

## High voltage tester up to 36 kV AC/DC Two-pole



# Part catalogue High voltage tester

## Voltage tester up to 1 kV

Prüfball SPB Analog with moving-iron instrument  
Prüfball SPB Digital with LCD  
Electricity meter Prüfball ZAP Analog  
Electricity meter Prüfball ZAP Digital  
Type overview Prüfball  
MultiSafe DSP 3 with digital indication  
MultiSafe DSP 4 with digital indication  
ProfiSafe LSP 3 with LED indication  
DSP 3TT1 Telescope voltage tester for light rail systems

## High voltage tester up to 36 kV

- 28 High-tension test probes DSP-HS5
- 30 MultiSafe DSP 3HS11
- 32 MultiSafe DSP 3HS36
- 34 MultiSafe DSP 3TT36 Telescope type

## Ex-proof measuring and testing devices

Earth resistance tester  $\Omega$ MegaSafe EP  
Megohmmeter  $\Omega$ MegaSafe ISO  
Multimeter VarioSafe EXM 25  
Voltage and resistance measuring device VarioSafe EXM 24

## Accessories

Prüfball  
MultiSafe / ProfiSafe  
 $\Omega$ MegaSafe  
VarioSafe

## Info

- Customer specific solutions  
Service
- 58 Article list
  - 63 Explanation of symbols

complete product overview see main catalogue

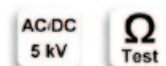
## MultiSafe DSP-HS5

High-tension test probes for DSP 3 up to 5 kV AC / 7 kV DC



DSP-HS5 high-tension test probes are extensions for the MultiSafe DSP 3.

- Precise indication of voltage up to 5 kV AC / 7 kV DC
- Easy handling, safe and quick assembly
- Self-test for checking protective resistors
- Various test electrodes



### Safe application

Equipped with two high-tension test probes, the MultiSafe can perform voltage tests up to 5 kV AC / 7 kV DC quickly and safely.

A secure connection of the probes to the DSP 3 is guaranteed by a screwing system. The self-test allows checking the probes when already mounted.

The MultiSafe DSP 3 detects the test voltage AC/DC automatically and displays the voltage level in a ratio of 1:10.

For voltage testing two probes are required.

### High variability

Exchangeable test electrodes:

The high-tension test probe DSP-HS5 will be delivered with a standard test electrode of 125 mm length.

Electrodes optionally:



Standard:  
Semicircular (i) for busbars

Alternative:

Peaked with thread (G) for busbars and special applications,  
Bifurcated (Y) for fixed ball point or overhead line

Special electrodes are available up to 60 cm length.

### Thread set for MultiSafe DSP



The thread set can be factory-mounted onto the MultiSafe DSP or can be delivered to the customer for retrofitting.



### Accessories

- Solid box
- Artificial leather bag
- Various test electrodes



### Technical data

High-tension test probes DSP-HS5 for MultiSafe DSP 3

Nominal voltage range

with two attached probes  
80 - 5000 V AC / 7000 V DC (auto-on)

Frequency

0 - 1000 Hz

Resistance

1355 kΩ per probe +/- 5%

Measurement current

< 2,6 mA

Surge voltage strength

> 100 kV (VDE test report available)

Indicator group

I and II

Indication

ratio of 1:10

On-time

15 minutes

Operating temperature

-10°C ... +55°C

Self-test

function and protective resistors

obligatory before indication of measurement results

Power supply

- - -

Measurement range

see user instructions DSP 3, with two probes ratio  
1:10 +/- 5%

Construction

for indoor installations

Design

GRP-tube with moulded resistor decade  
three-speed threaded socket for fast screwing  
Hirschmann-spring contact socket for 2-mm-plug  
test electrode made of high-grade steel tube,  
exchangeable

Standards

MultiSafe DSP 3 without test probes

Certified in accordance with EN/IEC 61243-3 VDE  
DSP-HS5 screwed in accordance with EN/IEC  
61010-031

