


## PHE III Voltage Detector

### Nominal voltages up to 30 kV / 50 Hz

- Also for use in wet weather 
- For indoor and outdoor installations
- With self-testing device
- Visual and acoustic indicator
- Wide nominal voltage ranges
- Short transport length due to detachable insulating rod and test prod
- Allows for quick battery exchange without tools
- Test set with exchangeable test prods for switchgears and overhead lines

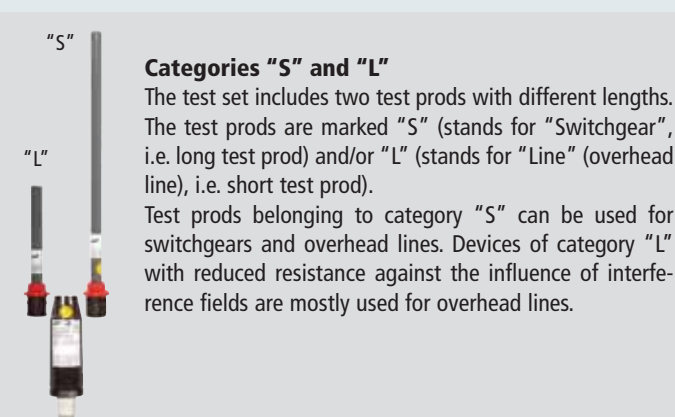
#### Self-testing device

The electronic PHE III voltage detector has an integrated self-testing device. When switching on the device, the electronic circuit is tested automatically for correct functioning (threshold). The detector is only ready for operation, if this function test has been performed successfully.

#### Battery exchange:

The 9V E block battery can be exchanged by hand without requiring additional tools. A simple unscrewing of the plastic nut allows for quick and easy exchange of the battery.

Low batteries are indicated by both illuminated LEDs and an additional acoustic signal when switching on the PHE III voltage detector.



#### Categories "S" and "L"

The test set includes two test prods with different lengths. The test prods are marked "S" (stands for "Switchgear", i.e. long test prod) and/or "L" (stands for "Line" (overhead line), i.e. short test prod).

Test prods belonging to category "S" can be used for switchgears and overhead lines. Devices of category "L" with reduced resistance against the influence of interference fields are mostly used for overhead lines.



## SAFETY EQUIPMENT

### VOLTAGE DETECTORS

EN/IEC 61243-1 (DIN VDE 0682 Part 411)



PHE III Voltage Detector with visual and acoustic indicator used for an indoor switchgear installation.

#### Technical Data

Test prods	Glass-fibre reinforced epoxy resin tube, Ø20 mm, grey, detachable; Test electrode made of Cu alloy/gal Sn Ø20 mm, tooth shape for reliable contact, with female M8 thread for supporting attachable electrodes and test probes
Indicator	Plastic, fully insulated, black
Indication	Visual: LED; Acoustic: Intermittent signal
Ready for operation	Visual: Green permanent light
Voltage present	Visual: Red flashing light; Acoustic: Intermittent signal
No voltage present	Visual: Green permanent light
Insulating rod	Glass-fibre reinforced polyester tube, Ø30 mm, grey, detachable, with handguard for safe handling; Endpiece with non-slip plastic cap
Operating temperature range	-25° C ... +55° C, Climatic category N

#### Special features of the switchable detector 3 ... 10 / 10 ... 30 kV:

The selector switch for nominal voltages can be moved into two positions for the respective voltage ranges. For safety reasons, the detector can be switched on only in the most sensitive position 3 ... 10 kV. The switch snaps into the respective position and is thus protected against unintended switching. The position is changed via a magnetically operated, wear-resistant reed switch.



