



CATENARY RAILWAY ENGINEERING

ADVANCED SOLUTIONS FOR RAIL INFRASTRUCTURE MAINTENANCE AND SAFETY



EN 2026



PENTA





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PERSONAL PROTECTIVE EQUIPMENT EQUIPMENT

04-07 HEAD AND EYE PROTECTION

08-14 HAND PROTECTION

15-17 ARC FLASH PROTECTION
FOOT PROTECTION

18 EMERGENCY EQUIPMENT

19-20 WORK AT HEIGHT





/ S951SAFE / S952SAFE

1 OR 2 LED HEADLAMP ANSI FL1 / CEI 62471

Advantages

- **Versatility** : easily clips onto E-Shark or other helmets equipped with a plate ref : CASADH, on a pocket or on any pocket or on any flat surface.
- **Practical** : it can be oriented vertically 180° thanks to a precise adjustment by notch.
- **Safety** : electronic protection of the LEDs w(if polarity is reversed).



/ USE

Headlamp with 1 or 2 LEDs, which offers a homogeneous and panoramic light, 90° upwards and 90° downwards.

/ TECHNICAL SPECIFICATIONS

- Wide and uniform beam with 2 or 3 light levels.
- A shock-proof and equipped with an anti-ignition device with on/off locking.
- Resistant to hydrocarbon splashes and corrosive liquids.
- Éprotection : IP 54, weatherproof (rain, snow...) and dustproof.
- Adjustable, hypoallergenic elastic headband.
- Supplied with 3 round alkaline batteries LR03 AAA 1.5 V.
- Delivered with 4 hooks to fix the headband on the helmets.
- Made in France

Reference	Light output	Lighting distance (m)	Battery life
S951SAFE	10 - 22 - 41 lumens	12 - 18 - 25	89 h - 18 h
S952SAFE	71 - 212 lumens	25 - 91	24 h - 8 h



PERSONAL PROTECTION HEAD AND EYE PROTECTION



/ VISARC

CASQUE POUR ÉLECTRICIENS AVEC ÉCRAN FACIAL ANTI-ARC ÉLECTRIQUE INTÉGRÉ

| V1-BK-...

APC 1 | 4kA/0,5s Protection

Colorless face shield



| V2-12-LPP-BK-...

APC 2 | 7kA/0,5s Protection

ATPV 12 cal/cm²

Light grey tint face shield



| V2-25-LPP-BK-...

APC 2 | 7kA/0,5s Protection

ATPV 25 cal/cm²

Light grey tint face shield



VIDEO |

Watch the VISARC presentation video on our YouTube page or by scanning the QR code opposite.



BROCHURE |

To learn more about VISARC, consult its technical data sheets and brochure or scan the QR code opposite.



MANUAL |

Don't forget to check the VISARC user manual by scanning the QR code opposite.



/ NORMES

Helmet
EN 397, EN 50365 (Classe 2)

Face shield
GS-ET-29, ASTM F 2178, EN ISO 16321 (EN 166, EN 170)

Helmet + face shield : Arc-flash Protection
IEC 62819 according 2 méthodes
Box test and Open arc

CE 0161

*Our helmets are systematically delivered with a Black (BK) full crest, clipped onto the helmet. If you wish to complete it with a crest of another color, simply add one of the following codes to the end of the helmet reference:

W (White) = White	B (blue) = bleu
R (Red) = Red	O (orange) = orange
Y (Yellow) = Yellow	
G (Green) = Green	

The colored crest will then be added to the packaging box

/ FEATURES

Helmet

- Double shell for optimum protection against electrical and Arc-Flash risks. In ABS material.
- 6-point textile harness, with wide sweatband, and very precise adjustment of the ratchet knob with push-pull system
- Head size (cm) : 53-63
- 4-point chin strap, with quick release closing and opening system. Easy to use with insulated gloves.

Face shield

- Ergonomic, polycarbonate material.
- Optical quality (Class 1), for extended wear, without deformation, and without visual fatigue.
- Resistant to molten metals (symbol 9).
- Resistance to particles launched at high speed (80m/s - symbol DT).
- UV resistance (index UL 1.2 for colorless face shield / UL 1.7 for tinted face shield).
- Inside : fog resistant (symbol N).
- Outside : Scratch resistant (symbol K).

Lifespan : 5 years from start of use (after storage under recommended conditions for up to 3 years).



Dual-beam headlamp
VEA-1
Monoblock (integrated battery)



Dual-beam headlamp
VEA-2
auxiliary battery with red LEDs at the rear



Dual-beam headlamp
VEA-3
with personal alarm and auxiliary battery with red LEDs at the rear

/ MULTIBEAM HEADLAMP

Dual beam: long range beam and broad beam with various lighting modes and intensity levels.
Light intensity : up to 250 lumens.
Lighting distance : up to 20/30 m for the long-range beam.
Lamp autonomy : up to 100 hours (active detection)



YOUR CUSTOMIZED PROTECTION WITH OUR CONFIGURATOR

01 I CHOOSE MY FLASH ARC PROTECTION

Depending on my field of work, I choose one of the 3 models :

- APC1 (4kA/0,5s)
- APC2 (7kA/0,5s et ATPV 12 cal/cm²)
- APC2 (25 Cal/cm²)

03 I CHOOSE MY CREST COLOUR

Thanks to a choice of colours, you can personalise the full crest of the helmet with the colour that suits you best :



Black White Red Yellow Green

(standard)

05 I CHOOSE TO CUSTOMIZE

I can highlight my company name

There is a dedicated space on the front of the helmet

02 I CHOOSE MY ON-BOARD ELECTRONICS

Depending on my needs, I equip my helmet with :

- 1 headlamp (with integrated battery)
- 1 headlamp + 1 battery with red LEDs at the rear
- 1 headlamp + 1 battery with red LEDs at the rear + 1 personal alarm at the rear

04 I CHOOSE MY ACCESSORIES

I add the right accessories to my helmet :

- Neck protector : NA-NECK
- Retro-reflective strips : VA-REFLECT
- Ear muffs : TC42AB



Our teams have created a configurator that allows you to simulate and select the different options and versions of your future helmet VISARC

To access the configurator, go to the «Multimedia» tab on our website.

www.pentaesp.com

/ HELMETS DELIVERED WITH:



Individual carton



Carrying bag



Microfiber wipe





PERSONAL PROTECTIVE EQUIPMENT
INSULATING GLOVES AND ACCESSORIES
HAND PROTECTION

/ GLE

BEIGE LATEX INSULATED GLOVES CE
CATEGORY : III IRREVERSIBLE RISKS EN
60903 : 2004 ELECTRIC PROTECTION

Advantages

- Wide range of sizes from 6 to 12, depending on the class.
- Shaped glove with lightly powdered interior for easy donning and doffing.
- The natural rubber structure provides high dielectric properties.
- Its thickness protects while ensuring excellent dexterity.

/ USE

Insulating rubber gloves available in all classes, many sizes, different lengths and colors.
 Leather protectors are recommended to be worn over Electrovolt gloves to ensure mechanical protection (local regulations, work practices and risk analysis apply).
 The natural rubber provides high dielectric protection.
 The ergonomic shape and lightly powdered interior make the Electrovolt gloves easy for donning and doffing.

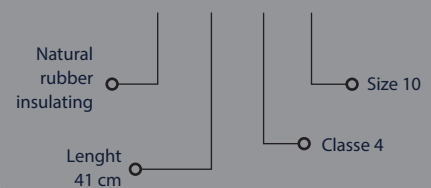
/ TECHNICAL SPECIFICATIONS

- Main color : Beige
- Max voltage use : Alternative (V AC).
- Coating material : Latex
- Coating finition : Smooth
- Coating material and finition : Smooth latex.
- Number of layer : Single layer
- Electrical gloves cuff characteristic : Not bypassed.
- Percentage of product weight made from recycled material (%) : 0
- Percentage of recycled material in the packaging (%) : 30



Meaning of the references

GLE41 - 4 / 10



Ref	Classe	Max. operating voltage	Lenght (cm)	Category	Size
GLE36-00*	00	500 V AC	36	AZC	6 à 12
GLE36-0*	0	1 000 V AC	36	AZC**	7 à 12
GLE36-1*	1	7 500V AC	36	RC	7 à 12
GLE36-2*	2	17 000 V AC	36	RC	8 à 12
GLE36-3*	3	26 500 V AC	36	RC	8 à 12
GLE41-4*	4	36 000 V AC	41	RC	8 à 12

Complete the reference with the desired size. **Contact us.
 Contact us for the red or black latex range, and for the 41 cm length.



/ GICN

COMPOSITE INSULATING GLOVES CE
CATEGORY : III IRREVERSIBLE RISKS
EN 60903 / CEI 60903

Advantages

- Gloves with enhanced mechanical protection, eliminating the need for leather overgloves.
- Made from high-performance polymer blends combining mechanical, chemical, and dielectric resistance.
- Specially formulated outer coating ensures exceptional grip, even in wet or greasy conditions.
- Complete range with all classes up to Class 4.
- Pair of cotton underglove mittens, supplied with each pair of insulated gloves, allow for sweat absorption and improved hygiene, while maintaining dexterity.

/ USE

Bicolor composite gloves available in all classes, many sizes, different lengths.

Integrated mechanical protection : no need of leather protector.
To work in complete safety without leather gloves. Pair of cotton fingerless gloves, delivered with each pair of insulating gloves, allowing sweat absorption and better hygiene, while preserving dexterity.

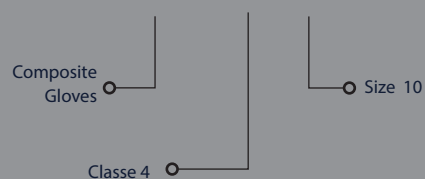
/ TECHNICAL SPECIFICATIONS

- Main color : Red
- Max voltage use : Alternative (V AC)
- Coating material : Latex
- Coating finition : Grip-textured
- Coating material and finition : Latex double layer
- Number of layer : Double Layer.
- Electrical gloves cuff characteristic : Not bypassed.
- Percentage of product weight made from recycled material : 0%



Meaning of the references

GICN - 4 / 10



Ref	Classe	Max. operating voltage	Lenght (cm)	Category	Size*
GICN36-00*	00	500 V AC	36	RC	7 à 12
GICN-BT/*	0	1 000 V AC	41	RC	7 à 12
GICN-1/*	1	7 500V AC	41	RC	7 à 12
GICN-2/*	2	17 000 V AC	41	RC	8 à 12
GICN-3/*	3	26 500 V AC	41	RC	8 à 12
GICN-4/*	4	36 000 V AC	41	RC	8 à 12

* Complete the reference with the desired size.

Reminder : Insulating gloves must be stored in their original anti-UV bag for their entire lifespan.



PERSONAL PROTECTIVE EQUIPMENT
INSULATING GLOVES AND ACCESSORIES
HAND PROTECTION

/ AFG

COMPOSITE INSULATING GLOVES WITH ARC FLASH PROTECTION
CE CATEGORY : III IRREVERSIBLE RISKS
EN 60903 / CEI 60903

Advantages

- 3 protections in 1 glove : dielectric, mechanical and thermal protection.
- Special formula outer coating provides an exceptional grip even in wet conditions.



/ USE

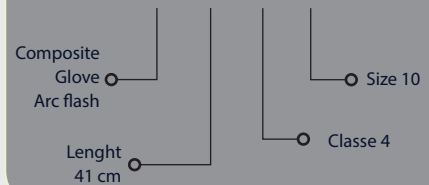
Bicolor composite gloves available in many sizes and different lengths.
 Integrated mechanical protection : no need of leather protector.
 Arc flash rated by a third party notified body: box test and ATPV.
 To work in complete safety without leather gloves.

/ TECHNICAL SPECIFICATIONS

- Main color : Red
- Max voltage use : Alternative (V AC)
- Coating material : Latex
- Coating finition : Smooth
- Coating material and finition : Latex double layer
- Number of layer : Double Layer
- Electrical gloves cuff characteristic : Not bypassed
- Percentage of product weight made from recycled material (%) : 0

Meaning of the references

AFG 41- 0/10



Reference	Classe	Max. operating voltage	Lenght (cm)	ATPV	Size
AFG36-00/*	00	500 V AC	36	26.3 Cal/cm ²	6 à 12
AFG36-0/*	0	500 V AC	36	71.6 Cal/cm ²	6 à 12
AFG41-0/*	0	1 000 V AC	41	71.6 Cal/cm ²	6 à 12
AFG41-1/*	1	7 500V AC	41	42.2 Cal/cm ²	7 à12
AFG36-2/*	2	17 000V AC	36	74.5 Cal/cm ²	6 à12
AFG41-2/*	2	17 000 V AC	41	74.5 Cal/cm ²	7 à 12
AFG36-3/*	3	26 500 V AC	36	73.2 Cal/cm ²	6 à 12
AFG41-3/*	3	26 500 V AC	41	73.2 Cal/cm ²	8 à 12
AFG41-4/*	4	36 000 V AC	41	87.7 Cal/cm ²	8 à 12

*Complete the reference with the desired size. **Contact us.



/ RGX-SC

LEATHER OVER GLOVES FOR MECHANICAL PROTECTION LATEX GLOVES CE MARKING / EN 420 / EN 388 (WITH MECHANICAL RESISTANCES: ABRASION 2 - CUT 1 - TEAR 2 - PUNCTURE 2) / EN 407: 4XXXX



Advantages

- Complete range of overgloves consisting of 6 sizes designed according to the class and size of the latex glove.
- Water-repellent properties.

/ USE

Leather gloves recommended for use over insulating rubber gloves to provide mechanical protection.

/ TECHNICAL SPECIFICATIONS

- Five-finger gloves made of full-grain cowhide leather, water-repellent and silicone-coated for improved flame resistance.
- Webbed thumb, 100 mm split leather cuff, tightening strap on the back of the hand with a hook and loop fastener.

		Latex Glove Class (RGX-SC)					
		00	0	1	2	3	4
Size (RGX-SC)	7	A	A	B	B	N/A	N/A
	8	B	B	C	C	E	E
	9	B	B	C	C	E	E
	10	C	C	D	E	F	F
	11	D	D	E	F	G	G
	12	E	E	F	G	G	G

Ref.	Size
RGX-SC A	A
RGX-SC B	B
RGX-SC C	C
RGX-SC D	D
RGX-SC E	E
RGX-SC F	F
RGX-SC G	G



/ G86

WHITE COTTON GLOVES OR GLOVE LINERS

/ USE

To be used under the insulating rubber gloves to improve comfort (sweat absorption mainly).

/ TECHNICAL SPECIFICATIONS

- Knitted cotton sewn with attached thumb.
- One size.



PERSONAL PROTECTIVE EQUIPMENT
INSULATING GLOVES AND ACCESSORIES
HAND PROTECTION

/ EOS
PNEUMATIC TESTER FOR INSULATING GLOVES

Advantages

- Several diameters availables.
- Ultra simple fixing : By simply winding the elastic cord and blocking it with a slot.
- Magnet option : for fixing on metal surface.
- Space-saving storage position.
- Infographed instruction sheet.



/ USE

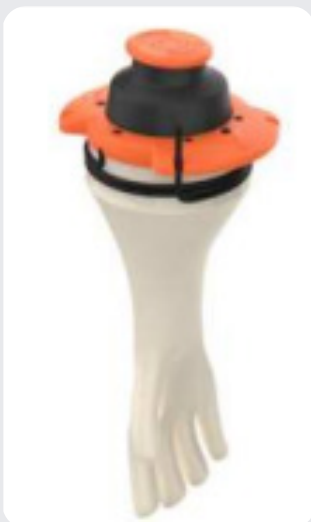
Recommended for field inspection before/ after each use, but also for periodic visual inspection. It allows to check the entire surface of a glove, including the sleeve (according to the recommendations of EN 60903 and IEC 60903).

/ TECHNICAL SPECIFICATIONS

- Anti-UV treated ABS material body.
- Bellows in NBR.
- Depressurization button : For a controlled deflation.
- Removable ring Ø 150mm in EPDM.
- Delivered with fabric bag in cardboard box 210 x 160 x 160 mm.

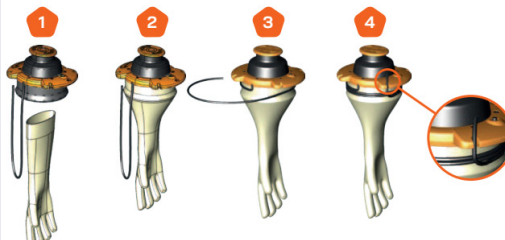
Reference	Version	With magnet	Weight (g)
EOSE9030	Diameter 100 mm for Touch-E gloves	no	290
EOSEM9030	Diameter 100 mm for Touch-E gloves	yes	290
E059030	Diameter 130 mm (EN/CEI 60903 gloves)	no	345
EOSM9030	Diameter 130 mm (EN/CEI 60903 gloves)	yes	345

*Legislation: Neodymium magnets are not intended for export to the United States, Canada, or Japan. Therefore, the direct or indirect export of the magnetic versions of this tester to these countries is strictly prohibited. The magnetic versions are subject to LATA regulations.



COMMENT UTILISER L'EOS ?

FIXATION ULTRA-SIMPLE
 Par simple enroulage du cordon élastique, blocage par «coinceur»



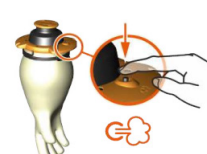
PRESSURISATION

• par pressions successives sur le poussoir supérieur.
 • gonflage facilité grâce aux deux oreilles latérales assurant un bon maintien



DÉPRESSURISATION

Par bouton spécialisé, dégonflage maîtrisé





/ RGX-BGT

STORAGE BOX FOR INSULATING GLOVES

Advantages

- Transparent window (with UV filtering) allows you to check the presence of gloves in the box.
- Large interior volume suitable for storing gloves, overgloves, and a bottle of talcum powder.
- Integrated, retractable handle.
- Information pictogram on the front window.



/ USE

This glove storage and protection box can be used either :

- Wall mounting for electrical substation
- Portable box (thanks to its retractable handle)

/ TECHNICAL SPECIFICATIONS

- Made entirely of plastic.
- Can hold gloves from class 00 to 4, leather overgloves, and a bottle of talcum powder.
- Equipped with 4+4 pre-drilled holes for wall mounting (drilling dimensions indicated).

Ref.	Size (mm)	Weight (g)
RGX-BGT	500 x 250 x 100	1100



/ RGX-SAC

CANVAS STORAGE BAG FOR ELECTRICIAN'S GLOVES

Advantages

- No sharp or pointed edges in contact with gloves.

/ USE

Case designed for transporting insulating gloves for mechanical and light UV protection.

/ TECHNICAL SPECIFICATIONS

- PVC-coated polyester fabric, polypropylene strap.
- 1 compartment with flap and snap closure including :
 - 1 transparent flat pocket on the back of the compartment for instructions.
 - 1 open side pocket for a talcum powder bottle.
 - 1 loop on the back for attaching to a harness or belt, incorporating a plastic carabiner.

Ref.	Size (mm)	Weight (g)
TS10	17.5 x 41 x 7.5	150



/ TS10T

TALCUM BOTTLE

/ TECHNICAL SPECIFICATIONS

- Talc packaged in a powder bottle with a retractable spout and cap.
- Specially designed to fit BGT boxes and TS10 bags.

Ref.	Capacity (g)	Weight (g)
TS10T	50	70



PERSONAL PROTECTIVE EQUIPMENT
INSULATING GLOVES AND ACCESSORIES
HAND PROTECTION

/ TOUCH-E

INSULATING GLOVES CLASS 0 EN 60 903
CLASS 0 EN 388 : ABRASION 1, CUT 1,
TEAR 2, PERFORATION 1 IEC 61482-1-2 :
CLASS 1 – 4KA

1000 V AC / 1500 V DC
 protection for high voltage
 vehicles

Class
0

SHAPE
 respects the anatomy of the
 hand at rest, limiting fatigue
 and ensuring excellent
 dexterity

CHLORINATION
 easy donning

GRIP
 Better grip on tools
 and small parts

THICKNESS
 30% thinner than
 traditional gloves

3-IN-1 A STANDARDIZED APPROACH



Electrical hazard
 EN 60 903 Classe



Mechanical hazard
 EN 388 : abrasion 2 cut 1,
 tear 2, puncture 1



Arc flash hazard
 IEC 61 482-1-2
 Class 1 – 4KA

/ USE

Our range of insulating gloves for live working is manufactured in France on a site with ISO 9001 : 2015 certification. Control over the entire manufacturing operation guarantees very high quality standards.

/ TECHNICAL SPECIFICATIONS

• Touch-E gloves are made of natural rubber, which has excellent dielectric properties. Thanks to their chlorinated finish, they are easy to wear.

Ref.	Class	Max operating voltage	Length (cm)	Size	CEI61482-1-1	CEI61482-1-2
JF036-0/07	0	1000 V AC / 1500 V DC	36	7	12 cal/cm	APC1
JF036-0/08				8		
JF036-0/09				9		
JF036-0/10				10		
JF036-0/11				11		



/ RBCL4

INSULATING MAT CEI 61111 : 2009

Advantages

In addition to personal protective equipment, the insulating mat isolates the operator from the ground to prevent electric current from passing through the body in the event of direct contact or step voltage.

The selection of the mat class depends on the nominal network voltage, in accordance with Annex A of CEI 61111 (published by the Commission électrotechnique internationale), as well as the conditions specified in Annex B.

Simple rules for use and maintenance, also described in Annex B of CEI 61111, must be followed. This information is indicated on each mat by means of a marking strip. The class color is shown on this strip and complies with the color code defined by the Commission électrotechnique internationale.

Non-slip surface on both sides

Elastomère

Conditions of use printed on the mat



/ RBCL0

INSULATING MAT CLASS 0

MAX OPERATING VOLTAGE : 1 000 V AC

MATERIAL : GRAY ELASTOMER

- Ultra-light mat facilitating daily low-voltage interventions

Ref.	Size (m)	Weight (kg)	Labeling (m)
RBCL0 600X600	0.6 x 0.6	1.8	36
RBCL0 600X1000	0.6 x 1	1.84	
RBCL0 1000X1000	1 x 1	3	
RBCL0 1000X10000	1 x 10	30	

/ RBCL2

INSULATING MAT CLASS 2

MAX OPERATING VOLTAGE : 17 000 V AC

MATERIAL : GRAY ELASTOMER

Ref.	Size (m)	Weight (kg)	Labeling (m)
RBCL2 600X100	0.6 x 1	2.4	36
RBCL2 100X1000	1 x 1	3.9	
RBCL2 1000X1000	1 x 10	39.8	

/ RBCL3

INSULATING MAT CLASS 3

MAX OPERATING VOLTAGE : 26 500 V AC

MATERIAL : GRAY ELASTOMER

Ref.	Size (m)	Weight (kg)	Labeling (m)
RBCL3 600X1000	0.6 x 1	2.9	36
RBCL3 1000X1000	1 x 1	4.8	
RBCL3 1000X10000	1 x 10	48	

/ RBCL4

INSULATING MAT CLASS 4

MAX OPERATING VOLTAGE : 36 000 V AC

MATERIAL : GRAY ELASTOMER

Ref.	Size (m)	Weight (kg)	Labeling (m)
RBCL4 1000X1000	1 x 1	7.5	36
RBCL 100X10000	1 x 10	75	

/ TN05R - TN10R

INSULATING SHEET 3/10 MM IEC 61112 CLASS 0 (1000 V)

/ USE

Soft transparent sheet, for insulating during work in progress by covering over bare conductors or insufficiently insulated conductors on a LV network.

/ TECHNICAL SPECIFICATIONS

- Material : insulating fireproof PVC film.

Ref.	Length (m)	Max operating voltage	Thickness	Width (m)	Weight(kg)
TN05R	12.5	1 000 V AC	3/10 e	1.3	0.70
TN10R	25		3/10 e	1.3	1.39





/ AFHVO-7

CLASS 1 HIGH VISIBILITY ARC FLASH, ATPV 8 CAL/CM² JACKET
- PANTS OR COVERALL

Advantages

- Suitable for areas with explosive atmospheres (ATEX).
- Good resistance to wear and tear.
- The suit's double zip allows for quick donning.

/ USE

Protection against the thermal effects of an electric arc. For operators against the risks associated with working on electrical networks. High-visibility clothing to ensure visibility in dangerous conditions, day and night.

/ TECHNICAL SPECIFICATIONS

AFHVO-VES7 :

Description : Stand-up collar, non-metallic zipper with storm flap, 1 chest pocket with flap closure, 1 internal chest pocket with closure, 2 lower pockets, 2 loops for gas detector and dosimeter, gusseted cuffs with closure, long back, 50 mm wide retroreflective strips, visible regulatory pictograms on the garment.

AFHVO-PAN7 :

Description : Button-fastened waistband, elasticated sides, non-metallic zipper fly, 2 front pockets, 2 thigh pockets with flaps, knee pad pockets (EN 14404), raised back, 1 back pocket with flap closure, 50 mm wide retroreflective strips, visible regulatory pictograms on the garment.

Ref.	Designation	Size
AFHVO-VES7	Arc Flash combination, APC1, ATPV 8.8 cal/cm ² and ELIM 7.9 cal/cm ² .	XS à 3 XL
AFHVO-VES7	Arc Flash jacket, APC1, ATPV 8.8 cal/cm ² and ELIM 7.9 cal/cm ² .	XS à 3 XL
AFHVO-PAN7	Arc Flash pants, APC1, ATPV 8.8 cal/cm ² and ELIM 7.9 cal/cm ² .	XS à 3 XL
GENPOLY	Pair of polyethylene knee pads.	





/ TC55

LIVE WORKING BOOTS WITH INSULATED SOLES
EN ISO 20345 : 2011 / ASTM F2412

Advantages

- Great comfort : low-cut back, soft leather.
- Entirely non-metallic, lightweight, and balanced.
- Quick-release side zip and quick-lacing at the top of the upper.
- Protective toe cap and reinforced seams.
- Technical, studded sole with a stepped heel, ideal for working on ladders and pylons.



/ USE

Insulating sole shoes for live work, protects against ground voltage during a phase/earth fault more than one meter from the support, on networks up to 20 kV. Use limited to dry environments.

Ref.	Height (cm)	Size	Weight (kg)
TC55	24	39 à 47	1

/ TECHNICAL SPECIFICATIONS

- Sole :
 - Textile antiperforation midsole 1430 N.
 - PU/PU sole
 - High resistance to extreme heat (>300°C).
 - Heel grip : 18 mm/0,71 inch
 - Tested up to 6 KV regarding technical specification HTA 70 A from EDF.
- Upper :
 - Composite toe cap 240 J.
 - Full grain leather, water & oil resistant.
 - Waterproof tongue.
 - Thinsulate lining: breathable and great insulation fabric.



/ C20-ISOL

SAFETY FOOTWEAR, WITH INSULATING SOLE
TESTED UP TO 20 KV EN ISO 20345 / ASTM 2413 /
MARQUAGE SB P HRO EH SRA

Advantages

- Ergonomic fit.
- Entirely non-metallic models.
- Sole dielectric properties up to 20 kV.

/ USE

Protection against step voltage. For electrical maintenance, on the network and in all types of industry. Insulated sole for use in dry environments.

/ TECHNICAL SPECIFICATIONS

- Low-cut upper in water-repellent full-grain leather, 2 mm thick.
- Highly breathable, three-dimensional micro-ventilated lining.
- Removable, anti-static, anti-bacterial insole.
- PU/Nitrile sole, resistant to oils and hydrocarbons.
- Protective elements: - Non-metallic toe cap: 200 joules, non-magnetic, ultra-light, and insulated.
- Ultra-flexible, non-metallic anti-perforation sole.

Ref.	Designation	Size
C20B-ISOL	Low safety shoes, with insulating sole up to 20 KV	38 à 47
C20H-ISOL	High safety shoes, with insulating sole up to 20 KV	38 à 47

Complete the reference with the desired size.



/ TP12 INSULATING RESCUE POLE

/ USE

Pole used to rescue an injured worker. It allows the injured worker to be pulled into a protected area by hanging on to their waist.

/ TECHNICAL SPECIFICATIONS

- Test voltage over 300 mm : 100 kV.
 - Hook : 18 x 1.5 cm steel tube.
- TP12X includes the pole (Ref : TP12) with an adapter to accommodate a 5-36 kV flash detector (TDP536).

Ref.	Designation	Operating voltage (kV)	Total length without hook (m)	Length of the protected part (shaft) (mm)	Weight (kg)
TP1245KV	45 kV body pole with protective guard and hook	45	1.47	600	1.4
TP1290KV	90 kV body pole with protective guard and hook	90	1.97	600	1.7
TP12EC	45 kV body pole with hook and without protective guard	45	1.47	600	1.35
TP12SC225	225 kV body pole delivered without hook	225	2.25	600	1.95



/ TT015M ONE-PIECE INSULATING STOOL 24 KV

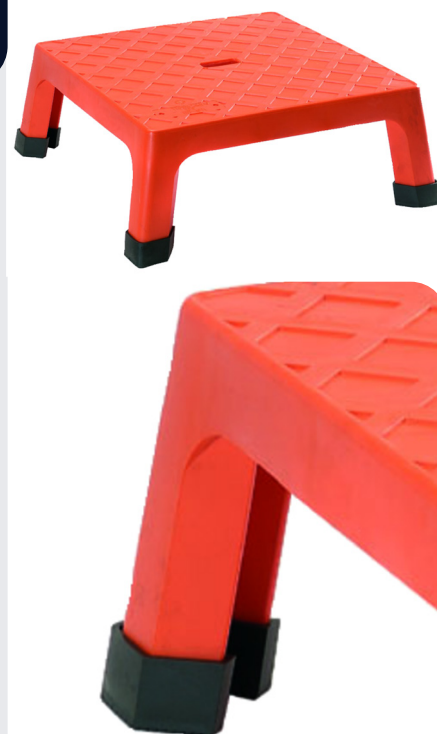
/ USE

Used for the isolation of an agent carrying out 1st category work or maneuvers, of 2nd and 3rd category separation devices with manual control (disconnectors, etc.).