Dimensions / weight

standard length 400 mm incl. electrode,  
diameter 18/14 mm, weight 105 g

**Attention:** two probes are required!

Article number	Type / Label
84316	MultiSafe-HS5-* 2 probes required
* shape of electrodes: -i, -Y, -G please specify	
84301	MultiSafe DSP 3 required
84019	Thread set for DSP 3 required Factory-mounted or for retrofitting
84022	Solid box 42 x 32 x 11 cm
81035	Artificial leather bag 65 cm see page 51

## MultiSafe DSP 3HS11

Two-pole high voltage tester up to 11 kV AC / 16 kV DC



The MultiSafe DSP 3HS11 is a two-pole high voltage tester with secure LED signal and exact indication of the voltage value.

- Precise indication of voltages up to 11 V AC / 16 V DC
- Highest degree of safety provided by protective resistors within the GRP- tube
- Surge voltage strength > 300 kV
- Self-test for checking protective resistors and function

AC/DC  
11 kV

$\Omega$   
Test

  
Volt

Hz

CE

  
IP 65

indoor  
outdoor

  
PE

  
no PE

### Application

The MultiSafe DSP 3HS11 is a two-pole voltage tester for alternating voltages up to 11 kV and direct voltages up to 16 kV. It is particularly suitable to detect voltage quickly and securely at capacitor banks and links of converters, as well as at feeders for railway systems.

Voltage is signalled by three red LEDs and the value is indicated digital on the LCD.

These systems offer double safe indication.

### Safety

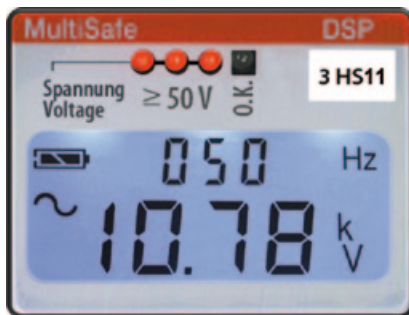
Due to moulded protective resistors the MultiSafe DSP 3HS11 has a tested surge voltage strength of > 300 kV.

The device is designed on the basis of the MultiSafe DSP, which is certified by VDE in accordance with EN/IEC 61243-3 VDE. Maximum level of safety is provided by moulded high-tension test probes as well as an obligatory self-test function.

### Easy operation

Fully automated test procedures obviate operating errors:

- Self-test indicates with green LED + "rdy"
- Voltage is indicated by red LEDs, the LCD and an acoustic signal
- Voltage, frequency, battery condition, type of voltage and polarity are simultaneously indicated on the large LCD



### Three readout systems

Unambiguous and rapid recognition of function and result:

- round red flares for voltage, green square symbol for standby and absence of voltage
- the display shows precise values in V or kV as well as voltage type and polarity
- acoustic signal indicates voltage > 50 V AC / 120 V DC

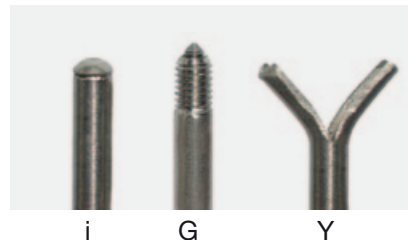
### Robust design

High-quality elements guarantee function and safety under extreme conditions:

- Impact resistant plastic casing and break-proof display cover
- Dust and water proof (IP65, approved for operation in outdoor areas)
- Twin insulated PUR control cable, corrugated tube for additional mechanical protection
- High-tension test probes made of glass fibre-reinforced plastic with moulded resistor decade

### Test electrodes

With the exchangeable test electrodes the MultiSafe DSP 3HS11 is multifunctional applicable.