## SAFETY EQUIPMENT

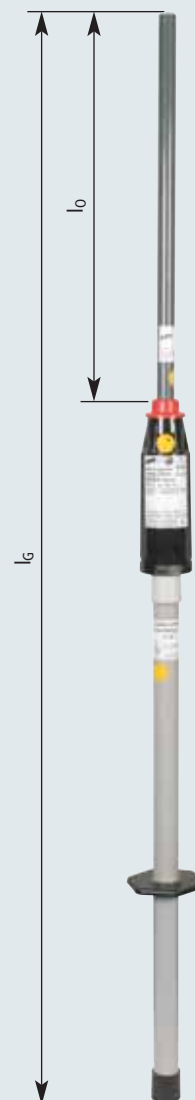
## PHE III Voltage Detector

### VOLTAGE DETECTORS




Type	Nominal voltage $U_N$	Total length $l_G$	Inserting depth $l_0$	Part No.
<b>A Nominal voltages up to 30 kV / 50 Hz</b> Category "S"				
PHE3 3 S	3 kV	1080 mm	285 mm	767 703
PHE3 6 S	6 kV	1080 mm	285 mm	767 706
PHE3 10 S	10 kV	1080 mm	285 mm	767 710
PHE3 20 S	20 kV	1230 mm	435 mm	767 720
PHE3 30 S	30 kV	1415 mm	620 mm	767 730
<b>B Nominal voltage ranges up to 30 kV / 50 Hz</b> Category "S"				
PHE3 3 10 S	3 ... 10 kV	1415 mm	620 mm	767 711
PHE3 6 20 S	6 ... 20 kV	1575 mm	780 mm	767 721
PHE3 10 30 S	10 ... 30 kV	1675 mm	880 mm	767 731
<b>C Nominal voltage ranges up to 30 kV / 50 Hz, switchable</b> Category "S"				
PHE3 U 3 30 S	3 ... 10 / 10 ... 30 kV	1675 mm	880 mm	767 733
<b>D Nominal voltage ranges up to 30 kV / 50 Hz, Test Set</b> With 2 exchangeable test prods, Category "S" and "L"				
PHE3 6 20 SL	6 ... 20 kV	1575 / 990 mm	780 / 200 mm	767 740
PHE3 10 30 SL	10 ... 30 kV	1675 / 990 mm	880 / 200 mm	767 750

Voltage detectors for other nominal voltages and frequencies available on request.



## PHE III Test Head

### Nominal voltages up to 30 kV / 50 Hz

- Also for use in wet weather 
- For indoor and outdoor installations
- With self-testing device
- Standby function
- Visual and acoustic indicator
- Wide nominal voltage ranges
- Allows for quick battery exchange without tools
- Detachable test prod

#### Self-testing device

The electronic PHE III test head has an integrated self-testing device. When switching on the device, the electronic circuit is automatically tested for correct functioning (threshold).

#### Standby function

The PHE III test head has a standby function, which will activate the device automatically when contacting energised equipment (without prior self test) and will signal "voltage present" visually and acoustically. When contacting dead equipment, the device is not activated.

#### Categories "S" and "L"

Devices of category "S" (long test prod) can be used for both switchgears and overhead lines, devices of category "L" (short test prod) with reduced resistance against the influence of interference fields, are mainly used for overhead lines.

#### Battery Exchange:

The 9V E block battery can be exchanged by hand without requiring additional tools. A simple unscrewing of the plastic nut allows for quick and easy exchange of the battery.

Low batteries are indicated by both illuminated LEDs and an additional acoustic signal when switching on the device.



## SAFETY EQUIPMENT VOLTAGE DETECTORS

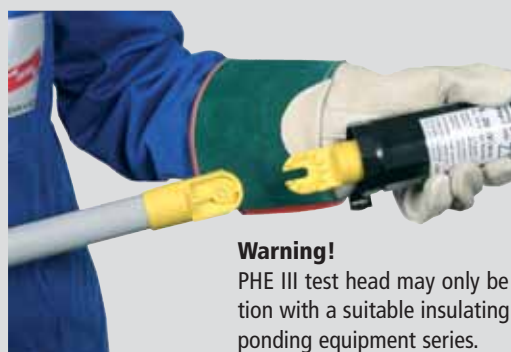
Test head according to EN/IEC 61243-1 (DIN VDE 0682 Part 411)  
Universal gear coupling according to EN/IEC 60832 (DIN VDE 0682 Part 211)



PHE III Test Head with universal gear coupling and insulating rod.