/ TECHNICAL SPECIFICATIONS

- Stool with non-slip top.
- Insulating, slanted solid PVC feet protect the platform from any contact with a vertical wall.
- Our stools come with non-slip pads.
- Fixed legs : a one-piece assembly

Ref.	Designation	Operating voltage kV	Height under platform (mm)
TT015M24KV	Insulating stool 24 kV	24	150
TT015M36KV	Insulating stool 36 kV	36	237
TT015M45KV	Insulating stool 45 kV	45	237





/ K320H1A

KIT MONTEUR AVEC PERCHE/CONNECTEUR ANCRAGE TÊTE DE POTEAU

Ref.	Designation
K320H1ATM	Network fitter harness, automatic buckles size M-XL
K320H1AGT	Network fitter harness, automatic buckles, size XXL

Content	Designation
H1A	Comfort harness (size M/XL or XXL) with automatic buckles
LT1200	2 m work positioning lanyard
AMD120	Mobile fall arrester that can be opened with a connector on a 20 m halyard
ANS2120	Anchor ring 1.20 m
PPOL6/075M10	Insulating telescopic pole 7.70 m
EI-CI85	Insulated hook with screw tip
CI85	83 mm insulated anchor connector
H195	Carrying bag length 1,95 m



/ K340H1A

CATENARY KIT

Ref.	Designation
K340H1ATM	Catenary kit size M/XL
K340H1AGT	Catenary kit size XXL

Contenu	Designation
H1A	Comfort harness (size M/XL or XXL) with automatic buckles
LT1200	2 m work positioning lanyard
AMD110	Mobile fall arrester that can be opened with a connector on a 20 m halyard
TS75	Carrying bag



PERSONAL PROTECTIVE EQUIPMENT WORK AT HEIGHT



/ G22 CLIMBING IRONS

/ USE

Climbing irons for metal towers and profiled supports.

/ TECHNICAL SPECIFICATIONS

- Steel climbing irons with adjustable jaws from 5 to 20 mm.
- Climbing irons with a replaceable forged buckle guard rubber pad and leather straps.

Ref.	Model	Profiles (mm)	Dimensions (mm)	Weight (kg)
G22F	Positioning at the front of the profile	5-20	235 x 110 x 80	3.7
G22L	Positioning on the side of the profile	5-20	300 x 120 x 80	4.8

Content	Designation
G22B	Set of 4 replacement rubber pads for G22F and G22L
G22SF	Set of leather straps for G22F
G22SL	Set of leather straps for G22L

/ G21 CLIMBING IRONS WITH GAFFS FOR WOODEN POLES

/ USE

Climbing irons designed especially for electricity companies and contractors.

/ TECHNICAL SPECIFICATIONS

- Treated forged steel climbing irons with forged buckles and leather belts.
- Six solid forged gaffs.

Ref.	Pole climbers opening (cm)	Nombre de point	Dimensions (mm)	weight (kg)
G2125	25	6	370 x 200 x 170	2.7
G2130	30	6	370 x 200 x 170	3.0
G2135	35	6	370 x 200 x 170	3.2

/ ACCESSORIES

Content	Designation
S22	Set of leather straps supplied with rivets

- 1- Flat footrest soles for good support.
- 2- Premium riveted chrome leather straps.
- 3- Forged points from solid wood. Forging ensures good material health
Sharpened points for better penetration.

SECURE

- 22-33** VOLTAGE DETECTOR
- 34-43** WORKSITE MANAGEMENT
- 44-49** SHORT-CIRCUITED.





SECURE
VOLTAGE DETECTOR

VATDCC1500V

1500 V DIRECT CURRENT VOLTAGE DETECTOR

DESIGNED TO STANDARD CEI 61243-2
Bipolar direct current voltage detector.
Range 500 V - 3600 V DC



AVOIDS FALSE
NOMINAL VOLTAGE
DETECTION



PERMANENT CHECKING
OF THE EARTH LEAD



WARNING EXCESS VOLTAGE
RANGE (> 5000V) VISUAL
AND CONTINUES SOUND
INDICATION



DIRECT ACCESS TO THE BATTERY
AND SEALED ELECTRONICS
COMPARTMENT



OPTIMIZED INDICATION THAT CAN
BE UNDERSTOOD CLEARLY IN ALL
WORKING CONDITIONS



/ VATDCC1500V

VOLTAGE DETECTOR 750 V / 1500 V DC BI-IMPÉDANCE

SNCF Approval N° : DEO 19371

***Approval is only valid with the SNCF end fitting

- AVOIDS FALSE NOMINAL DC VOLTAGE DETECTION

- Double measurement circuit to discriminate nominal voltages from stray voltages coming from surrounding circuits

- PERMANENT CHECKING OF THE EARTH LEAD

- Permanent checking of the continuity of the earth lead.
- Warning of voltage range exceeded (>5000 V) by visual and audible indication.
- Limitation of the current flowing in the ground cable much lower than 3.5 mA.
- Device withstands overvoltage up to 36 kV.

- INSTRUCTIONS OPTIMIZED TO BE RECEIVED CLEARLY WHATEVER THE WORKING CONDITIONS

- The light indication is visible in all normal working environments, in sunny and foggy weather, with a wide angle of visibility.
- The audible sound signal is heard even in the presence of road traffic or strong wind.
- Functional check by self-test, including cable continuity and battery level check with low battery indication.



- Each indicator light is associated with a unique function for better understanding.

- THOUGHTFUL DESIGN

- Ergonomics of the rail-setting hand making it easier and safer to put it in place and remove it, whatever the type of rail.
- Robust housing with flexible decoupling adapter (AFLEX), several adapters available on request (U, APV & R, SNCF end fitting).
- Lock nut allowing the electrode to be locked in the desired position.
- Ergonomic button allowing pressing even with insulated gloves.

- DIRECT BATTERY ACCESS AND HERMETICALLY SEALED ELECTRONIC COMPARTMENT WHEN REPLACING THE BATTERY, THIS CONFIGURATION PREVENTS:



- To damage electronic circuits.
- Moisture from entering the device when changing the battery outdoors.



/ USE

Check for the absence of voltage on the railway network (Direct Current) before earthing. Impedance switching system for discrimination of the nominal voltage and thus avoiding false positive detections (untimely detection).

/ TECHNICAL SPECIFICATIONS

- Nominal voltage range : Un = 500 V to 3000 V DC.
- Double voltage indication, powerful sound and a flashing light indication.
- Presence of real DC voltage indicated by audible and flashing high-brightness **Red** LED.
- Bright **Orange** LED indication : presence of interference voltage (DC residual charge) or stray voltages coming from surrounding circuits (faulty insulators)
- Presence of induced alternative voltage indicated by high-brightness **Blue** LED.
- Auto-test OK and no voltage indicated by **Green** LED high-brightness.
- Self-check incorporated to ensure correct functioning of device in the field before and after use.
- Operating temperature : -25° to +55° C, humidity 20% to 96%.
- IP65 : 1st index = 6, Dustproof 2nd index = 5 = Waterproof.
- Outdoor use.
- Battery : 9 V alkaline CEI / IEC 6LR61
- Delivered in bag.
- Complet device approx.
- Height : 3,200 kg



Ref	Voltage range	End fitting	Packaging
DCC3600U	120 – 3600 V DC	Universal	Bag
DCC3600R		R	
DCC3600APV		APV	
VATDCC1500V	500- 3600 V DC	End fitting SNCF	



SECURE VOLTAGE DETECTOR

/ VAT1500VDCMD

1500 V DC VOLTAGE DETECTOR WITH REMOTE MEASUREMENT
SNCF Approval N° : MTP EO 16178

Advantages

- Result of the voltage detection signaled by LED lights and audible signal.
- Wireless transmission between the 1500 V detector and the ground measurement box for better reading.
- New angled handle to avoid pulling force on the cable.
- P-FIX connection (4NRJ patent) for rapid assembly with the SNCF catenary pole.
- Anti-ejection battery support (4NRJ patent) to prevent untimely interruptions of the device.



/ USE

These devices are used for no-voltage.
Testing of direct current overhead lines.

/ TECHNICAL SPECIFICATIONS

- Weight : 1.8 kg
- Tool equipped with a self-test.
- Data transmission via DC3600M module.

Measuring unit :

- Dimensions : 150 x 100 x 70 mm
- Weight : 0.4 kg

Equipped carrying case :

- Dimensions : 470 x 420 x 160 mm
- Weight : 6.3 kg

/ DC36

DC VOLTAGE DETECTORS, BIPOLAR FOR THE SPECIFICATIONS INVOLVED, DESIGN BASED ON IEC 61243-2 STANDARD

Advantages

- Rapid ground contact activation thanks to the magnetic handle.
- Flexible AFLEX tip protects the detector during emergency handling.
- Lightweight detector for improved handling.
- Protected against temporary overvoltages up to 36 kV AC.
- Discharge indicator.
- Electrode extension available upon request (ANTDC400).



/ USE

These devices are used for no-voltage testing of direct current overhead lines (mainly transport overhead lines : trams, metro, trains).

/ TECHNICAL SPECIFICATIONS

- Voltage range : 500 V - 3600 V DC
- Audible and visual voltage presence indicator (red LEDs).
- The current flowing through the detector cable is always below the standard danger threshold (3.5 mA).
- Designed to withstand temporary overvoltages up to 36 kV.
- Simplified DC36 model : Simple DC voltage detection from 500 V to 3600 V.
- Supplied in a 500 x 200 x 100 mm carrying case.
- Weight : 1.75 kg

Ref	Model	End fitting	Packaging
DC36H	Détection de tensions continues simple détection	U, APV ,B	Bag



/ DC36TROL

BIPOLAR DC VOLTAGE DETECTOR CEI 61243-2

Advantages

- Quick installation using a insulating pole.
- Lightweight detector for easy handling.
- Protected against temporary overvoltages up to 36 kV AC.
- Design adapts to varying conductor spacings (50 to 70 cm).



/ USE

This device allows you to check for the absence of DC voltage on overhead trolley installations.

/ TECHNICAL SPECIFICATIONS

- Voltage range : 500 V - 3600 V DC
- Audible and visual indication of voltage presence (red LEDs).
- The current flowing through the detector cable is always below the standardized danger threshold (3.5 mA).
- Designed to withstand temporary overvoltages up to 36 kV.
- Self-test function (test shunt provided).
- Supplied in a carrying case, dimensions : 500 x 200 x 100 mm
- Weight : 800 g

Ref	End fitting
DC36TROHR	DC36TROL detector with R tip type SNCF
DC36TROHU	DC36TROL detector with universal notched U-tip
DC36TROLHAPV	DC36TROL detector with APV tip
DC36TROLHB	DC36TROL detector with B bayonet tip



SECURE
VOLTAGE DETECTOR

/ MTAG

VOLTAGE DETECTOR BETWEEN 1 kV - 69 kV
 ⚠ CEI 61243-1 : NF EN 61243-1 : 2021 CE



• OPTIMAL SOUND INDICATION

The audible sound signal is heard even in the presence of road traffic or strong wind.



• OPTIMAL LIGHT INDICATIONS

The light indication is visible in all normal working environments, in sunny and foggy weather, with a wide angle of visibility and on the sides thanks to its light ring.



• DIRECT BATTERY ACCESS AND HERMETICALLY SEALED ELECTRONIC COMPARTMENT

When replacing the battery, this configuration prevents:

- Inadvertently swapping the case and electronics.
- Damage to the electronic circuits.
- Moisture from entering the device when changing the battery outdoors.



• FUNCTIONAL RELIABILITY

- Low battery voltage monitoring (orange indicator light).
- Latest-generation electronics.
- Calibration of detection thresholds based on actual voltage (HV).



/ USE

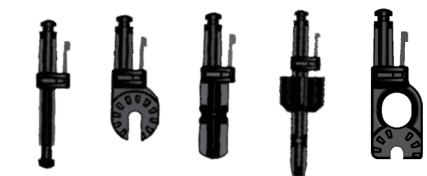
These voltage detectors are designed to verify the absence of nominal voltage in a circuit within a high-voltage system between 1 kV and 69 kV (Voltage Absence Verification):

- The device must detect any nominal voltage present on a network or in a substation.
- It prevents the detection of induced voltages, thus allowing for grounding operations..

/ TECHNICAL SPECIFICATIONS

- Voltage ranges from 1 kV to 69 kV
- Network frequency : 50 and 60 Hz.
- Permanent standby mode with automatic wake-up function.
- The presence of voltage within the calibrated range or above causes the **RED** indicator to light up and triggers the audible signal.
- The device's self-test OK («ready for use») is indicated by the **GREEN** indicator light.
- The self-test checks all circuits, the reference detection level, and the battery voltage.
- The self-test is automatically repeated for the duration of the «ready for use» state, indicated by the green indicator light (for 15 minutes).
- Low battery level is indicated by the dedicated **ORANGE** LED.
- Designed for outdoor and indoor use.
- Operating temperatures -25°C to +55°C
- Humidity 96% max.
- Power supply : 9 V alkaline battery, IEC 6 LR 61.
- Accepts the use of batteries with the same output voltage.
- Yellow polycarbonate housing.
- Dimensions : Ø 59 mm, L 280 mm without electrode.
- Net weight : 0.390 kg with pole adapter, without electrode.

/ ACCESSORIES
 INTERCHANGEABLE STICK ADAPTERS



ADVECAP* ADVECU* ADVECEAM* ADVECBV* ADVEUCR*
 * Other pole adapters available upon request.

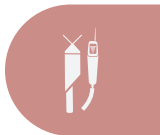
/ BAG

Offering the same level of electromagnetic protection as the metal enclosure



Ref	Voltage range	Frequency	Housing Colour	Stick Adapters*	Contact electrode	User Manuel**	Peckaging***
MTAG0104FHUA	1 - 4 kV	50 / 60 Hz	Yellow	Universel & APV	V56	Pack F	Bag
MTAG0310FUA	3 - 10 kV						
MTAG1036FHUA	10 - 36 kV						
MTAG2069FHUA	20 - 69 kV						
MTAG1036FHUA-FR	10 - 36 kV						

Pack F: User Manuel in FR/GB/DE/ES/PT/PL Puck G, User Manuel in GB/GR/BG/IT/NL/AR/TR.**» Metal case available on request



/ MTAG200BC

VOLTAGE DETECTOR FOR USE ON CAPACITIVE TERMINALS

/ USE

TAG200BC is designed to check presence or absence of nominal voltage on the voltage capacitive test points of elbows and cable terminals defined in standard NF C 33-051 of electrical installations with a nominal voltage between 3 kV and 36 kV.

- Its insulated and elbowed electrode allow removing, handling and re-placement the insulating caps on voltage capacitive test points.
- The elbow electrode has an universal end fitting for fixing and handling the detector at the end of an insulating stick adapted to the nominal voltage of the installation to be tested.

/ TECHNICAL SPECIFICATIONS

- AC voltage range possible choice from 3 to 36 kV.
- Network frequency : 50 and 60 Hz
- Type of installation : Indoor and outdoor.
- Very sturdy casing in yellow polycarbonate.
- Elbowed and insulated electrode.
- The self-test checks all the circuits, the reference detection level (threshold) and the energy source.
- Device operational, no nominal voltage.
- High-brightness green light.
- Detection of a nominal voltage : Flashing high-brightness red light and loud audible signal by buzzer.
- Climate class : N from -20°C to +50 °C.
- Power supply : 9 V alkaline battery -CE/IEC 6LR61
- Recommended insulated telescopic pole unfolded length : 1.10 m / 36 kV.
Folded length : 2.00 m / 90 kV
- Net weight : 0,450 kg

Reference	Voltage range	Frequency	Housing colour	End fitting	Packaging
200BC	10-30 kV	50 / 60 Hz	Yellow	Universel	Sacoche (320 x 100 x 75 mm)
200BC0615H	6-15 kV	50 / 60 Hz			
200BC1036H	10 - 36 kV	50 / 60 Hz			



SECURE
VOLTAGE DETECTOR

VAT25KVG2

VOLTAGE DETECTOR

⚡ IEC 61243-1 CE





/ KITVAT25KVG2

25 KV G2 AC VOLTAGE DETECTOR SET
STANDARD : IEC 61243-1 CE
SNCF Approval N° : AGT 25 449

Advantages

- P-FIX connection (4NRJ patent) for a quick and simple setting with SNCF pole.
- Antenna with two-layer fiberglass (wear indicator) with central electrode.
- PIVAT pole quickly unfolded.

• OPTIMAL SOUND INDICATION

The audible sound signal is heard even in the presence of road traffic or strong wind.



• OPTIMAL LIGHT INDICATIONS

The light indication is visible in all normal working environments, in sunny and foggy weather, with a wide angle of visibility and on the sides thanks to its light ring.



• DIRECT BATTERY ACCESS AND HERMETICALLY SEALED ELECTRONIC COMPARTMENT

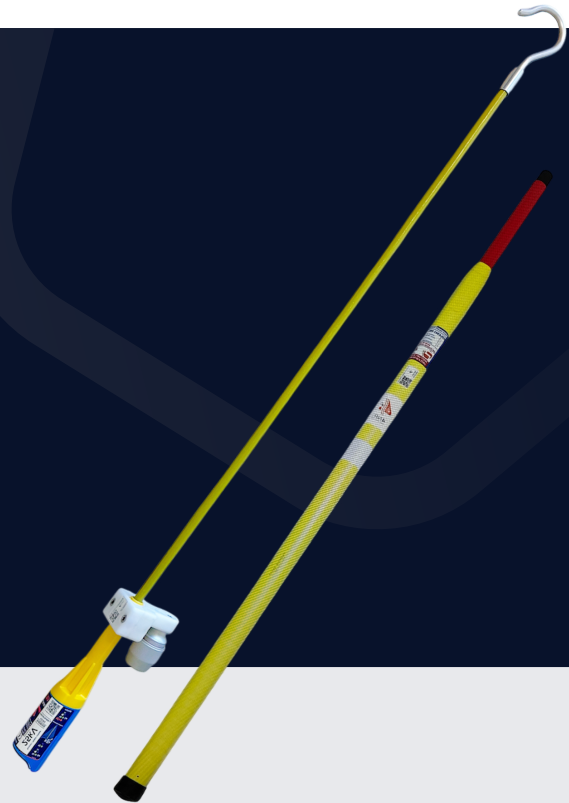
When replacing the battery, this configuration prevents:

- Inadvertently swapping the case and electronics.
- Damage to the electronic circuits.
- Moisture from entering the device when changing the battery outdoors.



• FUNCTIONAL RELIABILITY

- Low battery voltage monitoring (orange indicator light).
- Latest-generation electronics.
- Calibration of detection thresholds based on actual voltage (HV).



/ USE

These devices allow verification of the absence of voltage on the 25,000 V railway network (alternating current) before earthing.

/ TECHNICAL SPECIFICATIONS

- Unipolar voltage measurement (electric field measurement).
- Tool equipped with a self-test.
- Permanent threshold control.
- Voltage range : 25 KV AC or 2 x 25 KV AC
- Operating temperatures : -25 °C to +55 °C
- Detection threshold : 6900 V
- Dimensions : 460 x 154 x 1545 mm
- Weight : 1.47 kg

/ SACVAT25KVG2

Carrying case offering the same level of electromagnetic protection as the metal case.





SECURE
VOLTAGE DETECTOR

VAT15KVAC

VOLTAGE DETECTOR

△ IEC 61243-1 CE





/ KITVAT15KVAC

DETECTOR KIT 15 KV AC 16.66 HZ
STANDARD : IEC 61243-1 
SNCF Approval N° : DEO 20178

Advantages

- Checking results done by LED lights and powerful sound.
- P-FIX connection (4NRJ patent) for a quick and simple setting with SNCF pole.
- Antenna with two-layer fiberglass (wear indicator) with central electrode.
- PIVAT pole quickly unfolded.

/ USE

Checking the absence of voltage on 15 KV 16.66 Hz powerlines (alternating power) before earthing.

/ TECHNICAL SPECIFICATIONS

- Equipped with auto-test.
- Voltage measurement 15 V (single-phase).
- Main frequency : 16.66 Hz
- Operating temperatures : -25 °C to 55 °C
- Permanent threshold control.
- Dimensions : 80 x 115 x 1545 mm
- Mass weight : 1.2 kg

/ SACVAT15KVAC

Carrying case offering the same level of electromagnetic protection as the metal case.





SECURE VOLTAGE DETECTOR

/ TAG780

VOLTAGE DETECTOR IEC 61243-3 NFC 18510 CE

Advantages

- Unique bright LED display can be read in sunlight.
- Ergonomically shaped to fit comfortably in the palm with gloves.
- A revolutionary IP2X system (retractable tip sleeve):
"pull and hold" grip at back of device.
- Tip sleeve pulling is controlled, offering higher safety and visibility of contact area.
- Ultra flexible cord (no memory effect).
- Watertight and dustproof device (IP65).
- Device protected against over-voltage 1000 V CAT IV for network operation.



A REVOLUTIONARY IPX SYSTEM RETRACTABLE TIP SLEEVE : "Pull and hold" grip at back of device



- Unparalleled comfort: use of the index finger
- Controlled sleeve retraction, safe visibility of contact
- The thumb is freed up for the test button.



/ USE

Heavy duty voltage detector for checking the absence of voltage and giving voltage level indication on low voltage up to 1000 V.

This device provides additional features as :

- Integrated self-test
- Phase search in single-pole mode (any of the two contact tips may be used)
- Polarity display (-/+)
- Continuity test (< 80Ω)

/ TECHNICAL SPECIFICATIONS

- Voltage range : 12 to 1000 V DC and AC (15 to 60 Hz).
- Audible alarm indicating the presence of voltage with a different tone according to voltage level (discontinuous tone up to 230 V and continuous tone above 400 V).
- Polarity indication (-/+).
- Built-in self-test.
- Continuity testing (threshold 80Ω).
- Phase identification in single-pole mode (either test probe may be used).
- Phase rotation indication.
- Front light.
- Comes with 2 AAA batteries.



Spot light



Self-test



Removable
spring blade
contactelement



Retractable
sleeve



/ ACCESSORIES

SET OF CONTACT ELECTRODE EXTENSIONS
FOR IP2X TAG780
(VERSION AVAILABLE FOR NON-IP2X TAG780)



/ USE

Use the voltage detector TAG780 on overhead networks and connection boxes.

/ TECHNICAL SPECIFICATIONS

- Ø 10 mm fiberglass sheath, Ø 4 mm connection probes, Ø 4 mm contact tips.
- Reliable impact-resistant internal connection even if device is dropped.
- Length adapted to the needs of the operator (short model for bus bars, long model for overhead lines).
- Contact parts adapted to the type of use.

Ref.	Use	Length	Weight
ANT780RS	Underground network	0.78 m	500 g
ANT780RA	Overhead network	1.30 m	700 g
ANT780I	Both network	1.40 m	800 g

/ ANT780RS

Lightweight rigid contact electrode extensions for substations, installations and pavement boxes. Contact parts adapted for the type of use, Ø4 mm touch tips. Storage bag.



/ ANT780RA

Lightweight rigid contact electrode extensions for overhead lines. V-shaped contact parts and contact hook for hanging it. Storage bag.



/ ANT780I

ANT780I has been designed to allow the use of the TAG780 voltage detector both in substations and in overhead lines (bare conductors).



GAMA TAG780	TAG780 D		TAG780 R		TAG780 V		TAG780 S	
	IP2X	Fine touch tip	IP2X	Fine touch tip	IP2X	Fine touch tip	IP2X	Fine touch tip
Touch tips	IP2X	Fine touch tip	IP2X	Fine touch tip	IP2X	Fine touch tip	IP2X	Fine touch tip
Standard functions*	✓	✓	✓	✓	✓	✓	✓	✓
Phase/N discrimination	✓	✓	✓	✓	✓	✓	✗	✗
Phase rotation	✓	✓	✓	✓	✗	✗	✗	✗
Digital display	✓	✓	✗	✗	✗	✗	✗	✗
Soft case	TAG780DIFE	TAG780DPFE	TAG780RIFE	TAG780RPFE	TAG780VIFE	TAG780VPFE	TAG780SIFE	TAG780SPFE
No case	TAG780DIFS	TAG780DPFS	TAG780RIFS	TAG780RPFS	TAG780VIFS	TAG780VPFS	TAG780SIFS	TAG780SPFS

* 1000V - IP65 protection - Hazardous voltage indication (even when the cells are faulty) - Integrated self-test - Continuity - Lighting of tested point - Polarity +/-

According to the NF C18-510 standard, IP2X test probes are mandatory in France.

/ SAM SHANDY STOP SIGNAL / NEW GENERATION

Advantages

- Compact and light LED lights for easy transportation.
- Powerful magnet system embedded into the box, allowing a relevant and quick setting.
- Waterproof (IP65) housing for solid and intensive use.
- Folding red & reflective flap, ensuring a permanent visibility.
- Lamp & its flap resistant to winds up to 105 km/h without flap dropping to guarantee you a long-lasting visibility whatever the weather conditions
- Specific bag tested with bangers explosion without release of the other firecrackers & without any projection out of the bag.



/ USE

The new generation hand stop signal (SAM) is a device designed to signal and secure railway construction sites before any intervention. Lightweight and easy to transport, the SAM serves as a temporary stop signal to protect work sites, with modern features and enhanced durability, even under intensive use conditions, helps ensure the safety of personnel and infrastructure by providing optimal visibility and reliable attachment to the rails.

/ TECHNICAL SPECIFICATIONS

Protective bag recharging batteries :

- Dimensions : 480 x 370 x 155 mm
- Recharging time : 5 h into the protective bag.
- Chargers included : 220 V wall charger 12/24 V car charger.
- Equipped protective bag mass weight : 5 kg

SAM lamp :

- Autonomy : 20 h
- Magnet integrated to the lamp 8 daN.
- Masse : 250 g
- SAM lamp mass weight : 250 g
- Dimensions : Ø 110 x 45 mm (folded) 125 mm (unfolded) .

Firecrackers detachable bag :

- Capacity : 6 firecrackers (firecrackers not supplied).
- Dimensions : 300 x 200 x 70 mm
- Removable bag.

Ref.	Ignition mode	LED arrangement	Approval
SAMNG**	2 Clic	4 LEDs positioned on each side at 100°	Approval SNCF N° : SYMBOLE : 7.391.0313 (FRANCE)
SAMRA**	1 Clic	8 LEDs positioned on 360°	Approval RATP (FRANCE)
SAMBE**		4 LEDs positioned on each side at 100°	Approval INFRABEL (BELGIUM)



/ Composition of the set

Ref.	Designation
LAMPESAM**	Lamp SAMNG, SAMRA, SAMBE (x 6 in briefcase)
SACOCHE SAMNG	Firecracker bag (Firecrackers not included)
ES000164	Wall outlet voltage 230 V input – 5 V output 3 A
ES000165	Lighter 12 V 24 V input
ES000279	USB charger cable

/ OPTION

Réf.	Désignation
SAMNGKIT10V	Kit of 10 replacement flap



/ PORSAM LAMP HOLDER

- Easy deployment of the red tube thanks to the clamping sleeve. The red telescopic tube does not obstruct the track.
- Magnetic attachment system allows for quick installation in the middle of the track.

/ USE

Installation of a manual stop signal in the middle of the railway track at a height providing high visibility and allowing the movement of vehicles without hindering the system.

/ TECHNICAL SPECIFICATIONS

- Tube material : Fiberglass
- Insulating materials.
- Magnet strength : 8 kg
- Spacing : 1000 mm to 1500 mm
- Lamp position : 550 mm
- Lamp height : 135 mm
- Folded D : 980 x 100 x 130 mm
- Unfolded D : 1500 x 100 x 130 mm
- Weight : 1.6 kg



/ PR400 ROUND PANEL TO IDENTIFY WORKSITE Ø 400 MM

/ USE

Foldable panel that clips onto the PORSAM

/ TECHNICAL SPECIFICATIONS

- Clips onto the PORSAM.
- Folded D : 540 x 200 x 140 mm
- Unfolded D : 540 x 4600 x 65 mm
- Weight : 1.4 kg



/ PORDR FLAG HOLDER

- The support is magnetized to the rail core to ensure its support and visibility.
- Quick installation and removal thanks to its two magnets.
- Equipped with anti-vibration mounts for absorption of lever arm effects due to shocks.

/ USE

Flag holder allowing the flag to be inserted directly into the straps.

/ TECHNICAL SPECIFICATIONS

- Use : magnetizes to the rail core.
- Compatible mast : Ø 20 to 30 mm
- Dimensions : 140 x 100 x 110 mm
- Weight : 0.450 kg
- Magnet strength : 45 kg



/ KITVHS SIGNALING PANEL

- Nighttime visibility of the panel up to 250 m.
- Position the fixing hand upstream on the construction rail to save time.
- Visibility of the fixing hand at night thanks to the white reflectors.
- Anti-theft system.
- Ergonomic handle integrated into the panel.

/ USE

Device for signaling and securing out-of-service tracks.

/ TECHNICAL SPECIFICATIONS

- Anti-theft hand attachment with a detachable tightening knob.
- Attaches to the rail base using a rail-positioning hand.
- Aluminum panel with class 2 reflective adhesive.

Ref.	Designation	Weight kg	Dimensions mm
F22AD000120	Reflective red panel	1.2	365 x 30 x 655
F22AD000110	Secure clamping hand	1	243 x 130 x 135
F22AD000150	Red flag with reflective stripes	1	785 x 680
ES000323	Hand lobe steering wheel key		



/ LECBV2

SITE FRAMING LAMP LED LIGHTS
SNCF Approval N° : DPI EO 13170

Advantages

- Optimized LED lighting for increased visibility at night, ensuring quick and clear identification.
- Unique blink mode to meet safety requirements.
- The lamps are recharged via the carrying case, allowing for simplified group charging.
- Six clips (Ø45) ensure a secure attachment and adjustable orientation on framing poles.
- Compact and lightweight, easy to transport and handle.

/ USE

The LECBV2 worksite warning light is designed for signaling worksite sticks at night, facilitating their location while ensuring the safety of the teams involved.

/ TECHNICAL SPECIFICATIONS

Carrying and charging case :

- Chargers included : 220 V wall charger 12/24 V car charger.
- Charging time : 5 h
- Capacity : 6 lamps per case.
- Bag with 6 dedicated clips to be attached to telescopic insulating stick.
- Weight : 1.80 kg

LECBV2 lamp :

- Waterproof and shock-resistant.
- Battery life : 20 h with charge indicator.
- Weight : 200 g



/ Composition of the set

Ref.	Designation
VALLECBV2	Charging case (6 compartments)
LAMPELECBV2	Blue work site frame lamp (x 6)
SACLECBV2CLIPSV2	LECBV2 bag including (x 6) Ø 45 clips
CLIPSLECB45V2	Clips for Ø 45 lamps (x 6)
LECBP220V	220 V power supply for lamp case
LECBAC	Car charger



/ BLEREF

BLUE LAMP WITH RETROREFLECTIVE FLAP

Advantages

- Optimized LED lighting for increased visibility at night, ensuring quick and clear identification.
- Unique blink mode to meet safety requirements.
- The lamps are recharged via the carrying case, allowing for simplified group charging.
- Compact and lightweight, easy to transport and handle.



/ USE

The compact and lightweight blue lamp offers an effective and practical solution for securing or marking work sites at night, ensuring optimal visibility in nighttime conditions. Exception due to presumed snowy weather.

