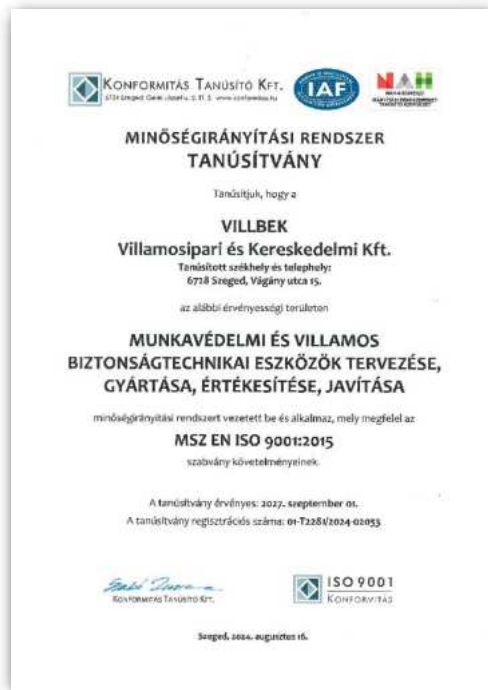




VILLBEK LTD. CATALOGUE 2024 V1.0



Certificates



Programs



ONE SECTION OPERATING ROD

Field of application

These rods are made of fibreglass reinforced synthetic resin tubes filled with poliurethane foam. It is suitable for applying different devices (short-circuiter, voltage detector, rescuing hook, cleaning tools, etc) on the SV, MV and HV networks. The different head shapes allow to connect the fittings or devices to the rod more easily. The one section rod types, the rod head shapes as well as the fittings which can be connector are summarized in the following table.

Basic rods without shaped heads



Operating rod types and the rod head's shapes length of 1500 mm				EN 60855	EN 60832
Type	Product code	Rated voltage (kV)	Effective length (mm)	Weight (g)	Head shape
VK-E-1500	536600	36	1500	800	
VK-E-C-1500	536610	36	1500	830	
VK-E-B-1500	536620	36	1500	890	

Operating rod types and the rod head's shapes length of 2200 mm				EN 60832	EN 60832
Type	Product code	Rated Voltage (kV)	Effective length (mm)	Weight (g)	Head shape
VK-E-2200	536700	36	2200	1000	
VK-E-C-2200	536710	36	2200	1030	
VK-E-B-2200	536720	36	2200	1090	

Operating rod types and the rod head's shapes length of 3000 mm				EN 60832	EN 60832
Type	Product code	Rated voltage (kV)	Effective length (mm)	Weight (g)	Head shape
VK-E-3000	536900	132	3000	1400	
VK-E-C-3000	536000	132	3000	1430	
VK-E-B-3000	536910	132	3000	1490	

TELESCOPIC OPERATING RODS

Field of application

These rods are made of fibreglass reinforced synthetic resin. The tube with the smallest diameter is filled with poliurethane foam. It is suitable for applying different devices (short-circuiter, voltage detector, rescuing hook, cleaning tools, etc) on the SV, MV and HV networks. The segments of the telescopic rod are fixed in their extended state by spring-type locking buttons. They can be transported in their nested state by car. The different head shapes allow to connect the fittings or devices to the rod more easily. The telescopic rod types, the rod head shapes as well as the fittings which can be connector are summarized in the following table.

Basic rods without shaped heads



VK-TR-1500, VK-TR-C-1500, VK-TR-B-1500



VK-TR-2000, VK-TR-C-2000, VK-TR-B-2000



VK-TR-2500, VK-TR-C-2500, VK-TR-B-2500

Operating rod types and the rod head's shapes length of 1500 mm				EN 62193	EN60855	EN 60832	
Type	Product code	Rated Voltage (kV)	Effective length (mm)	Transport length (mm)	No. of rod segment	Weight (g)	Head shape
VK-TR-1500	526310	36	1500	790	3	930	
VK-TR-C-1500	526300	36	1500	790	3	970	
VK-TR-B-1500	526320	36	1500	790	3	1000	

Operating rod types and the rod head's shapes length of 2000 mm				EN 62193	EN 60855	EN 60832	
Type	Product code	Rated Voltage (kV)	Effective length (mm)	Transport length (mm)	No. of rod segment	Weight (g)	Head shape
VK-TR-2000	546420	36	2000	1170	2	1000	
VK-TR-C-2000	546400	36	2000	1170	2	1080	
VK-TR-B-2000	546430	36	2000	1170	2	1110	

Operating rod types and the rod head's shapes length of 2500 mm				EN 62193	EN 60855	EN 60832	
Type	Product code	Rated Voltage (kV)	Effective length (mm)	Transport length (mm)	No. of rod segment	Weight (g)	Head shape
VK-TR-2500	546510	10, 36, 132	2500	1400	2	1370	
VK-TR-C-2500	546500	10, 36, 132	2500	1400	2	1400	
VK-TR-B-2500	546520	10, 36, 132	2500	1400	2	1430	

TELESCOPIC OPERATING RODS

Field of application

These rods are made of fibreglass reinforced synthetic resin. The tube with the smallest diameter is filled with poliurethane foam. It is suitable for applying different devices (short-circuiter, voltage detector, rescuing hook, cleaning tools, etc) on the SV, MV and HV networks. The segments of the telescopic rod are fixed in their extended state by spring-type locking buttons. They can be transported in their nested state by car. The different head shapes allow to connect the fittings or devices to the rod more easily. The telescopic rod types, the rod head shapes as well as the fittings which can be connector are summarized in the following table.

Basic rods without shaped heads



VK-TR-3000, VK-TR-C-3000, VK-TR-B-3000



VK-TR-3000/2, VK-TR-C-3000/2, VK-TR-B-3000/2



VK-TR-4000, VK-TR-C-4000, VK-TR-B-4000

Operating rod types and the rod head's shapes length of 3000 mm					EN 62193	EN60855	EN 60832
Type	Product code	Rated Voltage (kV)	Effective length (mm)	Transport length (mm)	No. of rod segment	Weight (g)	Head shape
VK-TR-3000	536110	132	3000	1340	3	1690	
VK-TR-C-3000	536100	132	3000	1340	3	1720	
VK-TR-B-3000	536120	132	3000	1340	3	1770	
VK-TR-3000/2	536130	132	3000	1700	2	1500	
VK-TR-C-3000/2	536150	132	3000	1700	2	1530	
VK-TR-B-3000/2	536140	132	3000	1700	2	1580	

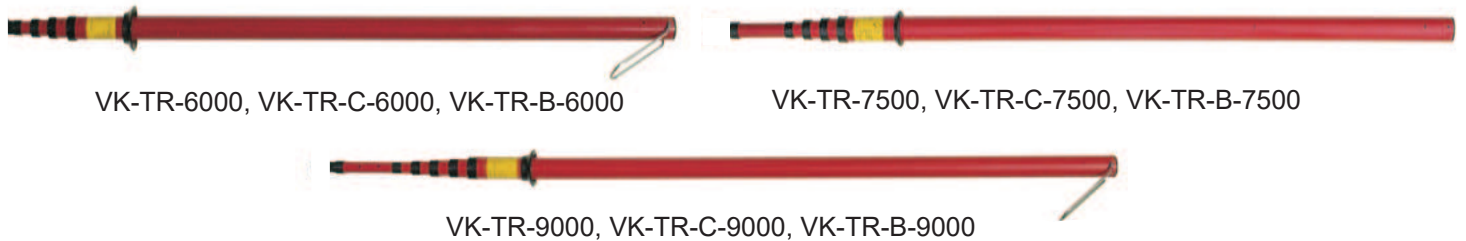
Operating rod types and the rod head's shapes length of 4000 mm					EN 62193	EN60855	EN 60832
Type	Product code	Rated Voltage (kV)	Effective length (mm)	Transport length (mm)	No. of rod segment	Weight (g)	Head shape
VK-TR-4000	536210	132	4000	1600	3	1970	
VK-TR-C-4000	536200	132	4000	1600	3	2000	
VK-TR-B-4000	536220	132	4000	1600	3	2030	

TELESCOPIC OPERATING RODS

Field of application

These rods are made of fibreglass reinforced synthetic resin. The tube with the smallest diameter is filled with poliurethane foam. It is suitable for applying different devices (short-circuiter, voltage detector, rescuing hook, cleaning tools, etc) on the SV, MV and HV networks. The segments of the telescopic rod are fixed in their extended state by spring-type locking buttons. They can be transported in their nested state by car. The different head shapes allow to connect the fittings or devices to the rod more easily. The telescopic rod types, the rod head shapes as well as the fittings which can be connecter are summarized in the following table.

Basic rods without shaped heads



VK-TR-6000, VK-TR-C-6000, VK-TR-B-6000

VK-TR-7500, VK-TR-C-7500, VK-TR-B-7500

VK-TR-9000, VK-TR-C-9000, VK-TR-B-9000

Operating rod types and the rod head's shapes length of 6000 mm					EN 62193	EN60855	EN 60832
Type	Product code	Rated Voltage (kV)	Effective length (mm)	Transport length (mm)	No. of rod segment	Weight (g)	Head shape
VK-TR-6000	536410	132	6000	1890	4	3370	
VK-TR-C-6000	536400	132	6000	1890	4	3400	
VK-TR-B-6000	536420	132	6000	1890	4	3430	

Operating rod types and the rod head's shapes length of 7500 mm					EN 62193	EN60855	EN 60832
Type	Product code	Rated Voltage (kV)	Effective length (mm)	Transport length (mm)	No. of rod segment	Weight (g)	Head shape
VK-TR-7500	536450	132	7500	2040	5	3620	
VK-TR-C-7500	536460	132	7500	2040	5	3650	
VK-TR-B-7500	536470	132	7500	2040	5	3680	

Operating rod types and the rod head's shapes length of 9000 mm					EN 62193	EN60855	EN 60832
Type	Product code	Rated Voltage (kV)	Effective length (mm)	Transport length (mm)	No. of rod segment	Weight (g)	Head shape
VK-TR-9000	536510	132	9000	2070	6	4880	
VK-TR-C-9000	536500	132	9000	2070	6	4910	
VK-TR-B-9000	536520	132	9000	2070	6	4940	



C type head
(hexagon)

Product code
536411



B type head
(bayonet)

Product code
536471



U type head
(universal)

Product code
536412



VK-K
maneuvering hook

Product code
536475



VK-C-B
(hexagon - bayonet)

Product code
536461



VK-C-UDI
(hexagon - UDI)

Product code
536462



VK-C-H
(hexagon - hook)

Product code
536416



VK-C-U
(hexagon - universal)

Product code
536463



VK-B-C
(bayonet - hexagon)

Product code
536472



VK-B-U
(bayonet - universal)

Product code
536417



VK-U-H
(universal - hook)

Product code
536418



VK-U-B
(universal - bayonet)

Product code
536413



VK-UDI-C
(UDI - hexagon)

Product code
536473



VK-EN-C
(switch)

Product code
536476



VK-U-C
(switch)

Product code
590437



VK-EN-U
(switch)

Product code
536419

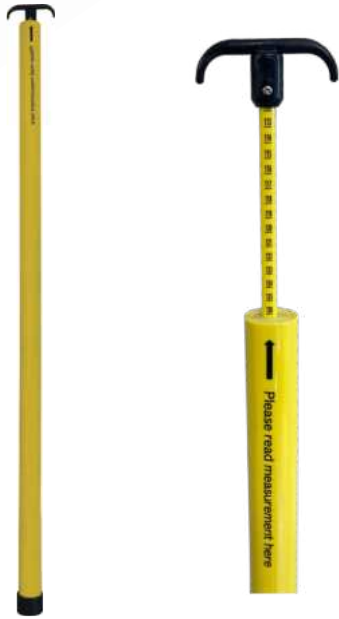


VK-GO-C
(button - hexagonal)

Product code
536477

RESCUE ROD, HEIGHT MEASURING ROD, OPERATING ROD

VILLBEK Ltd.



VK-EM-1500 Insulating rescue rod

The rescue rod can be used to rescue the person injured by electric shock from the circuit.

Lenght	1500 mm
Insulated hook	400 mm
Weight	1,5 kg
Product code	537300

Height measuring rod A-12

The material of the height measuring telescopic rod is fiberglass resin. The measured height can be easily read from the scale marked on the bar.

Lenght	12 m
No. of rod segment	12
Transporting lenght	1,2 m
Weight	3,5 kg
Product code	A-12

Telescopic operating triangular rod

VK-TR-C-9000/ R EN 62193 EN 60855 EN 60832

The rod structure consists of telescopically slidable fiberglass resin tubes having triangular profile in several different sizes. The end of the first PU foam-filled element has a fixed combined gripping head, which is suitable for connecting the fittings in a detachable manner.

The elements can be pushed together or pulled apart and can be locked together by a plastic button which pops out through the hole of the outer tube.

Weight 4,5kg.

Closed length 170cm. Total length: 9m.

Number of elements	Rated Voltage (kV)
1.and 2.	0-120
1; 2. and 3.	0-120
1; 2; 3 and 4.	0-300
1; 2; 3; 4; and 5.	0-400
1; 2; 3; 4; 5 and 6.	0-400
1; 2; 3; 4; 5; 6 and 7.	0-400
Product code	536503



VK-RB-2006-H		EN 61230	CE
Thermic limit current		18 kA/2 s	
Dynamic limit current		45 kA/1 s	
Gripping capacity		Ø5-30 mm	
Product code		522780	



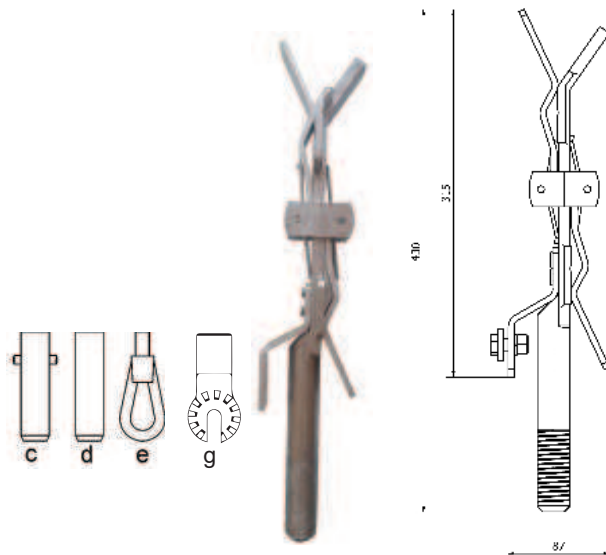
KÖF-C-9007-H		EN 61230	CE
Thermic limit current	For rail	23 kA/1 s 18 kA/2 s	
	For wire	23 kA/1 s 18 kA/2 s	
	Spherical stud	23 kA/1 s 18 kA/3 s	
Dynamic limit current	For rail	57,5 kA	
	For wire	57,5 kA	
	Spherical stud	57,5 kA	
Gripping capacity		Ø30x10 mm rail Ø8-25 mm wire Ø25 mm stud	
Product code		522781	



PC-400-H		EN 61230	CE
Thermic limit current		18 kA/2 s	
Product code		522782	



KÖF-C-9004-H		EN 61230	CE
Thermic limit current		18 kA/1 s	
Dynamic limit current		57,5 kA/1 s	
Gripping capacity		Ø0-27 mm	
Product code		522783	
Gripping capacity		Ø0-30 mm	
Product code		522784	

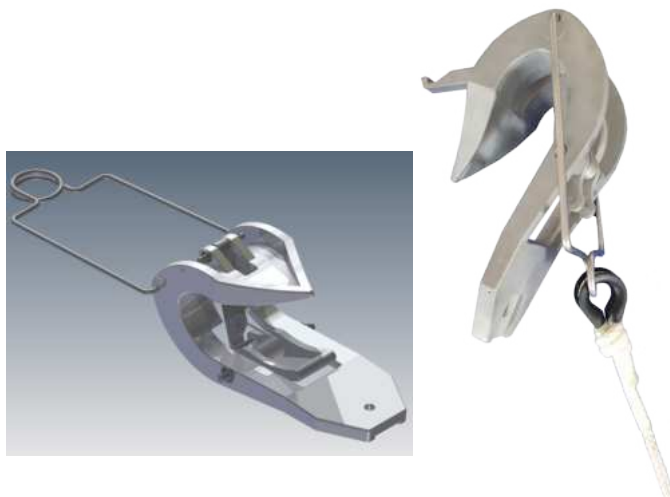


VK-NAF-2011/RR phase clamp



The VK-NAF-2011/RR phase clamp can be built in or can be connected to various operating rods and with copper wire an earthing whip can be obtained. The earthing whip can be used for earthing of stranded wire structured phase line of transformer stations and power plants. The clamp can only be pulled on the phase line.