#### Technical Data

Test prods	Glass-fibre reinforced epoxy resin tube, Ø20 mm, grey, detachable; Test electrode made of Cu alloy/gal Sn Ø20 mm, tooth shape for reliable contact, with female M8 thread for supporting attachable electrodes and test probes
Indicator	Plastic, fully insulated, black
Indication	Visual: LED; Acoustic: Intermittent signal
Ready for operation	Visual: Green permanent light
Voltage present	Visual: Red flashing light; Acoustic: Intermittent signal
No voltage present	Visual: Green permanent light
Operating temperature range	-25° C ... +55° C, Climatic category N



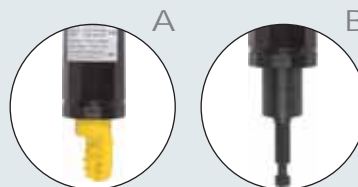
#### Warning!

PHE III test head may only be used in combination with a suitable insulating rod of the corresponding equipment series.

## SAFETY EQUIPMENT

## PHE III Test Head

### VOLTAGE DETECTORS



Type	Nominal voltage $U_N$	Category	Total length $l_G$	Inserting depth $l_0$	Part No.
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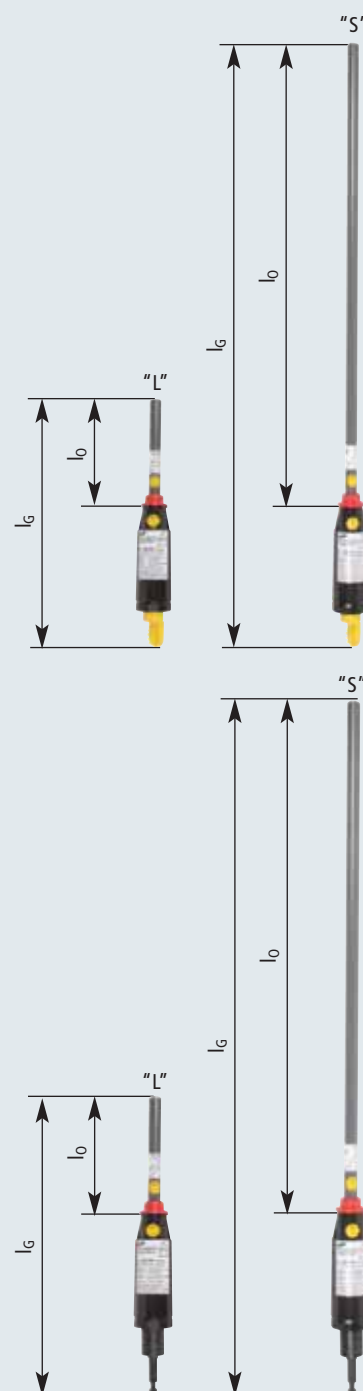
#### A PHE III Test Head with universal gear coupling

PHE3 6 20 S SB ZK	6 ... 20 kV	S	1045 mm	780 mm	<b>767 921</b>
PHE3 10 30 S SB ZK	10 ... 30 kV	S	1145 mm	880 mm	<b>767 931</b>
PHE3 6 20 L SB ZK	6 ... 20 kV	L	465 mm	200 mm	<b>767 922</b>
PHE3 10 30 L SB ZK	10 ... 30 kV	L	465 mm	200 mm	<b>767 932</b>

#### B PHE III Test Head with hexagon pin 12 x 12 x 80 mm

PHE3 6 20 S SB SK	6 ... 20 kV	S	1040 mm	780 mm	<b>767 923</b>
PHE3 10 30 S SB SK	10 ... 30 kV	S	1140 mm	880 mm	<b>767 933</b>
PHE3 6 20 L SB SK	6 ... 20 kV	L	460 mm	200 mm	<b>767 924</b>
PHE3 10 30 L SB SK	10 ... 30 kV	L	460 mm	200 mm	<b>767 934</b>

Voltage detectors for other nominal voltages and frequencies as well as indicators with permanent illumination and sound instead of flashlight and intermitting signal available on request.