/ TECHNICAL SPECIFICATIONS

Carrying and charging case :

- Chargers included : 220 V wall charger 12/24 V car charger.
- Charging time : 5 h
- Capacity : 6 lamps per case.
- Dimensions : 480 x 370 x 155 mm
- Weight : 5 kg

Lamp BLEREF

- Waterproof and shock-resistant.
- Dimensions : Ø 110 mm, H 45 mm (Folded) 125 mm (unfolded).
- Battery life : 20 h with charge indicator.
- Weight : 250 g
- Retroreflective flap.
- Magnet integrated to the lamp 8 daN.



/ Composition of the set

Ref.	Designation
LAMPEBLEREF	Lampe BLEREF (x 6)
SACBLEREF	Charging case (6 compartments)
ES000164	230 V power socket for lamp case input – 5 V output 3 A
ES000165	Car charger 12 V 24 V input
ES000279	USB power supply.

/ OPTION

Ref.	Designation
BLEREFKIT10V	Kit of 10 replacement flap

/ DTBC

CATENARY TRIANGULAR BLUE FLAG

Advantages

- Reflective tapes for a better visibility at night.
- Stiffened flag to withstand strong winds.
- Clips for maintaining the flag orientation on the pole.
- Clips allowing flag storage.



/ USE

Blue triangular flag intended to identify insulating telescopic poles on the SNCF network, day and night.

/ TECHNICAL SPECIFICATIONS

- Clips for tube Ø 45
- Mass weight : 0.5 kg

/ KCCU1500

/ KCCU25000

CABLE CLIPS

Advantages

- Available for power lines 1500 V (cable 95 mm²) and 25KV (cable 40 mm²).
- Clips replacing cable roll-up or using other dangerous system allowing the right connection between rail and power line in case of power supply.
- Kit including 3 adapted clips to standard catenary poles and different cable diameters.



/ USE

Allowing anti-ejection of the pole in case of power supply.

/ TECHNICAL SPECIFICATIONS

- Kit 1500 V / cable 95 mm² including
 - 1 clip for tube Ø 28 mm
 - 1 clip for tube Ø 37 mm
 - 1 clip for tube Ø 45 mm
- Kit 25000 V / cable 40 mm² including
 - 1 clip for tube Ø 28 mm
 - 1 clip for tube Ø 37 mm
 - 1 clip for tube Ø 45 mm

/ CROPER

HOOKS TO CLEAR POLES 1500V ON WORKSITE

SNCF Approval N° : MTP EO 18130

Advantages

- Quick setting from the ground on posts 1500 V
- Clearing worksite in placing poles above.



/ USE

Put your poles to clear from the ground to let the work machines pass.

/ TECHNICAL SPECIFICATIONS

- Reachable height with PI56 stick + 1 extension = 8 m.
- Reachable height with PI56 stick + 2 extensions = 9.5 m.
- Tube diameter : Ø 45
- Weight : 1.1 kg

Setting tool OUTPE10CV



/ BLOKCLR2

SECURE EARTHING SETTING
SNCF Approval N° : MTP EO 18130

Advantages

- Easy & simple solution, allowing a complete worksite safety setting.
- Set between the two rails with a strap which does not shunt the rails.
- Possibility to move the pole in case of work engine's passage.
- Easy and precise fixing solution to avoid risks linked to a potential collision or suction force.



/ USE

Immobilize your earthing poles for your safety (SNCF construction site safety victory 2018).

/ TECHNICAL SPECIFICATIONS

- Safety set for insulating pole Ø 45 mm
- Strap strength : 500 kg
- Cable clips to secure cable (strap up)
- Dimensions : 130 x 60 x 110 mm
- Mass weight : 1.8 Kg



/ SUPPER

CLEAR-UP THE CATENARY AREA HANGING POLES

Advantages

- Adjustable at the required height.
- Hook that will be placed from the ground on "H" supports and lattice beams.
- Equipped with a plastic flange to avoid a contact between the cable and the support.
- Allows a free passage of work vehicles on Maintenance site.



/ USE

Specific hook placed from the ground to make sure your poles will not block the way of work vehicles.

/ TECHNICAL SPECIFICATIONS

- Dimensions : 300 x 275 x 215 mm
- Mass weight : 2.7 kg
- Materials : insulating materials

Setting tool OUTPE10CV

/ BCLRPAC CONNECTION PIN

Advantages

- Ground-level installation is achievable with an insulated telescopic pole and the designated installation tool.
- Tightening adapted to the configuration guarantees a secure fit on the heat pump.
- Corrosion-resistant materials.



/ USE

Connection pin for installation and removal of (Rail Line Connection) for PAC (Contact aerial profile).

/ TECHNICAL SPECIFICATIONS

- Dimensions: 340 x 130 x 55 mm
- Weight: 1.2 kg

/ LBOOV2

ORANGE LED LAMP FOR OBSTACLE MARKUP
SNCF Approval N° : DEO 20059

Advantages

- Signalling view up to 360° with orange LED lamps visible at long distance.
- Magnet integrated to the lamp for installation on a metalique support.
- Compact & light hard case for easy transport and recharging.
- Robust and waterproof housing (IP65) for intensive use, suitable for demanding environments.

/ USE

The LBOOV2 is an orange obstacle marking lamp, specifically designed for night time mark up the track equipment such as lorry ladders, lorry platforms, and pulley trucks.

/ TECHNICAL SPECIFICATIONS

- Carrying and charging case :
- Chargers included : 220 V wall charger 12/24 V car charger.
 - Capacity : 6 lamps per case
 - Charging time : 5 h
 - 6 Dedicated adjustable support.
 - Fully equipped case mass weight : 1.80 kg

- Lamp LBOOV2 :
- Waterproof and shock-resistant.
 - Battery life : 40 h with charge indicator.
 - Recharging indicator.
 - All weather conditions use.
 - Weight : 200 g



/ Composition of the set

Ref.	Designation
VALLBOOV2	Charging case (x 6 compartments)
LAMPEOR1M	Orange lamp one mode (x 6)
SACLB00V2SUP	LBOOV2 bag including Ø 45 clips (x 6)
SUPLB00V2	Adjustable support Ø 45 (x 6)
LECBP220V	220 V power socket for lamp case
LECBAC	USB power supply

/ LBOO

THE LBOO ORANGE LAMP
9 OPERATING MODES.

Ref.	9 Modes	Battery life
LBOO	Rotation	6 hours
	Quadruple flash	14 hours
	Simple blink	60 hours
	Alternatif blink	3 hours
	SOS	4 hours
	Low consumption fixed light	32 hours
	High consumption fixed light	2.5 hours
	2 LED lighting	12 hours
	4 LED lighting	6.5 hours



/ LRIOV1

LAMPE ORANGE FOR NIGHT-TIME SPOTTING OF INTERMEDIATE POLES

SNCF Approval N° : DEO 20059

Advantages

- 360° orange LED signaling providing circular visibility for effective night-time location.
- Compact and lightweight lamp, ideal for frequent interventions.
- Blink mode adapted to safety standards, compliant with SNCF requirements.
- Practical attachment thanks to clips for a secure hold and customized orientation on the stick.
- Charge lamps directly through the carrying case for a quick and convenient solution.



/ USE

The LRIOV1 orange lamp is intended for night-time spotting of intermediate poles, allowing clear and reliable delimitation of work site areas.

/ TECHNICAL SPECIFICATIONS

Carrying and charging case :

- Chargers included : 220 V wall charger 12/24 V car charger.
- Capacity : 6 lamps per case.
- Charging time : 5 h
- 6 dedicated clips to be attached to telescopic insulating stick.
- Fully equipped case mass weight : 1.80 kg

Lampe LRIOV1 :

- Waterproof and shock-resistant.
- Battery life : 40 h with charge indicator.
- Recharging indicator.
- All weather conditions use.
- Weight : 200 g



/ Composition of the set

Ref.	Designation
LAMPEOR1M	Orange lamp one mode (x 6 in a suitcase)
SACLRIOV1CLIPSV2	Bag including Ø 45 clips (x 6)
LEBP220 V	220 V power socket for lamp case
LEBAC	USB power supply



/ DVAM GREEN FLAG

Advantages

- Work site flag.
- Nighttime visibility thanks to white reflectors.

/ USE

Signal hand GREEN flag.

/ TECHNICAL SPECIFICATIONS

- Green synthetic fabric.
- Aluminum handle.
- Dimensions : 168 x 182 mm
- Weight : 450 g



/ DRAM RED FLAG

Advantages

- Work site flag.
- Nighttime visibility thanks to white reflectors.

/ USE

Signal hand RED flag.

/ TECHNICAL SPECIFICATIONS

- Red synthetic fabric.
- Aluminum handle.
- Dimensions : 168 x 182 mm
- Weight : 450 g



/ S120 PVC-COATED FLAG

/ USE

Flag to identify worksite earthing common to more than one work area.

/ TECHNICAL SPECIFICATIONS

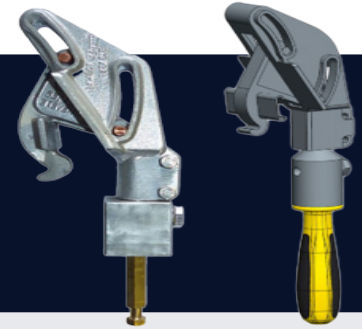
- Opaque PVC-coated fabric, on both sides.
- Number height : 50 mm
- Letter height : 60 mm
- Supplied with 2 black fibreglass clips, max. opening 23 mm for clipping onto braids or other items.
- Each flag can be numbered from 1 to 999, identified by 1 to 3 letters for the grey, brown and purple models only (price on request).

Ref.	Type	Colour	Marking	Dimensions (mm)	Weight (g)
S120JV	With 2 velcro fasteners	Yellow	Black	350 x 300	50
S120JP	With 2 velcro fasteners	Yellow	Black		170
S120VV	With 2 velcro fasteners	Purple	White		50
S120VP	With 2 black clips	Purple	White		170
S120MV	With 2 velcro fasteners	Brown	White		50
S120MP	With 2 black clips	Brown	White		170
S120GV	With 2 velcro fasteners	Grey	White		50
S120GP	With 2 black clips	Grey	White		170
S120ORFV	With 2 velcro fasteners	Fluorescent orange	Black		50
S120RFP	With 2 black clips	Fluorescent orange	Black		170



/ NE14

SELF-LOCKING SHORT-CIRCUITING PLIERS



/ USE

The installation and removal is effortless thanks to a patented self-locking clamping system.

/ TECHNICAL SPECIFICATIONS

- Self-locking aluminum clamp with a clamping capacity of 3 to 22 mm.
- Max. Isc : 8 kA / 1 s
- APV, TR end cap (SNCF type R end cap)
- Dimensions : 200 x 80 x 60 mm
- Weight : 0.7 g

/ MALTROL

SHORT-CIRCUITING DEVICE FOR TROLLEY NETWORK CEI 61243-2



Advantages

- The design can adapt to 3 field standard configurations by offering a spacing between the clamps that can vary from 50 to 70 cm.
- The Penta-Pole stick is recommended for vertical installation on overhead contact lines.

/ USE

The MALTROL is a bipolar (positive and negative) catenary short-circuiting device, usually used in trolley installations.

/ TECHNICAL SPECIFICATIONS

- Aluminum contact clamp.
- Connection between contact clamps made of aluminum tubes.
- Max. Isc : 12 kA / 150 ms
- Center distance : 50 to 70 cm
- Available end caps : U, APV, B
- Dimensions : 580 x 170 x 80 mm in folded position.
- Weight : 1.84 kg

/ ERATU

MAGNETIC RAIL CLAMP FOR URBAN TRANSPORT CEI 61230

Advantages

- The ERATU clamp allows the connection of an electrified tram line to the RAIL.
- Connects to the ground cable using an M10 screw.
- The clamp is secured to the RAIL using three powerful magnets.



/ TECHNICAL SPECIFICATIONS

- Max Isc : 8 kA / 1 s
- The clamp consists of :
 - A brass body.
 - 3 magnets for mounting on the rail.
 - 1 ergonomic handle.
 - 1 M10 connection screw.

Ref.	Description	Dimensions (mm)	Weight (kg)
ERATU	Magnetic vice	170 x 100 x 50	1.3
ERATUDEB	Magnetic rail vice with removable handle	170 x 100 x 50	1.5

/ PUC UNIVERSAL CATENARY PLIERS

Advantages

- The clamp can be installed and removed quickly thanks to a spring pre-tightening system.

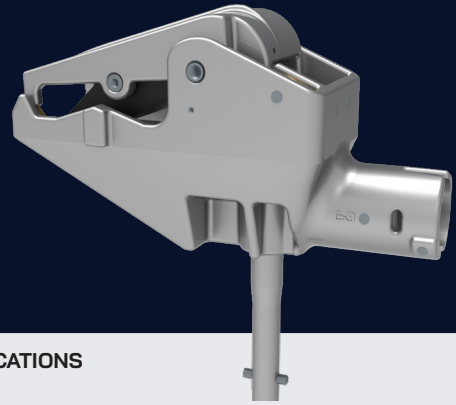
/ USE

The pliers are designed for dual use :

- Short-circuiting rigid profiles.
- Short-circuiting single or double contact wires.

/ TECHNICAL SPECIFICATIONS

- Max Isc : 28 kA/120 ms
- Networks : 1500 V DC / 25,000 V AC
- Clamping capacity : Ø 8 to Ø 17 mm



/ CGI10KV – CGI12KV RAIL CLAMP

Advantages

- Alternative to hand-tightened rail clamps.
- Absolutely flawless electrical connection.
- Quick and easy assembly / disassembly : just a hammer is needed.
- Multiple reuse possible thanks to their elastic properties.
- Successfully applicable for both temporary and long-term electrical connections.

/ USE

Use for new or repaired tracks, for temporary connections. The clamp can also be used in a device as a rail clamp to eliminate the short-circuit current in the catenary.

/ TECHNICAL SPECIFICATIONS

- Max. clamp Isc : 80 kA/125 ms
- Cross-section : 16 to 240 mm²
- Internal thread : M10 or M12
125 mm / 140 mm / 150 mm slot for several rail widths.

Ref.	Designation
CGI10KV	Clamp with M10 thread
CEA12KV	Clamp with M12 thread



/ CE62 GROUNDING CLAMP

Advantages

- Grounding clamp with spring pre-arming system allowing automatic clamping on the conductor.
- Installation and removal with clamp holder tray.

/ TECHNICAL SPECIFICATIONS

- Clamping capacity : 4 to 20 mm
- Aluminum clamp with stainless steel tips.
- Tabbed tip.

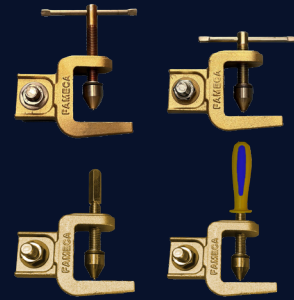


/ JAS19

EARTHING CLAMP FOR CATENARY CEI 61230

Advantages

- The end of the clamping shaft is made up of a head equipped with a pointed head facilitating its anchoring when it is put in place.



/ USE

The JAS19 vise consists of a body and movable clamping shoe made of copper-aluminium alloy, and a corrosion-protected clamping assembly. The clamping assembly is equipped with a hand-operated lever. A stainless steel bolting system accommodates TFK type grounding cables, diameter 12.

/ TECHNICAL SPECIFICATIONS

- Brass body.
- Clamping capacity from 1 to 20 mm
- Steel clamp assembly.
- Max. I_{sc} : 40 kA/1 s
- Dimensions : 120 x 110 x 40 mm
- Weight : 1.10 kg

/ MDMARLT

SHORT OR LONG POINT RAIL VISE FOR GROOVED RAIL CEI 61230

Advantages

- The ETU allows the short-circuiting and connection to the rail of an electrified tram line.
- 1 stainless steel tip equipped with hardened steel contact pointed and two M10 connection screws.



/ USE

Short or long point rail vise for grooved rail.

/ TECHNICAL SPECIFICATIONS

- Copper alloy body.
- Max. I_{sc} : 8 kA / 1 s

Ref	Model
MDMARLTS	Short point rail vise 35GP with lever.
MDMARLPLTS	Long point rail vise 35 GTF, GPI, GP41.
ENSSMDMARLPLTS	Replacement clamping lever.
PTMDMARLTS	Replacement short point.
PTLMDMARLPLTS	Replacement long point.

/ ETU

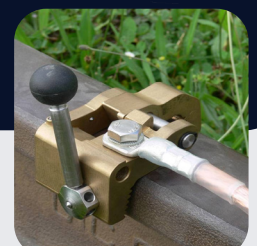
UNIVERSAL VICE FOR GROOVED RAIL AND VINEYARD RAIL

Advantages

- The clamp allows for short-circuiting and connecting an electrified tram line to the rail.
- It adapts to different types of rail : grooved, «Vignole» type, U50 type, 35GP and 41 GPU.

/ TECHNICAL SPECIFICATIONS

- Copper alloy body.
- Max. I_{sc} : 8 kA/1S
- Dimensions : 107 x 85 x 75 mm
- Weight : 882 g



/ TRL3500

3-SECTION INSULATED TELESCOPIC POLE
FOR VAT : TO BE USED WITH DC36H, DC36TROL
AND MALTROL DETECTORS

Advantages

- All-weather use.
- The TRL model is recommended for : Voltage Absence, Verification operations.
- The TRLS3500 model is a heavy-duty model suitable for lifting medium-load MALT.

/ TECHNICAL SPECIFICATIONS

- Composed of 3 elements :
 - Upper tube in fiberglass composite on foam, Ø 26 mm, IEC 60855-1 grade, yellow
 - Intermediate and lower tubes in yellow fiberglass composite, Ø 39 or 32 mm, IEC 61235-S grade.
- Locking by push button in folded or deployed position.
- Base
- Dielectric strength after wet conditioning :
 - 100 kV /30 cm from the upper element.
 - 50 kV /30 cm from the lower element.

Ref.	L- unfolded (m)	L- folded (m)	Nb elements	End	Weight (kg)
TRL3500	5	1.93	3	U,APV, B	2.45

/ TR250CAT

2-SECTION INSULATED TELESCOPIC POLE

Advantages

- Pole with integrated tulip for setup NEVERS poles

/ TECHNICAL SPECIFICATIONS

- Upper tube made of fiberglass composite on foam, Ø 32 mm, IEC 60855-1 grade, yellow.
- Lower tube made of yellow fiberglass composite, Ø 39 mm, IEC 61235-S grade.
- Locking mechanism with push button in the folded or extended position.
- Base
- Dielectric strength after wet conditioning :
 - 100 kV /30 cm from the upper element.
 - 50 kV /30 cm from the lower element.

Ref.	L- unfolded (m)	L- folded (m)	Weight (kg)
TR250CAT	2.53	1.53	2.52





/ NE9CAT - NE11CAT

NEVERS ALUMINUM TELESCOPIC POLE 2 OR 4 ELEMENTS / IEC 61230

Advantages

- The metal pole is equipped with a quick-release, calibrated clamp with an integrated cleaning ring.
- Photoreflective strip for enhanced visibility day and night.

/ TECHNICAL SPECIFICATIONS

- Clamping capacity from 3 to 22 mm.
- Max Isc : 8 kA /1 s

Ref.	L- unfolded (m)	L- folded (m)	Weight (kg)
NE9CAT	2.71	1.62	1.6
NE9CATRL	3.00	1.75	1.8
NE11CAT	4.85	1.62	2.4

/ TFK

COPPER CABLES WITH LUGS AND ULTRA-FLEXIBLE PVC SHEATH, IEC 61230

/ TECHNICAL SPECIFICATIONS

- Flexible, multi-strand copper cable with a transparent PVC insulating sheath, equipped at each end with a crimped lug on both the core and the insulation, ensuring a watertight seal.
- Operating temperature: -25°C to +55°C.

Ref.	Tubular cable (mm ²)	Length (m)	Lugs
TFK3505	35	5	D10/D10
TFK3505CN		5	D10/NEVERS
TFK3507		7	D10/D10
TFK3507CN		7	D10/NEVERS



Cosse ouverte NEVERS

/ CE
RAIL-SUPPORT EQUIPOTENTIAL CONNECTION
Symbole SNCF : 0.392.96.56

Advantages

- Temporary connections for railway and catenary works.

/ USE

Provides a clean contact to ensure an equipotential bond between the rail and the catenary support.

/ TECHNICAL SPECIFICATIONS

- Two insulated handles.



/ GT95NE
TEMPORARY CONNECTION AND ACCESSORIES FOR CATENARY
SNCF Approval N° : S 40 mm² IVM 99055 - S 95 mm² IVM 99056

Each connection includes :

- 1 round crossed copper braid (0.2 mm diameter strands), transparent silicone protective sheath.
- 2 reinforced die-cut terminals with crimping on the insulation, M12 terminal hole.
- 1 neutral heat-shrinkable sheath with inner coating.
- 1 identification label.



Ref.	Symbole SNCF	Section (mm²)	Lenght m*	Network use
RR40-2S	0.392.6333	40	2	Rail to Rail 25 kV
CV40-3S	0.392.6332	40	3	Flying Connection 25 kV
RS40-4,5S	0.392.6331	40	4.5	Rail Support 25 kV
CLR40-10S	0.392.6330	40	10	Rail Link Connection 25 kV
CV95-2S	0.392.6338	95	2	Flying Connection 1,5 kV
RS95-3S	0.392.6337	95	3	Rail Support 1,5 kV
RS95-4,5S	0.392.6336	95	4.5	Rail Support 1,5 kV
CLR95-10S	0.392.6335	95	10	Rail Link Connection 1,5 kV
CLR40-7S		40	7	Rail Link Connection 750 V Tramway

*Other lengths on request.

/ MPRG
HAND GRIP ON THE GROOVED RAIL

Advantages

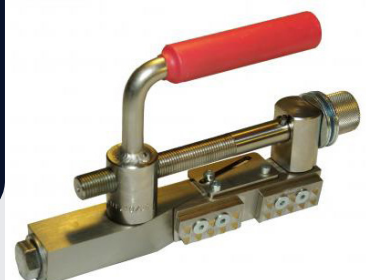
- Mechanical clamping in the rail groove.

/ USE

Rail grip with grooved handle with mechanical expansion system ensuring sufficient clamping.

/ TECHNICAL SPECIFICATIONS

- Weight : 1.7 kg
- connection is linked by M12 screws.





/ TPSA

ANTI-EJECTION POLE HEAD
SNCF APPROVAL N° : MTP 17181

Advantages

- Equipped with an anti-ejection system that ensures the connection is maintained if power is restored.
- Provides a clean contact between the catenary and the rail, allowing current flow and the operation of electrical protection devices (circuit breakers).
- Equipped with LRSC, the line-rail support connection, provides electrical continuity between the line, the rail, and the support via a needle shunt.
- Equipped with flying connection, and needle shunt allows the equipotential bonding of several electrical states.

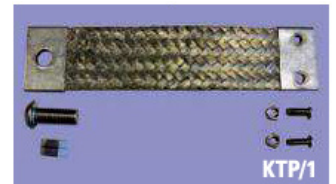
/ USE

Pole head equipped with an anti-ejection system allowing locking on conductors such as contact wire, dropper, or tubular armouring from \varnothing 10 to 50 mm. For 25000 V and 1500 V networks.

/ TECHNICAL SPECIFICATIONS

Adapted networks	DC short circuit resistance	Mass (kg)
1 500 V / 25 000 V	72 kA DC	1,94

Ref.	Designation
KTP/1	Braid plus screws (10 per pack)
TPS.DSP	Special socket to help tighten cables
CPP	Wrench for tightening the poles
TPSR	Quick-release pole head
ATP72	Anti-ejection for pole head
KATP/72	Spring hook and screw kit



/ MPR72

RAIL GRIP HAND
SNCF Approval N° : IVM 98078
Symbol : 0.392.6320

/ USE

Rail grip with vice clamping system.

/ TECHNICAL SPECIFICATIONS

- Clamping capacity : 10 to 23 mm
- Connection via KA-D/M10 and KA-D/M12 screws
- Rated 52 kA / 40 ms 1500 V
- Rated 12 kA / 150 ms 25000 V

Ref.	Clamping capacity (mm)	Mass (kg)	Screw connection
MPR72	10 à 23	2,1	M10 / M12



WORK

- 50-54 INSULATING POLES
- 55-71 MEASURE, VIEW AND MONITOR
- 72 INTERVENTION KIT
- 73-82 LIFTING / PULLING
- 83-86 CRIMPING
- 97-90 CABLE PREPARATION TOOLS
- 91 INSULATED TOOLS 1000 V
- 92-93 STORAGE AND TRANSPORTATION SOLUTIONS



/ PI46 / PI56

INSULATING TELESCOPIC POLES

SNCF Approval N° : DEO 19284

Advantages

- Taper lock system for a quick and simple length adjustment.
- Anti-rotation system for an easy handling of your different tools.
- Can be used with RPIR pole extensions.

/ USE

Insulating catenary pole to secure your work near by catenaries.

/ TECHNICAL SPECIFICATIONS

- Red foam tube according to IEC 60855-1.
- Quick-release sleeve system for easy adjustment to the desired length.
- SNCF-standardized aluminum threaded end suitable for all your tools.

Ref.	Dimensions (m)	Weight (kg)
PI46	1.85 m to 4.60 m	3
PI56	2.15 m to 5.60 m	3.8

/ TECHNICAL SPECIFICATIONS *Protective bag*

- Made up with Polyester.
- Dimensions : 2300 x 730 x 130 mm (up to 5 poles PI56), Ref : SPI
- Dimensions : 2300 x 730 x 90 mm (up to 2 poles PI56), Ref : SPI2P
- Dimensions : 1900 x 530 x 130 mm (up to 5 poles PI46), Ref : SPI46
- Dimensions : 1900 x 530 x 90 mm (up to 2 poles PI46), Ref : SPI462P

/ RPIR

REINFORCED 1.50 M STICK EXTENSION

SNCF Approval N° : DEO 19284

Advantages

- Quick-release sleeve system.
- Long sleeving along the bottom of the tube (Ø 45) for higher strength and durability.

/ USE

The 1.50 m pole extension is an accessory designed to increase the length of catenary poles used in railway power line work.

/ TECHNICAL SPECIFICATIONS

- Reachable height with PI56 pole + 1 extension = 8 m.
- Reachable height with PI56 pole + 2 extensions = 9.5 m.
- Tube diameter : Ø 45
- Weight : 1.1 kg

/ PPOL

PENTAGONAL TELESCOPIC INSULATION POLE EN397, EN352-3, EN 1731
SNCF Approval N° : DEO 19284

Advantages

- Quick-deployment, push-button system ensures quick and easy setup.
- Compact size and low weight allow the stick to be stored in a VAT25 KV AC and VAT15 KV AC bag.
- Ergonomic grip thanks to its pentagonal shape that fits the shape of the hand.

/ USE

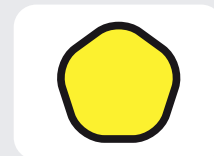
Lightweight and practical, this pole is adapted to the safety requirements of interventions on high voltage power lines, guaranteeing safe access for voltage tests, in compliance with electrical safety standards.

/ TECHNICAL SPECIFICATIONS

- Telescopic pole compliant with IEC 62193.
- Red foam tube compliant with IEC 60855-1.



Composed of 2 to 8 pentagonal-shaped tubes



Pentagonal-shaped tube, combining design, ergonomics and resistance

Ref.	Folded length (m)	Unfolded length (m)	Part number	Weight (kg)
PPOL3	3.70	1.45	3	1.9
PIVAT	4.20	1.25	4	2
PPOL4	5.00	1.51	4	2.5
PPOL5	6.30	1.58	5	3.2
PPOL6	7.70	1.65	6	4
PPOL7	9.10	1.71	7	4.7
PPOL8	10.55	1.80	8	5.5
PPOL9	12.00	1.80	9	6.3



/ PPOL MEASURE

PENTAGONAL TELESCOPIC INSULATION POLE
EN397, EN352-3, EN1731

Advantages

- Indelible graduation, printed in the support, UV and handling-proof.



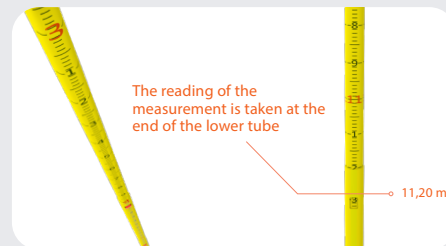
/ USE

The measuring stick has measurement graduations in (mm) on each section allowing to easily measure any heights range from 3 m to 12 m.

/ TECHNICAL SPECIFICATIONS

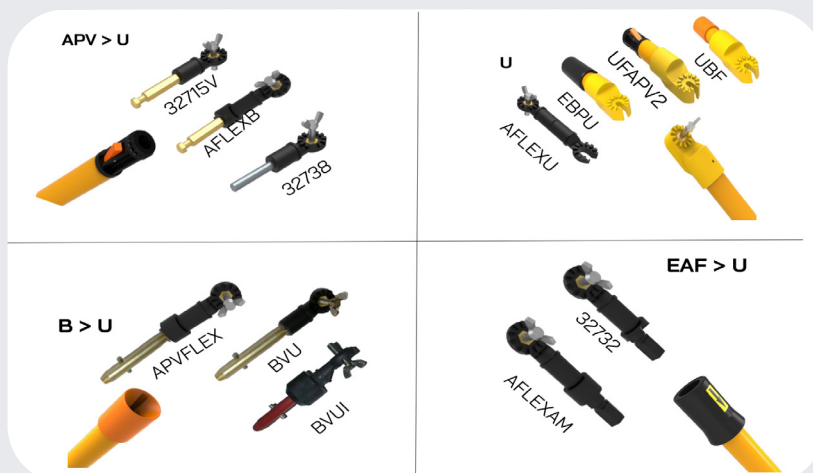
Telescopic insulating stick composed of :

- 4 to 9 pentagonal shaped tubes compliant with IEC 61235 standard.
- 1 fluorescent upper tube, 28 mm in diameter, compliant with IEC 608551 and ASTM F711 standards.
- 1 base to protect the end of the pole.
- 1 universal end fitting to fix multiple accessories.
- 1 operating hook.



Ref.	Extended length (m)	Folded length (m)	Number of sections	Max. operating voltage all weather (kV)	Max. operating voltage dry weather (kV)	Cover
PPOL5/060MU	6.30	1.58	5	132	420	HPPOLE/170
PPOL6/075MU	7.70	1.65	6	132	525	HPPOLE/170
PPOL7/090MU	9.10	1.71	7	132	765	HPPOLE/190
PPOL8/105MU	10.60	1.78	8	132	900	HPPOLE/190
PPOL9/120MU	12	1.78	9	132	900	HPPOLE/190

ADAPTER



/ PE10

ENGINE SHORT STICK FOR SETTING UP FLYING CONNECTIONS
SNCF Approval N° : DEO 19284

Advantages

- Drive in rotation allows the anti-ejection system opening and locking.
- Hand guard to secure the gripping area on stick.
- Ergonomic grip to facilitate daily use.