Thermic limit current	5 kA/1 s
Dynamic limit current	12,5 kA
Gripping capacity	Ø12-30 mm
Product code	b: 536803 c: 536802 d: 536801 g: 536804

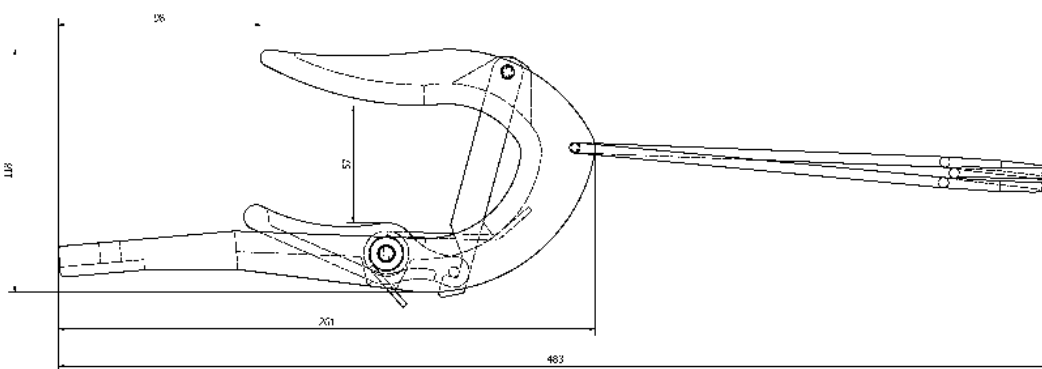


NAF-2021 automatic phase clamp



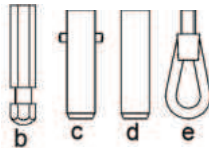
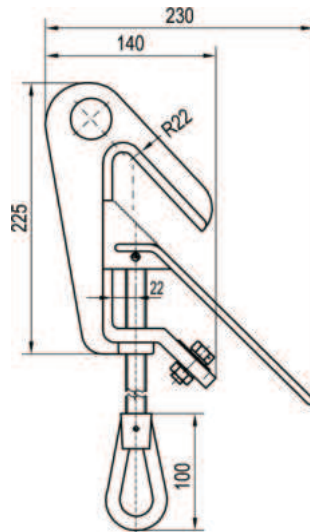
The purpose of the NAF-2021 automatic phase clamp is to ground and short-circuit the line section to be maintained in the de-energization process of high-voltage aerial line networks. The clamp is placed on the phase conductor with the help of a rope, and it is also removed and pulled down with the rope.

Thermal limit current	25 kA/1 s
Dynamic boundary current	73 kA/1s
Capability	20-59 Ømm
Product code	505066



ACCESSORIES CONNECTING TO THE ROD HEAD

VILLBEK Ltd.

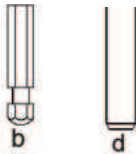
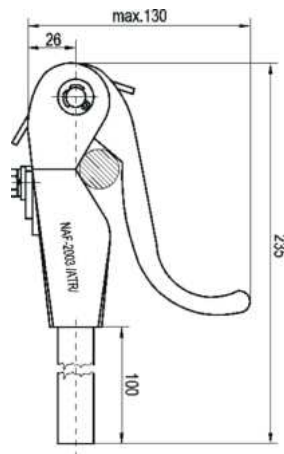


KN-9005/PC phase clamp

EN 61230 CE

The KN-9005/PC phase clamp can be built in or can be connected to various operating rods and with copper wire we can get an earthing whip. The earthing whip can be used for earthing of wire or pipe structured bus bars of transformer stations and power plants as well as the phase lines of the aerial lines.

Thermic limit current	40 kA/1 s
Dynamic limit current	100 kA
Gripping capacity	Ø5-70 mm
Product code	b: 510003 c: 510004 d: 510002 e: 510001

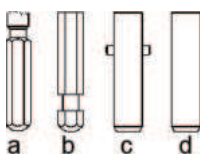
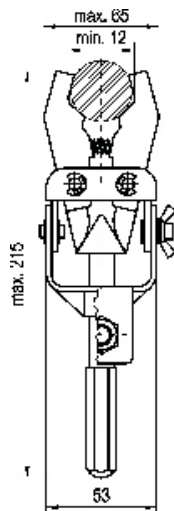


NAF-2003/ATR phase clamp

EN 61230 CE

The NAF 2003/ATR phase clamp can be built in or can be connected to various operating rods and with copper wire we can get an earthing whip. The earthing whip can be used for earthing of wire structured phase line of transformer stations and power plants.

Thermic limit current	7,2 kA/0,81 s
Dynamic limit current	15,9 kA
Gripping capacity	Ø18-30 mm
Product code	b: 536902 c: 536903 d: 536901



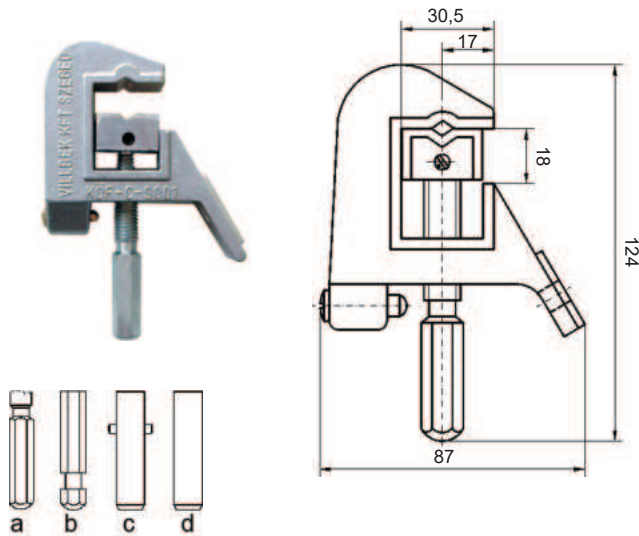
KÖF-9006/PC phase clamp

EN 61230 CE

The KÖF-9006/PC phase clamp can be built in or can be connected to various operating rods and with copper wire we can get an earthing/short circuiting device. The earthing device can be used for earthing of tube or wire structured bus bars of transformer stations and power plants as well as earhtig of installed earhtig studs and cable heads.

Thermic limit current	20 kA / 1 s
Dynamic limit current	25 kA
Gripping capacity	Ø12-40 mm
Product code	a: 541001 b: 541003 c: 541004 d: 541002

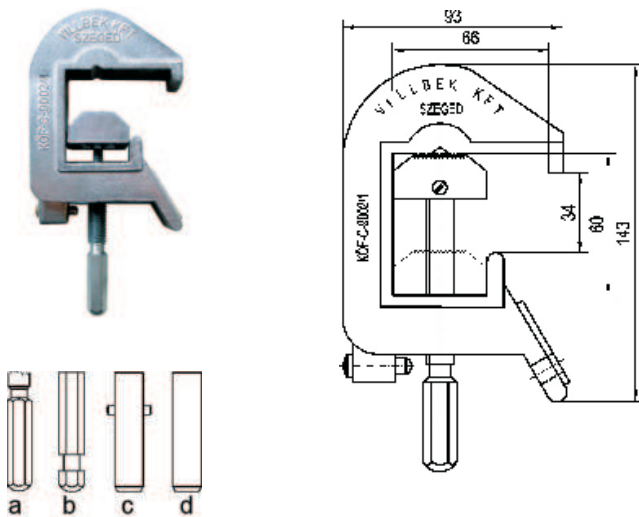
ACCESSORIES CONNECTING TO THE ROD HEAD



KÖF-C-9001 phase clamp EN 61230 CE

The KÖF-C-9001 phase clamp can be built in or can be connected to various operating rods and with copper wire we can get an earthing/short-circuiting device. The earthing device can be used for short-circuiting of rail structured bus bars of transformer stations and power plants.

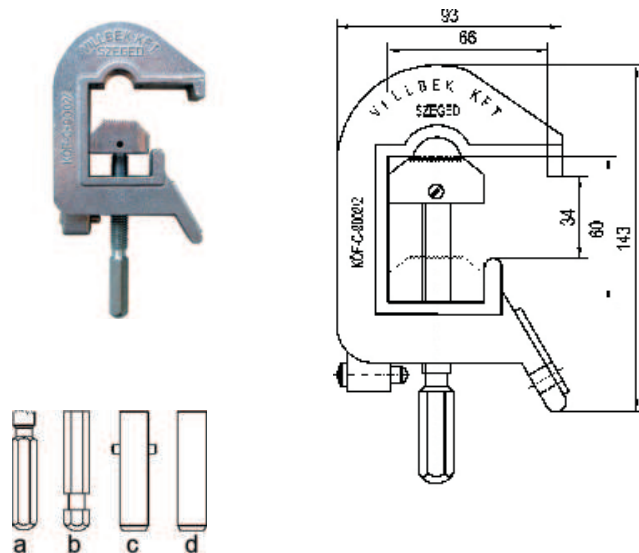
Thermic limit current	For rail	16 kA/1 s
	For wire	16 kA/1 s
Dynamic limit current	For rail	40 kA
	For wire	40 kA
Gripping capacity	Ø30 mm rail Ø6-18 mm stud	
Product code	a:	521504
	b:	521503
	c:	521502
	d:	521505



KÖF-C-9002/1 phase clamp EN 61230 CE

The KÖF-C-9002/1 phase clamp can be built in or can be connected to various operating rods and with copper wire we can get an earthing/short-circuiting device. The short-circuiting device can be used for short-circuiting of rail or wire structured bus bars of transformer stations and power plants.

Thermic limit current	For rail	20 kA/1 s
	For wire	20 kA/1 s
Dynamic limit current	For rail	50 kA
	For wire	50 kA
Gripping capacity	Ø60x10 mm rail Ø8-30 mm wire	
Product code	a:	521205
	b:	521206
	c:	521207
	d:	521208



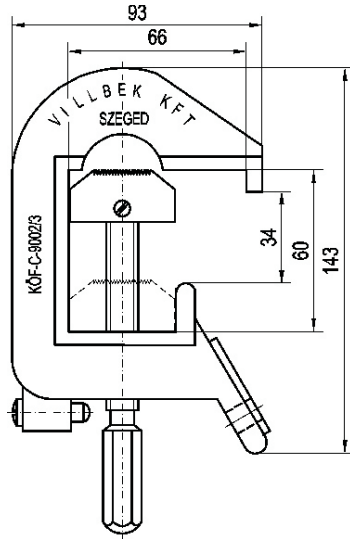
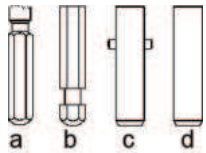
KÖF-C-9002/2 phase clamp EN 61230 CE

The KÖF-C-9002/2 phase clamp can be built in or can be connected to various operating rods and with copper wire we can get an earthing/short-circuiting device. The short-circuiting device can be used for short-circuiting of bus bars of transformer stations and power plants and can be put on the earthing studs shown below.

Thermic limit current	For rail	16 kA/1 s
	28 mm stud	16 kA/1 s
Dynamic limit current	For rail	40 kA
	28 mm stud	40 kA
Gripping capacity	Ø60x10 mm rail Ø25 mm earthing stud	
Product code	a:	521506
	b:	521515
	c:	521516
	d:	521517

ACCESSORIES CONNECTING TO THE ROD

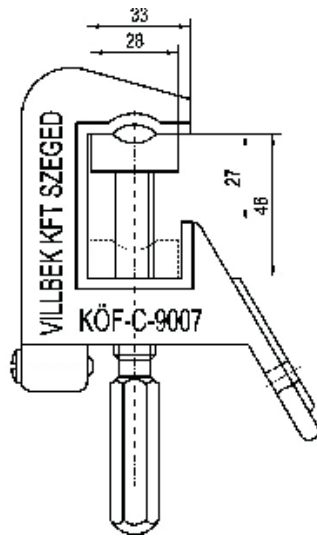
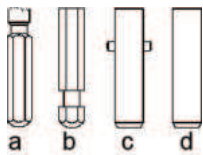
VILLBEK Ltd.



KÖF-C-9002/3 phase clamp EN 61230 CE

The KÖF-C-9002/3 phase clamp can be built in or can be connected to various operating rods and with copper wire we can get an earthing/short-circuiting device. The short-circuiting device can be used for short-circuiting of rail or wire structured bus bars of transformer stations and power plants.

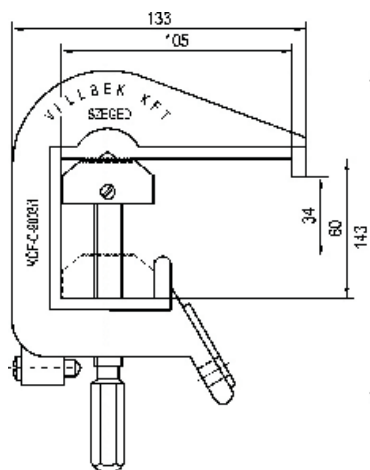
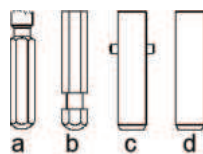
Thermic limit current	For rail	20 kA/1 s
	For wire	20 kA/1 s
Dynamic limit current	For rail	50 kA
	For wire	50 kA
Gripping capacity	Ø60x10 mm rail Ø30 mm wire	
Product code	a:	521522
	b:	521523
	c:	521524
	d:	521525



KÖF-C-9007 phase clamp EN 61230 CE

The KÖF-C-9007 phase clamp can be built in or can be connected to various operating rods and with copper wire we can get an earthing/short-circuiting device. The short-circuiting device can be used for short-circuiting of rail or wire structured bus bars of transformer stations and power plants as well as can be put on the spherical studs shown below.

Thermic limit current	For rail	23 kA/1 s	18 kA/2 s
	For wire	23 kA/1 s	18 kA/2 s
	Spherical stud	23 kA/1 s	18 kA/2 s
Dynamic limit current	For rail	57,5 kA	
	For wire	57,5 kA	
	Spherical stud	57,5 kA	
Gripping capacity	Ø30x10 mm rail Ø8-25 mm wire Ø25 mm spherical stud		
Product code	a:	521512	
	b:	521511	
	c:	521513	
	d:	521514	

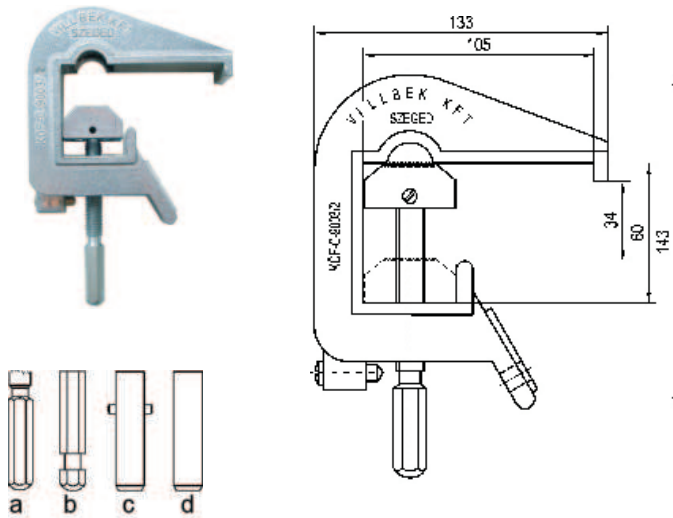


KÖF-C-9003/1 phase clamp EN 61230 CE

The KÖF-C-9003/1 phase clamp can be built in or can be connected to various operating rods and with copper wire we can get an earthing/short-circuiting device. The short-circuiting device can be used for short-circuiting of rail or wire structured bus bars of transformer stations and power plants.

Thermic limit current	For rail	20 kA/1 s
	For wire	20 kA/1 s
Dynamic limit current	For rail	50 kA
	For wire	50 kA
Gripping capacity	Ø100x10 mm rail Ø8-3 mm wire	
Product code	a:	521533
	b:	521508
	c:	521531
	d:	521532

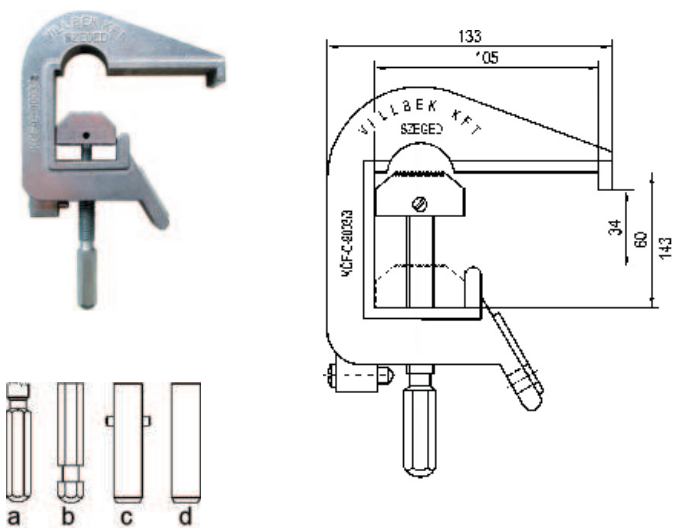
ACCESSORIES CONNECTING TO THE ROD HEAD



KÖF-C-9003/2 phase clamp EN 61230 CE

The KÖF-C-9003/2 phase clamp can be built in or can be connected to various operating rods and with copper wire we can get an earthing/short-circuiting device. The short-circuiting device can be put on bus bars of transformer stations and power plants as well as can be put on the earthing studs shown below.