### Accessories for PHE III Test Head

#### Insulating rod with universal gear coupling

Endpiece with female thread TR 16 x 4

Type	Total length $l_{G \max} / l_{G \min}$	Handle length $l_{H \min}$	Part No.
IS PHE ZK TR16	645 mm	335 mm	<b>766 068</b>



#### Insulating rod for hexagon pin 12 x 12 x 80 mm


Endpiece with female thread TR 16 x 4

Type	Total length $l_{G \max} / l_{G \min}$	Handle length $l_{H \min}$	Part No.
IS PHE SK TR16	675 mm	355 mm	<b>766 051</b>



## Insulating Rods for PHE III Test Head

### Nominal voltages up to 36 kV / 50 Hz

- Also for use in wet weather in combination with PHE III Test Head 
- For indoor and outdoor installations
- Endpiece with female thread for handle extension
- Telescopic rod, length up to 10.6 m
- With universal gear coupling for angling PHE III Test Head
- With hexagon coupling for quick mounting of PHE III Test Head

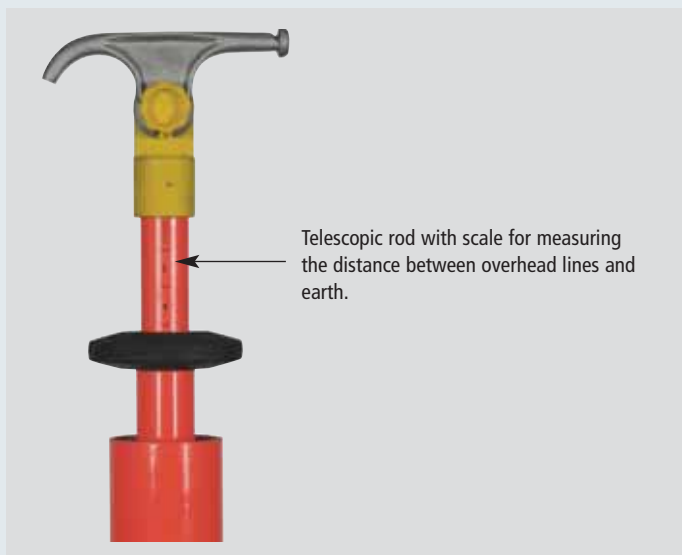
## SAFETY EQUIPMENT

### VOLTAGE DETECTORS

EN/IEC 61243-1 (DIN VDE 0682 Part 411)  
Universal gear coupling acc. to EN/IEC 60832 (DIN VDE 0682 Part 211)



Telescopic rod for PHE III Test Head.



#### Technical Data

Insulating rod	Telescopic rod: Glass-fibre reinforced epoxy resin tube $\varnothing 27 / 63$ mm; Insulating rod: Glass-fibre reinforced polyester tube, $\varnothing 30$ mm with handguard for safe handling
Endpiece	Telescopic rod: Non-slip plastic cap; Insulating rod: Female TR 16 x 4 thread for handle extension



Screwing the handle extension HV TR16 into the insulating rod with universal gear coupling.