/ USE

The PE10 pole is specially developed to ensure equipotential bonding in conditions of working at height, from lifting equipment, in compliance with electrical safety standards.

/ TECHNICAL SPECIFICATIONS

- Red foamed tube compliant with standard (work under voltage) CEI 60855-1 to bring safety during work.
- Threaded end standard SNCF for a full compatibility with all your tools.
- Pole length : 1 m
- Mass weight : 750 g



/ PE10CV

STICK FOR SETTING UP FLYING CONNECTIONS WITH SHORT POLE FROM THE GROUND
SNCF Approval N° : MTP EO 18130

Advantages

- Drive in rotation allows the anti-ejection system opening and locking.
- Install & remove the flying connections from the ground.
- Allows a free passage of work vehicles on maintenance work site.

/ USE

PE10CV allows for the secure installation of flying connection from the ground, without requiring overhead access, thus optimizing operational safety and efficiency.

/ TECHNICAL SPECIFICATIONS

- Positioning of the stick in the tool by magnetization.
- Red foamed tube compliant with standard CEI 60855-1.
- Aluminum threaded end compliant with standard SNCF adapted to every single tool.
- Dimensions : Ø 60 x 1.50 m
- Masse : 1 kg



/ OUTPE10CV

SETTING TOOL

- The stick requiring a setting tool OUTPE10CV that will be screwed directly on top of the pole

MEASURE, VIEW AND MONITOR





/ ENSCTS

MEASURE THE MECHANICAL TENSION OF THE CONTACT WIRE FROM THE GROUND

SNCF Approval N° : DEO 19370

Advantages

- CTS solution allowing measurement from the ground without using truck ladder or other cumbersome engines.
- Self-control thanks to the control gauge supplied.
- Measurements and data recording done via a free 4NRJ application directly on your Smartphone or tablet, computer.
- Automatic updates of the different catenary cable and contact wire models.
- Easy and quick transportation in case of intervention.

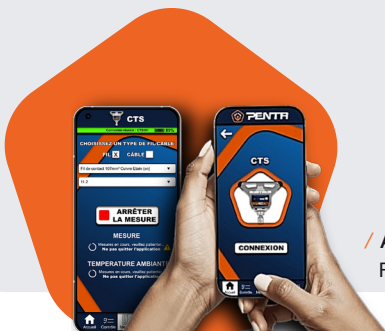


/ USE

The CTS allows you to measure the mechanical tension of all types of catenary cables and contact wires (new or used) quickly and reliably. Simply position the device using an insulating pole and «hook» the device on to carrier cables, feeders, guy wires and contact wires.

/ TECHNICAL SPECIFICATIONS

- Use : all voltage power lines.
- Self-control thanks to the control gauge supplied.
- Measurement range : 100 daN to 3500 daN
- Temperature range : -15° to 50°
- Measurement cycle time : around 40 seconds.
- Dimensions : (H x L x P) 320 x 350 x 150 mm
- Weight : 4,5 kg
- Power supply : rechargeable battery.
- Autonomy : 250 measures
- Battery recharge time : 2 h 30 minutes
- Connectivité : Bluetooth 4.0 / compatible Smartphone et tablette.
- Mounting type : insulating stick with safety ring.
- Outdoor use : all weather
- Wier size range : 21 mm
- Measuring device supplied with a protective case.
- Data processing : Web server with personal login.

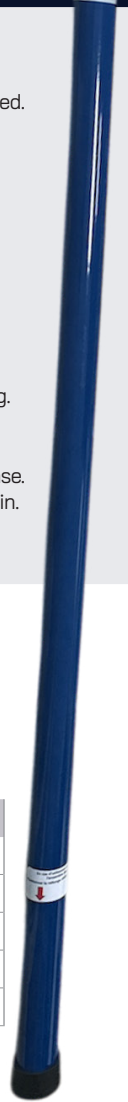


/ APPLICATION
FREE TO DOWNLOAD



/ Composition of the set

Ref.	Designation
CTS	CTS measurement device
CTSCALIB	Control gauge
F16AC000200	Power supply 230 V
CTSEXTRAC	Emergency extraction tool
KICPI56 +SPI	Dedicated insulating pole with a safety ring





/ ENSMESUREFC

MEASURING CATENARY CONTACT WIRE THICKNESS BY LASER PROFIOMETRY

SNCF Approval N° : DEO 19369



Advantages

- The tool allows measuring holes that are not accounted for or inaccessible through automatic measurement (station, sorting area, etc).
- Instant visualization of data via the 4NRJ application on your smartphone and data retrieval.
- Self-checking thanks to the calibration standard provided in the kit.
- Practical and agile solution allowing for easy and quick transport in case of interventions.
- Considerable time savings.
- Connection Bluetooth.

/ USE

The MESUREFC is a laser profilometry device designed to measure the thickness of catenary contact wires on all types of networks. It facilitates intervention in hard-to-reach areas. It allows rapid measurement from the ground, without the need for machinery or other «heavy» devices, and instant monitoring and data recording via the 4NRJ mobile application.

/ TECHNICAL SPECIFICATIONS

- Use : all voltage power lines.
- Self-control thanks to the control gauge supplied.
- Measuring range : 2 mm to 16 mm
- Battery life : 6 h in operation
- Laser resolution : +/- 0.01 mm
- Measurement accuracy : ± 0.05 mm for wire Ø < 12 mm / ± 0.08 mm for wire Ø > 12 mm
- Operating temperature : -10 °C to +50 °C
- Dimensions : 245 x 167 x 180 mm
- Weigh : 1.5 kg
- Wire spacer for use on double-wire contact networks.
- Smartphone holder : width 55 mm to 100 mm



/ APPLICATION
FREE TO DOWNLOAD



/ Composition of the set

Ref.	Designation
MESUREFC	Measurement device
MFCCALIB	Control gauge
MFCECART	Wire spacer for use on 1500 V networks ECARTFIL
ES000309	Smartphone support SUPTEL
ES000195	USB power supply
KICPI56 + SPI2P	2 Dedicated insulating poles with a safety ring

/ CLINALERTMINI

MEASURE THE INCLINATION OF A CATENARY SUPPORT IN ORDER TO MONITOR THE MAINTENANCE OF ITS VERTICALITY

Advantages

- Quick setup from the ground with its insulating catenary pole using tool (ref : CLINALERTMINIOP).
- Powerful and magnetic fixing system, allowing sharp measurement and storage of the primary source/reference.
- Long-term autonomy without intervention or maintenance.
- Configuration of your movement's detection according to your minimum threshold and set your own SMS/E-mail alerts.
- Activating the device with your smartphone.



/ USE

This device provides continuous information on the inclination of a support in order to monitor its verticality over time and, if necessary, inform the operator by SMS or E-MAIL alert.



Quick setup from the ground with a catenary insulating pole using the tool (Ref : CLINALERTMINIOP)

/ TECHNICAL SPECIFICATIONS

- Outdoor use : in all weather conditions.
- Mounting : flat metal surfaces.
- Temperature reading : $\pm 0.5\text{ }^{\circ}\text{C}$
- Theoretical accuracy at a height of 6 m : $\pm 0.01\text{ mm}$ displacement
- Measurement taken every hour.
- Connectivity : LoRaWAN
- Protection rating : IP67
- Dimensions : 245 x 125 x 47 mm
- Weight : 570 g

/ WEB INTERFACE

- Remote monitoring of your support at any time.
- Periodic monitoring with history since the tool was installed.
- Configurable display to analyze the required period.
- User-defined data settings to define alert thresholds.
- Consideration of the support's initial position as a reference value.



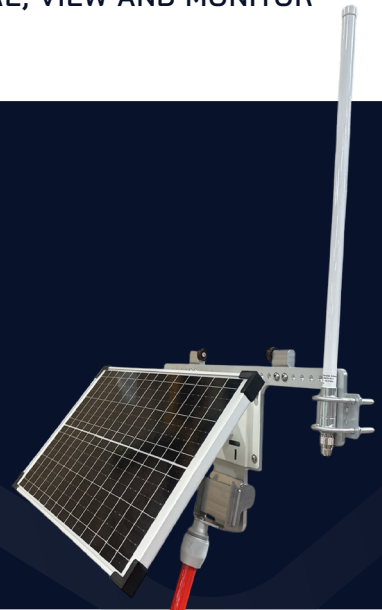


/ PLORAWAN

NETWORK GATEWAY LoRaWAN®

Advantages

- Installation is carried out from the ground using a telescopic stick.
- Its design allows it to be easily magnetized to a catenary support with minimal effort.
- The gateway requires no on-site configuration; all nearby devices connect automatically upon activation.



/ USE

Energy-efficient LoRaWAN® solar gateway designed for outdoor environments with low power availability and capable of connecting up to 2000 devices simultaneously.

/ TECHNICAL SPECIFICATIONS

- Dimensions : 580 x 660 x 340 mm
- Weight : 8 kg
- Protection rating : IP67
- Internal battery ensures operation for up to 4 days without sunlight.
- Can be mounted on all types of metal catenary supports.
- Provides coverage over 6 km.
- Compatible with all 4NRJ devices.
- Lifespan : 10 years
- No maintenance required.
- Requires a 3G/4G connection.

/ MDFLECHE

THE SAG MEASUREMENT TOOL

Advantages

- Installation and measurements performed from the ground.
- Excludes potential rail defects.
- Rotating laser level mounted directly on supports using a magnetic attachment.
- Quick installation, measurement, and removal of the tool.
- Data recorded and stored in the dedicated application.
- Millimeter adjustment wheel.

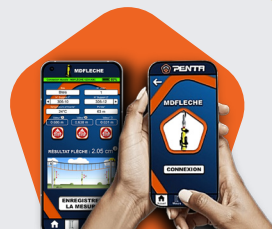


/ USE

Tool used to measure the sag of catenary contact wires.

/ TECHNICAL SPECIFICATIONS

- Theoretical accuracy : ± 4 mm à 30 m / ± 5 mm à 300 m
- Rotating laser compensation range : 5°
- Operating range : 300 m
- Operating height : 4,2 m, 5 m and 5,7 m
- Operating temperature range : -10 à +40 °C



/ APPLICATION
FREE TO DOWNLOAD



/ RLAHD

SELF-CENTERING LASER RULER FOR HEIGHT AND STAGGER
SNCF Approval N° : DPI EO 15093

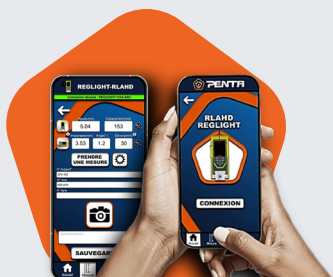
Advantages

- Predefined offset measurement reference thanks to the ruler's self-centering system.
- Camera integrated into the laser system allows for easy and precise measurements at ground level (Day/Night) thanks to the laser's visualization on the catenary contact wire.
- Connected ruler for data storage on the dedicated RLAHD application.
- Retractable jacks for easy transport.
- Rolling system to facilitate repeated measurements over long distances.



/ USE

Laser ruler measures the height of the contact wire and and the stagger versus the axis of the tracks.



/ APPLICATION FREE TO DOWNLOAD

- The application allows you to enter data in digital format, and to add several indications necessary for taking measurements and recording series.

/ TECHNICAL SPECIFICATIONS

Ruler :

- Stagger range : ± 450 (900 mm)
- Compatibility with tracks width : 1430 à 1470 mm
- Dimensions (folded) : 1085 x 265 x 345 mm
- Dimensions (unfolded) : 1615 x 920 x 1280 mm
- Electrical isolation between the two rails of the track.
- Mass weight : 17.5 kg.

LEICA laser camera :

- Scope : 200 meters
- Autonomy : ± 4000 measur
- Bluetooth connection.



/ TECHNICAL SPECIFICATIONS

- Weight : 13.5 kg
- Dimensions : 1100 x 300 x 290 mm
- Integrated casters.

/ Composition of the set

Ref.	Designation
CPRLAHD	Flight case
CLIPSCABLE371500	Lamp clips
ES000292	Lampe
SE14AI000006	Mât amovible

/ OPTION

/ MDI

MEASURING SLOPE AND IMPLANTATION

Advantages

- Solid box adapted to both Laser rulers RLAHD et REGLIGHT (Installation and option supplied by 4NRJ).
- Quick and easy attachment for storing and recharging the distance meter.
- Compatible with App RLAHD (available on Play store) to access and save DATA.





/ REGLIGHT

SELF-CENTERING LASER RULER FOR HEIGHT AND STAGGER LIGHT
SNCF Approval N° : MTP EO 17036

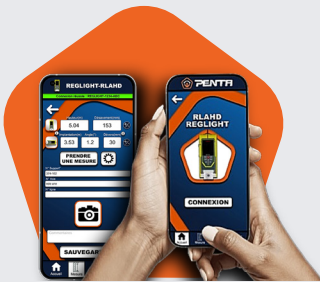
Advantages

- Predefined misalignment measurement reference thanks to the ruler's self-centering function.
- Shoulder strap for long-distance transport.
- Camera integrated into the laser system for easy and precise measurements at eye level (day/night) by visualizing the laser beam on the overhead contact wire.
- Connected ruler for data storage on the dedicated RLAHD app.
- Lightweight system for easy measurement of specific points.
- Millimeter adjustment wheel.



/ USE

Light laser ruler measures the height of the contact wire and the stagger versus the axis of the tracks.



/ APPLICATION

FREE TO DOWNLOAD

- The application allows you to enter data in digital format, and to add several indications necessary for taking measurements and recording series.

/ TECHNICAL SPECIFICATIONS

Ruler :

- Stagger range : ± 450 (900 mm)
- Compatibility with tracks width : 1430 à 1470 mm
- Dimensions without the mast : 1700 x 130 x 270 mm
- Dimensions with the mast : 1700 x 130 x 1260 mm
- Electrical isolation between the two rails of the track.
- Mass weight : 7 kg

LEICA laser camera :

- Scope : 200 meters
- Autonomy : ± 4000 measur
- Bluetooth connection.

/ TECHNICAL SPECIFICATIONS

- Thick fabric with foam lining.
- Dimensions : 1740 x 210 x 270 mm
- Weight : 1.5 kg



/ Composition of the set

Ref.	Designation
SACREGLIGHT	Transportation bag REGLIGHT
CLIPSCABLE371500	Lamp clips
ES000292	Lamp
SE14AI000006	Detachable Mast

Ref.	Designation	Compatibility with the tracks (mm)	Stagger range (mm)
REGLIGHT1M	Light self-centering laser ruler for 1 m track gauge	From 990 to 1030	From -335 to +335
REGLIGHT1.4M	Light self-centering laser ruler for 1.4 m track gauge	From 1430 to 1470	From -450 to +450
REGLIGHT1.6M	Light self-centering laser ruler for 1.6 m track gauge	From 1660 to 1700	From -450 to +450

- *** REGLIGHTDUO : Possibility of having a mast with 2 different frames.

/ BERHD

CONTROL BENCH FOR LASER RULER HEIGHT AND STAGGER
SNCF Approval N° : MTP EO 17323 / BREVET 4NRJ

Advantages

- Ensure calibration with a quick and easy check of your rulers.
- Essential for periodic inspections and possible adjustments.
- Protective casing and structure fixed to the ground to prevent misalignment due to impacts.
- Installation, adjustment, and handling carried out by 4NRJ.
- Practical and agile solution allowing for quick and easy transport during repairs.



/ USE

Quick and easy check of the calibration of your rules by the operator, before use for reliable field measurements.

/ TECHNICAL SPECIFICATIONS

- Footprint: 1.86 m x 0.82 m
- Ceiling height: 2.3 m
- Rigid structure anchored to the ground to ensure calibration.

Delivery includes :

- Assembly
- Training for 1 to 3 personnel (maximum).

/ CSPV1

TRACK CIRCUIT TEST "SNCF SELF" BEFORE EARTHING
SNCF Approval N° : MTP 15259

Advantages

- Simple Green/Red check result to validate the choke's status.
- Compact, lightweight, and shock-resistant case for easy transport and storage.
- Standalone device for portable use.
- Automatic calibration check each time the device is started to ensure compliance.
- Auto-off after several minutes of inactivity.



/ USE

The CSPV1 is a device designed to check and validate the condition of portable chokes used for rail alignment during railway operations.

/ TECHNICAL SPECIFICATIONS

- Mass weight : 6 kg
- Works with 2 batteries 9 V (≈ 500 controls)
- Dimensions : 470 x 350 x 180 mm



/ KITCAM

MONITORING DEVICE ON INSULATED POLE

Advantages

- Easily photograph or view the items you need to check on your smartphone.
- Motorized Head allows for camera orientation.
- Equipped with a rechargeable light for low-light areas.
- Harness and smartphone holder included for easy handling.



/ USE

Easily photograph or view hard-to-reach elements using your smartphone, from the ground with a catenary insulated pole (PIVAT).

/ TECHNICAL SPECIFICATIONS

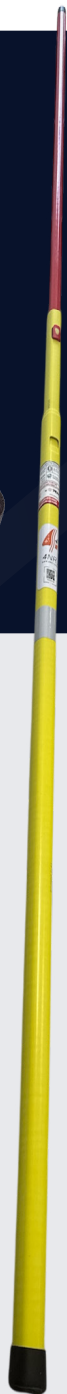
Support camera :

- Dimensions : 140 x 120 x 180 mm
- Weight : 400 g
- Camera rotate up and down $\pm 35^\circ$

Camera :

- Photo camera / movie camera
- Optical Zoom 4X
- Video HD 1080 p
- Wi-Fi® Connection to the App PIXPRO®.
- Weight : 180 g

Ref.	Designation
ES000245	KODAK PIXPRO WPZ2 Camera
ES000246	Batteries (x2) for KODAK PIXPRO WPZ2
ES000247	DAIWA SALTIGA harness XL
ES000270	Micro card SD 32 Go
ES000274	Card reader SD and micro SD
ES000275	Wall charger 220 V + power cable
ES000309	Support smartphone et tablette
SUPCAMKDK	Camera support for KODAK PIXPRO WPZ2 with built-in light
SACKITCAM	Storage bag for the set
SACKITCAMP	Storage bag for the camera KODAK
PIVAT	Insulating stick PIVAT



/ ACCESSORIES

- Installation tool : Arm for cable support.
- Magnetic system to attach the camera to a support.



Ref: SYSTAIM



Ref: SUPBUTCAT



Ref: CLINALERTMINIOP

/ CAMTHERM

THERMAL IMAGING DEVICE ON AN INSULATING POLE

Advantages

- Easily photograph or view the items you need to check on your smartphone.
- Motorized Head allows for camera orientation.
- Harness and smartphone holder included for easy handling.

/ USE

Thermal camera with wireless connectivity to visualize temperature variations and thus identify possible anomalies, from the ground with a catenary insulating pole.

/ CARACTÉRISTIQUES

Camera support :

- Dimensions : 205 x 121 x 68 mm
- Weight : 340 g
- Motorized head : 360° rotation, up and down $\pm 35^\circ$

Camera :

- Flir one edge pro
- Thermal Resolution : 160 x 120 (19,200 px)
- Remote function up to 30 m
- Accuracy : $\pm 3^\circ\text{C}$ or $\pm 5\%$
- Battery life : Approximately 1.5 hours
- Battery recharge time : 60 to 90 minutes for a full charge.
- Support Wi-Fi Connection.

Ref.	Designation
VENTX2	Suction cup for stick KITCAM (x2)
SUPTHERM	camera FLIR ONE EDGE PRO Support
ES000318	Motorized head with remote
SUPTHERMF10	Thermal camera support suitable for KITCAM stick
ES000317	Thermal camera FLIR ONE EDGE PRO
ES000275	Wall charger 220 V + power cable
SACDEGIPER	Storage bag for the set
ES000247	DAIWA SALTIGA harness XL
PIVAT	Insulating stick PIVAT

/ ACCESSORIES

- Installation tool : Arm for cable support.
- Magnetic system to attach the camera to a support.





/ D86 ELECTRONIC TRACTION DYNAMOMETER

Advantages

- Robust design for site use.
- Compact and lightweight due to strain gauge design.
- Built-in, protected LCD display with high readability.
- Electronic measurement accuracy.

/ USE

Used to lift reels with 2 reel lifters AV042.

/ TECHNICAL SPECIFICATIONS

- S250-hour battery life.
- Functions: instantaneous force, peak force, auto-off.
- Units : N or kg
- Accuracy : $\pm 0.3\%$ full scale.
- Waterproof to IP65.
- Operating temperature : -20°C to $+50^{\circ}\text{C}$

Ref.	WLL (t)	Dimensions (mm)	Weight (kg)
D86C01T	1	191 x 84 x 36	0.75
D86C03T2	3.2	191 x 100 x 36	0.95
D86C06T3	6.3	236 x 122 x 36	1.45



/ TZL5T ELECTRONIC TRACTION DYNAMOMETER

Advantages

- Lightweight, user-friendly, and robust design.
- Displays units of measurement on the load indicator.
- Units of measurement : kg, t, lbs, to, kN.
- The load indicator features an LCD screen for tare and display of gross or net load.
- Stores the peak value.

/ USE

Used to lift reels with 2 reel lifters AV042.

/ TECHNICAL SPECIFICATIONS

- S250-hour battery life.
- Functions: instantaneous force, peak force, auto-off.
- Units : N or kg
- Accuracy : $\pm 0.3\%$ full scale.
- Operating temperature : -20°C to $+50^{\circ}\text{C}$

Ref.	WILL (t)	Dimensions (mm)	Weight (kg)
TZL2.5T	2.5	233 x 118 x 42	1.07
TZL5T	5	250 x 118 x 45	2.01
TZL10T	10	325 x 118 x 64	3.9



/ D85C MECHANICAL TRACTION DYNAMOMETER

Advantages

- Very robust mechanical design with aluminium body.
- Two ring ends for easy hanging.
- Direct and instant needle reading (no battery).

/ USE

Anchored to a support, it can be used to stretch electrical and telephone cables, guy wires, fences, etc., without any length limit, and to pull out stakes, brushwood, undergrowth, etc.

/ TECHNICAL SPECIFICATIONS

- The end rings allow for attachment with hooks, shackles, etc.
- Reading accuracy $\pm 3\%$.
- Dial with needle recessed into the body for optimal protection.
- Dynamometer comes with a leather case.



Ref.	Capacity	Graduation (daN)	Dimensions (mm)	Weight (kg)
D85C1T	10 kN (1000 daN)	20	215	1,2
D85C2T	20 kN (2000 daN)	50	215	1,2
D85C3T	30 kN (3000 daN)	50	150	2

/ TM94N DIGITAL INSULATION TESTER

Advantages

- Very innovative and particularly user-friendly.

/ USE

Suitable for testing electrical installations and equipment.

Ref.	Dimensions (mm)	Weight (g)
TM94N	211 x 108 x 60	850

/ TECHNICAL SPECIFICATIONS

- Insulation : up to 2 G Ω at 250 V, 500 V, and 1,000 V DC.
- Voltage indication before insulation measurement : 0 to 600 V AC/DC (blocking if U>25 V).
- Continuity : -20 Ω to +20 Ω (beep and lead compensation).
- Resistance : 0 to 400 k Ω .
- Giant 4,000-count display + bargraph (simultaneous reading of measurement and analog variation).
- Backlighting.
- Alarm programming.
- Stop watch function (0 to 15 min).
- Rear stand for use on a table or floor.
- Measurements according to IEC 61557, NF C 15-100, VDE 0413.
- Supplied with 1 carrying case, 1 set of two 1.5 m leads, 1 red crocodile clip, 1 black test probe, and 6 LR6 or AA batteries.





/ TT30

EARTH METER 3 WIRES IEC 61010

Advantages

- A single push button to take measurements.



/ UTILISATION

The TT30 is a lightweight and very easy-to-use work site this device, truly designed for use in the field. Wherever it is necessary to qualify an electrical earth, using traditional stake methods, the TT30 measures earth resistance. This is done accurately, reliably, and quickly, in the best conditions of comfort and safety.

/ TECHNICAL SPECIFICATIONS

- 2P & 3P method measurements.
- Measurement validation by self-diagnostics.
- Work site use with waterproof and robust housing.
- Earth resistance : 0.00 to 2,000 Ω
- Measurement frequency : 128 Hz
- Connection of the rods to color-coded terminals.
- Removable captive bar between H and S for 2-wire resistance measurement.
- Device protected by HPC fuse.
- Large 2,000-count digital display with 18 mm digits.
- Average battery life of 1,800 15-second measurements, continuously monitored.
- IP 54 waterproof housing.
- Powered by 6 NiMH batteries.
- Carrying case.
- 1 USB power supply.
- 1 multilingual quick start guide.
- Comes with 6 NiMH batteries and a carrying case (ground rod kit not included).
- Dimensions : 223 x 126 x 70 mm
- Weight : 1 kg

/ TM77

POCKET CLAMP MULTIMETER CEI 61010

Advantages

- A single push button to take measurements.

/ USE

Pocket clamp multimeter, compact and ergonomic, it perfectly meets the needs of domestic, tertiary and small industries. The TM77 has an automatic DC Zero for continuous current measurements. This function also allows differential measurements of current, voltage and resistance.

/ TECHNICAL SPECIFICATIONS

- Clamp Ø 26 mm.
- Current measurement up to 400 A AC.
- AC and DC voltage measurement up to 600 V.
- Resistance, continuity, and frequency measurement.
- LCD display with 42-segment bargraph.
- 400 Ω resistance.
- Audible continuity test, diode test.
- Function : HOLD (display freeze).
- 1 operating manual in 5 languages.
- 1 soft carrying case.
- 1 set of test leads with Ø 2 mm test probes.
- Supplied with 19 V alkaline battery.



/ TT12

EARTH MEASUREMENT AND SOIL RESISTIVITY 4-WIRE
IEC 61010 / IEC 61557



/ USE

The TT12 is an easy-to-use device specially designed for use in the field. Wherever it is necessary to install an earth connection or characterize an existing earth, it helps to establish an accurate, reliable and rapid diagnosis, in the best conditions of comfort and safety.

/ TECHNICAL SPECIFICATIONS

- 3-in-1 tester : resistivity, earth, coupling.
- 2P & 3P method measurements.
- Self-diagnostics validation of results.
- Measurement range : 0.00 to 2,000 Ω (3 automatic calibers).
- Switch from 4-wire to 3-wire method using a removable captive bar between I and ES.
- 3 fault indicators to validate the measurement.
- Measurement frequency : 128 Hz
- Easy connection of the rods using color-coded terminals.
- Large 2,000-count digital display with backlighting.
- Power supply : 8 x 1.5 V batteries for a continuously controlled average battery life of 4,500 15-s measurements.
- IP53 waterproof housing with hinged lid and carrying handle.
- Comes with batteries and instructions (ground stake kit not included).
- Dimensions : 273 x 247 x 127 mm
- Weight : 2.8 kg

/ TP54N

1000 A TRMS AC MULTIMETER CLAMP

Advantages

- The TP54N features a fast 12-bit TRMS digital acquisition system and performs accurate measurements regardless of signal shape.

/ USE

To deal with the highest level of low-voltage electrical installations, the TP54N has a high protection rating and is ideal for maintenance, testing, monitoring and diagnostics on medium-power installations.

/ TECHNICAL SPECIFICATIONS

- Clamp \varnothing 48 mm
- Current : 1,000 A AC
- AC and DC voltage up to 1,000 V.
- Resistance and audible continuity.
- Temperature
- Automatic AC/DC detection.
- True Inrush current measurement
- Hold, Min, MAX
- CAT IV 1,000 V
- IP54 protection rating.





/ TP55N

1000 A TRMS AC/DC MULTIMETER CLAMP

Advantages

- The TP55N clamp is equipped with a fast 12-bit TRMS digital acquisition system and performs precise measurements regardless of the signal shape.

/ USE

To deal with the highest level of low-voltage electrical installations, the TP55N has a high protection rating and is ideal for maintenance, testing, monitoring and diagnostics on medium-power installations.

/ TECHNICAL SPECIFICATIONS

- Clamping diameter : 48 mm
- Current: 1,000 A AC / 1,500 A DC
- AC and DC voltage up to 1,000 V
- Resistance and audible continuity.
- Temperature
- Automatic AC/DC detection.
- True inrush current measurement.
- Hold, Min, MAX
- Relative (ΔX) and differential ($\Delta X/X$) measurements.
- Adapter function.
- CAT IV 1000 V
- IP54 protection rating.
- Dimensions : 254 x 97 x 46 mm
- Weight : 600 g



/ SÉRIE 13000

Ø 4 MM TEST LEAD WITH FUSE
1000V CAT II (1000V CAT IV WHEN RESTING) COMPLIANT, REINFORCED INSULATION, DEGREE OF POLLUTION 2, ACCORDING TO EN/IEC 61010-031:2008 ACCORDING TO LCIE REPORT 126340-653092-A. COMPLIANT WITH EUROPEAN DIRECTIVES LVD 2006/95/EC AND ROHS 2011/65/EU AND CE MARKING

Advantages

- End with fuse for connection close to the source of voltage.
- IP2X retractable sleeve tip end.
- Twinned tips for 19 mm centre distance.
- Max. depth of measuring well : 24 mm.
- Easy replacement of old fuse.
- Ø 4 mm male banana plug compatible with most T&M devices in the market.

/ USE

Ø 4 mm safety test lead with fuse for connection to test and measuring instruments such as multimeters.

/ TECHNICAL SPECIFICATIONS

- Visible cable length
- Type 13400 Lead : IP2X Ø 4 mm tip end with fuse to Ø 4 mm straight plug with 90° angle.
- Cable with 1 mm² section and double PVC insulation.
- Visible cable length : 100 cm
- Weight : 0,68 kg
- Protection : 1 A HPC@50kA, Ø 6 mm x 32 mm.
- Rated voltage : 1000 V CAT II (1000 V CAT IV when resting)
- Rated intensity : 10 A max depending on fuse used.
- Usage temperature : 0 °C à + 40 °C



Ref.	Color	Packaging (mm)	Weight (g)
13412-IEC-1A-100R	Red	Pack of 10	680
13412-IEC-1A-100N	Black	Pack of 10	680

/ PPROS

TEMPORARY OVERHEAD CONTACT DROPPER
SNCF Approval N° : MTP EO 17109 / N° Symbol : 0.392.6910

Advantages

- Solution used during operations to replace the contact wire on the 1500 V, Instinctive positioning on the contact wire
- Adapted to the minimum and maximum tolerances of the contact wire.
- Ergonomics design to place and remove with limited efforts.
- Specific design for use in curves allowing the passage of an equipotential bonding pantograph.