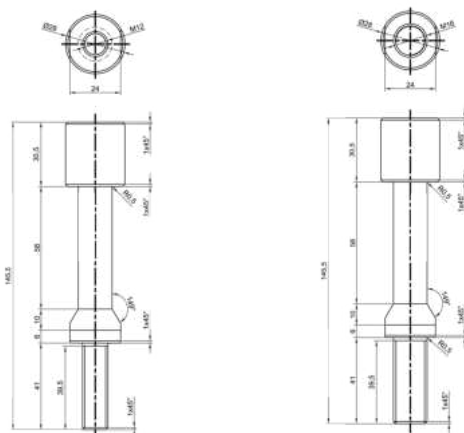
Thermic limit current	For rail	16 kA/1 s
	28 mm stud	16 kA/1 s
Dynamic limit current	For rail	40 kA
	28 mm stud	40 kA
Gripping capacity	Ø100x10 mm rail Ø28 mm wire	
Product code	a:	521507
	b:	521541
	c:	521542
	d:	521543



KÖF-C-9003/3 phase clamp EN 61230 CE

The KÖF-C-9003/3 phase clamp can be built in or can be connected to various operating rods and with copper wire we can get an earthing/short-circuiting device. The short-circuiting device can be used for short-circuiting of rail or wire structured bus bars of transformer stations and power plants.

Thermic limit current	Sinre	20 kA/1 s
	Sodronyra	20 kA/1 s
Dynamic limit current	Sinre	50 kA
	Sodronyra	50 kA
Gripping capacity	Ø100x10 mm rail Ø30 mm wire	
Product code	a:	521554
	b:	521551
	c:	521552
	d:	521553

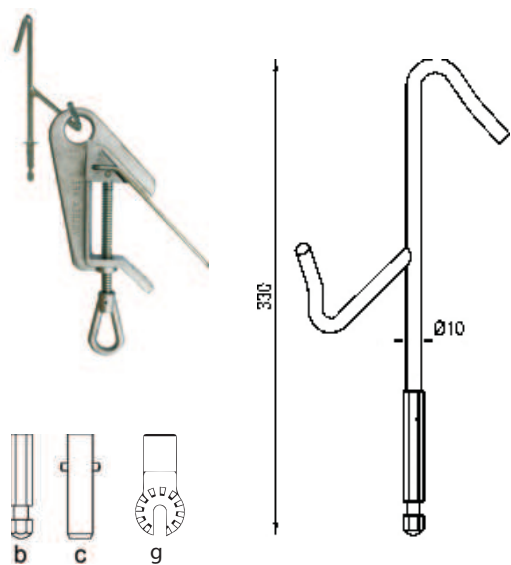


Earthing studs for KÖF-C-9003/2 and KÖF-C-9002/2 phase clamp

Product code	M12: 521521 M16: 521521
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ACCESSORIES CONNECTING TO THE ROD HEAD

VILLBEK Ltd.

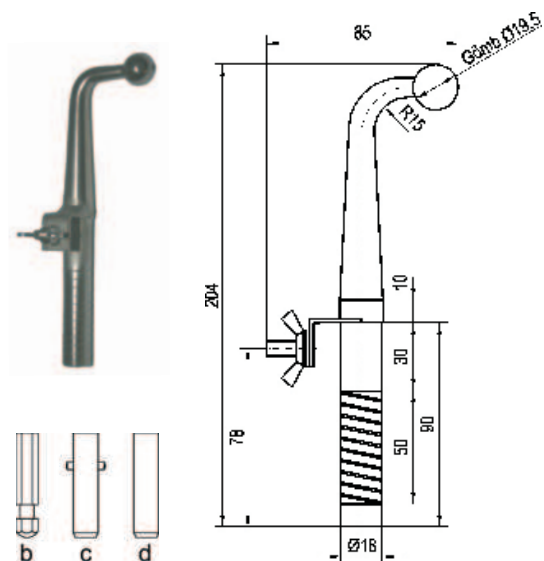


KN-9005/Fh applying hook

for KN-9005/PC phase clamp EN 61230 CE

By means of the lower arm of the applying hook KN-9005/Fh the KN-9005/PC can be put on the phase line of the tube or wire structured bus bars and aerial lines. Having put on, by means of the upper arm, the threaded rod can be rotated fixing the clamp on the phase line.

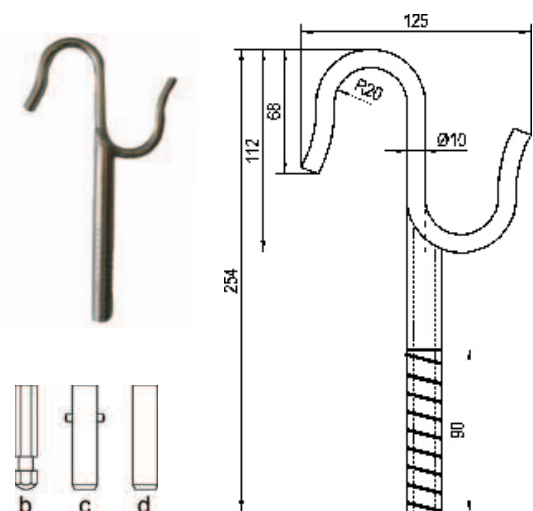
Product code	b:	510011
	c:	510012
	g:	510013



Spherical switching head

The spherical switching head can be built in or can be put on various operating rods. So we can use it for switching the manually controlled disconnectors.

Product code	b:	536601
	c:	536602
	d:	536603

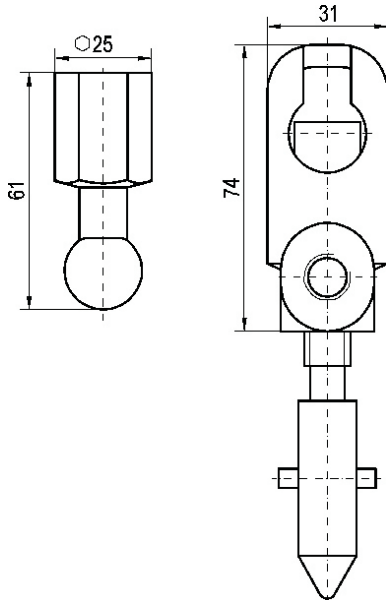


Handling hook

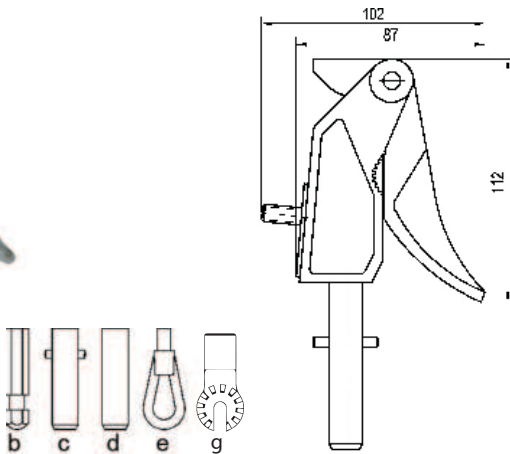
The handling hook can be connected to a one-piece insulating rod to handle the work ropes of ladders that can be built in the vicinity of medium-voltage equipment and for other handling operations.

Product code	b:	536604
	c:	536605
	d:	536606

ACCESSORIES CONNECTING TO THE ROD HEAD



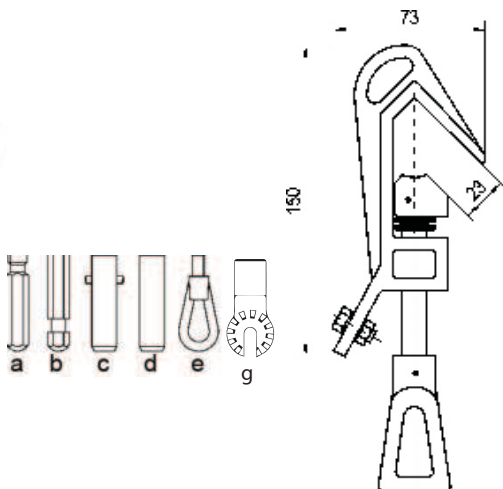
4202 phase clamp		CE
Thermic limit current	24 kA/0,5 s	
Dynamic limit current	60 kA/1 s	
Gripping capacity	Ø20 mm	
Product code	EL-20-004202	



4203 phase clamp		CE
Thermic limit current	40 kA/0,5 s	
Dynamic limit current	100 kA/1 s	
Gripping capacity	Ø25 mm	
Product code	EL-20-004203	



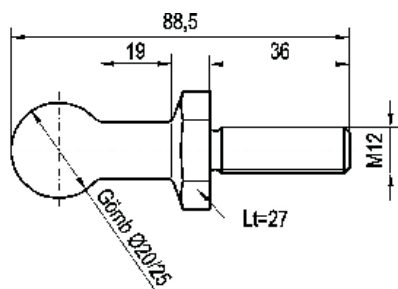
VK-RB-2006 phase clamp		EN 61230	CE
Thermic limit current	18 kA/2 s		
Dynamic limit current	45 kA/1 s		
Gripping capacity	Ø5-30 mm		
Product code	b: 547842 c: 547843 d: 547844 e: 547845 g: 547846		



VK-W-2006 phase clamp		EN 61230	CE
Thermic limit current	23 kA/1 s		
	18 kA/2 s		
Dynamic limit current	57,5 kA/1 s		
Gripping capacity	Ø6-23 mm		
Product code	a: 547850 b: 547851 c: 547852 d: 547853 e: 547854 g: 547855		

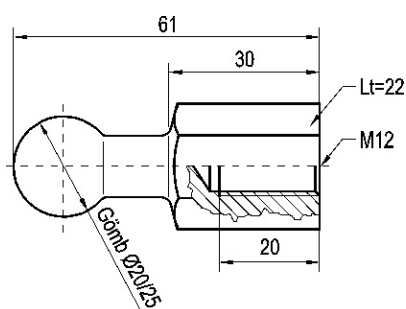
INSERTABLE BALL STUDS FOR CLAMPS "T" INTEGRATOR, WALL MOUNT

VILLBEK Kft.



Ø 20 ball stud		CE
Thermic limit current	24 kA/0,5 s	
Thread size	M12	
Ball diameter	Ø20 mm	
Product code	V590151	

Ø 25 ball stud		CE
Thermic limit current	40 kA/0,5 s	
Thread size	M12	
Ball diameter	Ø25 mm	
Product code	V590107	



Ø 20 ball stud		CE
Thermic limit current	24 kA/0,5 s	
Thread size	M12	
Ball diameter	Ø20 mm	
Product code	V590144	

Ø 25 ball stud		CE
Thermic limit current	40 kA/0,5 s	
Thread size	M12	
Ball diameter	Ø25 mm	
Product code	V590136	



VK-RT-2006 "T" integrator

Lenght	240 mm
Height	120 mm
Product code	521528



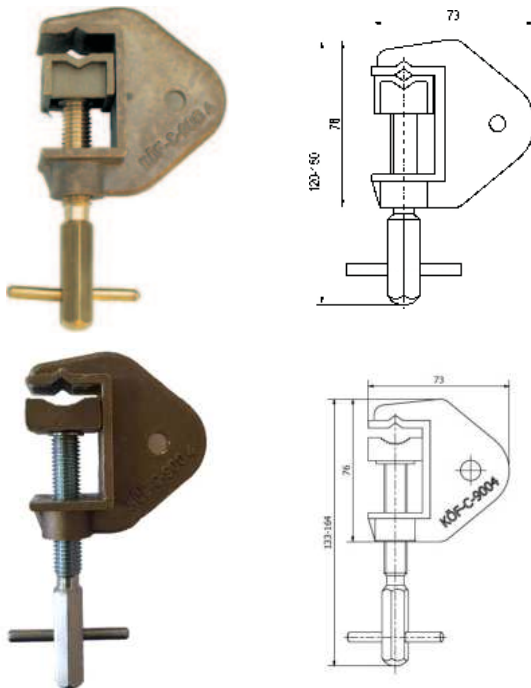
VK-FRZ-FT

Wall mount for
earthing devices

Wall bracket for placement on a short-circuit wall

Product code	521509
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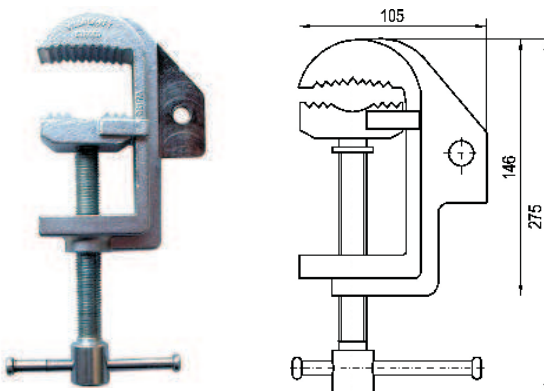
EARTHING CLAMPS, DISCHARGING WHIP



KÖF-C-9004 earthing clamp EN 61230 CE

Connecting copper wire to the clamp type KÖF-C-9004, we can get an earthing short-circuiting device. The earthing whip can be connected to rail or wire type earthing bus bars of transformers or power plants.

Thermic limit current	For rail	23 kA/1 s	18 kA/2 s
	For wire	23 kA/1 s	18 kA/2 s
	Spherical stud	23 kA/1 s	18 kA/3 s
Dynamic limit current	For rail	57,5 kA	
	For wire	57,5 kA	
	Spherical stud	57,5 kA	
Gripping capacity	Ø0-27 mm		
Product code	514001		
Gripping capacity	Ø0-30 mm		
Product code	514089		



VV-130-MÁV earthing clamp EN 61230 CE

Connecting copper wire to the clamp type VV-130-MÁV, we can get an earthing short-circuiting device. The earthing whip can be connected to rail or wire type earthing bus bars of transformers or power plants.

Thermic limit current	26 kA/0,5 s
Dynamic limit current	62,5 kA
Gripping capacity	Ø0-80 mm
Product code	521581



VK-E-1500/K discharging whip

EN 61230 CE

- One section operating rod, type VK-E-1500 (rated voltage of the rod 35 kV)
- Spherical switching head
- Earthing clip
- Wire with cross section of 6 mm² (length of wire 2,5 m)

Product code of the set	547110
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VK-E-2200/K discharging whip

EN 61230 CE

- One section operating rod, type VK-E-2200 (rated voltage of the rod 35 kV)
- Spherical switching head
- Earthing clip
- Wire with cross section of 6 mm² (length of wire 2,5 m)

Product code of the set	547120
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EARTHING ROD, DISCHARGING WHIP

VILLBEK Ltd.



VK-E-3000/R one section earthing rod set			EN 61230	EN 60832	CE
Cross section of the wire	Without wire	50 mm ²	70 mm ²	95 mm ²	120 mm ²
Thermic limit current	-	7,2 kA /1 s	7,2 kA /1 s	7,2 kA /1 s	7,2 kA /1 s
Dynamic limit current	-	16 kA	16 kA	16 kA	16 kA
Product code of the set	547138	547130	547132	547134	547136

- One section operating rod, type VK-E-3000 (rated voltage of the rod 120 kV)
- Phase clamp type KN-2003 / ATR
- Earthing clamp type KÖF-C-9004
- Wire with cross sections of 50, 70, 95 mm² (length of wire 4,5 m)



VK-E-3000/R one section earthing rod set			EN 61230	EN 60832	CE
Cross section of the wire	Without wire	50 mm ²	70 mm ²	95 mm ²	120 mm ²
Thermic limit current	-	10 kA /1 s	16 kA /1 s	20 kA /1 s	21 kA /1 s
Dynamic limit current	-	25 kA	40 kA	50 kA	53 kA
Product code of the set	547158	547150	547152	547154	547156

- One section operating rod, type VK-E-3000 (rated voltage of the rod 120 kV)
- Phase clamp type KN-9005 / PC
- Earthing clamp type KÖF-C-9004
- Wire with cross section of 50, 70, 95 mm² (length of wire 4,5 m)



EARTHING ROD, DISCHARGING WHIP



VK-TR-3000/R telescopic earthing rod set		EN 61230	EN 60832	CE	
Cross section of the wire	Without wire	50 mm ²	70 mm ²	95 mm ²	120 mm ²
Thermic limit current	-	7,2 kA /1 s	7,2 kA /1 s	7,2 kA /1 s	7,2 kA /1 s
Dynamic limit current	-	16 kA	16 kA	16 kA	16 kA
Product code of the set	547138	547170	547172	547174	547176

- Telescopic operating rod, type VK-TR-3000 (rated voltage of the rod 120 kV)
- Phase clamp type KN-2003/ATR
- Earthing clamp type KÖF-C-9004
- Wire with cross section of 50, 70, 95 mm² (length of wire 4,5 m)



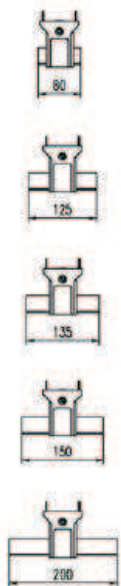
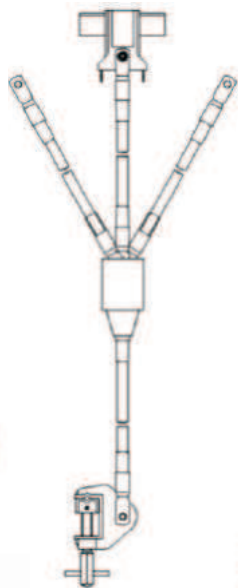
VK-TR-3000/R telescopic earthing rod set		EN 61230	EN 60832	CE	
Cross section of the wire	Without wire	50 mm ²	70 mm ²	95 mm ²	120 mm ²
Thermic limit current	-	10 kA /1 s	16 kA /1 s	20 kA /1 s	21 kA /1 s
Dynamic limit current	-	25 kA	40 kA	50 kA	53 kA
Product code of the set	547198	547190	547192	547194	547196

- Telescopic operating rod, type VK-TR-3000 (rated voltage of the rod 120 kV)
- Phase clamp type KN-9005/PC
- Earthing clamp type KÖF-C-9004
- Wire with cross section of 50, 70, 95 mm² (length of wire 4,5 m)



EARTHING AND SHORT CIRCUITING DEVICES

VILLBEK Ltd.



