- 12 V car charger plug and cable.
- Protection case, robust and waterproof.
- Carrying bag.

Reference (mm)		kg
	Dimensions	Weight
<b>MX-430-M</b> 221 x 189 x 99		2





























## BENEFITS

- High visibility 3 1/2 digit display with direct readings, even under sunlight.
- · Connexion wire including a 12 V car plug.
- Rechargeable internal battery managed by a microprocessor which modulates the load current as per the status of the battery, thus increasing battery life and the service life of the device.



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## **EARTHING CONNECTIONS**



## **ACCESSORIES (MEASUREMENT KIT) MX-433-T**

- 1 storage bag.
- 4 earth rod copper platted steel.
- 1 x 5 m black cable.
- 1 x 40 m red cable.
- 2 x 20 m cable (1 blue and 1 green).
- 1 x 5 m green cable to connect to the grounding system.
- 1 hammer.
- 1 x 50 m reel measure tape.

Reference	(mm)	kg
	Dimensions	Weight
MX-433-T	570 x 220 x 160	7.7







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