/ USE

The temporary overhead contact dropper is used during operations to replace the contact wire on the 1500 V catenary with auxiliary bearer cable (contact wires from 107 mm to 150 mm).

/ TECHNICAL SPECIFICATIONS

- CMU : 250 daN
- Distance between contact wire and PA : 195 mm
- Material: polymer structure reinforced with steel and Inox clamps.
- Used on contact wires from 107 mm to 150 mm.
- Mass weight : 339 g

Delivered with a protective bag :

- Dimension : 500 x 300 x 280 mm
- Containing 44 PPROS (Ref : ENSPPROS)
- Total mass weight : 17,5 kg

/ BC3P

CONTROL BENCH FOR TEMPORARY OVERHEAD CONTACT DROPPER (PPROS) 1500V

Advantages

- light Green/Red control result then audible signal to validate the clamping force of the 4NRJ temporary pendulums.
- Autonomous and itinerant use.
- Tracking system to identify validated PPROS 4NRJ thanks to coloured clips.
- Auto-shutdown after non-use for several minutes



/ USE

The BC3P is a test bench designed to check the clamping force of PPROS temporary pendulums.

/ TECHNICAL SPECIFICATIONS

- Compact light case, resistant to external shocks.
- Power supply with battery 9 V (≈ 500 cycles) equivalent up to 1000 PPROS.
- Control gauge.
- Dimensions : 470 x 350 x 180 mm
- Mass weight : 8,7 kg



/ VIGICAT

SURVEILLANCE CAMERA FIXED ON CATENARY SUPPORT

Advantages

- Magnetic mount, set up with a catenary pole from the ground with tool Ref : CLINALERTOP.
- Solar panel installed directly on top of the 4G camera to save space.
- Longer battery life without having to worry about weather conditions.
- Motion detection up to 10 m.
- Night vision up to 20 m.
- Remote monitoring.



/ USE

Unlike other ordinary 4G cameras, it has a rotating lens (355°Pan/ 100°Tilt) that can be controlled from its UBox application, allowing you to target the area to be monitored from the ground, reducing surveillance blind spots.

/ TECHNICAL SPECIFICATIONS

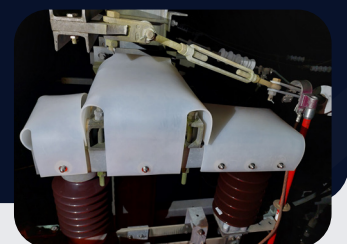
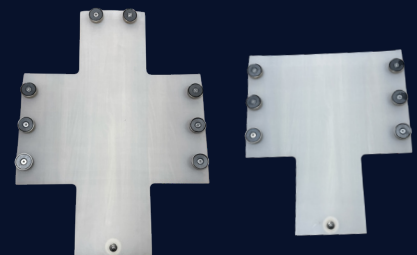
- Dimensions : 550 x 500 x 400 mm
- Weight : 5.13 kg
- Operating system : Android/iOS via UBox app
- Video : 2K-3MP HD. Live view. Color and infrared night vision.
- Rotation : 355° horizontal / 95° vertical.
- Multi-user view : Up to 10 users.
- Protection rating : IP66.
- Storage mode : SD card (max. 128 GB) (not included) / Cloud storage via the UBox app (via subscription)
- Nano-SIM card : 3G/4G/LTE : You can use a SIM card from Telekom, AG, Vodafone, O2, SFR, Orange, Bouygues, TIM, and others. (A SIM card is included with the camera, which can be activated via a subscription via the UBox app.)

/ ISOPRO

BIRD PROTECTION

Advantages

- Durable materials, made of robust silicone, resistant to weathering and UV rays, adaptable to different disconnect switches.
- Non-conductive materials to prevent short circuits in case of accidental drops.
- These devices improve the safety of the electrical network and limit maintenance interventions.
- Removable system, easy to attach to disconnect switches using magnets.



/ UTILISATION

These protective plates are designed to prevent birds from nesting on the disconnectors, thus reducing the risk of short circuits. Three plates must be installed on top of the disconnecter to block access to areas suitable for nesting, especially during the bird breeding season.

/ CARACTÉRISTIQUES

- Plate dimensions 320 : 775 x 570 x 31 mm
- Plate weight 320 : 2.46 kg
- Plate dimensions 250 : 565 x 500 x 31 mm
- Plate weight 250 : 1.57 kg
- Total weight : 5.60 kg
- Magnet strength : 23 kg



/ KIC

CATENARY INTERVENTION SET SNCF Approval N° : MTP EO 18128

Advantages

- Safe use from the ground with dedicated pole.
- Simple and quick setting with dedicated P-FIX connection (4NRJ patent).
- Foamed bag for a safe transportation and tools storage.



/ USE

The catenary KIC is a set of tools designed for rapid and safe interventions on catenaries from the ground using insulating pole.

/ KICC

Cable cutting pliers

- Is designed to cut the pendulums suspended from the catenary which disrupt train traffic

/ KICE

Pruning

- The pruner is used to remove branches that come too close to the overhead lines or tracks, presenting a risk of contact or incident.

/ KICP

Grip pliers

- The purpose of removing elements disturbing the catenary is to remove any suspended object which could harm the proper functioning of overhead power lines.

/ KICS

Pruning saw

- The saw is intended to remove branches that could cause incidents by falling or touching overhead lines.

/ KICG

Claw device

- Aims to remove any object or debris that could interfere with the proper functioning of railway installations

/ TECHNICAL SPECIFICATIONS

- Bag dimensions : 900 x 500 x 250 mm
- Weight : 12 kg

/ TECHNICAL SPECIFICATIONS

- Dimensions : 380 x 300 x 80 mm
- Weight : 1.4 kg
- Maximum cutting diameter : Ø 7 mm

/ TECHNICAL SPECIFICATIONS

- Dimensions : 380 x 300 x 80 mm
- Weight : 1.4 kg
- Maximum cutting diameter : Ø 50 mm

/ TECHNICAL SPECIFICATIONS

- Dimensions : 380 x 300 x 80 mm
- Weight : 1.4 kg
- Maximum gripping diameter : Ø 50 mm

/ TECHNICAL SPECIFICATIONS

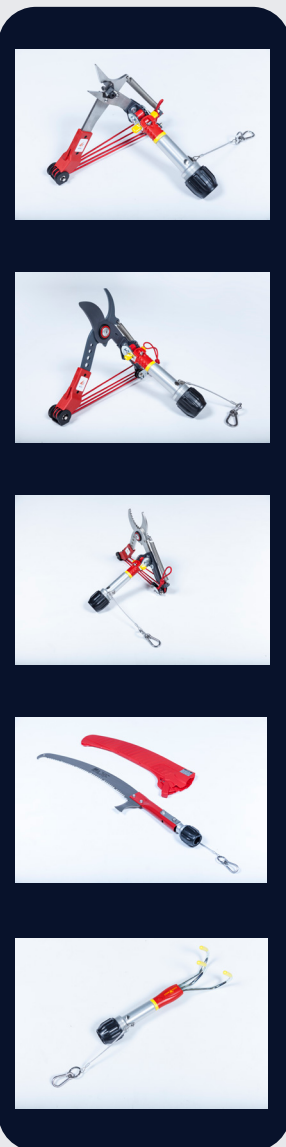
- Dimensions : 750 x 160 x 60 mm
- Weight : 0.8 kg
- Blade length: 470 mm
- Maximum cutting diameter : Ø 160 mm

/ CARACTÉRISTIQUES

- Dimensions : 100 x 120 x 370 mm
- Masse : 700 g

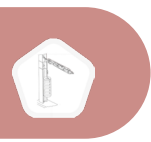


/ KICEN



LIFTING / PULLING





/ PCAFSERV BRAKE ROPE PULLEY

Advantages

- Tooling for lifting tools for overhead handling.
- Locking brake system in case of load release.
- Detachable wire/cable attachment that can be installed and removed using an insulated telescopic pole.



/ UTILISATION

Hoist your equipment for aerial work. Quick installation from the ground with its insulating catenary pole and related setup tool (ref : CLINALERMINIOP).

/ CARACTÉRISTIQUES

- Dimensions : 450 x 150 x 135 mm
- Lifting bucket dimensions : Ø 280 x 310 mm
- Pulley system weight : 1.8 kg
- Working load capacity : 35 kg
- Rope length : 12 m
- Insulating pole setup type : OUTPE10CV fitting





/ ERGO

MANUAL LEVER HOIST YALE ERGO WITH SELECTOR LEVER LOCKS
SNCF Approval N° : MTP EO 18129

Advantages

- Optimized ergonomics thanks to its folding handle in a 360° rotating lever, facilitating maneuvering and transport while reducing effort.
- Integrated direction indicator : Clear symbols (up, down, neutral) ensure easy and intuitive operation.
- Smooth freewheeling allows for quick chain positioning and effortless hooking.
- Specific chain stop designed to guarantee operator safety during use.
- Equipped with an RFID chip validating a certificate of fitness for use and ensuring documented traceability.



/ USE

The YALE ERGO hoist is ideal for applications requiring safe and controlled lifting, particularly in situations requiring precise positioning and secure access. It is ergonomically designed for increased safety and allows the operator to work up to 12 times faster and with up to 30% less pulling force than conventional ratchet lever tools.

/ TECHNICAL SPECIFICATIONS

- Lifting mechanism : ratchet system
- Lifting height : 1.5 m
- Lifting load : from 750 kg to 6 t



- Chain stop included to ensure safety during handling by holding the load in place under all circumstances.
- Chain length : 1.50 m
- Option to order the length you want.

Ref.	Maximum load use (kg)	Unit Mass weight (kg)	Number of strands
ERGO750YKST16	750	6.6	1
ERGO1T5YKST16	1500	9.5	1
ERGO3TYKST32	3000	16.8	1
ERGO6TYKST32	6000	28.6	2

/ GDTFC500

CONTACT WIRE PULL CLAW

Advantages

- Maintains parallel connection of the two contact wires on a 1500 V network.
- Does not damage the contact wire during the power-up phase.
- Robust stainless steel.



/ USE

Pulling accessory for maintaining the radial tension of the contact wire on a 25000 V network or the contact wires on a 1500 V network.

/ TECHNICAL SPECIFICATIONS

- Dimensions : 195 x 50 x 29 mm
- Weight : 0.7 kg
- CMU : 500 kg

/ LIFT360

YALE LIFT360 CHAIN HOISTS
SNCF Approval N° : MTP EO 18129

Advantages

- The Yale lift 360 can be operated away from the load, allowing it to be used horizontally for pulling or powering up
- The revolutionary 360° chain guidance allows the operator to work in all positions, in confined environments or above the load.
- Automatic brake system.
- Equipped with an RFID chip to access documentation and tracking data.



/ USE

The YALE LIFT 360 chain hoist is a versatile lifting device, designed to safely lift and move loads in all directions. Ideal for lifting and pulling operations in confined spaces, offering 360° maneuvering flexibility.

/ TECHNICAL SPECIFICATIONS

- Lifting mechanism : Ratchet system.
- Lifting height : 3 m
- Lifting load : from 500 kg to 3 t.

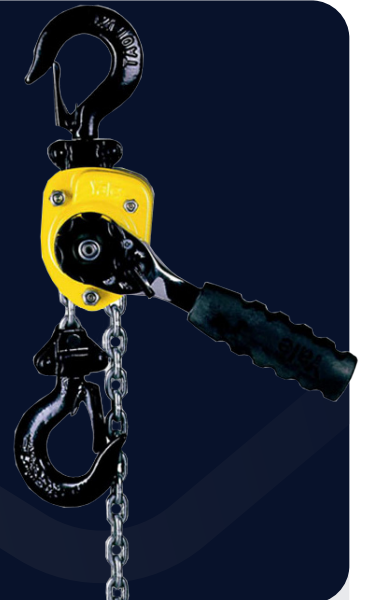
Ref.	Maximum load use	Unit Mass weight (kg)	Nombre of strands
LIFT500KG	500 kg	9	1
LIFT1T	1 T	13	1
LIFT2T	2 T	20	1
LIFT3T	3 T	29	1

/ HANDY

YALE HANDY LEVER HOIST
SNCF Approval N° : MTP EO 18129

Advantages

- Equipped with a short lever with an ergonomic rubber grip, ensuring a comfortable grip and simplified operation.
- Freewheel allows for quick load adjustment and easy chain handling in both directions, saving time and safety.
- Adaptable to confined spaces thanks to its compact design, allowing use even in tight spaces where movement is limited.
- Equipped with an rfid chip for access to documentation and tracking data.



/ USE

The YALE HANDY lever hoist is a compact and versatile lifting tool, ideal for multiple applications in diverse environments, including confined spaces.

/ TECHNICAL SPECIFICATIONS

- Lifting mechanism : ratchet system
- Lifting height : 1.5 m and closed height : 240 mm
- Lifting load : from 250 kg to 500 kg
- Class 80 galvanized chain

Ref.	Max load use (kg)	Unit Mass weight (kg)	Nombre of strands
HANDY250	250	2.2	1
HANDY500	500	2.8	1



/ PLH

MANUAL CABLE LEVER HOIST SNCF Approval N° : AGT 25 450

Advantages

- Range of ultra-portable hoists particularly suited to working at height.
- 3 hooks system enables to work in any position by triangulating the forces and doubling the force by reeving the hook block.
- Reversible lever and fuse handle to prevent overloading.



/ USE

"Winch" hoists dedicated to lifting, handling, traction (hauling) or mechanical cable tensioning operations.

/ TECHNICAL SPECIFICATIONS

- Highly flexible cable with anti-corrosion treatment.
- Hoist body in light aluminium alloy and anticorrosion.
- Forged steel hooks with safety latch and free 360 rotation.
- Double ratchet system to secure holding in position.
- The load lowering is done tooth by tooth.

Ref.	Single line			Double line			Ø cabl (mm)	Dimensions (mm)	Weight (kg)
	WLL (kg)	Lifting height (m)	Hook to hook (m)	WLL (kg)	Lifting height (m)	Hook to hook (m)			
PHL1000-4	500	4.3	0.51	1000	2.1	0.58	5.6	645 x 115 x 105	4.4
PHL1000-9	500	9.1	0.56	1000	4.5	0.74	5.6	845 x 180 x 125	6.4
PHL1600-6	800	6.1	0.56	1600	3.0	0.74	6.4	975 x 180 x 125	7.2

/ TP550

ROPE-OPERATED HOIST 550 DAN



/ USE

This plan is used to transmit tensile forces (for example to adjust conductors, lift loads a transformer or move a triangulation).

/ TECHNICAL SPECIFICATIONS

- 2 strand with 3 sheaves mounted on ball bearings.
- Recommended rope Ø 12 mm.

Ref.	Designation
TP550-100	Rope pulley block and tackle, WLL: 550 daN, 12 mm diameter rope, 100 m length + bag
TP550	Rope pulley block and tackle, WLL: 550 daN
C325D12L100	Drisse polyamide Ø12 mm L : 100 m CR : 2400 kg blanc
TS45R	Sac à corde Ø 38 cm - hauteur 45 cm vol : 51 L (pour 200 m max)

Ref.	Designation
TP1300-100	Palan moufles à corde CMU : 1300 daN corde Ø 12 mm L : 100 m + sac
TP1300	Paire de palans moufle TP1300
C325D12L100	Drisse polyamide Ø 12 mm L : 100m CR : 2400 kg blanc
TS45R	Sac à corde Ø 38 cm - hauteur 45 cm vol : 51 L (pour 200 m max)

/ LEVIATAN

COUNTERWEIGHT LIFTING HOOK
SNCF Approval N° : AGT 22 255

*** THE Approval sncf valid only for LEVIATAN

Advantages

- Tough materials.
- Lifting in the mechanical tension axis.
- One-off setting.
- Adjustable on double screed and screed with clevis.



/ USE

Improve and secure your maintenance interventions on counterweight screed.

/ TECHNICAL SPECIFICATIONS

- Non-slip clamping lock.
- Grab handle.

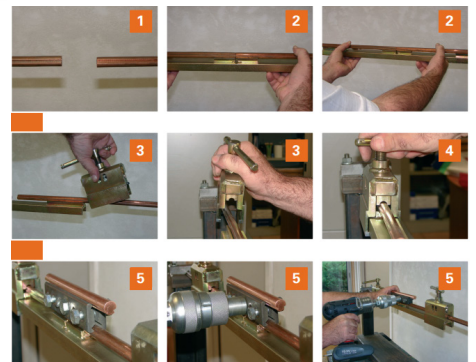
Ref.	Dimensions (mm)	WLL (kg)	Weight (kg)	
LEVIATAN	510 x 160 x 90	750	1,3	Developed for double screed and screed knuckle
LEVIATHOR	480 x 120 x 70	550	1,3	Developed for screed knuckle concrete counterweight
LEVIATUK	480 x 120 x 70	780	1,3	Developed according to UK specification

/ AAG

TOOL FOR INSTALLATION OF CONTACT WIRE CLAMP

/ USE

- 1 - Place the AAG bar on the contact wire.
- 2 - Join the two ends of your wire and orient them in the groove of the AAG.
- 3 - Place the two jaws over the contact wire and align them on the device.
- 4 - Once they are aligned, tighten both jaws on the wire.
- 5 - You can now position your claw and tighten it using your VSCI.





/ E35

STEEL SLING WITH THIMBLE EYE AT EACH END

Plus produit

- Galvanized steel wire rope sling.

/ USE

Approved sling for lifting with safety coefficient 5 : 1.

/ TECHNICAL SPECIFICATIONS

- Large opening heart-shaped lug.
- Aluminum sleeve.

Ref.	WILL (t)	Lenght (m)	cable Ø (mm)	Weight (kg)
E35N14T08M	1.4	0.8	12	0.9
E35N14T12M	1.4	1.2	12	1.1
E35N14T2M	1.4	2	12	1.5
E35N14T3M	1.4	3	12	2
E35N27T08M	2.7	0.8	16	1.9
E35N34T12M	3.4	1.2	18	2.9
E35N34T2M	3.4	2	18	3.8
E35N34T3M	3.4	3	18	4.9
E35N52T3M	5.2	3	22	5.2



/ E25

ROUND SLING EC MARKING / EN 1492-2

Advantages

- Robust materials.

/ USE

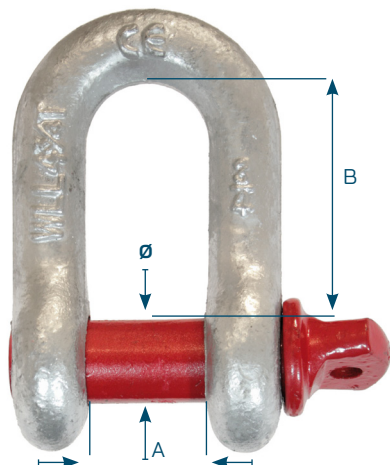
Lifting strop with a 7:1 safety factor. For lifting concrete posts, a single-loop sheath is essential in addition to the sheath.

/ TECHNICAL SPECIFICATIONS

- Highly resistant 100% parallel polyester fibres in antiabrasion treated sheath.
- Each type of roundsling is identified by a different colour.
- Roundslings also bear a label indicating the maximum vertical static load (CMU) and the materials used.
- If requested, it is possible to adapt 1 PVC sleeve with a sheath stitched on to a loop (factory operation).

Estrope polyester								
CMU et code couleur	1.000 kg	2.000 kg	3.000 kg	4.000 kg	5.000 kg	6.000 kg	8.000 kg	10.000 kg
0,5 m	E25N1T05M	E25N2T05M	E25N3T05M					
1,0 m	E25N1T1M	E25N2T1M	E25N3T1M	E25N4T1M	E25N5T1M			
1,5 m	E25N1T15M	E25N2T15M	E25N3T15M	E25N4T15M	E25N5T15M			
2,0 m	E25N1T2M	E25N2T2M	E25N3T2M	E25N4T2M	E25N5T2M	E25N6T2M		
2,5 m	E25N1T25M	E25N2T25M	E25N3T25M	E25N4T25M	E25N5T25M	E25N6T25M	E25N8T25M	
3,0 m	E25N1T3M	E25N2T3M	E25N3T3M	E25N4T3M	E25N5T3M	E25N6T3M	E25N8T3M	E25N10T3M
4,0 m	E25N1T4M	E25N2T4M	E25N3T4M	E25N4T4M	E25N5T4M	E25N6T4M	E25N8T4M	E25N10T4M





/ M120 HIGH STRENGTH STRAIGHT SHACKLE

Advantages

- HR straight shackle with screwed pin.

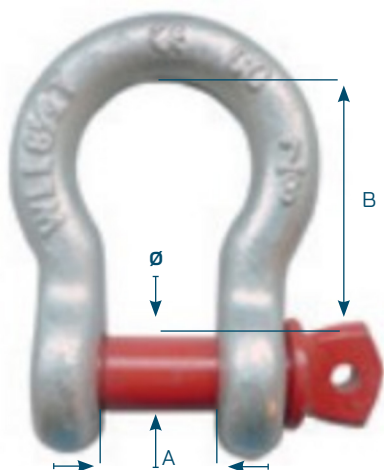
/ USE

Compact shackle used for lifting loads.

/ TECHNICAL SPECIFICATIONS

- Bow-shaped shackle with screwed pin.
- Galvanized alloy steel shackle.

Ref.	WLL (kg)	Ø (mm)	A	B	Weight (kg)
M120D08	500	8	12 mm	23 mm	50
M120D11	1000	20	17 mm	31 mm	130
M120D12	1500	12	19 mm	37 mm	200
M120D16	2000	16	20 mm	41 mm	270
M120D19	3250	19	27 mm	51 mm	570
M120D22	4750	22	31 mm	60 mm	1190



/ M220 HIGH STRENGTH LYRE SHACKLE

Advantages

- HR lyre shackle with screwed pin.

/ USE

Compact shackle used for lifting loads.

/ TECHNICAL SPECIFICATIONS

- Lyre-shaped shackle with screwed pin.
- Galvanized alloy steel shackle.

Ref.	WLL (kg)	Ø (mm)	A	B	Weight (kg)
M220D08	500	8	12 mm	29 mm	50
M220D11	1000	11	17 mm	36 mm	140
M220D12	1500	12	19 mm	43 mm	170
M220D16	2000	16	20 mm	47 mm	330
M220D19	3250	19	27 mm	60 mm	620
M220D22	4750	22	31 mm	71 mm	1070
M220D25	6500	25	36 mm	84 mm	1640

Other dimensions, please contact us.



/ P220

STRINGING PULLEY FOR BARE CABLES, WITH HOOK

Advantages

- Aluminum sheave for aluminum cable.
- Aluminum alloy pulley that is strong and lightweight.

/ USE

Pulley designed for unwinding bare LV and HV cables.

/ TECHNICAL SPECIFICATIONS

- Manufactured from light alloy throughout.
- Revolving hook with safety clip.
- Ring with lubricator.
- Safety catch.

Ref.	Designation	Cable (mm ²)	Ø Throat bottom (mm)	Throat width (mm)	WLL (daN)	Weight (kg)
P220 0500	500 daN pulley block for bare cable	jusqu'à 43	150	22	500	1.15
P220 0800	800 daN pulley block for bare cable	jusqu'à 117	250	38	800	2.1
P220 1300	1300 daN pulley block for bare cable	jusqu'à 148	300	40	1300	4



/ P223

SCISSOR TYPE SNATCH PULLEY

Advantages

- Corrosion-resistant steel pulley.
- Simple, lightweight, and economical pulley.
- Multiple anchoring options: shackle, hook, sling, chain.

/ USE

This is the simplest and most economical type of pulley, and is suitable for direct anchoring using a chain or cable with shackle.

/ TECHNICAL SPECIFICATIONS

- Poulie à flasques pivotants pour passer le câble.
- Ancrage multiple.

Ref.	Cable (mm)	Ø Throat bottom (mm)	Dimensions (mm)	WLL (t)	Weight (kg)
P2232	10-12	132	260 x 164	3.2	4.8

/ GR3T

3t CLAMP HAND PULLER



/ USE

Pulling of all types of cables or wires (steel, stainless steel, copper, bronze) with a diameter of 6 mm.

/ TECHNICAL SPECIFICATIONS

- Clamp made of steel.

Ref.	Dimensions (mm)	Weight(kg)	Cable (mm)
GR3T	240 x 200 x 50	3.4	De 6 à 16

Spare parts	
BAR3T	Spare part for maintenance of the pull hand 3 t 0.392.6350.



Ref : BAR3T

/ MTA-FC

AXIAL PULLING HAND FOR CONTACT WIRES 107-120-150² (MTAFC)

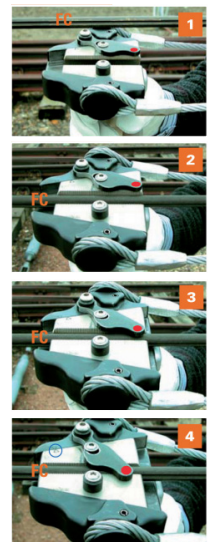
Validated by SNCF : IEM RM5

/ USE

The MTA allows the installation of 107-120-150 mm² contact wires and prevents the formation of shells on the contact surface. Easy to use: one-handed installation.

/ TECHNICAL SPECIFICATIONS

- WILL: 32 kN
- Weight : 3,150 kg





/ SPT21

HYDRAULIC UNIT GENERATING 700 BARS,
ELECTRICALLY POWERED 220 V

Advantages

- Sturdy manufacturing for a maximum availability.
- Compact size for an easy use in aerial bucket.



/ USE

Reliable hydraulic unit for intensive crimping use.

/ TECHNICAL SPECIFICATIONS

- Mass weight : 16 kg
- Alimentation : 220 V
- Remote control : 3 m
- Temperature of use : -10 °C to +50 °C



/ OPTIONS

- Crimping head : (C 12.5 KN - Ref : SC125J).
- Foot controller : Ref PCSPT21
- Hydraulic hoses equipped with catenary standard hydraulic connection :
 - 3 m Ref : FL3MJ
 - 9 m Ref : FL9MJ
 - 12 m Ref : 12FLMJ





/ MP55

55 KN MANUAL HYDRAULIC CRIMPING TOOL
EN ISO 20345 / ASTM 2413 / MARQUAGE SB P HRO EH SRA

Advantages

- Easier to use than a mechanical tool.
- Ergonomic handle for one-handed approach.
- Accepts all brands of matrix.
- Reversible dies with double impressions (except for large sizes).

/ USE

Lightweight and ergonomic manual hydraulic press for crimping connectors up to 240 mm².

/ TECHNICAL SPECIFICATIONS

- Quick-opening and quick-closing D-head with 180° rotation.
- Adjustable ball plunger for 30 or 38 mm matrix.
- Automatic release with audible click.
- Plunger return via relief lever.
- Supplied in a plastic case.

Ref.	Strength kN	Shift mm	Hexagonal crimping mm ²	Dimensions (mm)	Weight (kg)
MP55	55	13	4 - 240	380 x 65 x 140	2.3



/ BLP55

55KN BATTERY OPERATED CRIMPING TOOL

Advantages

- Ergonomic and lightweight «In-Line» tool allows for one handed crimping.
- Dual-trigger control.
- LED communication system and work area lighting.

/ USE

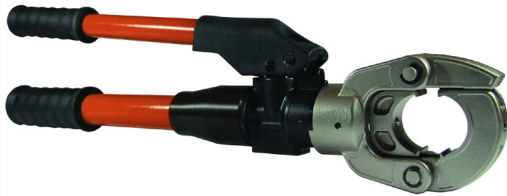
Compact electro-hydraulic press for crimping connectors up to 240 mm².

/ TECHNICAL SPECIFICATIONS

- Quick-opening and closing D-shaped head with 180° rotation.
- Dual triggers : forward, hold, and reverse.
- Robust housing with a non-slip coating.
- LED lighting on the front of the tool.
- Lightweight 18 V Li-Ion 2 Ah battery with charge indicator.
- Supplied in a plastic case with 1 battery and 1 charger.

Ref.	Designation
AB18LI200	18 V Li-Ion 2A Battery
AC18220	220V AC charger European plug

Ref.	Strenght (kN)	Chift (mm)	Hexagonal crimping(mm ²)	Dimensions (mm)	Weight (kg)
MP80	80	13	6- 240	355 x 57 x 175	3.9



/ MP80

80 KN MANUAL HYDRAULIC CRIMPING TOOL MANUEL

Advantages

- Quick-opening and quick-closing D-head, 180° rotation.
- 2-speed tool : rapid advance/work advance.

/ USE

Manual, ergonomically designed, lightweight hydraulic tool for crimping of 6 to 240 mm² connectors.

/ TECHNICAL SPECIFICATIONS

- Quick opening and closing head, rotatable 180°.
- Automatic release with an audible «click» when force of 80 kN is reached.
- Return of the piston by rotation of the moveable handle.
- Periodic inspection frequency : 1 year or 10 000 cycles.
- Delivered in a plastic case

Ref.	Streight (kN)	Shift (mm)	Hexagonal crimping (mm ²)	Dimensions (mm)	Weight (kg)
MP80	80	13	6 - 300	355 x 57 x 175	3.9

/ BLP80

80 KN HYDRAULIC CRIMPING TOOL ON 18 V BATTERY

Advantages

- Ergonomic and lightweight design allows for one-handed crimping.
- Dual trigger control.
- LED communication system and work area lighting.
- Robust housing with a non-slip coating.



/ USE

Electro-hydraulic press for crimping cables up to 300 mm².

Ref.	Designation
AB18LI200	18 V Li-Ion 2 A battery with charge indicator
AC18220	Smart Li-Ion 10,8-18 V battery charger
775016SFE	Plastic box that can hold 12 sets of matrix

/ TECHNICAL SPECIFICATIONS

- Quick-opening D-head, rotating >180°.
- Double trigger: advance, hold, return.
- ON/OFF function.
- Fine crimping control and cycle validation.
- Description 775016SFE
- 18 V Li-Ion 2A battery with charge indicator.
- Smart 10.8-18V Li-Ion battery charger.
- Plastic case for 12 die sets.
- Tool life and maintenance cycle monitoring.
- Hanging ring.
- Lightweight 18 V 2 A battery with charge indicator.

TOOL :

- Force : 80 kN
- Piston stroke : 13 mm
- Tool weight : 3.7 kg (operating with 1 battery and 1 die set).
- Dimensions : 128 x 75 x 420 mm



/ MP130

MANUAL HYDRAULIC CRIMPING TOOL

Advantages

- Open C-head with direct access and 320° rotation.
- Accepts all brands of matrix.
- 2-speed tool : rapid feed/work feed

/ USE

Powerful manual hydraulic press for crimping connectors up to 400 mm².

/ TECHNICAL SPECIFICATIONS

- Powerful and comfortable tool that develops 13 tons of crimping power.
- Dual composite handles.
- Automatic release with an audible click.
- Piston returns by rotating and closing the movable handle.
- Supplied in a plastic case.