Standard:  
Semicircular (i) for busbars and test holes  
Alternative:  
Peaked with thread M5 (G) for special applications,  
Bifurcated (Y) for fixed ball points or wires

### Accessories



Solid box for transportation and storage



Bag with ring bolt and shoulder belt

Article number	Type / Label
89304	MultiSafe DSP 3HS11-*
84330	Solid box 124 x 27 x 12 cm 6,9 kg
84331	Bag 111 x 28 cm

\* shape of electrodes: -i, -Y, -G, please specify

### Technical data

Two-pole high voltage tester MultiSafe DSP 3HS11

Nominal voltage range	50 ... 11000 V AC / 16000 V DC
Frequency	0 ... 500 Hz
Input resistance	55,8 MΩ
Measurement current	0,29 mA bei 16000 V DC
Surge voltage strength	> 300 kV (VDE test report available)
Indicator group	I and III
Display	1. three red LEDs for voltage > 50 V and green LED for standby 2. two-line LC-display with backlight for indication of voltage, type of voltage and battery condition 3. Acoustic signal at > 50 V AC / 120 V DC
Measurement range / limit deviation	50 ... 1000 V DC ± 2,5% + 5 digits 50 ... 1000 V AC ± 5% + 10 digits 1,01 ... 16,00 (16,50) kV DC ± 2,5% + 5 digits 1,01 ... 11,00 (12,00) kV AC ± 5% + 10 digits
On-time	15 min, auto-off when tension-free
Construction	for indoor and outdoor installations IP 65, device can be used in moist environments
Operating temperature	-10°C ... + 55°C
Self-test	function and protective resistors obligatory before indication of measurement results
Power supply	9 V block IEC 6 LR61 alkali-manganese indication of battery condition
Design	<ul style="list-style-type: none"> <li>Two-pole voltage tester with firmly attached high-tension test probes made of GRP with moulded resistor decades, approx. 27,9 MΩ each probe</li> <li>Impact resistant, dust proof plastic casing with unbreakable display cover, protection category IP 65</li> <li>Twin insulated PUR control cable</li> <li>connection line additionally protected by corrugated tube</li> </ul>
Standards	EN/IEC 61243-2 high voltage tester EN/IEC 60071 surge voltage strength further applied standards: EN/IEC 61010 and VDE 0105-100 (further details see risk analysis)
Test label	of the last checking on the device Repeated examination spätestens alle 6 Jahre
Dimensions / weight	approx. 1150 x 200 x 60 mm / 1,0 kg Length of test probes 675 mm

## MultiSafe DSP 3HS36

Compact high voltage tester up to 36 kV



Compact, lightweight and dismountable

With the MultiSafe DSP 3HS36 voltages up to 36 kV against ground can be tested quickly and safely.

Additionally, voltage level and frequency are indicated on the two-line display.

- Precise indication of voltages up to 36 V AC / DC and frequency 0 - 200 Hz
- Highest degree of safety provided by moulded protective resistors within the double-walled GRP-tube surge voltage strength >300 kV
- Dismountable for easy transportation



### Application

The MultiSafe DSP 3HS36 is a two-pole voltage tester for alternating and direct voltages up to 36 kV against ground.

It is particularly suitable to detect voltages at capacitor banks and rail converter systems with frequencies between 0-200 Hz quickly and securely.

Voltage is signalled by three red LEDs and the value is indicated digital on the LCD. Simultaneously, the upper display line indicates the mains frequency.

### Design

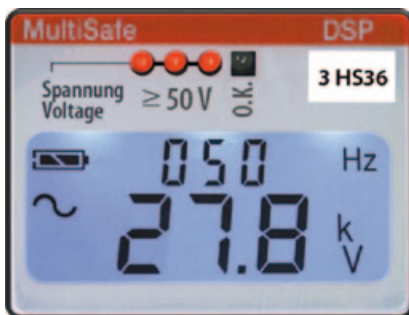
High-quality elements guarantee function and safety under extreme conditions:

- High-tension test probe with moulded resistor decade made of glass double-walled plastic tube
- Water and dust proof display part made of ABS with unbreakable display cover
- Twin insulated line with large universal clip for secure grounding
- Modular design with impact resistant, glass fibre-reinforced plastic tube, dismantlable in basic pipe, test probe and display part with line and clip

### Safety

Maximum safety is provided by high surge voltage strength, integrated self-test and the certified display part.

The MultiSafe DSP 3HS36 is equipped with moulded protective resistors with surge voltage strength of > 300 kV.