## SAFETY EQUIPMENT

## Insulating Rods for PHE III Test Head

### VOLTAGE DETECTORS



Type	Total length $l_G \text{ max} / l_G \text{ min}$	Handle length $l_H \text{ min}$	Part No.
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#### A Telescopic insulating rod with universal gear coupling

With measuring scale for additional measuring of the distance from earth

ISMTC N 36 ZK 10600	10600 / 1750 mm	1680 mm	766 037 <i>new</i>
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#### B Insulating rod with universal gear coupling

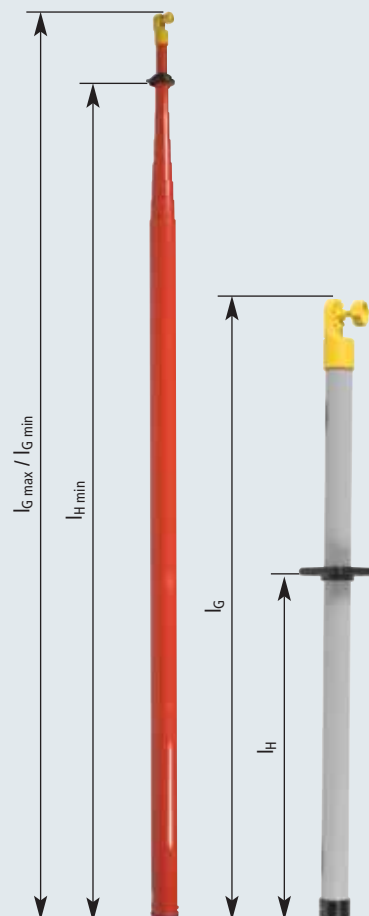
Endpiece with female thread TR 16 x 4

IS PHE ZK TR16	645 mm	335 mm	766 068
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#### C Insulating rod for hexagon pin 12 x 12 x 80 mm

Endpiece with female thread TR 16 x 4

IS PHE SK TR16	675 mm	355 mm	766 051
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### Accessories for Insulating Rods for PHE III Test Head

#### Set-up aid

For telescopic rods

Type	Part No.
AH ISMTC	766 038 <i>new</i>

#### Handle extension with threaded pin TR 16 x 4

For screwing into the endpiece of the insulating part with female thread TR 16 x 4  
With non-slip plastic cap

Type	Total length $l_G$	Part No.
HV TR16 710	710 mm	766 035 <i>new</i>

#### Adapter

For screwing into the threaded TR 16 x 4 socket for handle extension with IS SQ insulating rods or ES SQ earthing rods

Type	Part No.
AD HV TR16 SQ	765 013 <i>new</i>

#### Canvas bag, empty

For telescopic rod, with shoulder strap

Type	Colour	Dimension	Part No.
STT 180 20 OL	●	Ø200 x 1800 mm	766 039 <i>new</i>





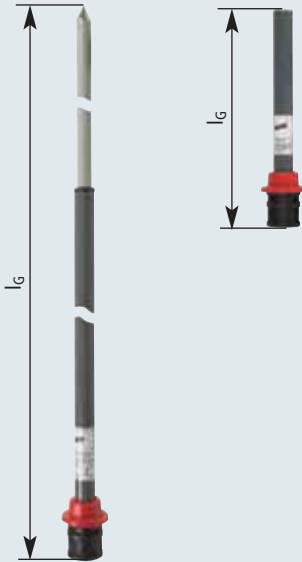
## Accessories for PHE III Voltage Detector

## SAFETY EQUIPMENT VOLTAGE DETECTORS

### Test prod for overhead line applications

Category "L"

For voltage detectors	Nominal voltage
Part No.	$U_N$
767 740	6 ... 20 kV
767 922	6 ... 20 kV
767 924	6 ... 20 kV
767 750	10 ... 30 kV
767 932	10 ... 30 kV
767 934	10 ... 30 kV



Type	Total length $l_G$	Part No.
L71 PS PHE 185	235 mm	767 766

### Test prod for Mipak switchgears

Category "S"