Ref.	Strenght	Shift	Hexagonal crimping	Dimensions (mm)	Weight (kg)
MP13026	130 kN	26 mm	6 - 300 mm ²	565 x 70 x 160	5.3
MP13038	130 kN	38 mm	6 - 400 mm	590 x 70 x 160	5.7

/ BP130

OUTIL DE SERTISSAGE HYDRAULIQUE 80KN SUR BATTERIE 18 V

Advantages

- Open C-shaped head with direct access and 180° rotation.
- 2-speed tool : rapid advance/work advance.
- Dual-tilt, lockable trigger control.
- Inteled communicating system and work area illumination.
- Highly robust housing with a non-slip coating.



/ USE

Electro-hydraulic press for crimping connectors up to 400 mm². Particularly suitable for crimping overhead lines. Uses C130 matrix, but also C80 and C60.

Ref.	Designation
AB18LI500	18 V Li-Ion 5 Ah Battery
AC18220	220V AC charger European plug

/ TECHNICAL SPECIFICATIONS

- Dual triggers : advance, hold, and return.
- Electronic crimping end control.
- Inteled ring.
- Shoulder strap attachment ring.
- 18 V Li-Ion 5 Ah battery with long battery life and charge indicator.
- Supplied in a plastic case with two batteries and one charger.

Ref.	Strength kN	Chift (mm)	Hexagonal crimping(mm ²)	Dimensions (mm)	Battery	Weight (kg)
BP13026	130 kN	26 mm	6- 300	400 x 75 x 310	18 V-5 Ah	6.5
BP13038	130 kN	38 mm	6- 400	430 x 75 x 310	18 V-5 Ah	7



/ BC55

BATTERY OPERATED HYDRAULIC CABLE CUTTER Ø 55 MM

Advantages

- New counterblade reduces cable deformation during cutting.
- 2-speed tool : fast forward/working forward.
- Dual-tilt, lockable trigger control.
- InteLED communication system and work area lighting.
- Highly robust housing with a non-slip coating.



/ USE

Compact electrohydraulic guillotine-type cable cutter for copper or aluminum cables with a maximum diameter of 55 mm.

/ TECHNICAL SPECIFICATIONS

- Quick-opening and closing cutting head, 270° rotation.
- Blade and counterblade with tapered profiles.
- Hanging loop for shoulder strap.
- 18 V Li-Ion 5Ah battery with long battery life and charge indicator.
- Supplied in a plastic case with 2 batteries and 1 charger.

/ ACCESSORIE(S)

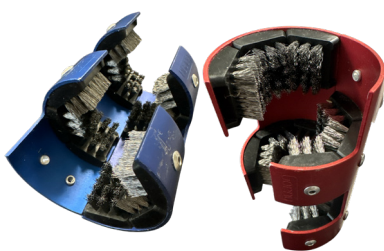
Ref.	Designation
AB18LI500	18 V Li-Ion 5Ah Battery
AC18220	220V AC charger European plug

Ref.	Strength	Ø Maxi	Cable	Dimensions (mm)	Battery	Weight (kg)
BC55	43 kN	55 mm	Cuivre / Alu	500 x 75 x 335	18 V - 5 Ah	6.4

CAPACITÉS DE COUPE

* Autres dimensions et câbles à valider sur essais.

	TYPE DE CÂBLES	DURETÉ MAXI.	SECTIONS	Ø MAXI. DE COUPE *
CÂBLES	Cuivre multibrins		4 x 185 mm ² ou 630 mm ² maxi.	
	Aluminium souterrain		3 x 240 + 1 x 95 mm ²	Ø 51 mm
	Téléphonique			Ø 55 mm
BARRES	Ronde en cuivre recuit	< 20 daN/mm ²		Ø 16 – 18 mm
	Ronde en aluminium recuit (A5)	< 16 daN/mm ²		Ø 20 – 25 mm



/ BRONETALU (BLUE)

/ BRONETCU (RED)

CLEANING BRUSH FOR CABLE DIAMETERS BETWEEN 10 AND 40 MM

/ TECHNICAL SPECIFICATIONS (BLUE)

- Use : for aluminum wires and cables.
- Shell material : Anodized aluminum.
- Dimension : 70 x 60 x 120 mm
- Masse : 1,4 kg

/ TECHNICAL SPECIFICATIONS (RED)

- Use : For copper wires and cables.
- Shell material: Anodized aluminum.
- Dimensions: 70 x 60 x 120 mm
- Weight: 1.4 kg



/ MC25 MANUAL HYDRAULIC CABLE CUTTER Ø 25 MM

Advantages

- Reinforced blades for increased blade life.
- Identical, replaceable blades and counterblades.
- 2-speed tool : rapid feed/work feed.

/ USE

Hydraulic guillotine-type cable cutter for copper, aluminum or steel cables with a maximum diameter of 25 mm.

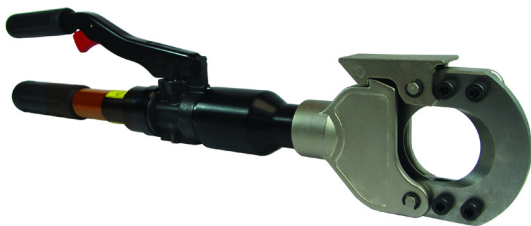
/ TECHNICAL SPECIFICATIONS

- Reinforced cutting head with a reinforced yoke and locking latch.
- Quick opening and closing, 180° rotation.
- Automatic release with an audible click in case of overpressure.
- Piston return with a relief lever.
- Supplied in a plastic case.

Ref.	Strenght (kN)	Ø Max (mm)	Cable	Dimensions (mm)	Weight (kg)
MC25	55	25	Acier/Copper/Alu	380 x 60 x 140	2.9

	TYPE DE CÂBLES	DURETÉ MAXI.	Ø MAXI. DE COUPE *
CÂBLES MULTI-TORONS	7 x 19 brins – acier	100 > 120 daN/mm ²	Ø 15 > 16 mm
	7 x 37 brins – acier	130 > 145 daN/mm ²	Ø 12 > 13 mm
CÂBLES ÉLECTRIQUES	Nus – cuivre/aluminium		300 mm ²
	Multibrins rigides – cuivre/aluminium		Ø 20 > 22 mm
	Multibrins semi-rigides – cuivre/aluminium		
BARRES CYLINDRIQUES	Cuivre	< 20 daN/mm ²	Ø 20 > 22 mm
	Cuivre écroui	20 > 28 daN/mm ²	Ø 15 > 18 mm
	Aluminium	< 20 daN/mm ²	Ø 20 > 25 mm
	Acier doux	42 > 45 daN/mm ²	Ø 12 > 14 mm
	Acier mi-dur	50 > 70 daN/mm ²	Ø 10 mm
CÂBLES ISOLÉS	Selon l'épaisseur de l'isolant		150 > 240 mm ²
	Inox	< 150 daN/mm ²	Ø 8 > 10 mm

* Autres dimensions et câbles à valider sur essais.



/ MC55 MANUAL HYDRAULIC CABLE CUTTER Ø 55 MM

Advantages

- New counterblade reduces cable distortion during cutting.
- 2-speed tool : fast forward/working forward.
- Ergonomic handle.

/ USE

Hydraulic guillotine-type cable cutter for copper or aluminum cables with a maximum diameter of 55 mm.

/ TECHNICAL SPECIFICATIONS

- Quick-opening and quick-closing cutting head, 180° rotatable.
- Automatic release with an audible click in case of overpressure.
- Piston return via a pressure relief trigger located in the movable handle.
- Tool supplied in a canvas bag.

Ref.	Strenght (kN)	Ø Max (mm)	Cable	Dimensions (mm)	Weight (kg)
MC55	43 kN	55 mm	Copper/Alu	560 x 55 x 140	3.7

CAPACITÉS DE COUPE

* Autres dimensions et câbles à valider sur essais.

	TYPE DE CÂBLES	DURETÉ MAXI.	SECTIONS	Ø MAXI. DE COUPE *
CÂBLES	Cuivre multibrins		4 x 185 mm ² ou 630 mm ² maxi.	
	Aluminium souterrain		3 x 240 + 1 x 95 mm ²	Ø 51 mm
	Téléphonique			Ø 55 mm
BARRES	Ronde en cuivre recuit	< 20 daN/mm ²		Ø 16 – 18 mm
	Ronde en aluminium recuit (A5)	< 16 daN/mm ²		Ø 20 – 25 mm



/ CPM-SNCF-1

FULL CASE FOR SIGNAL CABLES
SNCF - Symbol : 0.391.6865



/ USE

The tools in the CPM-SNCF-1 kit allow you to prepare the signal cables.

/ BOX CONTENTS

- PRG3F/C15 - Green pliers for sheath cutting Ø 26 to 52 mm CC : 1.5 mm without TRL.
- TRL PINTEL4F/C10 - Yellow pliers for sheath cutting Ø 10 to 30 mm CC : 1.0 mm without TRL.
- TRL PFBT-F - Clamp for handling and thin strapping.
- TRL/22-25-33 - Longitudinal cutting head 2.2 2.5 et 3.3 mm.
- TRL/10-14-18-B - Blue longitudinal cutting head 1.0 1.4 et 1.8 mm.
- MTC/25 - Circular cutting wheel 2,5 mm (x4).
- IS18B - Tcompact flat screwdriver.

Ref.	Lenght (mm)	Width (mm)	Height (mm)	Weight excluding box (kg)	Packaging
CPM-SNCF-1	390	310	145	3.5	coffret

/ CWI-R

LV/ MV CABLE SHEATHING/ INSULATION REMOVAL TOOL



/ USE

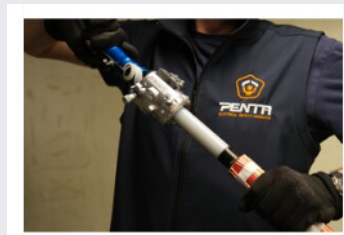
Removes the outer sheathing from low-Voltage (LV) round cables. Removes the Insulation from, XLPE, EPR, P-Laser, Medium-Voltage (MV) cables. The CWI-R is an 'Adjustable tool' designed to remove the outer sheathing from low-Voltage (LV) and Insulation from medium-Voltage (MV) cables. The tool is manually operated or can be motorised if using a powered screwdriver and enables easy cable clamping alongside cutting-depth adjustment.

/ TECHNICAL SPECIFICATIONS

- Operating voltage : LV (50 V to 1000 V), HV (1000 V to 50,000 V)
- Height : 79 mm
- Maximum diameter : 38 mm
- Minimum diameter : 13 mm
- Color : Blue
- Cutting length : 20 - 100 mm
- Cutting depth (max) on insulation : 11 mm
- Tool type: Specific tool
- Cutting depth (max) on sheath : 11 mm

/ SPARE PARTS

Ref.	Designation
LCWI	Spare blade for CWI/10-20-30 and CWI-R



/ PGOBT/1520

PARAFIL DIE CABLE STRIPPING PLIERS

Advantages

- Robust design.
- Faster and safer than a knife.
- Cutting depth control.
- Profondeur de coupe maîtrisée sans risque de blesser ou couper les fibres en terylene.



/ USE

The PGOBT/1520 pliers can be used to make a longitudinal cut and a circular cut. Can cut and remove the insulating sheath from PARAFIL type suspension cables of Ø 11 and 13 mm used for overhead tramway line infrastructure.

/ TECHNICAL SPECIFICATIONS

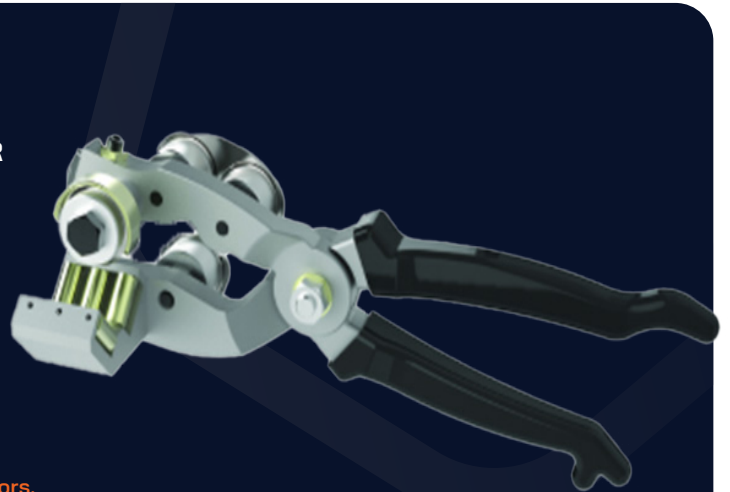
- Specific tools : Cable tools
- Cable preparation tools.
- For network cables : Carrier cables (Parafil)
- Weight : 360 g
- Length : 195 mm
- Width : 72 mm
- Height : 70 mm
- Maximum diameter : 17 mm
- Minimum diameter : 5 mm
- Circular cutting depth : 1.5 mm
- Longitudinal cutting depth : 2.0 mm

/ PINTEL4BT

CABLE STRIPPER FOR 185 MM² COPPER AND 240 MM² ALUMINUM CABLES WITH TENSION RETURN

Advantages

- Faster and safer than a knife.
- Controls cutting depth.
- Removes sheathing from round and sector conductors.



/ USE

The PINTEL4BT pliers are used to remove the outer sheath of cables during de-energised work.

/ TECHNICAL SPECIFICATIONS

- Specific tools : Cable tools
- For network cables : Low voltage
- Packaging : Carton box

Ref.	Circular cutting depth (mm)	Longitudinal cutting depth (mm)	Max diameter (mm)	Mini diameter (mm)
PINTEL4BT/3235	3,2	3,5	30	9



/ KITSO-05

ESSENTIAL EQUIPMENT 18 ISOLATED TOOLS

/ USE

Set for electrical work.

Ref.	Designation	Dimensions (mm)
KITSO-05	Essential equipment 18 isolated tools	400 x 550 x 350

Content	Designation
RL1-PL-4X120	Rotoline classic 4 x 120 mm insulated flat-head screwdriver
RL1-PL-55X100	Rotoline classic 5.5 x 100 mm insulated flat-head screwdriver
RL1-PL-65X150	Rotoline classic 6,5 x 150 mm mm insulated flat-head screwdriver
RL1-PL-8X150	Rotoline classic 8 x 150 mm insulated flat-head screwdriver
RL1-PH-5X100	Rotoline classic Insulated Phillips Screwdriver No. 1 - 5 x 100 mm
RL1-PH-6X125	Rotoline classic Insulated Phillips Screwdriver No. 2 - 6 x 125 mm
MS4 185	Pince universelle isolée de 185 mm
MS43 175	175 mm insulated wire stripper
MS27 250	1000 V insulated double-toothed multi-grip pliers
MS23 SET1	Set of 3 hex keys with a 90° angled head, insulated CHC type - 4 / 5 / 6 mm
MS45 230	230 mm insulated cable cutter
MC45I XL	Hybrid cable cutter
MS7 260	260 mm insulated adjustable wrench
IS78	Insulated knife with long, thin blade
MS5 175	175 mm insulated side cutting pliers
MC11CE-XL	Insulating long nose pliers, XL arm size
SADT-25	Trolley backpack for tools and PPE

/ TECHNICAL SPECIFICATIONS

- Backpack with trolley system and telescopic handle.
- Dedicated compartments for each tool.
- Sturdy carrying handle.
- 2 large side pockets for storing gloves and mats.
- Helmet pouch.





/ S20

LEATHER TOOL BAG

/ USE

Convenient for working at height.

Ref.	Weight (g)	Dimensions (mm)
S20PM	900	270 x 260 x 130
S20GM	1060	300 x 245 x 150

/ TECHNICAL SPECIFICATIONS

- Leather bag equipped with :
 - 2 pockets, one with a flap
 - 2 carrying devices : with 2 loops for belt wearing or with 2 snap hooks for carrying on safety harness.
- Delivered empty.



/ S20T

REINFORCED PVC-COATED CANVAS TOOL BAG

/ TECHNICAL SPECIFICATIONS

- Sacoché en toile forte polyamide et enduction PVC.
- 2 poches dont 1 avec rabat et fermeture à bouton pression.
- 2 systèmes de portage: soit par 2 passants permettant le port à la ceinture de sécurité, soit par mousquetons permettant le port au harnais de sécurité.
- Livrée sans outil.

Réf.	Poids (g)	Dimensions (mm)
S20TPM	300	270 x 260 x 130
S20TGM	350	300 x 245 x 150



/ STH-VRP

SOFT LEATHER TOOL BAG FOR WORKING AT HEIGHT

Advantages

- Leather bag with double stitching and lateral stiffeners
- Can be worn on the harness or at the belt

/ USE

Soft leather tool bag for working at height, it can be worn on the harness or at the belt.

Ref.	Weight (g)	Dimensions (mm)
STH-VRP	630	240 x 330 x 100

/ TECHNICAL SPECIFICATIONS

- Interior :
- A large open compartment with lateral stiffeners,
 - An eyelet in the bottom for water evacuation
 - Two metal snap hooks
- Exterior :
- An open pocket on the front.





/ S15MM

SPLIT LEATHER TOOL BAG WITH SHOULDERSTRAP



/ TECHNICAL SPECIFICATIONS

- Bag and shoulder strap made in split leather.
- Reinforced bottom and sides.
- 3 protections underneath the bag.
- Delivered empty.
- Dimensions : 500 x 160 x 200 mm
- Poids : 1.25 kg

/ SAD-25V2

TROLLEY BACKPACK FOR PPE AND TOOLS



Advantages

- Versatile (non-rolling) backpack with ergonomic back for transporting insulating tools and PPE (helmet, mat, gloves and other equipment)

/ USE

Ideal bag for storing and transporting PPE (Personal Protective Equipment) and electrician's tools.

Ref.	Weight (kg)	Capacity	Dimensions (mm)
SAD-25V2	3.5	25 L	39 x 51 x 26

/ TECHNICAL SPECIFICATIONS

- Main compartment with back sleeves for pliers and heavy tools.
- Two small top mesh pockets for quick-access accessories.
- Removable tray with cartridge holder, elastic straps, carrying handle, and fold-out base.
- Flap patch pocket with spiral zipper that includes a helmet cover with cord closure.
- Large side pocket with spiral zipper for a mat.
- Opposite side: large glove pocket with flap and hook-and-loop closure, plus a hacksaw slot behind it.
- Front pocket with zipper and two top elastic straps.

/ SPI

PROTECTIVE BAGS FOR CATENARY POLES

Advantages

- Protective bag to make sure your poles are not damaged.
- Solid ZIP for closing or opening process.
- Three different models for several poles dimensions.

/ USE

Store and transport carefully your catenary poles.

/ TECHNICAL SPECIFICATIONS

- Made up with Polyester.
- SPI Dimensions : 2300 x 730 x 130 mm (up to 5 poles PI56)
- SPI2P Dimensions : 2300 x 730 x 90 mm (up to 2 poles PI56)
- SPI46 Dimensions : 1900 x 530 x 130 mm (up to 5 poles PI46)
- SPI462P Dimensions : 1900 x 530 x 90 mm (up to 2 poles PI46)



SUBSTATIONS AND DELIVERY POINTS

94-97	VOLTAGE DETECTOR ALTERNATING CURRENT
98-100	LOCKING OUT
103-118	SHORT-CIRCUITED
119-121	POLS
122-123	EMERGENCY EQUIPMENT
124-123	SIGNAL CHAINS AND ACCESSORIES





/ UNITAG

ELECTRO-ALERT DEVICE EN 61000-6-2 / EN 61000-6-4
ALERT IN CASE OF PRESENCE OF DANGEROUS VOLTAGE AND
ALLOWS FOR A CAUTIONARY APPROACH TO DISTRIBUTION
NETWORKS (LV/MV) FROM 50V TO 36KV AC

Advantages

- Either manually, exclusively in low voltage, with or without a flexible cover and visual indication via a light bar graph.
- Or with a pole with a flexible protective cover and rear visual indication.
- With a universal tip for an insulating pole.
- With a guide nozzle for overhead twisted cables, whose flexibility improves sensitivity on flat metal enclosures.
- Audible indication with a timing proportional to the detection level.
- Fine probe tip for accessing the test point on LV panels.
- Automatic self-test upon startup.
- Low battery indicator.



/ USE

- On LV networks → CATIV 1000 V
- All Weather → IP65
- MV approach → exclusively with insulated pole.
- The operators face numerous situations where it is necessary to be alerted to the presence of a nominal or dangerous voltage and where a standard detector is ineffective : no direct access to the conductor, monitoring of isolated LV networks, monitoring of a «lost end» of MV and LV.
- The operating mode of the standard detector could endanger the operator : loose conductors with the risk of unknown voltage, approach to damaged cables or cabinets, approach to potentially live metal structures, partially submerged structures.

/ TECHNICAL SPECIFICATIONS

Scope :

- Low voltage AC from 50 to 1000 V AC (handheld use).
- Medium voltage AC (36 kV) using a dedicated insulated pole.
- Direct contact detection from 50 V.
- Operating temperature : from -15 °C to +45 °C
- Power supply : 2 alkaline batteries (LR03 1.5 V AAA).

Four-section telescopic pole :

- Upper insulating rod compliant with IEC 60855 (100 kV / 30 cm).
- 3 sections made of hollow cylindrical tubes.
- ¼-turn locking / unlocking system.
- Insulating length : 520 mm / 36 kV
- Extended length : 2.40 m
- Folded length : 0.86 m
- Supplied with carrying case.

/ EXAMPLE OF USE :

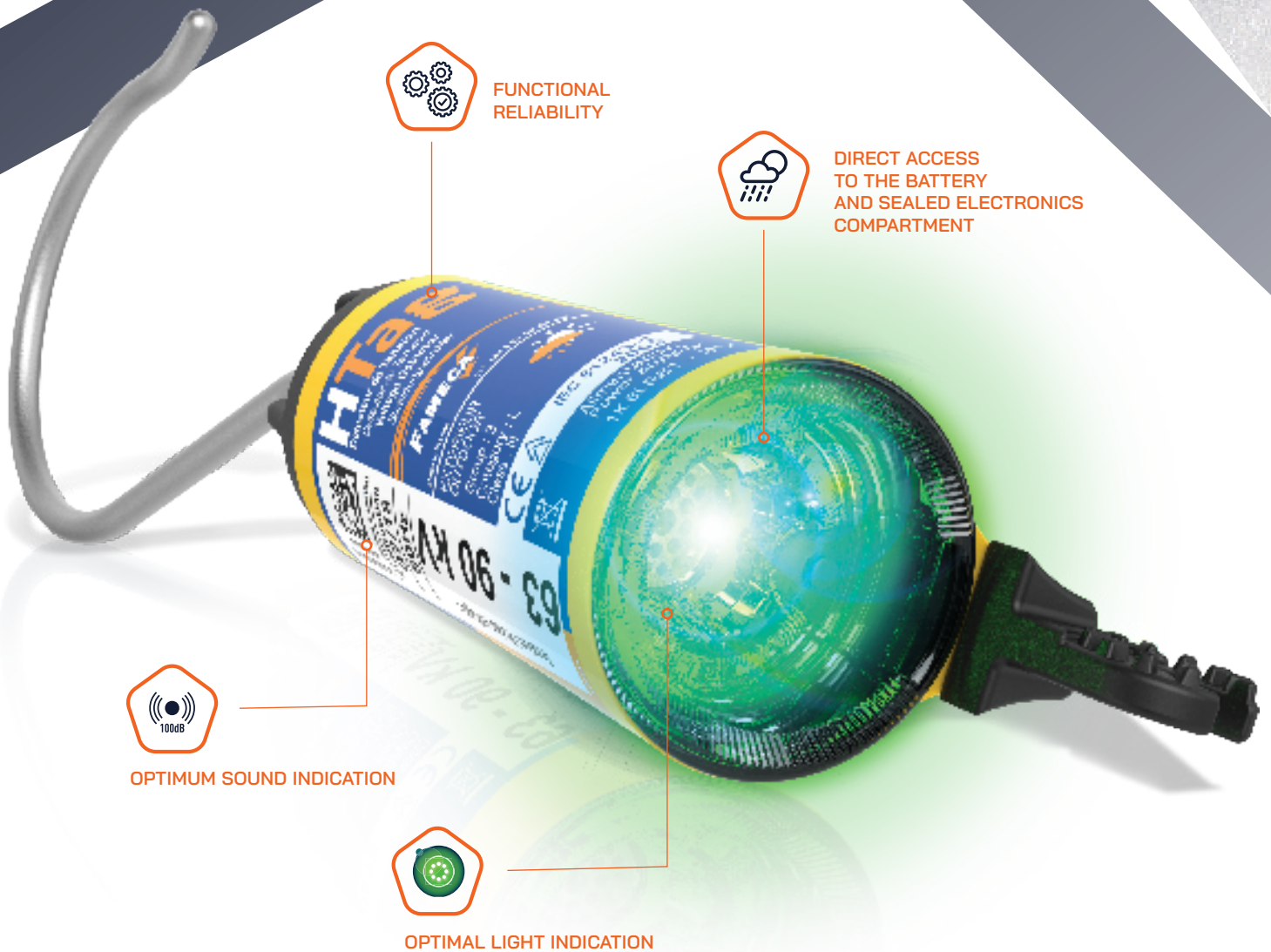
- Verification of faulty, suspicious, or unknown-source installations.
- Approach to damaged or cut cables or cabinets (storm damage, excavation work).
- Approach to metallic structures (metal enclosures, lighting poles, cabinets or distribution substations, beams, underground junction boxes).
- Approach to metallic tapes before preparing underground accessories.
- Checking of earthing networks.
- Checking of an open-ended termination on MV and LV networks.
- Approach to partially submerged installations (for inspection).
- Low voltage network testing : Verification of voltage presence on insulated or sheathed overhead LV networks.
- Detection of break points.
- Verification of proper opening and closing of a “pole-mounted” transformer circuit breaker at the LV cabinet outlet.
- Identification of phase and neutral conductors (e.g. twisted networks).

Ref	How to use	User manual*	Dimensions (mm)	Weight	Packaging
UNITAGHFE	Handheld	Pack F	45 x 39 x 227	160 g	Housse
UNITAGUFE	Handheld + pole adapter		51 x 67 x 241	210 g	
UNITAGUFX	Handheld + pole adapter + telescopic pole		51 x 67 x 1100	710 g	

HTAG HIGH -VOLTAGE DETECTOR

△ IEC 61243-1CE

DESIGNED TO CHECK THE ABSENCE OF NOMINAL
VOLTAGE IN A CIRCUIT OF HIGH VOLTAGE AND VERY
HIGH VOLTAGE SYSTEMS FROM 60 KV TO 400 KV
(voltage range according to IEC recommendation)



FUNCTIONAL
RELIABILITY

DIRECT ACCESS
TO THE BATTERY
AND SEALED ELECTRONICS
COMPARTMENT

OPTIMUM SOUND INDICATION

OPTIMAL LIGHT INDICATION



/ HTAG

60 – 400 KV VOLTAGE DETECTOR IEC 61243-1 CE

Advantages

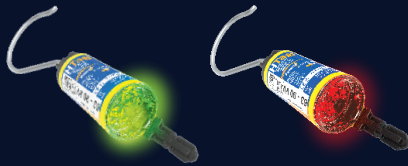
• OPTIMISED INDICATION

The audible sound signal is heard even in the presence of road traffic or strong wind, thanks to natural conduction by an acoustic "horn".



• OPTIMAL LIGHT INDICATIONS

The visual indication is visible in all usual working environments, in sunlight or fog, with a wide angle of visibility and from the side thanks to an optic ring.



• DIRECT BATTERY ACCESS AND HERMETICALLY SEALED ELECTRONIC COMPARTMENT

- Accidental interchange of housing or circuitry.
- Damage to electronic circuits.
- Humidity ingress into the device when the battery is replaced outdoors.



• FUNCTIONAL RELIABILITY

- Low battery voltage monitoring (orange indicator light).
- Total protection of electronic circuits.
- Electronics contained in a dedicated, waterproof compartment.



/ USE

These voltage detectors are designed for "proving dead", making sure that nominal voltage is actually absent on a circuit in an HV transmission system between 60 kV and 400 kV (no-voltage verification).

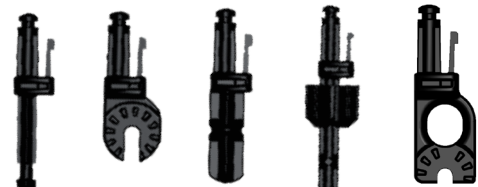
- The device will detect any nominal voltage on overhead lines and stations.
- It will avoid detecting most induced voltages in order to allow grounding operations.

/ TECHNICAL SPECIFICATIONS

- AC voltage range possible choice from 60 to 400 kV.
- Network frequency : 50 or 60 Hz (to be specified with the order).
- Permanent standby status with automatic wake-up function.
- The presence of voltage within the calibrated range or above makes a RED indicator light LED up, and an audio signal is generated.
- Self-test OK : the OK status (ready for use) of the device is indicated by a GREEN indicator light LED.
- The self-test checks all the circuits, the reference detection level and the cell voltage.
- The self-test is repeated automatically throughout the ready for use state as indicated by the green indicator lamp (for 1.5 minutes).
- The battery low level is indicated by a dedicated ORANGE light LED indicator going on.
- Designed for outdoor use.
- Operating temperature: -25 °C to +55 °C
- Humidity : 96 % max.
- Power supply voltage : 9 V alkaline cell – IEC 6LR61
- Accepts the use of accumulators with identical supply voltage.
- Yellow or red polycarbonate housing.
- Dimensions : Ø 80 mm, L = 225 mm without the electrode.
- Net weight : 0.618 kg with stick end fitting, without electrode.
- Operating manual with a choice of languages, depending on the package.
- Package with three electrodes : 2 hooks : Ø 60 mm (AC 60) and Ø 120 mm (AC 120) and 1 straight electrode (D 100).

/ ACCESSORIES

INTERCHANGEABLE POLE ADAPTERS



ADVECBV** ADVECU* ADVECEAM* ADVECAPV* ADVECUCR*

* Other adapters are available, please contact us.

Ref	Voltage range	Frequency	Housing colour	Tip**	Electrode	User manual**	Packaging
HTAG060090FC	60-90 kV	50 / 60 Hz	Yellow	Universal & EAM	AC60/AC120/ D100	Pack F	Metal case
HTAG090225FC	90-225 kV		Red				
HTAG220400FC	220-400 kV		Red				

** Pack F (user manual) FR/GB/DE/ES/PT/PL – Pack G (user manual) GB/GR/BG/IT/NL/AR/TR – For any other voltage range, please contact us.