Simultaneous indication of mains frequency and voltage at the large, illuminated display



Solid box with aluminium frame 124 x 27 x 12 cm

### Easy operation

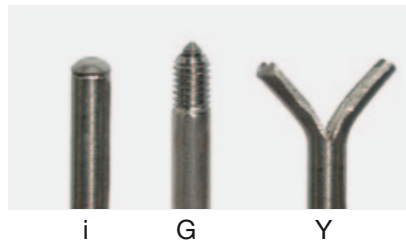
Fully automated test procedures obviate operating errors:

- Self-test indicates with green LED + "rdy"
- Voltage is indicated by red LEDs, the LCD and an acoustic signal
- Voltage, frequency, battery condition, type of voltage and polarity are simultaneously indicated on the large backlit LCD

### High variability

Exchangeable test electrodes: The high voltage tester DSP 3HS36 will be delivered with a standard test electrode i.

Electrodes optionally:



Standard:  
Semicircular (i) for busbars and test holes  
Alternative:  
Peaked with thread M5 (G) for special applications,  
Bifurcated (Y) for fixed ball points or overhead lines

### Technical data

Two-pole high voltage tester  
MultiSafe DSP 3HS36

Nominal voltage range

50 ... 36000 V AC / DC

Display

1. three red LEDs for voltage >50 V and green LED for standby
2. two-line LC-display with backlight for indication of voltage, frequency, type of voltage and battery condition
3. acoustic signal >50 V AC / 120 V DC

Indicator group

I and III

Measurement ranges / Accuracy

40 ... 1000 V AC/DC  $\pm 5\%$  + 10 digits resolution 1 V  
1,0 ... 9,9 kV AC/DC  $\pm 5\%$  + 10 digits resolution 10 V  
10 ... 36 kV AC/DC  $\pm 5\%$  + 10 digits resolution 100 V  
automatic range switching

Frequency range

0 ... 200 Hz

Input resistance

119 M $\Omega$

Current peak value

< 0,4 mA at 36000 V

On-time

15 minutes

Self-test

Function, grounding and protective resistors

Surge voltage strength

> 300 kV (VDE test report available)

Construction

for indoor and outdoor installations  
IP 65, device can be used in moist environments

Operating temperature

-10°C ... + 55°C

Power supply

9 V block IEC 6 LR61 alkali-manganese  
indication of battery condition

Design

- Two-pole voltage tester with fixed connection to ground
- Two-piece high-tension test probes, screwable, made of double-walled GRP-tube with moulded resistor decade
- Display part made of impact resistant, dust proof plastic casing IP 65 with unbreakable display cover
- 6 m PUR high voltage cable with universal clamp for conductor bars and fixed ball points up to 25 mm

Standards

EN/IEC 61243-2 high voltage tester  
EN/IEC 60071 surge voltage strength  
further applied standards:  
EN/IEC 61010 and VDE 0105-100  
(further details see risk analysis)

Test label

of the last checking on the device

Dimensions / weight

approx. 1430 x 100 x 100 mm / 2,1 kg  
Transportation length demounted 900 mm

Article number	Type / Label
89308	MultiSafe DSP HS36-*
84330	Solid box 124 x 27 x 12 cm

\*shape of electrodes: -i, -Y, -G, please specify

## MultiSafe DSP 3TT36

Telescope voltage tester for catenary lines up to 36 kV



With the MultiSafe DSP 3TT36 voltages up to 36 kV against ground can be tested quickly and safely. Additionally, voltage level and frequency are indicated on the two-line display.

- For test heights up to 6,2 m variable height adjustment
- Precise indication of voltages up to 36 V AC/DC and frequency 0-200 Hz
- Highest degree of safety provided by moulded protective resistors within the double-walled GRP- tube surge voltage strength >150 kV



### Application

The MultiSafe DSP 3TT36 is a two-pole high voltage tester for alternating and direct voltages up to 36 kV against ground. It is particularly suitable to detect voltages quickly and securely at capacitor banks and rail converter systems.

Voltage is signalled by three red LEDs and the value is indicated digital on the LCD. Simultaneously, the upper display line indicates the mains frequency.