VK-NR-2000

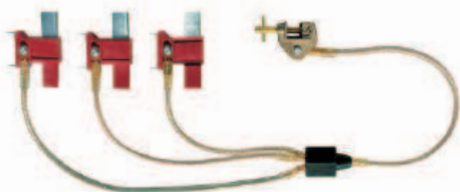
EN 61230



The earthing / short-circuiting device set is applicable for blade-type fuse sockets. During decoupling it is suitable for earthing / short-circuiting of equipment and networks particularly branch circuits where the switching, and disconnecting of them can be carried out by pulling out the blade-type fuse insert.

Components of the set:

- Four branched earthing wire structure, earthing and short circuit device with hook cable lug 400mmx550mmx750mm and 650mm (25mm²). Product code: 514024
- KÖF-C-9004 earthing clamp. Product code: 514001
- Removing handle with protective leather cover Product code of the safety grip: 504031
- Wrench, size 13
- Metal case
- Earthing blades



Blade type	Thermic limit current	Dynamic limit current	Blade size	Product code
3x NH 00	2 kA /0,5 s	3 kA	80	513006
3x NH 0	2 kA /0,5 s	3 kA	125	513007
3x NH 1	5 kA /0,5 s	7,5 kA	135	513008
3x NH 2-3	9,7 kA /0,5 s	17 kA	150	513009
3x NH 4	9,7 kA /0,5 s	17 kA	200	513010



VK-NR-2000-1

EN 61230



Components of the set:

- Four branched earthing wire structure, earthing and short circuit device with hook cable lug 400mmx550mmx750mm and 650mm (25mm²). Product code: 514024
 - KÖF-C-9004 earthing clamp. Product code: 514001
 - Removing handle with protective leather cover Product code of the safety grip: 504031
 - Wrench, size 13
 - Plastic case
 - Earthing blades
- Product code of the set: 513004

Blade type	Thermic limit current	Dynamic limit current	Blade size	Product code
3x NH 00	2 kA /0,5 s	3 kA	80	513100
3x NH 1-3	5 kA /0,5 s	7,5 kA	135	513105



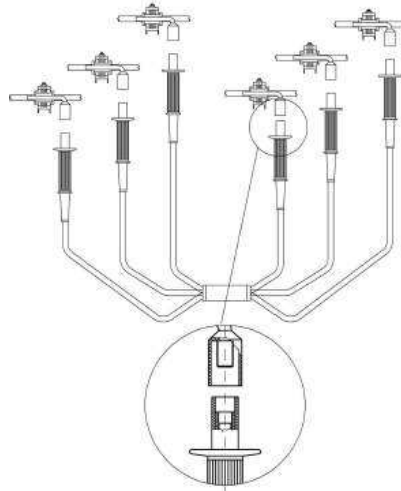
VK-E-350



To insert earthing cartridges or earthing bits with M10 connecting. To connect the earthing device to cartridges. Length: 355mm

Product code	547109
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EARTHING AND SHORT CIRCUITING DEVICES



SZL-FRZ-25

EN 61230 CE

The earthing / short-circuiting devices are for earthing and short-circuiting of the leads on the low voltage insulated networks, on the specified point. The piercing branch clamp with the threaded pipe is permanently fastened to the leads. During short-circuiting, the threaded ends of the 6 branched wire structure shall be driven into the branching pipes to the bottom. The set contains the short-circuiting apparatus. The piercing branch clamp and the threaded pipe shall be ordered additionally. The short-circuiting wire structure is delivered in a metal case.

Thermic limit current	5 kA/1 s
Dynamic limit current	7,5 kA
Earthing cable	25 mm ²
Product code	512100



Branching pipe threaded VK-P-M

CE

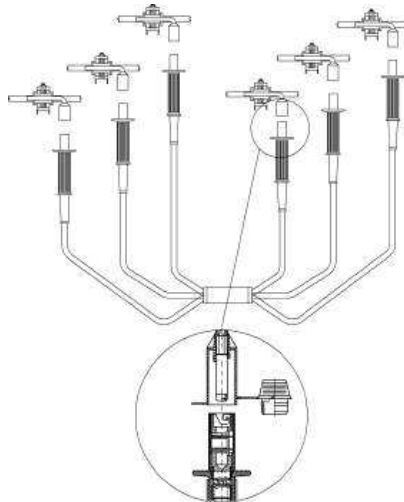
Product code	310004
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SZL-FRZ-L-16-16

EN 61230 CE

Set content:
1 earth cable in extra-flexible cooper, 16mm², length: 16m; 1 bronze earthing clamp, KÖF-C-9004; 1 bayonet plug; plastic case

Product code	510421
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SZL-FRZ-B-25

EN 61230 CE

The earthing / short-circuiting devices are for earthing and short circuiting of the leads on the low voltage insulated networks, on the specified point. The piercing branch clamp with the bayonet pipe is permanently fastened to the leads. During short-circuiting, the bayonet sockets of the 6 branched wire structure shall be put into the branching pipes. The set contains the short-circuiting apparatus. The piercing branch clamp and the bayonet pipe shall be ordered additionally. The short-circuiting wire structure is delivered in a metal case.

Thermic limit current	5 kA/1 s
Dynamic limit current	7,5 kA
Earthing cable	25 mm ²
Product code of the set	510400

Branching pipe bayonet VK-P-B

CE

Product code	310006
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SZL-FRZ-L-16-16

EN 61230 CE

Set content:
1 earth cable in extra-flexible cooper, 16mm², length: 16m; 1 bronze earthing clamp, KÖF-C-9004; 1 bayonet plug; 1 plastic case

Product code	510421
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EARTHING AND SHORT CIRCUITING DEVICES

VILLBEK Ltd.



KIF-BR/2011

EN 61230

CE

The set can be used for short-circuiting low-voltage bare overhead lines and insulated, bundled overhead lines.

Thermal limit current	5 kA/1 s
Gripping capacity	Ø5-14 mm
Ground wire	25 mm ²
Product code	547923



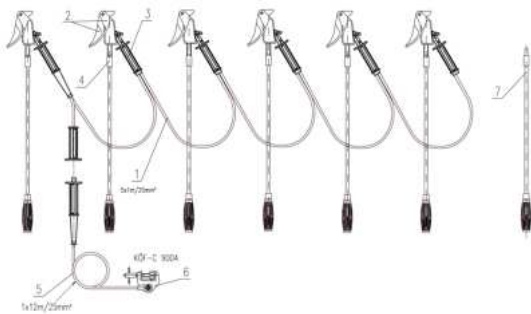
VK-BR-/2011/25

EN 61230

CE

VK-BR-2011 can be used for grounding and short-circuiting low-voltage bare and insulated overhead lines.

Thermal limit current	5 kA/1 s
Gripping capacity	5 mm - 30 mm
Ground wire	25 mm ²
Product code	547927



VK-BR/2011/35

EN 61230

CE

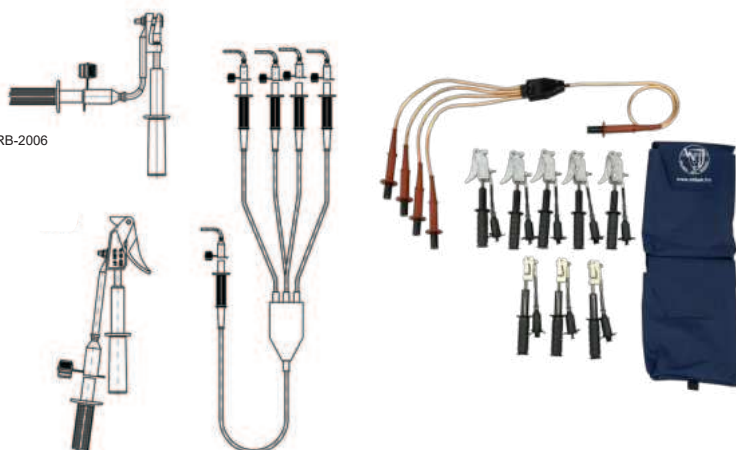
VK-BR-2011 can be used for grounding and short-circuiting low-voltage bare and insulated overhead lines.

Thermal limit current	7 kA/1 s
Capability	5 mm - 30 mm
Ground wire	35 mm ²
Product code	505065

PC 400 clamp

SZL-FRZ-B5

PC-RB-2006



ABC KIT

EN 61230

CE

The ABC type kit can be used for grounding and short-circuiting the low-voltage overhead line network.

Thermal limit current	5 kA/1 s
Ground wire	Cu 1,2 m 25 mm ²
Phase wire	Cu 1,8 m 25 mm ²
Conductor diameter	95 mm ² , Al conductor
Grounding point	5 mm, Copper rail
Product code	590103

EARTHING AND SHORT CIRCUITING DEVICES

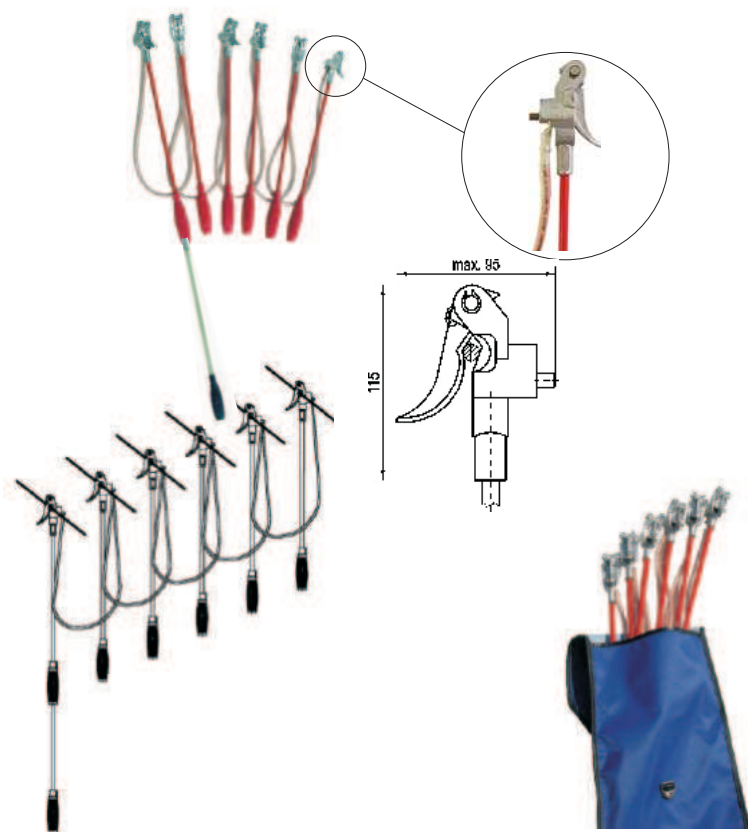
KIF-9001

EN 61230



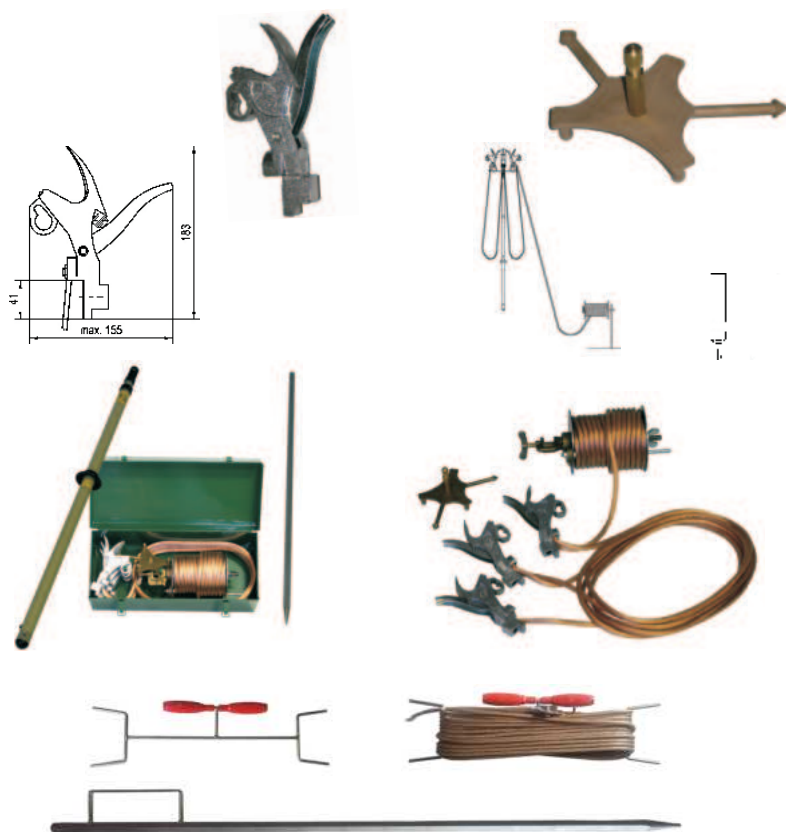
The earthing / short-circuiting device is for earthing and short-circuiting of low-voltage overhead line segment that have been disconnected for maintenance. The set consist of 6 aluminium cast spring connecting clamp with shaft of fibreglass synthetic resin and plastic handle (length: 52 cm) and 1 insulating rod extension with threaded joint. The phase clamps are connected to each other by extremely flexible copper cable (25mm²) with transparent protective insulation. The cable is connected to the phase clamps by cap-bolted joint without interrupting the continuity of the phase conductor. A device set is delivered in a waterproof canvas bag.

Thermic limit current	7 kA/2s
Dynamic limit current	12 kA
Earthing cable	25 mm ²
Gripping capacity	Ø5-14 mm
Product code of the set	510100
Product code of the clamp 9001	510101
Product code of the extension	510104



KÖF-KJ-8901/1 phase clamp

KÖF-8901/cs clamp dispenser head



KÖF-8901

EN 61230



The earthing / short circuiting device is for earthing and short circuiting of medium voltage electric line segment that have been disconnected for maintenance. The complete set consists of phase clamps, mounting/removing tool, earthing cable and an operating rod. Items of the set can be ordered separately as well. The complete set thermic limit current: 6kA/1 sec

Thermic limit current /set/	6 kA/1s
Thermic limit current /clamp/	15 kA/1 s 12 kA/2 s
Dynamic limit current /clamp/	37,5 kA/1 s
Earth cable	25 mm ²
Gripping capacity of the clamp	Ø5-15 mm
Product code of the set	523000
KÖF-KJ-8901/1 product code	523002
KÖF 8901/cs product code	b: 523015
KÖF 8901/FSZ earthing probe	Ø17 mm
Product code	523014
KÖF 8901/C Cable holder	610/455mm
Product code	523101
KÖF 8901/D cable drum	Ø17 mm
KÖF 8901/FSZ/H earthing probe	523017

EARTHING AND SHORT CIRCUITING DEVICES

VILLBEK Ltd.



KÖF-8901/AUT /3 heads, short circuit EN 61243 CE

The purpose of the grounding and short-circuiting kit is to ground and short-circuit the line section to be maintained in the de-energization process of medium-voltage aerial line networks.

Product code	522850
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KÖF 8901/AUT/CS/3 mounting adapter

Product code	523115
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KÖF-KJ-8901/AUT clamp EN 61243 CE

Gripping capacity	4-25 mm
Thermal limit current	20kA/1s
Dynamic limit current	42kA/1s
Product code	523112

KÖF-8901/AUT/ 5 head short-circuit device EN 61243 CE

The purpose of the grounding and short-circuiting kit is to ground and short-circuit the line section to be maintained in the de-energization process of medium-voltage open-circuit networks.

Product code	505068
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KÖF 8901/AUT/CS/2 mounting adapter

Product code	505067
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VK-O-50-4 EN 61230 CE

The purpose of the VK-O-50-4 (50 mm² wire) grounding and short-circuiting kit is to ground and short-circuit aerial line networks per phase. The ground clamp must be placed at common ground potential.

Type	VK-O-50-4
Thermal limit current	10 kA/1 s
Dynamic boundary current	25 kA
Gripping capacity	Ø5-70 mm
Product code	523110



VK-O-95-4 EN 61230 CE

VK-O-95-4 (95 mm² wire) grounding and short-circuiting set is intended for grounding and short-circuiting aerial line networks per phase. The ground clamp must be placed at common ground potential.