SUBSTATIONS AND DELIVERY POINTS
LOCKOUT PADLOCKS



/ CS-KA



/ CS-KD

Interchangeable shackles
Adapt your padlock with our interchangeable shackles:

- Metal or composite material
- Diameter: 4.5 or 6 mm
- Height: 38 or 76 mm
- or Ø 1.4 mm cable for smaller holes plus fins

Ultra-strong composite body

Non-conductive, resistant to UV rays, hydrocarbons and extreme environments.

- Height: 54 mm
- Width: 46 mm
- Thickness: 21 mm
- Weight: 80 g

Locking out label

- Locking out warning
- Identification of individual responsible
- Rugged label resistant to abrasion and UV rays
- Set of 6 languages

Personalisation area

Personalisation area for laser marking (optional).



Llave de seguridad

- Over 1 million key profiles possible
- Captive key system and cylinder with automatic key return
- Colour insert identical to that of the padlock

/ CS-KD-1

LOCKING OUT PADLOCK, KEYED DIFFERENT

Advantages

Each padlock has its own unique key. That key can open only one padlock and no others. Supplied with a set of locking out labels in six languages



Part no	Colour	Shackle material	Inside height of shackle	Shackle diameter
CS-KD-1-M438	Orange	Metal	38 mm	4.5 mm
CS-KD-1-M476		Metal	76 mm	
CS-KD-P438		composite	38 mm	
CS-KD-1-P476		composite	76 mm	

LOCKOUT PADLOCK REFERENCES



/ CLASSIC - KEYED DIFFERENT

Reference	Choice of colours (corresponding code)	Shackle material	Shackle inside height	Shackle diameter
CS-KD-x-M438	Orange (1) Red (2) Blue (3) Green (4) Yellow (5) Brown (6) White (7) Black (8)	Metal	38 mm	4,5 mm
CS-KD-x-M476		Metal	76 mm	4,5 mm
CS-KD-x-M638		Metal	38 mm	6 mm
CS-KD-x-M676		Metal	76 mm	6 mm
CS-KD-x-P438		Composite	38 mm	4,5 mm
CS-KD-x-P476		Composite	76 mm	4,5 mm
CS-KD-x-P638		Composite	38 mm	6 mm
CS-KD-x-P676		Composite	76 mm	6 mm
CS-KD-x-F1		Metal wire with vinyl sheath	70 mm	1,4 mm

Replace the reference x by the required colour code as shown in the table (1 to 8).
The padlock is supplied with 1 shackle, 1 key and 1 set of lockout tags in 6 languages



/ CLASSIC - KEYED ALIKE

Reference	Available key numbers	Choice of colours (corresponding code)	Shackle material	Shackle inside height	Shackle diameter	
CS-KA#-x-M438	0301 to 0332	Orange (1) Red (2) Blue (3) Green (4) Yellow (5) Brown (6) White (7) Black (8)	Metal	38 mm	4,5 mm	
CS-KA#-x-M476			Metal	76 mm	4,5 mm	
CS-KA#-x-M638			Metal	38 mm	6 mm	
CS-KA#-x-M676			Metal	76 mm	6 mm	
CS-KA#-x-P438			Composite	38 mm	4,5 mm	
CS-KA#-x-P476			Composite	76 mm	4,5 mm	
CS-KA#-x-P638			Composite	38 mm	6 mm	
CS-KA#-x-P676			Composite	76 mm	6 mm	
CS-KA#-x-F1				Metal wire with vinyl sheath	70 mm	1,4 mm

Replace the reference # by the required key number (4 digits). For specific key numbers, contact us. Replace the reference x by the required colour code as shown in the table (1 to 8). The padlock is supplied with 1 shackle, 1 key and 1 set of lockout tags in 6 languages



/ WITH DATER - KEYED DIFFERENT

Reference	Choice of colours (corresponding code)	Shackle material	Shackle inside height	Shackle diameter	
CD-KD-x-M438	Orange (1) Red (2)	Metal	38 mm	4,5 mm	
CD-KD-x-M476		Metal	76 mm	4,5 mm	
CD-KD-x-M638		Metal	38 mm	6 mm	
CD-KD-x-M676		Metal	76 mm	6 mm	
CD-KD-x-P438		Composite	38 mm	4,5 mm	
CD-KD-x-P476		Composite	76 mm	4,5 mm	
CD-KD-x-P638		Composite	38 mm	6 mm	
CD-KD-x-P676		Composite	76 mm	6 mm	
CD-KD-x-F1			Metal wire with vinyl sheath	70 mm	1,4 mm

Replace the reference x by the required colour code as shown in the table (1 to 8).
The padlock is supplied with 1 shackle, 1 key and 1 set of lockout tags in 6 languages.



/ WITH DATER - KEYED ALIKE

Reference	Available key numbers	Choice of colours (corresponding code)	Shackle material	Shackle inside height	Shackle diameter	
CD-KA#-x-M438	0301 to 0332	Orange (1) Red (2)	Metal	38 mm	4,5 mm	
CD-KA#-x-M476			Metal	76 mm	4,5 mm	
CD-KA#-x-M638			Metal	38 mm	6 mm	
CD-KA#-x-M676			Metal	76 mm	6 mm	
CD-KA#-x-P438			Composite	38 mm	4,5 mm	
CD-KA#-x-P476			Composite	76 mm	4,5 mm	
CD-KA#-x-P638			Composite	38 mm	6 mm	
CD-KA#-x-P676			Composite	76 mm	6 mm	
CD-KA#-x-F1				Metal wire with vinyl sheath	70 mm	1,4 mm

Replace the reference # by the required key number (4 digits). For specific key numbers, contact us. Replace the reference x by the required colour code as shown in the table (1 to 8). The padlock is supplied with 1 shackle, 1 key and 1 set of lockout tags in 6 languages.

/ DV3 3-HOLE CIRCUIT BREAKER BLOCK

/ USE

Locking device for circuit breakers with toggle switches - type NS / NSE / NSF / NSJ or NSA from SCHNEIDER. Locking with 1 to 3 padlocks.

/ TECHNICAL SPECIFICATIONS

- Devices in the form of 2 sliding plates that slide on top of each other to spread out and mechanically block the switch.
- Steel body with anti-corrosion treatment, epoxy paint finish, colour black. Equipped with 3 holes, diameter 7 mm.
- 2 possible spacings depending on the type of circuit breaker.

Ref.	Designation
DV3	LV circuit breaker lockout 3 holes



/ SFES2394 MINIATURE CIRCUIT BREAKER LOCKOUT DEVICE

/ USE

A patented, tool-free device that locks most ISO/DIN miniature circuit breakers and prevents operation or removal when secured.

/ TECHNICAL SPECIFICATIONS

- Durable thermoplastic material is chemical resistant and performs effectively in extreme environments.

Ref.	Weight (g)	Dimensions (mm)
SFES2394	20	54 x 30 x 18 mm



/ IS47 RACK FOR A PADLOCK

/ USE

Enables the carrying, classification and rapid identification of lockout/tagout padlocks.

/ TECHNICAL SPECIFICATIONS

- Rack made of composite material, delivered without padlock and without key.

/ OPTION

Rack available with 4, 6, 10 or 20 lockout padlock holes.



/ S350C11 PLASTIC TAG 80 MM «DO NOT OPERATE - DISCONNECTION»

/ TECHNICAL SPECIFICATIONS

- Hole Ø 10 mm on top.
- Text : «Do not operate - Disconnection».
- Symbol : lightning
- Colour : red background, white text and symbol.

Ref	Designation	Ø (mm)	Weight (g)
S350-C11	«Lightning» symbol	80	7





/ CONNECTION

ALUMINIUM AND COPPER EARTHING CABLE CEI 61230

/ USE

Ensures the copper connection between the clamps and lathes of portable earthing and short-circuiting devices.

/ TECHNICAL SPECIFICATIONS

- Connection by a watertight crimped DIN terminal, or by a 2 crimping on the insulator, or by a heat-shrinkable sleeve with adhesive.

TFK	16	005	BB
TSF	25	01	DD
	35	10	CD
	40	XX	
	50	XXX	
	70		
	95		
	120		
	150		

Terminal hole diameter
C = Ø 8
D = Ø 10
D = Ø 12
No letter = Ø 10 at both ends

Length xx/xxx
Ex : 005 = 0.5 m
01 = 1 m
10 = 10 m

Section : mm²

TFK-extra flexible PVC sheath cable -25°C to +55°C
TSF- silicone sheathed cable, -40°C to +70°C

Aluminium cables			
CAP	35	005	DD
CAS	50	01	CD
	70	10	
	95	XX	
	120	XXX	
	150		
	165		
	210		

Terminal hole diameter
C = Ø 10
D = Ø 12
No letter = Ø 10 at both ends

Length xx/xxx
Ex : 005=0.5 m
01= 1 m

CAP-extra flexible PVC sheath cable -25°C to +55°C
CAS- silicone sheathed cable, -40°C to +70°C

CAP = Câble unifilaire Aluminium et gainage PVC, -25°C à +55°C
CAS = Câble unifilaire Aluminium et gainage Silicone, -40°C à +70°C

/ SCC MAX. ADMISSIBLE (KA)

ALUMINIUM AND COPPER GROUNDING CABLE

Ref.	Material	Section (mm ²)	Length (m)	Cable elevation at the end of c/c : 350°C	Cable elevation at the end of c/c : 700°C	Ø Terminal hole diameter
TKF7007DD	Cuivre	70	7	18.5 kA/0.5s - 13 kA/1s	26 kA/0.5s - 18.5 kA/1s	12
TKF9507DD	Cuivre	95	7	25 kA/0.5s - 18 kA/1s	35.5 kA/0.5s - 25 kA/1s	12
TKF12010DD	Cuivre	120	10	31.5 kA/0.5s - 22.5 kA/1s	45 kA/0.5s - 31.5 kA/1s	12
CAP9507DD	Alu	95	7	19 kA/0.5s - 13.5 kA/1s	N/A	12
CAP12007DD	Alu	120	7	24 kA/0.5s - 17 kA/1s	N/A	12
CAP16510DD	Alu	165	10	30 kA/0.5s - 21.2 kA/1s	N/A	12
CAP21010DD	Alu	210	10	43.5 kA/0.5s - 31.5 kA/1s	N/A	12

/ TRIF

SET OF CABLES FOR SHORT-CIRCUITING AND EARTHING DEVICES CEI 61230, CEI 61138

Advantages

- New central connection point and compression with sealing.

/ USE

Use to equip or replace substation short-circuiting and earthing cables. A TRIFURCATION is a set of copper cables for a 3-phase earthing and short-circuiting device, consisting of :

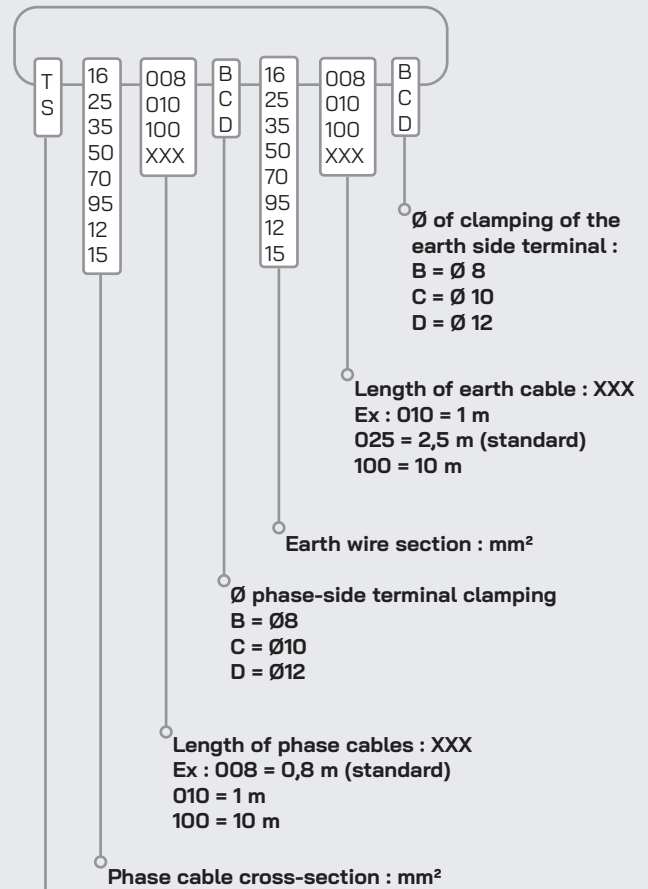
- 3 short-circuiting cables,
- 1 earthing cable.
- All connected to a junction block and fitted with TFK type sealed cable lugs.



ISC according to cable cross-section:

Temperature rise of the copper cable at the end of the short-circuit : 700°C				Min. earth cable cross-section	
ISC Time	0.3	0.5	1		
ISC cable cross-section	ISC max. admissible			16 mm ²	
10 mm ²	4.8	3.7	2.5		
16 mm ²	7.7	6	4		
25 mm ²	12	9.5	6.5		
35 mm ²	17	13	9		
40 mm ²	19.3	15	10.5		25 mm ²
50 mm ²	24	18.5	13		
70 mm ²	34	26	18.5		
75 mm ²	36	28	20		35 mm ²
95 mm ²	46	35.5	25		
120 mm ²	58	45	31.5		
150 mm ²	72.5	56	40	50 mm ²	

/ Codification



T = Copper trifurcation and PVC sheath -25°C to +55°C.
S = Copper trifurcation and silicone coating -40°C to +70°C



/ ONBAL

MALT AND CC DEVICE FOR BALL FIXED POINT CEI 61230

Advantages

- Quick clamping with a single clamp for Ø 20 and 25 mm

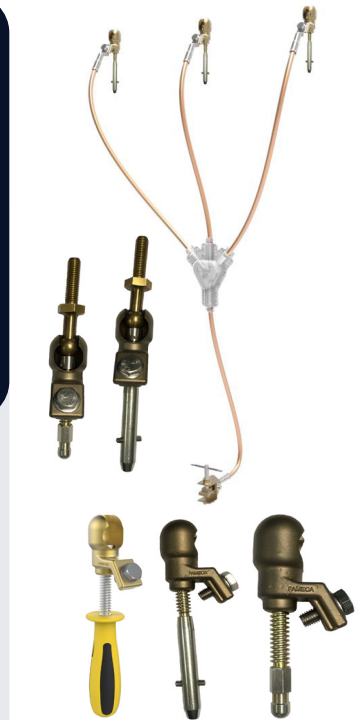
/ USE

Locking pliers specially designed for grounding ball-type fixed points.

/ TECHNICAL SPECIFICATIONS

Standard composition :

- A set of 3 identical clamps with terminal : PFBD25
- Clamping capacity :Ball-type fixed point Ø 20 and 25 mm
- Maximum short-circuit current : 23 kA / 1 s on Ø 20 mm ball
- 31.5 kA / 0.5 s on Ø 25 mm ball
- 1 three-way connection (trifurcation) : cable assembly made of extra-flexible, insulated copper conductors fitted with watertight lugs and connected through a junction block
- 1 earth clamp
- 1 insulated telescopic pole
- 1 storage bag or metal case



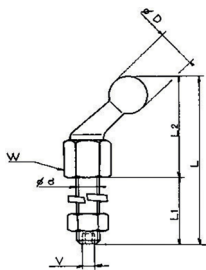
Ref.	Icc max	3 short-circuit cables	Tip	Ground cables	Reference TRIFURCATION correspondante	Earth vise	Pole
ONBAL8APTO1N8CP	8kA/1s-13kA/0,5s	35 mm ² - 0.8 m	AP	16 mm ² - 2 m	T35008C16020C	NB8	PPOL2/015AP
ONBAL8APTO1PFCP	8kA/1s-13kA/0,5s	35 mm ² - 0.8 m	AP	16 mm ² - 2 m	T35008C16020C	PFBD25M	PPOL2/015AP
ONBAL8APT50N8CP	8kA/1s-13kA/0,5s	35 mm ² - 0.8 m	AP	35 mm ² - 2 m	T35008C35020C	NB8	PPOL2/015AP
ONBAL13APTO1N8CP	13kA/1s-18,5kA/0,5s	50 mm ² - 0.8 m	AP	25 mm ² - 2 m	T70008C35020C	NB8	PPOL2/015AP
ONBAL18APTO1N8CP	18,5kA/1s-25kA/0,5s	70 mm ² - 0.8 m	AP	35 mm ² - 2 m	T95008C35020C	NB8	PPOL2/015AP
ONBAL18APTO1N8CP	23kA/1s-31,1kA/0,5s	95 mm ² - 0.8 m	AP	35 mm ² - 2 m	T95008C35020C	NB8	PPOL2/015AP
ONBAL18BT01PFH	23kA/1s-31,1kA/0,5s	95 mm ² - 0.8 m	B	35mm ² - 2 m	T95008C35020C	PFBD25M	/

/ FC 20 - FC 25

ANGLED FIXED BALL POINT

/ USE

Used to make an electric contact on busbar.

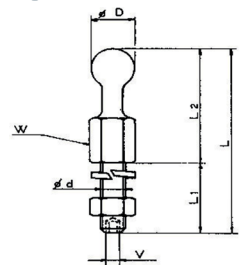


/ FD 20 - FD 25

STRAIGHT FIXED BALL POINT

/ USE

Used to make an electric contact on busbar



Ref.	Ball Ø dimensione	Wranch	L dimensione	L1 dimensione	L2 dimensione	Ø D dimensione	W dimensione	Max Isc
FC2012	20 mm	6	93 mm	37 mm	56 mm	M12	22 mm	18.5 kA/1s
FC2516	25 mm	8	122 mm	46 mm	76 mm	M16	27 mm	31,5 kA/1s & 40 kA /0,5s

Ref.	Ball Ø dimensione	Wranch	L dimensione	L1 dimensione	L2 dimensione	Ø D dimensione	W dimensione	Max Isc
FD20-12	20 mm	6	99 mm	37 mm	62 mm	M12	22 mm	18.5 kA/1s
FD25-12	25 mm		111 mm		74 mm		27 mm	
FD25-16	25 mm	8	123 mm	46 mm	77 mm	M16	27 mm	31,5 kA/1s & 40 kA /0,5s

/ PIMT EARTHING AND SHORT-CIRCUITING SYSTEM FOR MV SUBSTATIONS

Advantages

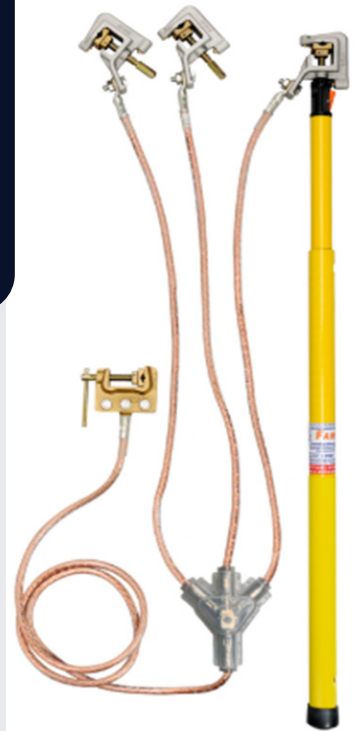
- Ensures that the malt holds in the event of a short circuit.
- Fast and easy to use.

/ TECHNICAL SPECIFICATIONS

Standard Composition :

- Set of 3 clamps of the same reference (with AP terminal – other terminals available on request) : MT535, MT525, MT516, or MT416.
- Three-way connection (TRIFURCATION) : a copper cable assembly with extra-flexible insulated conductors, fitted with waterproof lugs and connected through a junction block.
- Short-circuit cable length : 0.8 m
- Earth cable length : 2 m
- Earthing clamp : NB8
- Telescopic insulating pole : TR245APV
- Metal storage case : CM535

Ref.	Composition	Icc	Cross-section (mm ²)
PIMT16	3xMT516 + 3xMT416 + 3xMT525	8 kA/1s	35
PIMT46	3xMT516	8 kA/1s	
PIMT56	3xMT416	8 kA/1s	
PIMT66	3xMT525	8 kA/1s	
PIMT76	3xMT535	8 kA/1s	
PIMT110	3xMT516 + 3xMT416 + 3xMT525	13 kA/1s	50
PIMT410	3xMT516	13 kA/1s	
PIMT510	3xMT416	13 kA/1s	
PIMT610	3xMT525	13 kA/1s	
PIMT710	3xMT535	13 kA/1s	
PIMT49	3xMT525	14,5 kA/1s	cc : 70 / earth : 35
PIMT48	3xMT535	8 kA/1s	35 mm ² (lg cable cc = 2 m, earth = 5 m)
PIMTxxx	TRIFURCATION : Other cable lengths and cross-sections possible on request. Other clamp end fittings available on request.		



/ CORATRIF COMPLETE EARTHING AND SHORT-CIRCUITING DEVICE IEC 61230

Advantages

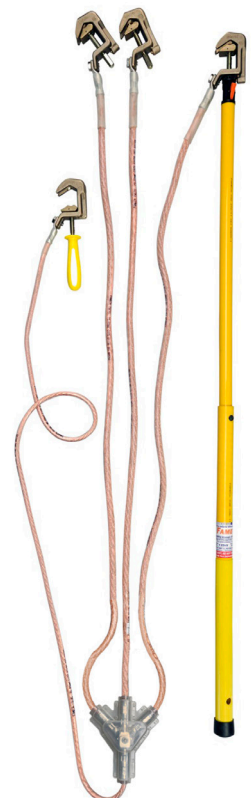
- For fixed ball points, diameters 20 and 25 mm, flat and cylindrical bars.
- Suitable for fitting E240 lug barrels.

/ TECHNICAL SPECIFICATIONS

Composition :

- 1 TRIFURCATION as defined in the table
- 3 NBD25AP phase clamps (hexagonal end fittings, 12 mm)
- 1 NBD25M earthing clamp (with ergonomic handle)
- 1 insulating stick TR245APV
- 1 metal storage case CM535

Ref.	Max. Isc	3 Short-circuiting cables	Earthing cable
CORATRIF	18,5 kA/1s	70 mm ² - 0.5 m	35 mm ² - 2.0 m





/ NEVERS

EARTHING AND SHORT-CIRCUITING EQUIPMENT FROM THE GROUND FOR BARE MV OVERHEAD NETWORKS
NORME CEI & EN 61230, BREVET DÉPOSÉ

/ USE

The equipment allows a single operator to perform :

- Voltage absence checks.
- Grounding and short-circuiting of HTA overhead lines located up to 11 m in height.

/ TECHNICAL SPECIFICATIONS

- Max Icc permitted : 8 kA/1s.
- Clamping capacity on conductors from 3 to 22 mm in diameter (7 to 380 mm²).
- Telescopic metal poles equipped with clamps for quick and calibrated clamping, with built-in cleaning rings.
- 3-piece fiberglass-on-foam insulating poles, IEC 60855-1 type, with reinforced connection by embedding.
- Optional insulating extension (NE18ER) for a length of 12.5 m.
- Mounting of voltage absence tester at the base of the metal pole before grounding.
- Equipment for use with TAG200/XXXX or VECTOR voltage absence detectors (detector not included).



/ PA3GTI Earthing and short-circuiting device for bare MV overhead lines -3 elements

Réf.	Composition
NE10 L repliée	3-section telescopic metal pole L5.45 m/2.20 m
NE17E	Upper section of insulating pole
NE18E	Lower section of insulating pole
NE19E	Lower pole extension
NE20	Guide socket
NE21	Cable reel with 3 x 10 m of copper braid. 35 mm ² and an earthing clamp
NE24	Soft plastic-coated canvas cover
701	Hexagonal earthing rod 1m 18 mm

/ PA4GTI Earthing and short-circuiting device for bare MV overhead lines -4 elements

Réf.	Composition
NE10 L repliée	4-section telescopic metal pole L5.45 m/2.20 m
NE17E	Upper section of insulating pole
NE18E	Lower section of insulating pole
NE19E	Lower pole extension
NE20	Guide socket
NE21	Cable reel with 3 x 10 m of copper braid. 35 mm ² and an earthing clamp
NE24	Housse en toile imperméable
701	Hexagonal earthing rod 1m 18 mm
NE24	Soft plastic-coated canvas cover
NE23	Stick lifter rod

/ OPTIONS

Réf.	Composition
NE12	Prehension piece NE10
NE18ER	Complementary extension for insulating stick, to be placed between NE18 and NE19
NE38	Gripper fitting PA 4
NE14	Automatic clamp
NE22	Empty cable reel
NE25	set of 3 earth braids, 35 mm ² -length : 10 m
NE27	Metal sticks maintenance kit (TK1)
NE28	Insulating sticks maintenance kit (Tk 2)
NE21ALU	Reel with 3 x 10 m of 70 mm ² aluminum cable and a ground clamp



/ PIMT49S

EARTHING AND SHORT-CIRCUITING DEVICE FOR CELLS MC500, FLUAIR 24G AND 24F

Advantages

- Ensures that the malt holds in the event of a short circuit.
- Fast and easy to use.

/ TECHNICAL SPECIFICATIONS

/ PIMT49S :

- 3 MT25AP1 clamps.
- 1 NB8 ground clamp.
- 1 T70008C35020C connection kit.
- 1 TR245 APV pole.
- 1 CREXCO hood extraction hook.
- 1 CM535 case.

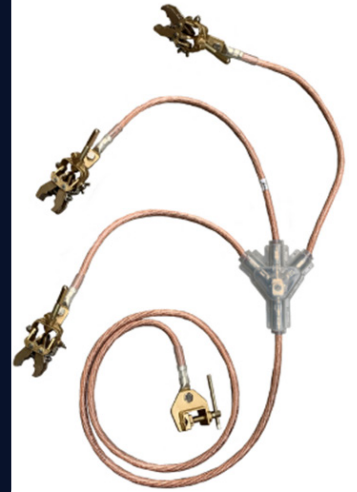
/ PIMT49SP :

- 1 NB8 ground clamp.
- 1 T70008C35020C connection kit.
- 1 TR245 APV pole.
- 1 CM535 case.

/ KPIMT49S :

- 3 MT25AP1 clamps.
- 1 CREXO hood extraction hook.

Ref.	Disegnation
PIMT49S	Grounding and shorting kit for MC500, FLUAIR 24G and 24F cells
PIMT49SP	Kit without clamp
KPIMT49S	Kit of 3 MT25AP1 clamps + CREXO hook
MT25AP1	Clamp only for MC500, FLUAIR 24G and 24F cells



/ STA2147DP

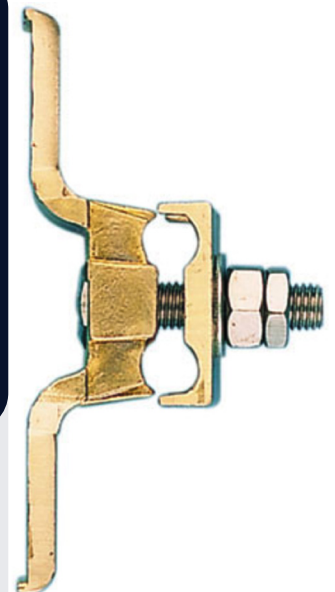
SIMPLE GROUND SHOES WITH WINGS

Advantages

- Similar to the simple earthing shoe, with the addition of two fins for temporary earthing connection during maintenance work on the earthing circuit using vice-grip systems.

/ TECHNICAL SPECIFICATIONS

- Executed in copper-aluminium, these grounding clamps are installed on the frameworks of substations and high-voltage installations.
- Allow the fastening of grounding loops up to 147 mm², including the standard smaller sections of 75 and 116 mm².
- Supplied with M14 stainless steel bolts and two bimetallic washers included.





/ CHC31

INTERMEDIATE GROUNDING POLE FOR HIGH ICC
CONNECTION MAX 31.5 KA/1S

/ USE

Intermediate poles for high connections
These poles reduce operator effort by lowering the grounding point by 3–4 m, simplifying handling.
The CHC31 conductive pole must be used with either a CHI31 insulating pole or an RTTE pole fitted with an ERTTECH end fitting.
Made from orange foam-filled IEC 60855 tubing. Periodic inspection is recommended.

/ TECHNICAL SPECIFICATIONS

- Aluminum tube \varnothing 31/35 mm² cross-section, equipped at the top with a special lightweight alloy contact clamp featuring an elastic conductor clamping system.
- Clamping capacities : \varnothing 10 to 60 mm, \varnothing 70 to 120 mm, or 120 to 220 mm (depending on the head type).
- Electrical contact between the clamp and the conductor is ensured by a direct connection between the clamp and the aluminum tube, as well as by two flexible tinned copper braids.
- The clamp is clamped onto the conductor using the lower insulating element, with the male end inserted into the female end.
- The base of the \varnothing 35 tube has two \varnothing 30 aluminum grounding bars intended to receive grounding clamps type S540, S1560 for example.



Ref.	Clamping capacity	Length (m)	Weight (kg)	Housse
CHC3120060	\varnothing 10-60 mm	2	5	H2P33ORTE
CHC31200120	\varnothing 70-120 mm	2	5.2	
CHC3120020120	\varnothing 20-120 mm	2	5.3	
CHC3130060	\varnothing 10-60 mm	3	5.6	
CHC31300120	\varnothing 70-120 mm	3	5.8	
CHC3130020120	\varnothing 20-120 mm	3	5.9	
CHC31300220	\varnothing 120-220 mm	3	10,8	H2P45ORTE
CHC3140060	\varnothing 10-60 mm	4	6.2	
CHC31400120	\varnothing 70-120 mm	4	6.4	
CHC3140020120	\varnothing 20-120 mm	4	6.5	
CHC31400220	\varnothing 120-220 mm	4	11	
CHC31500120	\varnothing 70-120 mm	5	11.6	/

/ SMAPE

EARTHING AND SHORT-CIRCUITING SYSTEM FOR MV SUBSTATIONS

Advantages

- GUARANTEES SAFE ACTION TO AVOID ELECTRIFACTIONS, the system carries out the installation and removal procedure allowing each step to be followed without error.
- GUARANTEES THE EARTHING'S HOLD IN THE EVENT OF A SHORT CIRCUIT by controlling the clamping force of the vice, conditioned upon the key's release and locking it.
- NON-COPIABLE AND UNIQUE KEYS.
- NON-COPIABLE AND CAPTIVE KEYS.