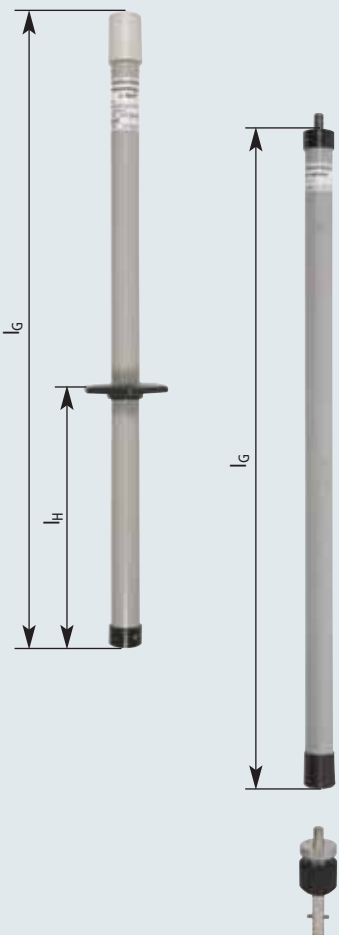
For voltage detectors	Nominal voltage
Part No.	$U_N$
767 731/S	10 ... 30 kV
767 750/S	10 ... 30 kV

Type	Total length $l_G$	Part No.
S65 M PS PHE 905	915 mm	767 767

### Insulating rod with threaded socket for handle extension

Endpiece with female thread TR 16 x 4

Type	Total length $l_G$	Length of extension $l_H$	Part No.
IS PHE M12 TR16	635 mm	370 mm	766 030 <span style="color: red;">new</span>



### Handle extension with threaded pin TR 16 x 4

For screwing into the endpiece of the insulating part with female thread TR 16 x 4  
With non-slip plastic cap

Type	Total length $l_G$	Part No.
HV TR16 710	710 mm	766 035 <span style="color: red;">new</span>

### Adapter

For screwing into the threaded TR 16 x 4 socket for handle extension with IS SQ insulating rods or ES SQ earthing rods

Type	Part No.
AD HV TR16 SQ	765 013 <span style="color: red;">new</span>

## SAFETY EQUIPMENT

## Accessories for PHE III Voltage Detector

### VOLTAGE DETECTORS

#### Sheet Metal Case, empty

Hammer-finished with foamed insert

Max. capacity:

- 1 PHE III indicator
- 1 Insulating rod
- 1 Handle extension
- 1 Test prod (S and L)
- 3 Electrodes
- 1 Test probe, straight

Type	Colour	Dimension	Part No.
SKL 95 21 10 BL	●	950 x 210 x 100 mm	767 701



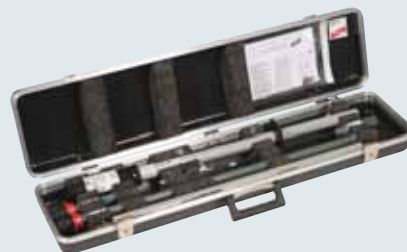
#### Plastic Case, empty

With foamed insert

Max. capacity:

- 1 PHE III indicator
- 1 Insulating rod
- 1 Handle extension
- 1 Test prod (S and L)
- 3 Electrodes
- 1 Test probe, straight

Type	Colour	Dimension	Part No.
KKL 92 20 12 V2 SCH	●	920 x 200 x 120 mm	767 704



#### Artificial Leather Bag, empty

With shoulder strap

Max. capacity:

- 1 PHE III indicator
- 1 Insulating rod
- 1 Handle extension
- 2 Test prods (S and L)
- 3 Electrodes

Type	Colour	Dimension	Part No.
KLT 114 23 5 SCH	●	1140 x 230 x 50 mm	767 702



#### Plastic Case, empty

With foamed insert

Max. capacity:

- 1 PHE III Test Head
- 1 Test prod (L)
- 3 Electrodes
- 1 Spare battery

Type	Colour	Dimension	Part No.
KKL PK PHE3 L	●	395 x 295 x 105 mm	766 036



new

#### Supporting device

For wall mounting

Type	Colour	Dimension	Part No.
HV P ST D30 40	●	530 mm	700 007