Type	VK-O-95-4
Thermal limit current	20 kA/1 s
Dynamic boundary current	50 kA
Gripping capacity	Ø5-70 mm
Product code	523111

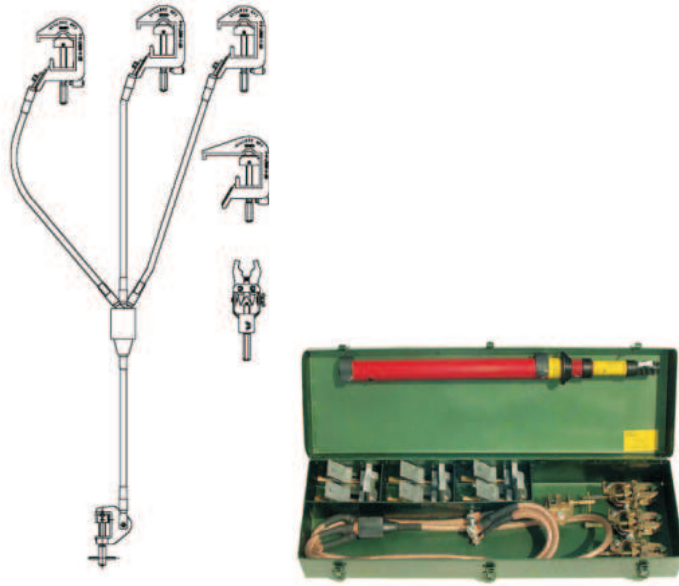


EARTHING AND SHORT CIRCUITING DEVICES

VK-FRZ-20/xx

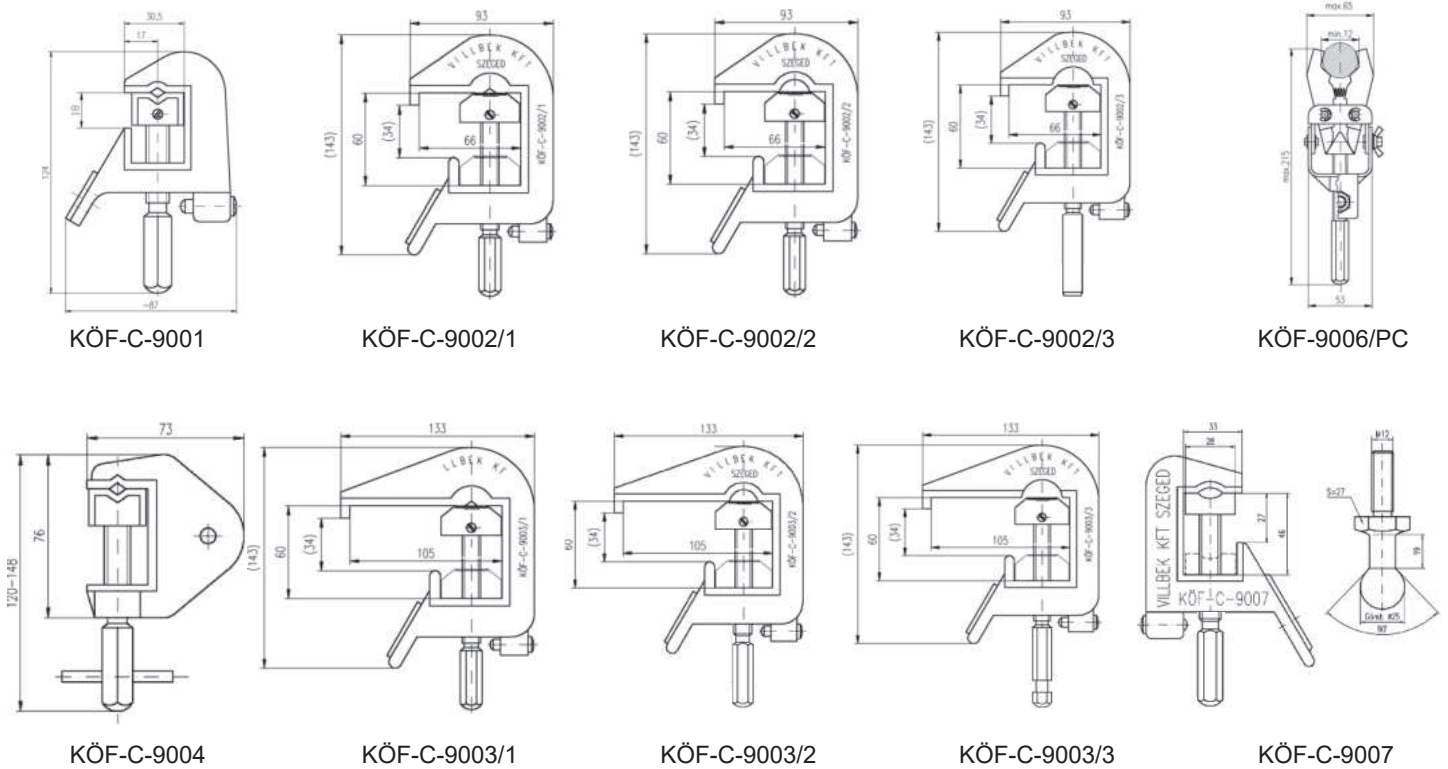
EN 61230 CE

The earthing/short-circuiting device set is designed for earthing and short circuiting of the flat bars, cable heads of the armoured distribution system, and transformer substations. The form of the phase clamps provides easy connection to the pre-manufactured studs, cylindrical contact pins as well as spherical studs. The placing of the phase clamps must be carried out with operating rods suitable for the appropriate voltage level.



VILLBEK Ltd.

Phase clamps can be found in the set



EARTHING AND SHORT CIRCUITING DEVICES

VK-3-RB-2006

EN 61230CE

Short-circuiting and earthing device for MV substation. 3pcs VK-3-RB-2006 aluminium alloy spring clamps mounted on VK-E-1500 insulated stick.

Capacity of the clamps	5-30mm
Thermic limit current	18kA/2s
Product code	V590429



VK-2R-C-1350, VK-2R-C-3000, VK-3R-C-7500

EN 60852

Connectable multiuse pole with two VK-2R or three VK-3R sections made of polyester and fiberglass tube 32mm diam. and polyurethane foam filling with U (Universal), B (Bayonet), or C (Hexagonal) head. According to EN 60852 standards.

Product code VK-2R-C-1350	V536114
Product code VK-2R-C-3000	V536112
Product code VK-3R-C-7500	V504002



Fuse clamp

CE

Fuse clamp is used for working on live parts with insulated rod of an installation with voltages exceeding 1 kV a.c. The operating clamp is used to remove and insert HV high-breaking-capacity fuses. The clamping jaws can be easily and quickly opened and closed by turning the telescopic rod. The fuse clamp has different endings to connect easily to the insulated telescopic rod.

Capacity of the clamp	45-70mm
Product code	V523018



VK-KDA

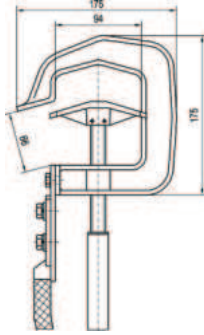
CE

Cable drum unreeling frame with aluminium rollers. Size can be set for the size of the drum. Weight: 18kg
Max load: 1000kg
Cable drum diameter: 400-1200mm

Product code	V504034
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UNIPOLAR SHORT CIRCUITING DEVICE

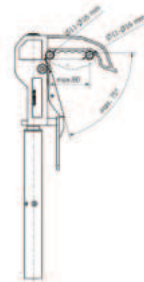
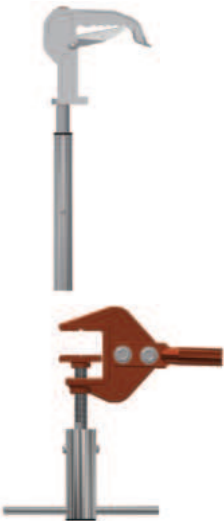
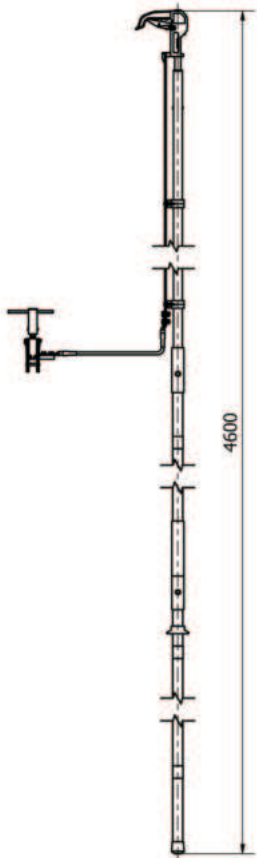
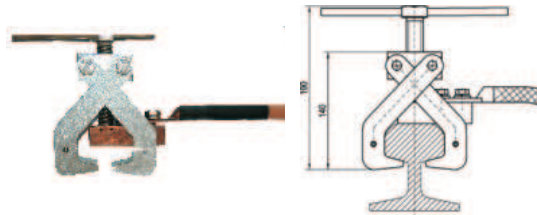


VK-OM-FRZ

EN 61230 CE

Unipolar short-circuiting device is suitable for connecting bus bar and overhead line.

Product code	522900
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VK-25-70315

VK-25-70316

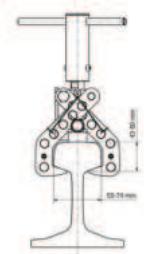
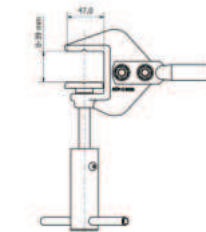
EN 61230 CE

The VK-25-70315 and 70316 earthing rod equipment is for earthing 25 kV overhead line traction systems. The clamps of earthing devices have torque limiter.

KÖF-C-9009



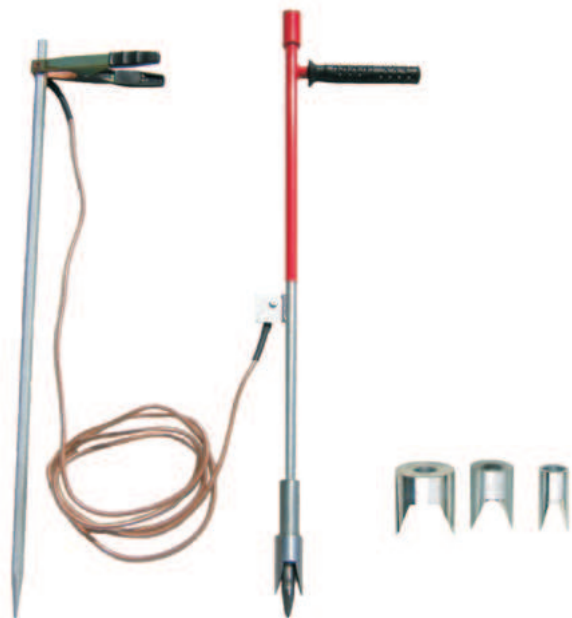
KÖF-C-9008



Type of device	70315	70316
Thermic limit current	12 kA/0,25 s	40 kA/0,25 s
Dynamic limit current	35 kA	
Earth cable	Lenght: 6100 mm; Cu 50 mm ² Lenght: 8100 mm; Cu 50 mm ²	
Weight of the set	13 kg	14 kg
Earthing clamp type	KÖF-C-9008	KÖF-C-9009
Torque of earthing clamp	22 Nm	
Torque of phase clamp	14 Nm	
Number of rod elements	2 pcs	

CABLE PIERCING TOOL, CABLE SHOOTING TOOL, EARTHING MAGNET LOCK

VILLBEK Ltd.



Cable piercing tool

The cable piercing tool helps to select the faulty cable during maintenance carried out on LV earth cable networks.

Rated voltage	0,4 kV
Lenght of wire	2,5 m
Cross section of wire	16 mm ²
Lenght of cable piercing tool	1 m
Lenght of earthing probe	1 m
Product code of the set	547450



Cable shooting tool

The cable shooting tool helps to select the faulty cable during maintenance carried out on LV and MV earth cable networks. The tool is operated by cartridges filled with different portions of gun powder.

Product code of the set	547460
Product code of 30 mm blade	547461
Product code of 45 mm blade	547462
Product code of red cartridge '50'	547463



VK-FMZ04 Earthing magnet lock



The earthing magnet lock is suitable to 600-1500 V rated public transport purpose electrical DC earthing networks.

Thermic limit current	10 kA/1s
Adhesion force	1300 N
Product code	590424



VK-E-1150-A

Operating pole as single sections 1,15m. The pole being fitted with VK-A-1 adapter.

Product code	536740
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VK-A-1

Socket type VK-A-1 supports clamps being applied in an upward direction.

Product code	536478
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VK-FR-25/19 earthing hook



The earthing rod equipment is for earthing overheadline traction systems.

Gripping capacity	12-68mm
Product code	521582



VK-FR25/MÁV automatic phase clamp



The earthing rod equipment is for earthing 25kV overheadline traction systems.

Gripping capacity	12-43 mm
Thermic limit current	8kA/1s
Dynamic limit current	20,1kA/s
Product code	524052



KÖF 9010 clamp for cylindrical conductors



Gripping capacity	12-43 mm
Product code	b: 520905
	g: 522856

VOLTAGE DETECTORS FOR LOW VOLTAGE AND CONTACT PROBE

VILLBEK Ltd.



Elma LV voltage detectors

EN 61243-3 CE

The voltage detector is a new and unique voltage tester with safety and lots of clever details including: long flexible cord, smart test rod attachment with spacers that fit perfectly in the socket. The instrument has auto select of function, making it virtually impossible to operate wrong. Self test. Double insulated, CAT IV 600 V, IP65. Both instruments complies to (EN 61243-3:2010, EN 61010-1:2010 and EN 61010-31:2002+A1:2008)

Technical specification	ELMA 2000x	ELMA 2100x
Display	LED	LED and LCD
Voltage display (LED)	12 V, 24 V, 50 V, 120 V, 230 V, 400 V, 690 V (AC/DC)	12 V, 24 V, 50 V, 120 V, 230 V, 400 V, 690 V (AC/DC)
Voltage display (LCD)	-	7,0-800/ 720 V (AC/DC)
Unipolar voltage detecting mod	100-690 V (AC)	
Phase order testing mod	200-690 V (50/50 Hz)	
Continuity testing with LED and sound	0-400 kOhm	
Testing power	<3,5 mA	
Operating temperature	-15...55 °C	
Weight	190 g	

Bag for the meter

Product code	BA01262
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One-piece contact probe

Lenght	900 mm
Product code	401054

Bag for the one-piece contact probe

Lenght	900 mm
Product code	BA00202

Three-piece contact probe

Lenght	1200 mm
Product code	401065

Bag for the three-piece contact probe

Lenght	500 mm
Product code	BA00432

EARTH FAULT LOCATION FINDER, LV PHASE COMPARATOR, CABLE IDENTIFIER

EARTH FAULT LOCATION FINDER



VKP-FZK20

EN 61010-1 CE

EN 61326-1

The earth fault location finder is suitable for finding the location of the permanent earth fault of MV aerial networks. The sensitivity of the device can be changed by the push buttons. The measured values can be viewed on the LDC graphic display.

Product code	547916
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LV PHASE COMPARATOR FOR 0,4 kV NETWORK

Transmitter



Receiver



VKP-FE/04

EN 61010-1 CE

EN 61010-2-031

EN 61326-1

On 0,4 kV three-phase networks (aerial or insulated) the LV phase comparator is able to identify the phases between the base station and a remote point. The transmitter device shall be connected always to the phase conductor on the base station. Using the receiver device each phase of the base station can be identified at any point of the network, moving away from the base station. The transmitter and receiver communicate via radio frequency. The range of transmission may vary between 100 and 200 meters, depending on the transmission of the RF signal.

Product code	547912
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CABLE IDENTIFIER

Transmitter



Receiver

VKP-IKA

EN 61010-1 CE

EN 61010-2-031

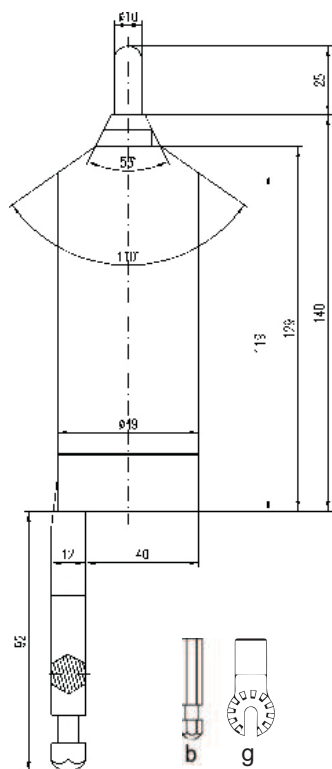
EN 61326-1

The VKP-IKA cable identifier is suitable for identifying uncharged earth cables. The device kit consists of two instruments, a rechargeable battery powered pulse transmitter and a battery powered pulse receiver. Connecting the transmitter unit to the end point of the uncharged cable, the cable to be found can be identified by the receiver on any point (in cable chamber or cable conduit) of the cable route. The radio communication between the transmitter and the receiver allows the range 100-2000 meters, depending from the radio signals.

Product code	547910
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VOLTAGE DETECTOR

VILLBEK Ltd.

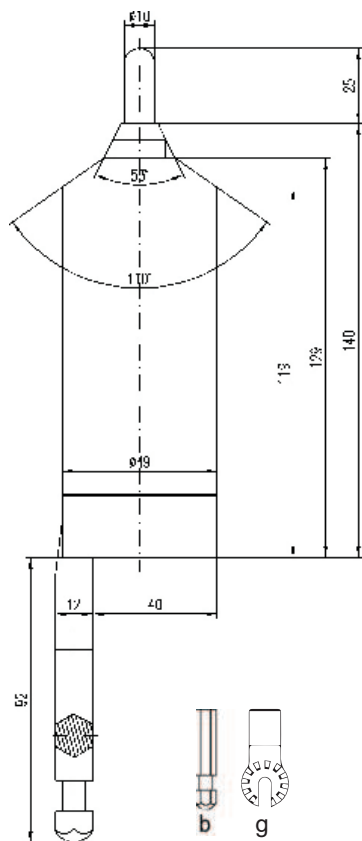
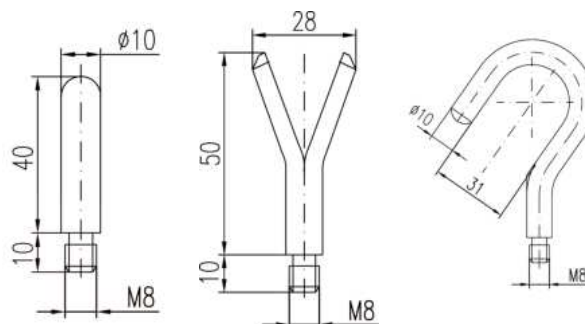


VKP-10M EN 61243-1

The voltage detector is used to detect the presence of voltage on electrical equipment with a nominal voltage of 3-11 kV (three-phase system). Usable control bar: VK-TR-C-2000. In the presence of nominal voltage, it gives an intermittent light and sound signal.