### Design

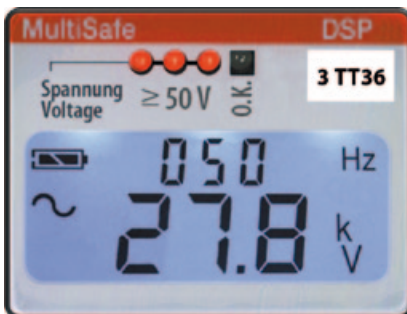
High-quality elements guarantee function and safety:

- Telescope-tube with variable height adjustment 1,75 - 5,2 m
- moulded resistor decade within GRP-tube
- Water and dust proof display part made of ABS with unbreakable display cover
- Twin insulated line with clip for secure connection to rail

### Safety

Maximum safety is provided by high surge voltage strength, integrated self-test and the certified display part.

The MultiSafe DSP 3TT36 is equipped with moulded protective resistors with surge voltage strength of >150 kV.



Simultaneous indication of mains frequency and voltage at the large, illuminated display

### Easy operation

Fully automated test procedures obviate operating errors:

- Self-test indicates with green LED + "rdy"
- Voltage is indicated by red LEDs, the LCD with backlight and an acoustic signal
- Voltage, frequency, battery condition, type of voltage and polarity are simultaneously indicated on the large backlit LCD

### Electrode

Exchangeable test electrode for wires up to 15 mm



Other shapes on request

### Accessories

- Artificial leather bag with carrying strap



Variable locking

### Technical data

Two-pole High voltage tester  
MultiSafe DSP 3TT36

Nominal voltage range

50 ... 36000 V AC / DC

Display

1. three red LEDs for voltage > 50 V and green LED for standby
2. two-line LC-display with backlight for indication of voltage, frequency, type of voltage and battery condition
3. acoustic signal > 50 V AC / 120 V DC

Indicator group

I and III

Measurement ranges / Accuracy

40 ... 1000 V AC/DC ± 5% + 10 digits resolution 1 V  
1,0 ... 9,9 kV AC/DC ± 5% + 10 digits resolution 10 V  
10 ... 36 kV AC/DC ± 5% + 10 digits resolution 100 V  
automatic range switching

Frequency range

0 ... 200 Hz

Input resistance

119 MΩ

Current peak value

< 0,4 mA at 36000 V

On-time

15 minutes, auto-off when tension-free

Self-test

Function, grounding and protective resistors

Surge voltage strength

>150 kV

Construction

for indoor and outdoor installations  
IP 65, device can be used in moist environments

Operating temperature

-10°C ... + 55°C

Power supply

9 V block IEC 6 LR61 alkali-manganese  
indication of battery condition

Design

- Two-pole voltage tester with fixed connection to ground
- Two-piece telescope high-tension test probe, made of double-walled GRP-tube with moulded resistor decade
- Display part made of impact resistant, dust proof plastic casing IP 65 with unbreakable display cover
- 6 m PUR high voltage cable with clamp for rail foot

Standards

EN/IEC 61243-2 high voltage tester  
EN/IEC 60071 surge voltage strength  
further applied standards:  
EN/IEC 61010 and VDE 0105-100  
(further details see risk analysis)

Test label

of the last checking on the device

Dimensions / weight

1740 x 120 x 110 mm  
run-out length up to 5,2 m  
device incl. line and magnet 2,3 kg  
device with clamp 2,6 kg

Article number	Type / Label
89309	MultiSafe DSP TT36
84332	Bag TT-KLT 176 x 24 cm