/ CLAMPS



/ SA342

TYPE LIGNE «3-42»
Max. ICC : 40 kA / 1 s
Clamping capacity on round wire (mm) : \varnothing 3 to 42
Weight : 1,2 kg
Code : P0



/ SAF220

TYPE LIGNE «120-200»
Max ICC : 40 kA / 1s
Clamping capacity on round wire (mm) : \varnothing 120 à 200
Weight : 3,2 kg
Code : P4



/ SA1560

TYPE LIGNE/PARQUE
Max ICC : 40 kA / 1 s
Clamping capacity on round wire : \varnothing 5 to 60 mm
Weight : 1,3 kg
Code : P1



/ SANB2025

TYPE POSTE PIC/PGIME
Max ICC : 31,5 kA / 1s
Clamping capacity on round wire : \varnothing 20 à 25 mm
Weight : 0,750 kg
Code : P5



/ SAP20120

TYPE POSTE «20-120»
Max. ICC : 40 kA / 1 s
Clamping capacity on round bars : \varnothing 20 to 120 mm
Weight : 1,6 kg
Code : P2



/ SAE200

TYPE POSTE «03-42»
Max ICC : 31,5 kA / 1s,
Weight : 2,2 kg
Clamping capacity :
Flat bar : up to 100 mm
Vertical bar : 30 x 100 mm
Horizontal bar : 60 x 100 mm
Cylindrical bar : \varnothing 10 to 70
Code : P6



/ SAP1060

TYPE LIGNE «10-60»
Max ICC : 31,5 kA / 1s
Clamping capacity on round bar : \varnothing 10 to 60 mm
Weight : 1,3 kg
Code : P3

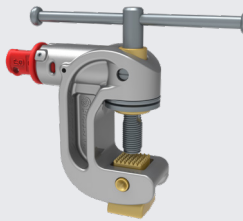


/ SMA342

TYPE ANCRAGE LIGNE
Max ICC : 31,5 kA / 1s,
Clamping capacity on round bar : \varnothing 3 to 42 mm
Weight : 2,2 kg
Code P7



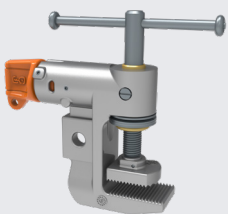
/ LATHES



/ SAGTE25

Max ICC : 40 kA / 1s
Clamping capacity on flat surfaces : 40 mm
Weight : 1,8 kg

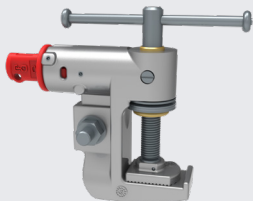
Code : GT



/ SANB33S

Max ICC : 40 kA / 1s
Clamping capacity on flat surfaces : 35 mm
Weight : 1,2 kg

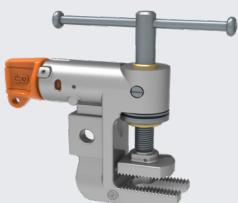
Code : N3



/ SANBCRTTS

Max ICC : 40 kA / 1s & 63 kA / 0,5s
Clamping capacity on flat surfaces : 30 mm
Weight : 1,2 kg

Code : NC



/ SAP1060

Max ICC : 40 kA / 1s
Ball clamping capacity : 35 mm
Weight : 1,2 kg

Code : NB

/ USE

The unique concept is based on a choice of key mechanisms : classic or magnetic, and requires no power. In its magnetic version, without key penetration, opening is achieved using a key carrying a magnetic code that activates the moving parts of the cylinder without any mechanical contact. The entire coded module inside the cylinder is encased and completely waterproof. This new version is particularly well-suited to harsh environments : corrosion, sand, humidity, frost, vandalism.



Classic Key



Magnetic Key

PLIERS TOOLS



AN



HE



B








X46



AP



SELECTION GUIDE / CLAMPS & LATHES

	CLAMPS HTB LIGNE		POSTE		
Ref.	 S540	 S1560	 HT1080	 S20120	 SF220
Clamping capacity (mm)	Ø 5 à 40 mm	Ø 15 à 60 mm	Ø 10 à 80 mm	Ø 5-35 mm	Ø 120 à 220 mm
Icc max	31,5 kA/1s	40 kA/1s	31.5 kA/1s	40 kA/1s	40 kA/1s
Material	Alu			Alu	
Dimensions of clamped (mm)	120 x 52 x 230	150 x 52 x 280	150 x 45 x 280	220 x 170 x 40	245 x 55 x 400
Weight (kg)	1.4	1.4	1.3	1.6	3.7





	LATHES HTB	POSTE		
	LIGNE			
				
E200	GTE25COS	NBCRTTS	NB33S	N3B8
PLETINA : up to 100 mm vertical bar : 30 x 100 mm horizontal bar : 60 x 100 mm cylindrical : Ø 10 to 70 mm	Max capacity 25mm	Max capacity 33 mm	Max capacity 33 mm	Ø 6 to 30 mm flat 30 mm 19 mm hex
31,5 kA/1s	40 kA/1s	40 kA/1s	31,5 kA/1s	31,5 kA/1s
Alu		Copper-alu		
250 x 210 x 100	170 x 100 x 60	120 x 110 x 35	120 x 110 x 35	40 x 72 x 130
2.16	1.6	1.1	1.1	0.75

/ CONNECTOR SELECTION

(to be placed at the end of the chosen reference)



HE


AN

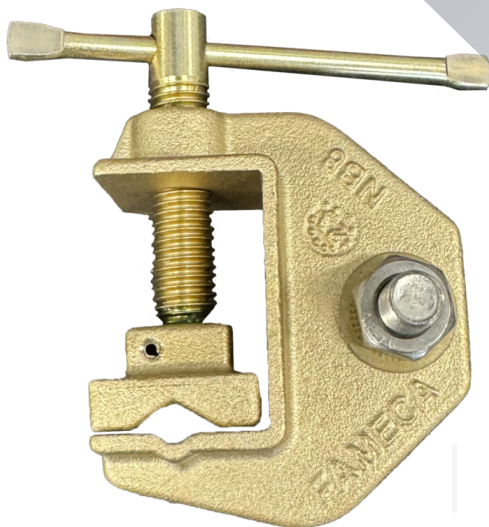
B

X46

SELECTION GUIDE

/ MV CLAMPS

Pinces HTA						
Ref.						
	MT535	MT416	MT516	MT525	MT525BL	MT525BLR*
Clamping capacity (mm)	Ø 5-35 mm		Ø 8-19 mm	Ø 5-35 mm	Ø 5-35 mm	
	16-40 et 5-40 mm	40-16 mm flat	0-19 mm flat		5 - 15 mm flat	
Icc max	31,5 kA/1s	18 kA/1s	20 kA/1s	14,5 kA/1s	14,5 kA/1s 20 kA/0,5s 25 kA/0,350s	25 kA/1s
Material	Alu			Copp-r-alu		
Dimensions of clamped (mm)	44 x 100 x 180	35 x 75 x 169	35 x 79 x 143	85 x 56 x 192	85 x 56 x 210	
Weight (kg)	0.620	0.320	0.320	0.560	0.800	





				
NBD25	NB2025	PFBD25	NB	N3B8
Ø 7 - 37 mm	Ø 5 - 32 mm		Ø 6 - 27 mm	Ø 6 - 30 mm
37 mm flat	32 mm flat		0 - 25 mm flat	30 mm flat
Ø 20 - 25 mm	Ø 20 - 25 mm	Ø 20 - 25mm	19 mm Hexagon	19 mm Hexagon
31,5 kA/1s all types of conductors 40 kA/0,5s on ball Ø 25 mm 20 kA/1s on ball Ø 20 mm	23,5 kA/1s all types of conductors 20 kA/1s on ball Ø 20 mm	23 kA/1s on ball Ø 20 mm 31,5 kA/0,5s on ball Ø 25 mm	20 kA/1s	31,5 kA/1s
Copr-alu				
35 x 75 x (160)	35 x 75 x (125)	35 x 75 x (125)	100 x 100 x 40	40 x 72 x 130
0.850	0.750	0.750	0.5	0.75

/ CONNECTOR SELECTION

(to be placed at the end of the chosen reference)



AP



B



M

/ LEQ35DB

LIAISON EQUIPOTENTIELLE DÉBROCHABLE

Advantages

- Can be inserted in all equipotential bondings.
- Lightweight.
- Maintenance free.
- Secured after calibrated disconnection: the device can't be used again.

/ USE

LEQ35DB allows an emergency disconnection of an equipotential bonding when used with mobile platform lifts. It allows to separate the platform from the driver without human intervention on the equipotential bonding.

/ TECHNICAL SPECIFICATIONS

- Minimal section : 35 mm
- Permanent passage of 100 A.
- Compatible with line clamps and earth clamps.
- Breaking force : 50 daN
- Dimensions : 71 x 3 x 3 cm
- Weight : 700 g



/ KLEQTP

EQUIPÓTENTIAL BONDING SET FOR CONSTRUCTION COMPANIES

/ USE

The equipotential bonding set KLEPT is designed for construction companies using platforms or scaffolding in the 50 meters vicinity zone of a live bare conductor.

The tear-off equipotential bonding LEQ35DB allows an emergency disconnection of this equipotential bonding without human intervention.

/ TECHNICAL SPECIFICATIONS

- The device is composed of :
 - 1 insulating pole with APV end fitting.
 - 1 clamp NBD25AP.
 - 1 earthing clamp NB33S.
 - 1 earthing copper cable 35 mm² length 15 m connecting the line clamp and the earthing clame.
 - 1 earthing copper cable 35 mm² length 25 m.
 - 1 tear-off equipotential bonding LEQ35DB.
- The device is delivered in a transport bag HMALT.





/ DLT8

VOLTAGE LIMITING DEVICE UNDER THE NEW NFC 18-510 STANDARD, WORKING ON DISCONNECTED NETWORK REQUIRES EARTHING ON EITHER SIDE OF THE WORK AREA. THE DLT8 IS THE ONLY MEANS AUTHORISED BY THE STANDARD FOR CREATING THE OPENING NECESSARY IN THE EARTHING CIRCUIT TO TAKE CERTAIN MEASUREMENTS

Advantages

- To see the opening of the circuit breaker testing device contact, the earth loop must be opened.
- When the circuit breaker is open, an induced voltage generated by the live devices will appear.
- This voltage is present at the end of the earthing system, but also on the recording instrument.
- When the OLTB is inserted in the earthing system, it limits to 50 Vrms the (touch voltage) and the voltage at the measuring device terminals.
- In the event of accidental voltage feedback, the protective earth circuit is instantly re-formed.
- When the circuit breaker is closed, the whole system is at earth potential.

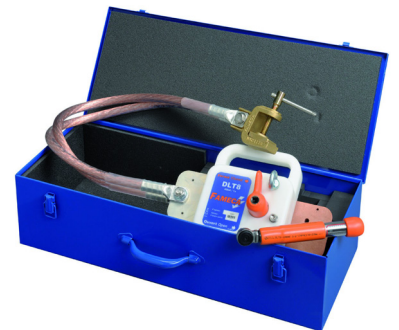
/ USE

- The voltage limiting device is a single-phase device designed for use on HV lines. It is designed to be inserted in the earth circuit so as to be able to take measurements with a circuit breaker testing device for example.
- $t = (-)^{\wedge}$ The voltage limiting device has two positions :
 - <OPEN > (position for taking measurements)
 - It protects users against accidental voltage feedback by re-forming the earthing circuit.
 - It limits the voltage at its terminals to under 50V.
 - In the closed position, it re-forms the earthing circuit.

/ TECHNICAL SPECIFICATIONS

- Allowable short-term current : 40 kA
- This value is clearly identified on the device on a short-circuit cable and the user will always need to check before use whether the device's I_{sc} is appropriate to the use and the relevant short circuit risk.
- Duration 1 second.
- Peak current 100 kA.
- Permanent current that can flow through the DLT8 in the closed position : 400 A
- Allowable nominal current (95.2 of specification HM-21/9/057A) that can pass through the voltage-clipping device in the open position : 40 A
- Maximum allowable current (56.5.1.4 of specification HM-21/97/057A) that can pass through the voltage-clipping device in the ON position : 100 A
- Maximum voltage at the DLT8 terminals : 50 Vrms
- Max. tightening torque necessary : 20 Nm

NB : The maximum allowable short-circuit current (1-1) by an earthing and short-circuiting device will be given by the element subject to the weakest current in the device's chain.



Ref.	Designation
DLT8ENT	Voltage limiting device
DLT50APE	Voltage limiting device equipped with the system SMAPE

/ CAX-CBX

ADJUSTABLE FIXED POINTS FOR VERTICAL OR ANGLED
CONDUCTORS IEC 61230

Advantages

- TIP : For small diameter conductors (model 12-60), the movable part of the collar should be reversed.

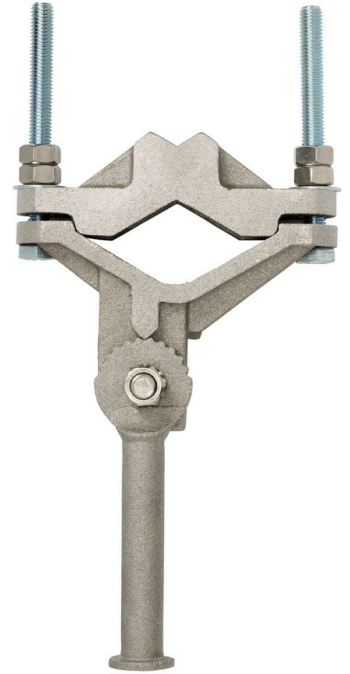
/ USE

These bars are designed to create earthing points in electrical installations so that standard S1560 or S540 earth clamps can be used.

/ TECHNICAL SPECIFICATIONS

- Max Isc : 30 KA/1s
- Can be swivelled in the clamping collar plane and the plane perpendicular to it.

Ref.	Min/Max diameter	Max Isc	Material
CAX12120	12-120 mm	31,5 kA/1s	Alu
CBX12120			Bronze



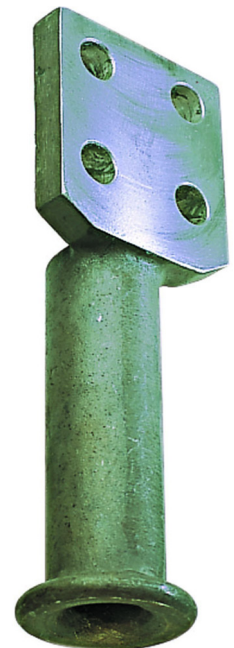
/ BTP

EARTH STUD WITH PLATE 40 KA/1S

/ TECHNICAL SPECIFICATIONS

- Made of aluminium alloy.

Ref.	Diameter
BTP	40 mm





/ TP13

INSULATING DETECTION POLE CEI 61235

Advantages

- The device is lightweight, portable and extremely robust.
- Can be used over a wide temperature range (-25 to 55°C) and exclusively indoors.
- The length of the pole, defined by a limit mark on the label, ensures a good grip.

/ USE

Insulating pole for indoor use, fitted with a universal end cap for attachment of voltage detectors. Other accessories can also be fitted to this pole (e.g. maneuvering hooks).

/ TECHNICAL SPECIFICATIONS

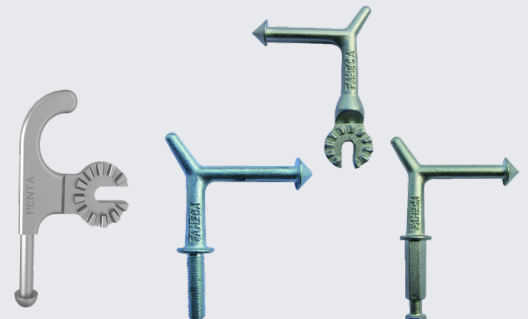
- Nominal flexion : 7.5 daN
- Nominal torsion : 40 N.m
- Tension : 150 daN
- Pole kind : Fixed
- Work type : De-energized-work
- Part number : 1
- Pipe diameter : 32 mm
- Operating voltage : BT (50 V to 1000 V), HTA (1 000 V to 50 000 V)
- Pole finition (terminal element) : Polish
- Pole kind : Rounded
- Color : Yellow
- Pole material : Composite glass fibre.

Réf.	Total length (m)	Weight (kg)	Dry condition (kV)	Hand shield	Pole adaptators
TP13TAGDPU	1.018	0.4	36	yes	Universel (U)
TP13PM	1.48	0.6	45	--	Universel (U)
TP13PMA	1.75	0.7	45	--	Universel (U)
TP13G1MSAPV	1.075	0.45	36	yes	APV
TP13G1MSU	1.018	0.4	36	yes	Universel (U)

Complete the reference of your choice with the code corresponding to the desired tip: APV, U or B.

/ OPERATING HOOKS

TOOLS ADAPTABLE TO A POLE



Ref.	Description	Poids (kg)	Dimensions (mm)
CMU1	Operating hook for fitting onto a universal connection	160	120 x 60 x 25
CMU2	Double operating hook for fitting onto a universal connection	200	120 x 80 x 25
CMAPV	Removal bird's nest crochet for fitting onto a universal connection	145	120 x 60 x 25
CM10	Operating hook for fitting onto a M10 thread	145	120 x 60 x 25



/ PRE

SPECIAL HEAVY DUTY CONNECTABLE INSULATING STICKS
MADE OF Ø 39 MM TUBE NF EN 50508 - CEI 60855-1
-ASTM F711

Advantages

- The pole is lightweight, portable, and extremely robust.
- Usable in a wide temperature range (-25 to 55°C) and both indoors and outdoors.
- The length of the shaft, defined by a handguard, ensures a secure grip.
- Equipped with an aluminum quick-connect system that locks by screwing its composite nut.
- The connector protection element is removable when the pole is disassembled and stored.
- A wide selection of operating tips is available, these are securely attached to the pole.

/ USE

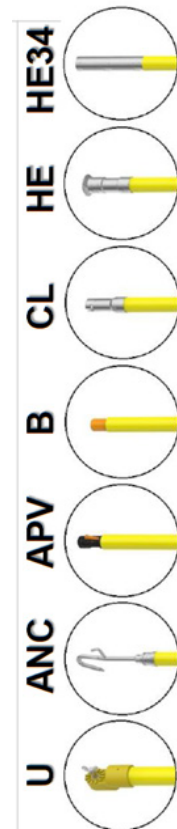
Earthing on high and very high voltage lines and substations,
All work involving high mechanical loads.

/ TECHNICAL SPECIFICATIONS

- Fibreglass composite tube, Ø 39 mm, polyurethane foam-filled, compliant with IEC 60855 (series tested against penetration of humidity).
- Longitudinal dielectric strength 100 kV/30 cm guaranteed in humid atmosphere.
- Screw connectors ref. S46, light alloy with brake and protective sleeve.
- Elastomer hand guard marks the gripping zone.
- Ribbed non-slip shaft. Lgth. and references to order : see table.

Composition :

- The PRE stick made up of several sections always has
- A basic PFE section.
- One or more PSE upper sections.
- An S46 end adapter suited to the clamp to be handled (see PRE stick adapter connection).
- Fixed end fitting : Ring (AN) and hexagon (HE) fittings can be permanently mounted on the end section.



Ref.	Length (m)	Max. operating voltage (kV)	Basic element reference	Intermediate elements (PSE reference)	Upper elements (PSE reference)	Weight (kg)
PRE3300*	3,15	300	PFE100	PSE100	PSE100*	3.4
PRE3450*	4,65	400	PFE150	PSE150	PSE150*	4.5
PRE3600*	6,15	525	PFE200	PSE200	PSE200*	5.7
PRE3750*	7,65	765	PFE250	PSE250	PSE250*	6.6



/ CHI31

INSULATED POLE FOR HANDLING LOW POINT EXTENSIONS
CHC31 CEI 61230 / CEI 60855

/ USE

Dedicated insulating pole specifically for the installation of the conductive pole low point extension CHC31.

Ref.	Designation
H12	Carrying and storage bag CHI31300
H14H	Carrying and storage bag CHI31400

/ TECHNICAL SPECIFICATIONS

- Made with IEC 60855 foam-backed tubing, 39 mm diameter.
- Orange in color.
- Equipped with a permanently mounted female CH terminal, two neoprene protective skirts, a hand guard, and a non-slip grooved sheath.
- Pole is available in one section, 3.2 or 4.5 m long, with insulation equal to the DMAC for 225 kV and 400 kV.
- For other lengths, please contact us.

Ref.	Max operating voltage (kV)	Length (m)	Insulating length (m)	Weight (kg)
CHI31200	90	2,30	1,10	2.1
CHI31250	150	2,70	1,55	2.5
CHI31300	225	3,22	1,85	2.9
CHI31340	400	3,60	2,5	3.6
CHI31400	400	4,47	3,10	3.9



/ TR-TRL

TELESCOPIC INSULATION STICK CEI 62193 CAT I
/ CEI 60855-1 / CEI 61235-S



/ USE

- All-weather (last IEC 60855-1 tube element deployed).
- Voltage absence check.
- Grounding in MV/LV substations.
- Disconnect switch operation.
- All work that generates mechanical stress under medium loads.
- TR poles are available in two ranges :
 - TR Classic
 - Foam-backed tube, Ø 32 mm terminal.

/ TECHNICAL SPECIFICATIONS

- Made up of 2, 3, or 4 elements :
 - Upper tube made of fiberglass composite on foam, IEC 60855-1 quality, yellow.
 - Intermediate and lower tubes made of yellow fiber glass composite, Ø 48, 39, or 32 mm, IEC 61235-S quality.
- Push-button locking in the folded or extended position.
- Base equipped with a protected connection for optional extension on models TR275, TR2225, and TR2245 (see reference table).
- Operating voltages correspond to the minimum insulation length requirements of IEC 61243-1 for a VAT.

Réf.	Max operating voltage (kV)	Unfolded length (m)	Folded length (m)	Part number
TR2105	20	1,10	0,70	2
TR2225	132	3,10	1,75	2
TR2245	225	4,00	2,15	2
TR2246	225	4,00	2,15	2

Complete the reference of your choice with the code corresponding to the desired tip: APV, U or B.



/ TK3S

SAFETY SET FOR SUBSTATIONS WITH BARE CONDUCTORS NF C 13-200:2018

/ USE

TK3 kits are safety intervention kits designed to meet the requirements of standard NF C 13-200. They are designed for permanent installation in delivery stations. Several formats are available:

- Kit with emergency intervention equipment → TK3S
- TK3S kit + signage compliant with station signaling requirements → TK3C
- TK3C kit + additional fire suppression equipment → TK3GT

Depending on the installation, you can supplement these kits with operational equipment.

/ TB11D

STAND FOR MV FUSES

/ USE

For holding spare fuses kept available in MV substations or cells.

/ S4310

WORK LIGHT FOR INTERVENTION

/ USE

Light designed for safety operations and checking operations in technical facilities such as :

- Electrical station and substation, boiler room, lift machinery.
- It can be used for night rounds.
- This lamp has a LED lighting in standby mode and in emergency mode.

/ UNITag

PHASE TESTER FOR LV NETWORK EN 61000-6-2 / EN 61000-6-4

/ USE

Alerts in the event of the presence of dangerous voltage and allows a cautious approach to distribution networks (LV / HVA).

/ TECHNICAL SPECIFICATIONS

- Scope :
 - LV AC voltage from 50 to 1000 V AC by hand - HVA AC voltage (36 kV) with dedicated insulating stick.
 - Detection by direct contact from 50 V.
 - Temperature : from -15°C to +45°C
 - Power supply : 2 alkaline batteries (LR03 1.5 volt AAA).
 - Adaptable to a 4-piece PIVAT stick.





Ref : / TK3S	Designation	Quantity
TB11D	Stand for MV fuses	1
TT015M	Insulating single piece plastic stool for inside use	1
S4310	Work light for intervention	1
BGT	Plastic glove box with window, comes with 1 powder	1
GLE36-3/*	Class 3 latex insulating gloves, L. 36 cm, T*	1
TP1213	Insulating rescue stick	1
UNITAG	Phase tester for LV network	1

*The pair of insulating gloves is also available in size 9 (ref. GLB3 36 09) or size 11 (ref. GLB3 36 11), to be specified when ordering

Ref : / TK3C (TK3S+POSTERS)	Designation	Quantity
TK3S	Security intervention kit for delivery stations	1
S80ALAF20BPM	AF20B aluminum poster - CARE FOR ELECTROELECTRIC SHOCK VICTIMS - 210 x 297 mm	1
S80ALPP30	PP30 aluminum sign - NO POSTING - 300 x 150 mm	1
S335ALPR40	PR40 PP30 aluminum sign - 300 x 200 mm	1
S750AL	Aluminum sign - DANGER NO ENTRY TRANSFORMER SUBSTATION - 200 x 150 mm	1
S756ALNM	Aluminum poster - GENERAL REQUIREMENTS - 350 x 500 mm	1
S754ALNM	Aluminum sign - ELECTRICAL WORK OFF, HV - 350 x 500 mm	1
S755ALNM	Aluminum sign - SAFETY INSTRUCTIONS - 350 x 500 mm	1
S81ALT10100	Aluminum triangle - T10 lightning bolt - 100 mm side	1
S81ALTM	Aluminum triangle - EARTH OF METALLIC MASSES - 100 mm side	1
S81ALTN	Aluminum triangle - NEUTRAL GROUND - 100 mm side	1

Ref : / TK3GT (TK3C+FIRE EXTINGUISHING)	Designation	Quantity
TK3C	Safety intervention kit for delivery points and signage	1
E072KGS	Carbon dioxide fire extinguisher - 2 kg	1
BI01	108-litre polypropylene fire hydrant with lid	1
C399	Suspension hook for shovel P30 - Ø 30 - 40 mm	1
M60R	Shovel handle - Length 1.10 m	1
P30	Fortification shovel - 27 cm	1

/ PIRD

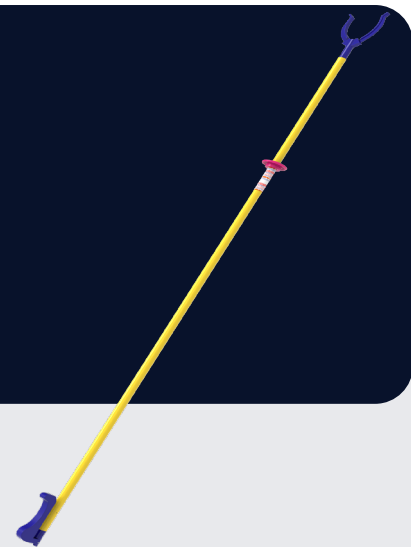
INSULATING DEBRIS PICK-UP CEI 61235

Advantages

- The PIRD grab is used to pick up bulky debris from live rail networks.

/ TECHNICAL SPECIFICATIONS

- Hollow tube, 26 mm in diameter, made of yellow fiberglass-reinforced synthetic resin.
- A composite gripping clamp is attached to one end, and an insulated handle with a lever for closing is attached to the other.



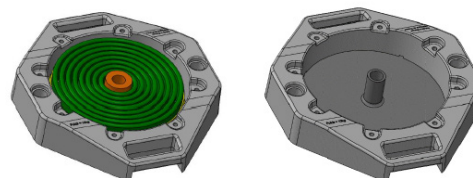
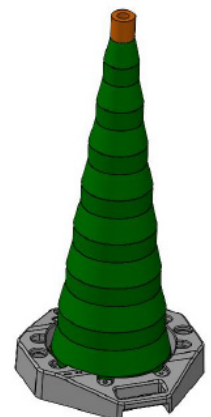
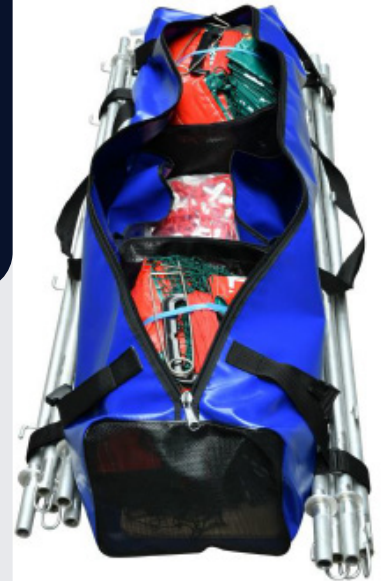
Ref.	Max operating voltage (kV)	Overall length (mm)	Overall width (mm)	Length of insulating part (mm)	Weight (g)
P98OCL	36	1000	130	700	0.7
PIRD190	66	1900	130	1600	1

/ MARKING KIT

Ref	KIT-BALISAGE-V1
XE9076X	4 retractable entrance beacons
STF-78	2 storage bags for mobile teams
XE9133	4 Flexible green barrier nets, 1,2 x 20M with markings on the green side «Work zone boundary» and on the red side «Do not cross, you are outside the work zone»
EPFIPE	4 pins
S115RB8	2 red/white 8mm plastic chains in a 25m bag
XE9107	20 reinforced aluminum bollard posts
XE9070X	20 stackable bases for marker posts

Ref	KIT-BALISAGE-V2
XE9076X	4 retractable entrance beacons
STF-78	2 storage bags for mobile teams
XE9133	4 Flexible green barrier nets, 1,2 x 20M with markings on the green side «Work zone boundary» and on the red side «Do not cross, you are outside the work zone»
EPFIPE	4 pins
XE9066MA	10 magnetic clips for hanging wiret
XE9066	6 retaining clips for attaching the net
XE9067	4 retaining claws spreaders

Ref	KIT-BALISAGE-V3
XE9076X	4 retractable entrance beacons
XE9070X	20 stackable bases for marker posts
STF-78	2 storage bags for mobile teams
XE9133	2 filets de balisage souples verts, 1,2 x 20M avec marquage sur face verte «Limite de zone de travail» et sur face rouge «Ne pas franchir, vous êtes en dehors de la zone de travail»
EPFIPE	4 pins
S115RB8	1 red/white 8mm plastic chains in a 25m bag
XE9066MA	5 magnetic clips for hanging wire
XE9066	3 retaining clips for attaching the net
XE9067	2 retaining claws spreaders





/ S115 HIGH DENSITY POLYETHYLENE CHAIN

/ TECHNICAL SPECIFICATIONS

- Durable, UV-resistant.
- Supplied in 25m bags.
- Chains : For other colors, please contact us.

Ref.	Weight (g)	Dimensions (mm)
S115RB6	1750	6
S115RB8	2650	8
S115VB6	1750	6
S115VB8	2650	8

Ref.	Designation
S115A6	Split ring Ø 6 mm white or red (to be specified) essential for hanging or repairing chains
S115A8	Split ring Ø 8 mm white or red (to be specified) essential for hanging or repairing chains



/ S115SPP POST ON BASE FOR POLYETHYLENE CHAIN

Advantages

- Clever folding system allowing functional storage and saving 70% of space after use.
- Functional and stable.

/ USE

Idéal pour réaliser une délimitation en extérieur. Système de blocage du poteau dans les deux positions.

/ TECHNICAL SPECIFICATIONS

- Post diameter : 50 mm.
- Height : 900 mm.
- Base : 280 x 280 x 70 mm
- Base weight : 4 kg
- Kit delivered including the weighted base and the post, ready for use.

Ref.	Color	Overall dimensions (mm)
S115SPPR	Red / black	1090 x 300 x 90
S115SPPJ	Yellow / black	1090 x 300 x 90





/ NOTES



/ NOTES



/ NOTES



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4NRJ
2 Rue Albert Calmette
ZA Les Gailletrous
41260 La Chaussée-Saint-Victor

www.4nrj.com

Contact@4nrj.com

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