Usable control bar: VK-TR-C-2000. In the presence of nominal voltage, it gives an intermittent light and sound signal.

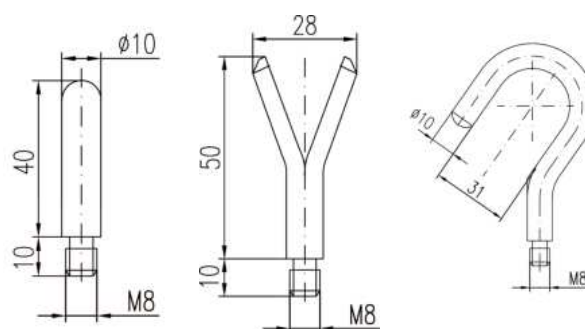
Nominal voltage	3-11kV
Max. voltage	12 kV
Threshold voltage	$1,1 \text{ kV} \leq U_k \leq 1,35 \text{ kV}$
Product code	505012



VKP-20M EN 61243-1

The voltage detector is used to detect the presence of voltage on electrical equipment with a nominal voltage of 6-22 kV (three-phase system). Usable control bar: VK-TR-C-2000. In the presence of nominal voltage, it gives an intermittent light and sound signal.

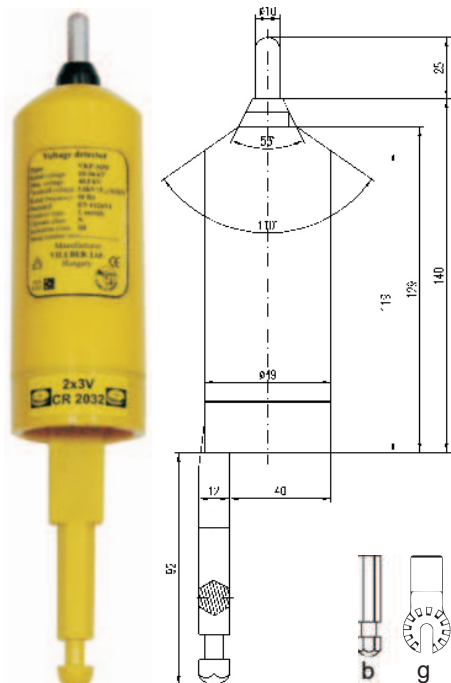
Nominal voltage	6-22 kV
Max. voltage	24 kV
Threshold voltage	$2,2 \text{ kV} \leq U_k \leq 2,7 \text{ kV}$
Product code	505013



VOLTAGE DETECTOR

VILLBEK Ltd.

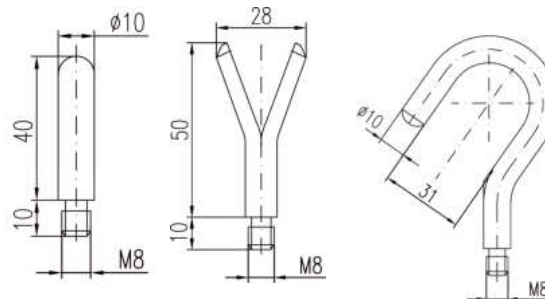
MINI VOLTAGE DETECTOR FOR MEDIM VOLTAGE



VKP-36M EN 61243-1

The voltage detector is for detecting the presence of voltage in the electrical equipments with the rated voltage of 10-36 kV. This type has smaller dimension than the other types. That is why it can be used very usefull in difficult approach and narrow places. Detecting the rated voltage level the device gives audible signal and flashing light indication as well.

Rated voltage	10-36 kV
Max. voltage	40,5 kV
Treshold voltage	$3,6 \text{ kV} \leq U_k \leq 4,5 \text{ kV}$
Product code	b: 505004
	g: 505006

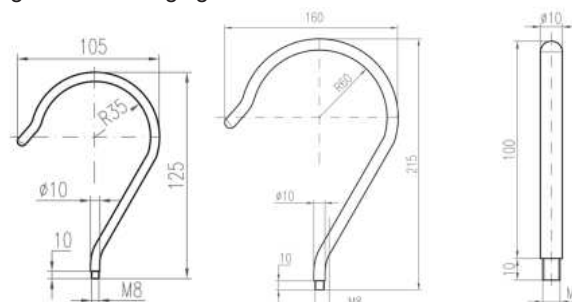


VOLTAGE DETECTORS FOR MV AND HV



VKP-132 EN 61243-1

They can be used for indicating rated voltage on medium voltage AC equipments. They can be used together with operating rods appropriate for the tested voltage levels. Detecting the rated voltage level the device gives audible signal and flashing light indication as well.



Type	Rated voltage	Max. voltage	Treshold voltage	Product code
VKP-132	132 kV	145 kV	$13,2 \text{ kV} \leq U_k \leq 59,4 \text{ kV}$	505007

VOLTAGE BRAKE INDICATOR, PHASE COMPARATOR

MEDIUM VOLTAGE BREAK INDICATOR



VKP-FAM-35



RG3622-1

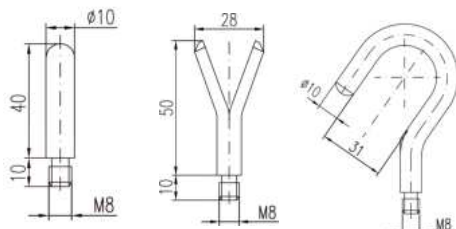
VKP-FAM-35

EN 61243-1

The device is suitable for monitoring the presence of voltage on the MV network during live working. If break may occur the equipment gives light and sound signal. The device can be used only with operating rod suitable for live working and tested for the related voltage level.

Rated voltage	6-35 kV
Max. voltage	40,5 kV
Treshold voltage	$1 \text{ kV} \leq U_k \leq 2 \text{ kV}$
Product code	505400

UNIPOLAR PHASE COMPARATOR



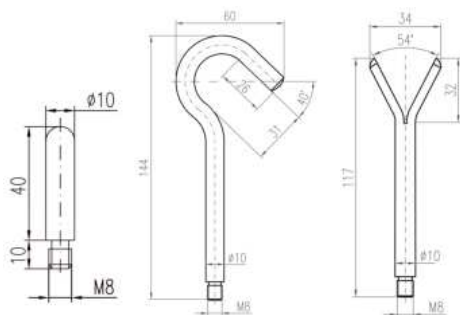
VKP-A-35

EN 61481

The device is suitable for comparing the phases of the live medium voltage systems to be connected to each other. Each step of the test is indicated by audible and light signals. The device can be used with operating rod, appropriate for the tested voltage level.

Rated voltage	10-35 kV
Max. voltage	40,5 kV
Treshold voltage	$3,5 \text{ kV} \leq U_k \leq 4,5 \text{ kV}$
Product code	505003

COMBINED UNIPOLAR PHASE COMPARATOR AND VOLTAGE DETECTOR



VKP-AF-638

EN 61243-1

EN 612481

It can be used for indicating voltage on medium voltage AC equipments or for phase comparison. We can choose between the two operating modes. The steps of the detection are accompanied by light and sound signals. The device can be used only with operating rod tested for the related voltage level.

Rated voltage	6-38 kV
Max. voltage	40,5 kV
Treshold voltage	$1,9 \text{ kV} \leq U_k \leq 2,4 \text{ kV}$
Product code	505300

RF PHASE COMPARATOR, DC VOLTAGE DETECTOR

RF PHASE COMPARATOR

VKP-RFA-638

EN 61481

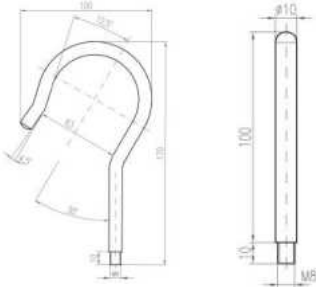


Transmitter
VKP-RFA 638/A



Receiver
VKP-RFA 638/V

The device is suitable for phase comparison of systems to be connected on live MV networks. The device set consists of a transmitter and a receiver unit with radio frequency communication. The receiver unit gives information via different light and sound signals whether the phase detected is the same or differs from the one detected by the transmitter. The comparison is continuous, there is no time limit. The communication distance of the two units is 15-20 m. The devices shall be used with the appropriate manipulating rods tested for the given voltage levels.



Type	Rated voltage	Max. voltage	Treshold voltage	Product code
VKP-RFA-638/A	6-38 kV	40,5 kV	$2 \text{ kV} \leq U_2 \leq 3,5 \text{ kV}$	505308
VKP-RFA-638/V				505309
VKP-RFA-638				505310

DC VOLTAGE DETECTOR

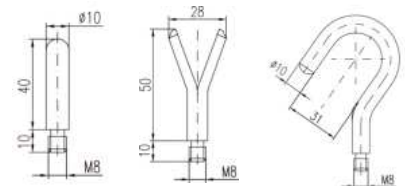
VKP-E-1

EN 61230



The instrument is applicable mainly in case of the electric towing at direct voltage (subway train, tram, trolley). The voltage detector can be used only with insulated operating rod.

Rated voltage range	600-1200 V DC
Max voltage	1200 V DC
Voltage treshold	$U_1=120\text{V DC}; U_2= 450\text{V DC}$
Product code	515100
Metal tote bag product code	515102



VOLTAGE DETECTOR

VKP-36M-S



The Compact Voltage Detector with LEDs (10-36kV) is a compact serie voltage detector, designed for indoor use. The Compact Voltage Detector voltage presence is indicated by a high-brightness LEDs indicator

Rated voltage	10-36 kV
Retracted length	450 mm
Extended length	1100 mm
Product code	510422



FIELD STRENGTH DETECTORS

VKP-TD-50M

EN 61010-1 EN 61326-1 CE

The VKP-TD 50 M field strength detector is a receiver having high sensitivity and selectivity. The unit is capable of detecting the electric field generated by 230V/50Hz network voltage cables. From a relatively great distance (a few meters) with the unit we can determine whether a cable is live and with the changing of the field strength we can infer whether the cables are live. The sensitivity is easily changeable with the button.

Product code	515515
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VKP-TD04-20K

EN 61010-1 EN 61326-1 CE

The VKP-TD04 20K field strength detector is a device with high sensitivity and selectivity. The unit is capable of detecting electric field generated by 0,4-20 kV network voltage - we can establish if network is live or not. The basic sensitivity of the device is set by the manufactured on the basis of a rated voltage given by the customer. A device is able to give reliable indication for only one set rated voltage.

Product code	510116
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VKP-TD-04KV

EN 61010-1 EN 61326-1 CE

The VKP-TD04KV field strength detector is a receiver having high sensitivity and selectivity. The unit is capable of detecting the electric field generated by 0,4 kV network voltage cables. From a relatively great distance (2-4 meters) with the unit we can determine whether a cable is live. The device is waterproof.

Product code	510117
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FIELD STRENGTH DETECTORS MOUNTABLE ON HELMET



VK-TD-287

EN 61010-1 EN 61326-1 CE

The field strength detector VK-TD-287 is used to detect the field strength of the medium voltage network. The device is used to protect people working near the electrical network, the device gives a warning signal to the user when the worker is in dangerous proximity to the voltage. The device's signal warns the user that he may be injured if he approaches the device any further, or that the worker may suffer an electric shock.

Rated voltage	6,6-22,8 kV AC
Product code	515112



VKP-TDS-35

EN 61010-1 EN 61326-1 CE

The VKP-TDS-35 type field strength analyzer's task is to warn the workers when it detects a 10– 35 kV energized equipment within up to a distance of 2 meters of approach. It detects the electric field strength, and if the signal exceeds the preset value, the sensor that is located inside the helmet will make a warning sound. The field strength detector can be placed inside the safety helmet. The device has a flexible inlay that can be inserted inside the helmet with the help of the grasping prongs.

Product code	515111
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RF AMMETER, FAULT LOCATION FINDER

VILLBEK Ltd.

RF AMMETER SET

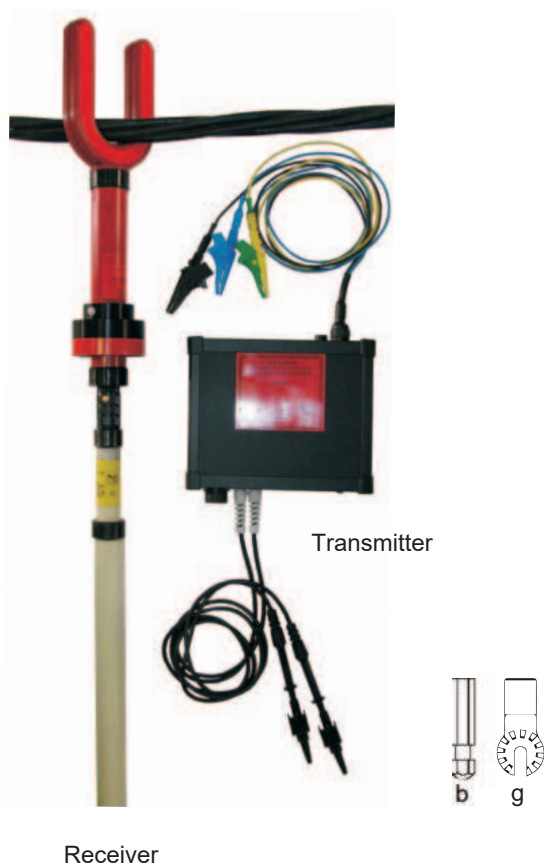


VKP-AMM EN 61010-1 CE
EN 61326-1

The VKP-AMM ammeter is suitable for quickly measuring the operating current of the 0,4-35 kV networks (bus-bar or aerial). The ammeter kit contains a RF transmitter and a receiver unit. The values measured by the measuring transmitter are transmitted by the built-in RF transmitter to the receiver unit. The values measured are shown by a LED display. The ammeter transmitter shall be applied by operating rod appropriate for the given voltage level. The range of RF transmission is 15 m.

Measurement ranges	0-200 A
	0-500 A
	0-1000 A
	0-2000 A
Product code	g: 547908
	b: 547907

(SHALL BE CHOSEN WHEN ORDERING!)



FAULT LOCATION FINDER SET

VKP-LZK04 EN 61010-1 CE
EN 61010-2-031
EN 61326-1

The device is suitable for find the fault location on the low-voltage insulated overhead lines. The set includes two unit: transmitter and receiver with adapter (which can be fixed to insulated sticks). Signals: audible and visible.

Product code	b: V515615
	g: V515617

ULTRASONIC CABLE HEIGHT METER, VOLTAGE DETECTOR FOR BUS-BARS

Measurable cable height range (min. Ø10 mm aerial line)	3-15 m
Measurable cable height range (min. Ø5 mm aerial line)	3-10 m
Measurable cable height range (min. Ø3 mm aerial line)	3-6 m
Number of measurable cables	5
Accuracy	1% ; ± 3digit
Minimum distance between the cables	15 mm
Operating temperature	-15°C - +45°C (built-in heat correction)
Radiating cone angle of the ultrasound	15°
Power supply	2 built-in 9V Ni-Mh batteries
Lifetime of batteries	700-800 recharges
Consumption	30 mA
Supply voltage low signal	Low battery message on the LCD display
Unit of the displayed height	cm
VKP-UM15 product code:	547920
VKP-UM15 BT product code:	547930

VKP-UM15

EN 61230



EN 61326-1

The ultrasonic cable height (deflection) meter is suitable for measuring the height of the overhead cables. The device can measure and display 5 cables having different heights.



VKP-UM15 BT

EN 61230



EN 61326-1

The ultrasonic cable height (deflection) meter is suitable for measuring the height of overhead cables and aerial lines. The device simultaneously measures the distance of 5 wires having different heights. During measurement, the device emits short ultrasound pulses, which pulses are reflected from the wire and returned to the instrument. The instrument measures the propagation time of the ultrasound and after signal processing, the height data in centimeters is displayed on the LCD display. The instrument can also be connected to a mobile phone via Bluetooth connection.

VOLTAGE DETECTOR FOR BUS-BARS



VKP-FF-35

EN 61010-1



EN 61326-1

The device is suitable for the continuous indication of voltage being present on bus bars and other equipment having a nominal voltage of 10, 20 and 35 kV. Its use is recommended for outdoor and indoor encased equipment, at places protected against moisture. The presence of voltage is indicated by a flashing light. The speed of flashing depends on the magnitude of voltage. It has no internal power supply therefore its lifetime is unlimited. It doesn't require maintenance and can also be applied under voltage.

Product code

515185

OPERATING TESTER FOR LIGHTING, ELECTRICITY METER WITH DUMMY LOAD

VILLBEK Ltd.

OPERATING TESTER FOR LIGHTING



VKP-KLT04

EN 61010-1

CE

EN 61010-2-031

EN 61326-1

Type VKP-KLT04 is available for on-site testing lamps, which are used on public lighting system. The handle of meter is fast and easy with shoulder bag, device weight 2kg.

Output voltage	230 V/ 50 Hz
Power	max.100 VA (higher as required)
Battery	4x3,6 V Li.Ion /3,3Ah
Stored energy	kb. 40 Wh
Max. output current	0,5 A (AC)
Operating time	50 VA continuous load ca. 30 min.; 1 hour with discontinuous load
Protection	Short circuiting, overload current and overvoltage protection
Operating temperature	Battery – 10 A fuse 10°C - +40°C
Battery charging	from main adapter or from car charger
Product code	515616

ELECTRICITY METER WITH DUMMY LOAD

VKP-MT-3F



Termékkód

5900014

VKP-M2



Product code: 590025

VKP-MT-3F

EN 61326-1

CE

VKP-M2

EN 61010-1

EN 61010-2-031

The dummy load type VKP-MT/3F is applied to test the operability as well as significant measurement accuracy problems of the one or three-phase electricity meters. The current load can be set in for step between 4-60 A. The LCD displays the momentary voltage (V), load current (A), cosφ, momentary power (kW) and measured energy (Wh). Weight: 6,5 kg. The device is capable of simultaneously testing a phase or three-phase load. Accuracy ±1,5% depending on the load impedance. The handle of meter and reading of the measured datas are fast and easy with shoulder bag.

LOOP RESISTANCE METER



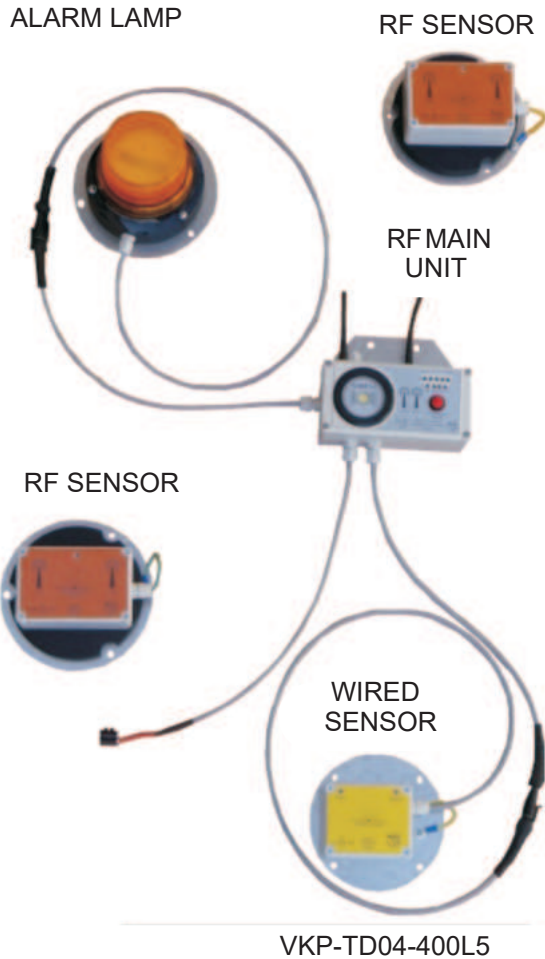
VKP-HM100

LOOP RESISTANCE METER

The VKP-HM100 type device is suitable for measuring the loop resistance of 600-1500V nominal direct voltage, intended for public transport, in a de-energized state.

Output voltage	230 V/ 50 Hz
Output (measuring) voltage	max.48V=
Output (measuring) current	max 100A=
Max network current consumption	18 A
Max output load current	100 A=
Environmental protection	IP51
Measuring range	1mΩ-1Ω (with 0.1mΩ resolution)
Length of measuring cables	2x30m (A=25mm ²)
Measurement accuracy	Under 5%
Product code	510205

FIELD DETECTOR FOR AERIAL DEVICES



VKP-TD 04-400/LX **EN 61010-1** **CE**
EN 61010-2-031
EN 61326-1

The alarm system is suitable for work carried out at height with lifting machines, as well as for giving alarm when booms of material extraction and handling machines dangerously approach a live equipment. The detection environment always depends on the placement of the device.

The detector's signals are a high-performance siren sound and a flashing light signal. With a separate relay output, it is possible to block the movement of the controlled lifting device. The VKP-TD04-400/L1 is suitable for protecting a single detection point

Depending on the peak size of the lifting device (basket, workbench, crane boom) and the working conditions, it may be justified to place several sensors (max. 15 pcs). The sensors used in the VKP-TD04-400/L2 type set can be placed at different points of the object to be protected. The sensors are connected to the central unit with cables.

In this case, the light and sound signals only work in the central unit placed in the driver's cab. The VKP-TD04-400/L3 is suitable for the protection of a single detection point.

VKP-TD04-400/L4 requires power supply from the vehicle battery and is suitable for the protection of a single detection point. The composition of the radio and wired sensors can be selected as required. Radio sensors have a communication range of 15-20 m.

Product code	590036
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1.	VKP-TD04-400/L1	Suitable for detecting voltage level, the central electronics and the sensor are placed in one device, supplied by the vehicle's battery.
2.	VKP-TD04-400/L2	Suitable for detecting four voltage levels, the central electronics is in operator cabin with max. 15 pieces of outplaced sensors, supplied by the vehicle's battery.
3.	VKP-TD04-400/L3	Suitable for detecting four voltage levels, the central electronics and the sensor are placed in one device, supplied by its own built-in battery.
4.	VKP-TD04-400/L4	Suitable for detecting four voltage levels, the central electronics and the sensor are placed in one device, supplied by the vehicle's battery.
5.	VKP-TD04-400/L5	Suitable for detecting four voltage levels, the central electronics is in the operator cabin, in lifting basket, supplied by the vehicle's battery. Placed sensors: max. 8 pieces of radio communication sensors, as well as 7 pieces of wired sensors.

Detected voltage: 0,4 kV - 400 kV (IS SET ACCORDING TO THE CUSTOMER'S REQUEST!)
 A distance of alarm is set by the manufacturer according to the customer's request!
 Options: alarm lamp and stop relay

TOOL BAG, ASSEMBLY TENT, AUTOMATIC SPLICE

Side bag for body strap



The tool side bag is made of cow split leather, with a one-part and two-part loading space, in two sizes, without a closing element. On the outside of the bag, there is a pocket smaller than the size of the bag, also without a closing element. Both types and sizes can be attached to the body harness or waist belt with two metal rings. The bag is sewn together with leather sewing thread with one and two rows of stitching.

Sizes:

- 24x24x10cm (one-part or two-part version)
- 34x24x10cm (one-part or two-part version)

Tent for maintenance



Dimensions:

- Width: 200 cm
- Length: 200 cm
- Height: 185 cm

Material:

- Painted metal, can be assembled from more pieces
- PVC canopy with artificial glass window

Installation:

- I. Set up the framework at the location of maintenance.
- II. Put the canopy on the metal framework (putting the fixing rings on the fixing pins).
- III. Closing the entrance on both sides (entrance and opposite) with pull fasteners
- IV. The covering with 30 cm extra length can be fixed with weighting.

Product code	BA00171
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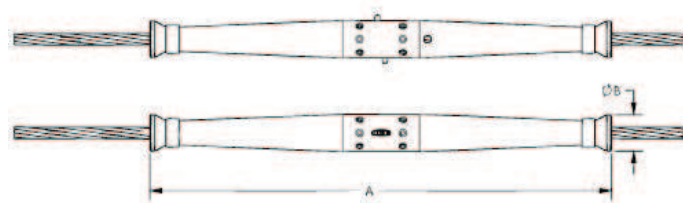
Automatic splice

ANSI C119.4-2011 ASTM B117

CRS - Corrosive Resistant Splice automatic splices can be used on ACSR, AAC, AAAC conductor.

Features:

- The new synthetic inhibitor has a wide heat range facilitating the corrosion protection in extreme climatic conditions as well; a pop-out button facilitates the proper insertion
- Vent openings that allow moisture to leave and perform a cooling function.
- The stainless steel splices improve the resistance to corrosion.



INSULATING SHEETS, OIL CAN, AEROSOL CAN HOLDER



méret: 5x740x1000 mm

Insulating sheets for separation

EN 61229 EN 60243-1

For the encased MV switchgears it can be used to isolate the live parts from the uncharged ones during work. The insulating sheets have certificates for several different sizes and types. On demand we manufacture and certify other sizes.

Rated voltage	10 kV, 20 kV
Material	Glass-fibre reinforced resin



méret: 5x500x680 mm



méret: 5x1020x1100 mm

Termékkód: 547488



méret: 5x800x900 mm

Termékkód: 547470



Oil Can VK-FAM-OK

Universal end-piece with fixing collar, dosing ring, flexible spout.

Flexible spout: 200 mm

Can volume: 200 cm³ (0,2l)

Weight: 0,35 kg

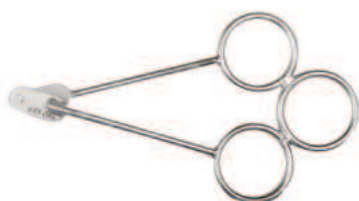
Product code	590017
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Aerosol Can Holder VK-FAM-STA

Designed for safe application of paint and lubricant to hard-to-reach places as well as to terminate bee and wasp nests on poles and crossarm.

Product code	536399
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FAM-H Hook

Operated with the service rope. This hook enables to lift any part tools to the tops of the pole and bring it down.

Size	140x75x10 mm
Weight	0,1 kg
Material	Al
Product code	311125

VK-FAM-A Hook pole adapter EN 60832-2

Integrated to a hook pole. The hook pole adaptor is used in the same way as the universal end piece of the pole.

Size	120x47x45 mm
Weight	0,15 kg
Material	Al
Product code	311126

VK-FAM-T-KV Protector bag for dipped sleeves

Product code	BA00401
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VK-FAM-T-KE Protector bag for gloves

Product code	BA00523
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VK-FAM-KT Service rope gin

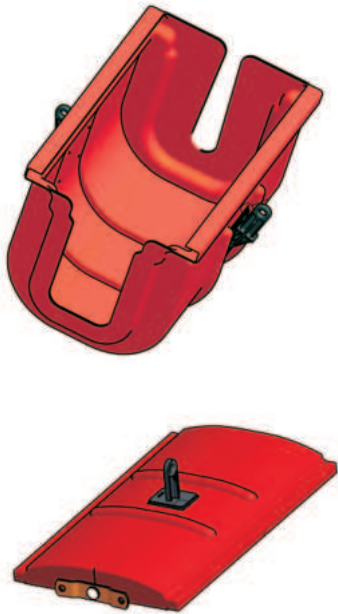
The service rope gin is used as an anchorage point for the service rope.

Size	450x450x130mm
Max. load	100 daN
Weight	1,5 kg
Product code	590006

VK-FAM-RT Stick hanger

Secured to a ring saddle for post, the stick hanger is used to hang poles equipped with a hanging hook awaiting their use.

Size	360x165x80mm
Weight	0,7 kg
Product code	590331



VK-KFSZB-40

For covering the double spanning under live working at medium voltage networks.

Class	4
Category	A: acid-proof W: extrem high temp. resistant -10 °C - 70 °C
Standard	IEC 61229:1993+A2:2002
Termékkód	619024

	Class: 4 Cat. A,W VILLBEK Kft. 01/2013
	Typ: VK-KFSZB-40 IEC 61229:1993+A2:2002 Un=40000 V



Hydraulic long reach chain saw

Long reach chainsaws are intended for safely cutting and trimming trees from the ground or an aerial bucket. The dielectric property of the fiberglass extension tube will reduce the chance of electric shock when used near an energized electric line.

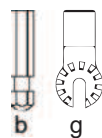
Standard:
MSZ EN 60832-1,
MSZ EN ISO 11681-2 CE



Pruning saw

VK-FAM-F

The pruning saw, which can be connected to a handle, has a special blade, which can be used to quickly and easily carry out branching work. (with fixed or universal ending)

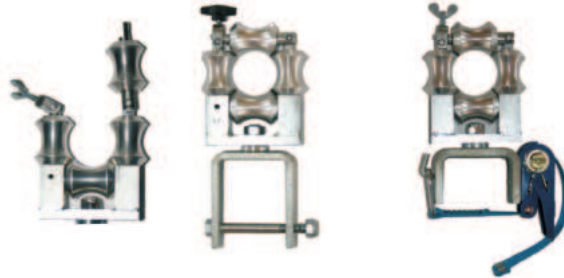
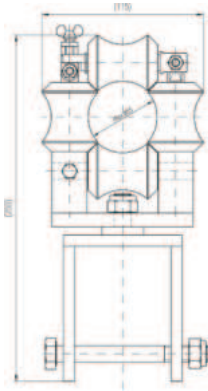


Weight	670 g
Length	460 mm
Product code	b: VK-FAM-F
	g: VK-FAM-F (G)

LAYING ROLLER, CLIMBING TOOLS, THROWING ROPE

Laying roller with four pulleys

The laying roller can be used to build LV ABC network. Max. diameter of the bundle: 55 mm.



VK-4CST-CS

Product code	547435
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VK-4CST-H

Product code	547430
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Climbing device for wooden pole



Climbing device made of forged iron for wooden poles.

Termékkód	BA00001
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VK-DK-1500 Throwing rope

The throwing rope helps workers to pull up the tools devices easily to top of the pole when working on a pole. Length: 15m, weight: 1,3kg, rope diameter 8mm.

Product code	590021
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Set consist of:

- 1 pc 50m braided rope
- 1 pc 20m braided rope
- 2 pcs hand line hook
- 2 pcs fall arrester
- 1 pc service rope gin
- 3 pcs snatch block
- 2 pcs snap hooks

VK-FAM-KK, Service rope set,



The service rope is used to horst up to lineman and return to the ground the equipment and fooling required to perform the work.

Product code	590007
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Weight for the service rope VK-FAM-KKS



Product code aluminium	311059
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E PRO



E PRO 1



E PRO 2

Arc flash protective helmet with integrated visor

- PC/ABS shell & foam liner construction
- Integrated retractable visor with dual position locking mech Visor
- Impact level B, with anti-fog and anti-scratch protection 4 point adjustable chinstrap system
- Adjustable ratchet system
- Adjustable headband
- Soft internal padding
- Replaceable sweatband
- E Pro 2: Protective textile chinguard - Nylon skeleton structure with fire retardant fabric

EN 166:2001

EN397:2012+A1:2012

EN 50365:2002 1000V AC / 1500V DC

A 440V AC

MM (Molten Metal)

LD (Lateral Deformation) -30°C

E Pro 1 - GS-ET 29 up to 4kA - APC 1 (arc protection class 1) E Pro 2 - GS-ET 29 up to 7kA - APC 2 (arc protection class 2)

Type	E PRO 1
Type	E PRO 2

Fall arrester with wooden column MSZ EN 795 B:2013 CE



The fall arrester is made of 50 mm wide polyamide webbing, which has been properly sewn together and ends in two D-rings. One of the D-rings is connected to the anchor rope, the rope regulator and the energy absorber. The carabiner of the anchor rope must be connected to the other D-ring when in use. The belt strap is attached to the protective strap made of leather or polyamide with aluminum clamps. The protective strap has double function. Its primary role is to prevent falls and help climbing with the built-in steel nails. On the other hand, it provides mechanical protection to the webbing strap. In the event of a fall, the set provides adequate protection when climbing onto the wooden poles supporting the low- and medium-voltage network, as well as other wooden poles of the same diameter.

LOAD CAPACITY: 1 Main, Maximum 140 kg

Type:	MT-FZ/B/2
Product code :	BA02023

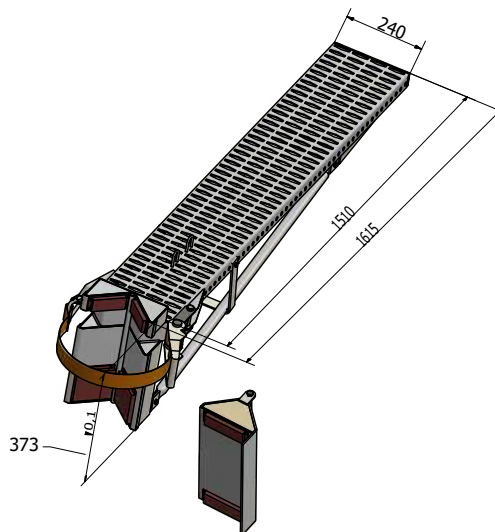
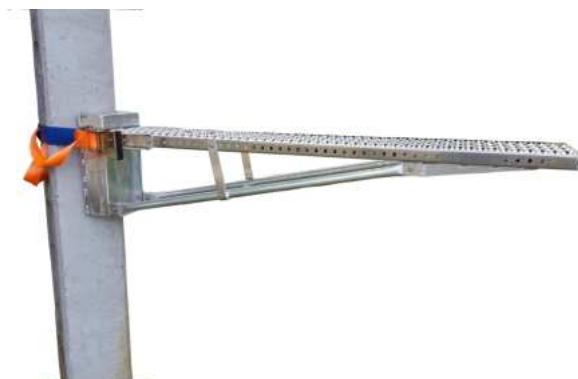
WORK PLATFORMS

Work platform



Work platform for one person. Work platform dimensions:
 Width: 240mm,
 Length: 1610mm,
 Height: 373mm
 Max load: 170 kg
 Net weight: 11kg
 Weight of flat adapter: 2.5 kg

Product code platform	V547538
Product code flat adapter	V547539



VK-MA Aluminum work platform EN 795

The platform structures are suitable for safe and comfortable support of the fitter's feet on pierced concrete columns with a low peak tension when occupying the work position.

VK-MA-AL 600/210	Product code: 547420
VK-MA-AL 1000/210	Product code: 547425



VK-MA-V-AL Aluminum workstation EN 795

The universal assembly platform can be used for working on pierced concrete columns of LV and MV overhead lines. It can be used on both small and high peak tension columns. The mounting bracket can be placed and fixed in the opening of the column or in the hole in the column. It can be installed on either side of the column if the fixing conditions are met.

Load capacity:	1500 N
Weight:	3,7 kg
Work surface size:	630X240 mm
Fixing pin diameter:	12 mm
Material:	Aluminum alloy
Product code:	547429

WORK PLATFORMS



VK-MA-OT-700/140;380/150

EN 795

The metal stand is suitable for safe and comfortable support of the fitter's feet on the parts near the top of the pierced concrete columns with low peak tension when occupying the work position. The metal stand is suitable for placement in both openings and holes.

Load capacity:	1500 N
Weight:	2470 g
Overall dimensions:	700X140 mm
Material:	Galvanized Steel
Product code:	547438



VK-MA-AT 700/140

EN 795

The metal stand is suitable for safely supporting the fitter's feet on the parts of pierce concrete columns close to the top of the column, when occupying the work position. The metal stand can be placed in the holes with a diameter of 18-20 mm in the upper part of the columns. The part protruding from the tread surface in the direction of the column ensures that the device does not rotate. Slip-free surface is ensured by welding points.

Load capacity:	1500 N
Weight:	1 kg
Overall dimensions:	700X140 mm
Material:	Galvanized Steel
Product code:	547439



VK-ALM WORK PLATFORM FOR LADDERS

EN 795

When the work platform is placed on a ladder, it enables safe and comfortable support of the fitter's feet when occupying the work position.

Load capacity:	1500 N
Weight:	1730 g
Overall dimensions:	395X235X178 mm
Material:	aluminum alloy
Distance between ladder rungs:	250-300 mm
Distance between the ladder sides:	Inside: 300 mm Outside: 340 mm
Product code:	504005

HANGING LADDER

VILLBEK Ltd.



VK-ALL 2200

EN 795B/2013

It is used to bridge the top four openings of a pierced concrete column, so that the hook of the ladder must be hooked into the uppermost opening.

Load capacity:	1500 N
Weight:	7,7 Kg
Length:	2200 mm
Material:	aluminum alloy
Distance between ladder rungs	280 mm
Number of rungs on the ladder:	8
Product code	504015



VK-ALL 3000

EN 795B/2013

It is used to bridge the upper five openings of a pierced concrete column, so that the hook of the ladder must be hooked into the uppermost opening. Applicable position: VK-ALM

Load capacity:	1500 N
Mass:	9 Kg
Length:	3000 mm
Material:	ötvözött alumínium
Distance between ladder rungs	280 mm
Number of rungs on the ladder:	10
Product code	504010



VK-ALL -2200/A

EN 795B/2013

The ladder set is used to approach the peak height of pierced concrete columns (bird-friendly crossbar) in such a manner that the hook of the lower ladder element shall be placed into the opening corresponding to the given working position.

Load capacity:	1500 N
Weight:	10,7 Kg
Length:	2300 mm
Material:	aluminum alloy
Protrusion of support profile:	150 mm
Number of rungs on the ladder:	8
Product code	504042

HANGING LADDER, PROTECTIVE GLOVES



VK-ALL 2200/F

EN 795B/2013 **CE**

The ladder set is used to approach the peak height of pierced concrete columns (bird-friendly crossbars) by climbing on the fixed first VK-ALL 2200/A ladder element and placing the second ladder element VK-ALL 2200/F, thus reaching the top of the column.

Load capacity:	1500 N
Weight:	8,1 Kg
Length:	1990 mm
Material:	aluminum alloy
Protrusion of support profile	150 mm
Number of rungs on the ladder	7
Product code:	504043

VK- FAM- BK LEATHER GLOVES

It helps to protect the electrician's gloves from mechanical damage.

MSZ EN 420:2003+A1:2010

MSZ EN 388:2016+A1:2019

Performance level: 5-4-1-2-3-X

ELECTRICAL PROTECTIVE GLOVES

It provides protection under or near voltage during work.

Tested according to the following

Standards: EN 60903:2003 + AC2:2005

EN 420:2003 + A1:2009

Product type:	Sizes:
ELSEC 2.5 KV	8"9"10"11"12"
ELSEC 5 KV	8"9"10"11"12"
ELSEC 10 KV	8"9"10"11"12"
ELSEC 20 KV	8"9"10"11"12"
ELSEC 30 KV	9"10"11"12"

Switching glove VK-IV

CE

EN 61482-1-2, EN 420, EN 388, EN 407, EN 12477

It provides mechanical protection in a low-voltage environment while handling circuit breakers and short-circuit breakers.

MSZ EN 420:2003+A1:2010 MSZEN ISO 21420:2020 MSZ

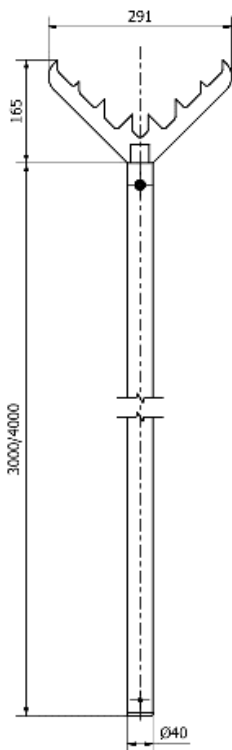
EN 388:2016+A1:2019 MSZ EN 407:2004

MSZ EN 12477:2002

MSZ EN 61482-1-2:2015

Sizes:	8, 9, 10, 11, 12, 13, 14
Product code:	BA01285-BA01290

MANULA POLE-POSITIONING TOOL TWO-POLE TELESCOPIC CONTACT ANTENNA



MANUAL POLE-POSITIONING TOOL

Parameters:

- Total length: 4.165 m / 3.165 m-
- Total weight: 7 kg / 5.5 kg

Structure:

- Head assembly
- Shaft
- Plastic end cap

Head Assembly:

- Material: Steel
- Surface treatment: Galvanized
- Fastened with bolts
- Removable and replaceable

Shaft:

- Material: Aluminum tube
- Diameter: Ø40 mm
- Wall thickness: 5 mm
- Shaft length: 3 m / 4 m

Assembly:

- Place the shaft in a stable position.
- Slide the head assembly onto the end of the upper part of the shaft.
- Rotate the head assembly into the correct position, then secure it using an M8 bolt, nut, and two 13 mm wrenches.

Application:

- For manually setting wooden poles.
- At least two positioning tools are required for setting up a single pole.
- The manual pole-positioning tool may only be used by individuals who have participated in a training session demonstrating its proper use.
- The use of protective gloves is mandatory.

TWO-POLE TELESCOPIC CONTACT ANTENNA

VK-TTA-04

Type:	VK-TTA-04
Rated voltage:	0,4 kV
Instrument connector:	1000V CATIII
Length:	2-8~9 m
Material:	composite

Contents of the Set:

- 2 pcs telescopic insulated rods
- 2 pcs contact hooks

Optional Accessories:

- 2x1 meter extension instrument cord
- Low-voltage voltage detector

The device functions as a probe extension for low-voltage voltage detectors used in 0.4 kV overhead power line networks. It enables voltage detection on 0.4 kV electrical equipment located further from the pole when used in conjunction with a compatible voltage detector.

The use of this device qualifies as a measurement and inspection activity. Therefore, it may be operated by trained or instructed personnel in electrical environments or by untrained individuals under the direct supervision and guidance of a qualified professional.

SERVICES OF THE HIGH VOLTAGE LABORATORY

Electrical testing

- | | |
|--------------------------------|--------------------------------|
| 1. LV Voltage detectors | (MSZ EN 61243-3) |
| 2. MV Phase comparators | (MSZ EN 61481) |
| 3. Insulated operating rods | (MSZ EN 60855) |
| 4. MV and HV Voltage detectors | (MSZ EN 61243-1, MSZ 20866-75) |
| 5. Insulated tools | (MSZ EN 60900) |

Our company undertake the following tests:

6. Insulating sheets
7. Earthing/short-circuiting devices
8. Contact probes
9. Villbek and TE.M.A. ladders, platforms
10. Climbing tools
11. Villbek fall arrester for wooden poles, safety hook

Max. proof voltage: 100 kV

Repair, service, maintenance

In our workshop we undertake the repairs, services and maintenance of the following products:

Insulated operating rods, earthing/short-circuiting devices, voltage detectors, phase comparators, climbing tools and the Villbek and TE.M.A. products.



PPE testing

- | | |
|----------------------------|---------------------------------|
| 1. Insulating gloves | (MSZ EN 60903) |
| 2. Insulating sleeves | (MSZ EN 60984) |
| 3. PPE Safety harness | (MSZ EN 361) |
| 4. Safety lanyards | (MSZ EN 354) |
| 5. Connectors, rope access | (MSZ EN 362) |
| 6. Fall arrester | (MSZ EN 353-1, 353-2, 360, 355) |

Testing of live working tools

Certification from Hungarian Live Working Committee for testing of LV and MV live working tools, equipment and devices. Notified Institution for testing of protective equipment against electrical risks and falls from height.

Periodic testing of live working tools for LV:

I. Live working tools: Insulated covers, insulated tools and equipments

II. Protective equipments: Insulated gloves

Periodic testing of live working tools for MV:

I. Live working tools: Insulated operating rods, measuring and testing devices, bridging devices, insulated covers and covering elements, handling and fixing devices, climbing and work positioning devices, holding devices, universal tools for insulating rods, cleaning equipments under live working, others: operating rod holder, insulating piece.

II. Protective equipments: Insulating gloves, insulating sleeves

III. Periodic testing of aerial devices with insulated arm

REPAIR, SERVICE AND MAINTENANCE FOR THE LIVE WORKING TOOLS



In our workshop we undertake the repairs, services and maintenance of the following products:

- Hot Line insulated operating rods
- Insulated covers
- Phase comparators, ammeters and voltage brake indicators
- Insulated and metal ladders



Mobile high voltage laboratory

Basic equipments details:

- Adjustable single-phase transformer.
Max. proof voltage 0-100 kV / 50 Hz
- Voltage detector and phase comparator tester
- Insulated operating rod testing platform
- Water bath for insulating gloves and sleeves testing
- Mechanical tensile pad

Tests can performed at the location:

- LV, MV and HV insulated operating rods
- LV, MV and HV voltage detectors
- MV phase comparators
- LV and MV insulating gloves
- MV insulating sheets
- LV, MV and HV earthing/short.circuiting devices
- 1000 V live working tools
- Climbing irons
- Aerial devices with insulating arm

- Replacing parts and batteries
- If necessary set the default settings for voltage detectors
- In case of not compliance option for replacement



SPECIFICATION FOR SHORT-CIRCUITING AND EARTHING SYSTEM

Specification for short-circuiting and earthing system

1. Network, electrical installation characteristics

Network voltage: _____ kV Max. short-circuiting current (1s): _____ kA
 Nature of the conductive materials: Basis Al _____ Basis Cu _____

Overhead lines Switchboard or substation

- Cross section of the conductors: min. _____ mm² max. _____ mm² -Earthing stud dia. (mm): mini. _____ max. _____

2. Characteristics of the earthing system

- Selected scheme (out of the three standard types shown below)
- Distance between live conductors (m): _____ , between live conductors and earthing point (m) _____
- To place the clamps in position, the operator will stand: above the conductors _____ under the conductors _____ at the conductors level _____
- Cross section of the conductor _____ mm²

3. Earthing connection point

- Earth rods: dia. or thickness on side face (mm): _____ Flat bar, angle-bar, thickness (mm): _____
- Round conductor dia. (mm): _____

4. Operating rod

- Insulating rod: total length _____ Fixed _____ Connectable rod _____ Telescopic _____

5. Characteristics

- Selected connection type: Scheme no. _____
- Contact clamps _____
- Short-circuiting cable
 - Length (m) _____
 - Cross section Cu, Al (mm²) _____
- Grounding cable
 - Length (m) _____
 - Cross section Cu, Al (mm²) _____
- Connection of cables on clamps, earth clamps, trifurcation
 - Direct connection by screw and nut
 - Connection by means of crimped lugs
- Earth clamp, type _____
- Presence of a reel _____
- Insulating rod, type _____
- Application hook _____

SCHEME 1.



SCHEME 2.



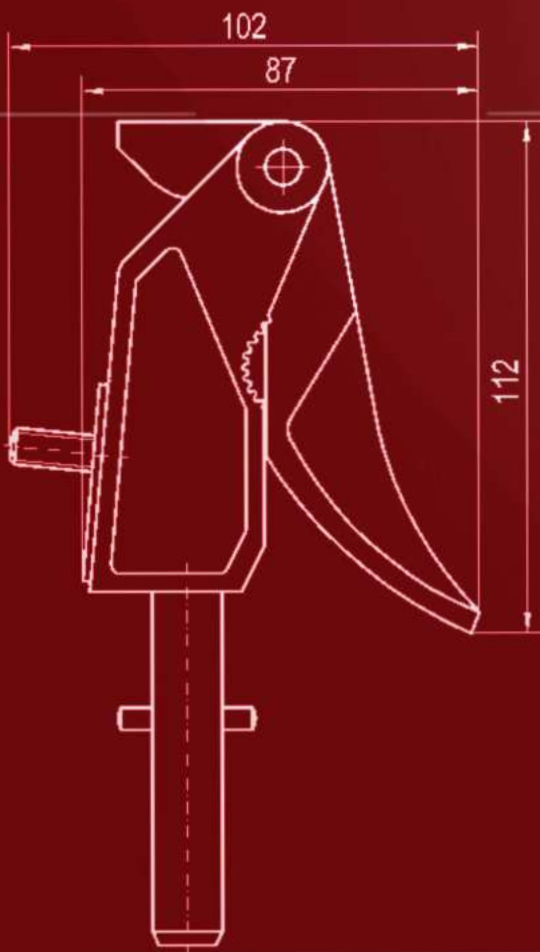
SCHEME 3.

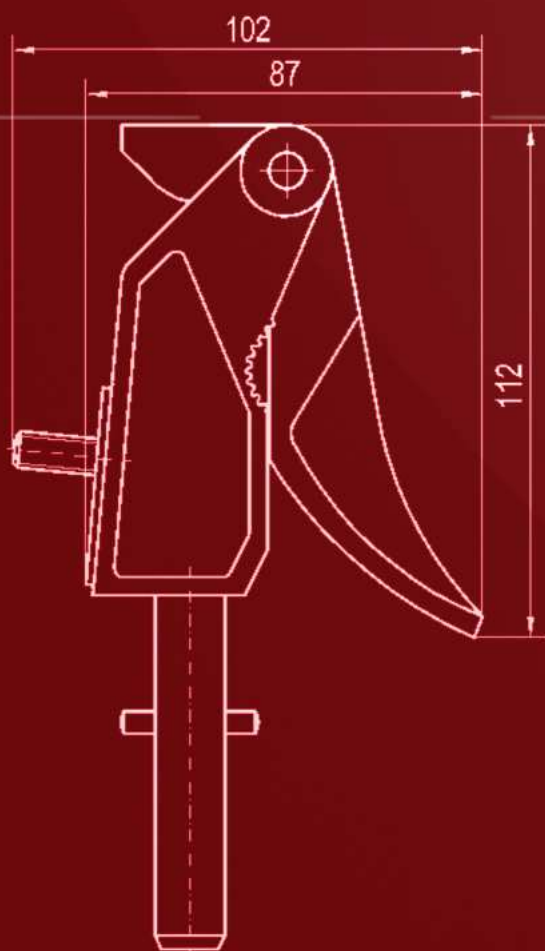


Accessories

- Carrying bag for sticks _____
- Canvas bag for equipment _____
- Carrying case for equipment _____
- Cable reel _____

Control rods	1-4
Adapters	5
Rescue rod, height measuring rod, handling rod	6
Fittings	7
Phase clamps	8
Fittings that can be connected to a rod head	9-14
Built-in ball valves for clamps, "T" joint, wall mounting bracket	15
Earthing clamps, earthing rods, discharge whips	16-18
Grounding and short-circuiting devices	19-25
Single-pole short circuit	26
Cable piercing tool, cable shooting tool, grounding magnet lock	27
New type of fittings	28
Low-voltage voltage detectors and sensing antenna	29
Short-circuit fault location finder, low-voltage phase adjuster, cable identifier	30
Voltage detector	31-32
Voltage failure indicator, phase adjuster	33
Radio frequency phase adjuster, DC voltage monitor	34
Field detectors	35
Radio frequency current meter, short circuit detector	36
Ultrasonic line height meter, busbar voltage monitor	37
Public lighting lamp tester, electric consumption meter, artificial load	38
	39
Electric space detector and alarm system	40
Tool bag, assembly tent, automatic splice	41
Insulating sheets, oil can, aerosol can holder	42-43
MV tools for live working	44
Laying roller, climbing device, throwing rope	45
Head protection, fall arrester	46-47
Work platforms	48-49
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Specification for short-circuiting and earthing systems	54





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