# Article list

## Voltage tester

Art.-No.	Type	Description
<b>Prüfball SPB / ZAP</b>		
81301	SPB 500	Voltage tester analog 500 V
81302	SPB 500P	Voltage tester analog 500 V with phase and phase sequence indication
81321	SPB 500PR	Voltage tester analog 500 V with phase and phase sequence indication, continuity and self-test, RCD tripping
81313	SPB 500PRA	Voltage tester analog 500 V with phase and phase sequence indication, continuity and self-test, acoustic signal at voltage
81305	SPB 740	Voltage tester analog 740 V
81306	SPB 740P	Voltage tester analog 740 V with phase and phase sequence indication
81325	SPB 740PR	Voltage tester analog 740 V with phase and phase sequence indication, continuity and self-test, RCD tripping
81307	SPB 1000	Voltage tester analog 1000 V
81308	SPB 1000P	Voltage tester analog 1000 V with phase and phase sequence indication
81327	SPB 1000PR	Voltage tester analog 1000 V with phase and phase sequence indication, continuity and self-test, RCD tripping
81322	SPB 500L	Voltage tester digital 500 V with phase and phase sequence indication, continuity and self-test, RCD tripping
81323	SPB 1000L	Voltage tester digital 1000 V with phase and phase sequence indication, continuity and self-test, RCD tripping
81314	ZAP 350	Electricity meter tester analog 500 V, load 350 W at 230 V, with phase and phase sequence indication, continuity and self-test
81315	ZAP 350L	Electricity meter tester digital 500 V, load 350 W at 230 V, with phase and phase sequence indication, continuity and self-test
81316	ZAP 1050L	Electricity meter tester digital 500 V, load 1050 W at 230 V, with phase and phase sequence indication, continuity and self-test
<b>Accessories SPB / ZAP</b>		
81019	SPB...G	Thread on both electrodes
81020	SPB-S500-*	SPB extension 500 mm, insulated stainless steel tube, 1000 V
81022	SPB-S600-*	SPB extension 600 mm, insulated stainless steel tube, 1000 V
81028	SPB-S900-*	SPB extension 900 mm, GRP tube, 1000 V
81021	SPB-S20-A	SPB insertion prod for underground cables, 1000 V
81023	SPB-S70	SPB pin prod for test holes and tight contacts, flexible pin 3 x 63 mm, CAT IV, 1000 V
81029	SPB-S-ADA	SPB srewable adapter with 4 mm socket, 1000 V
84311	L-SETR	Test line 0.8 m with crocodile clip 1000 V, CAT III, red
81030	SP-LED	Leather bag for SPB / DSP / EP / ISO, 30 x 12 x 6 cm
81032	SP-KLT	Artificial leather bag SPB / DSP, 30 x 12 x 6 cm
81035	SP-KLT-S600	Artificial leather bag for SPB / DSP / LSP and test probes to 600 mm, 65 x 17 cm
81033	Z350-LED	Leather bag for ZAP 350, 30 x 21 x 6 cm
81034	Z350-KLT	Artificial leather bag for ZAP 350, 30 x 21 x 6 cm
81037	Z1050-LED	Leather bag for ZAP 1050, 36 x 21 x 6 cm
81031	S-HUELSE	Plastic casing for extension test probes up to 600 mm

\* standard shape of electrode Y, alternative i, G. Please specify!

Art.-No.	Type	Description
<b>MultiSafe DSP</b>		
84002	DSP 2	MultiSafe 1000 V AC / 1500 V DC with phase and phase sequence indication, continuity and self-test
84301	DSP 3	MultiSafe 1000 V AC / 1500 V DC extra-low voltage 0,01...9,99 V, LCD lighted with phase and phase sequence indication, continuity and self-test, expandable with DSP-HS5 5 / 7 kV
84302	DSP 4	MultiSafe 1000 V AC / 1500 V DC extra-low voltage 0,01...8,99 V, LCD backlighted with phase and phase sequence indication, continuity and self-test, LED indication without battery

### Accessories DSP

84019	DSP...-G	Thread set for both probes of the DSP
84313	LSP-S500-*	DSP / LSP extension 500 mm insulated stainless steel tube attachable, 1000 V
84010	DSP-S500-*	DSP extension 500 mm insulated stainless steel tube screwable, 1000 V
84014	DSP-S940-*	DSP extension 940 mm GRP screwable, 1000 V
84321	DSP-S20-A	insertion prod for underground cables screwable, 1000 V
84013	DSP-S70	DSP / LSP pin prod for test holes and tight contacts, flexible pin 3 x 63 mm, CAT IV, 1000 V
84011	DSP-S-ADA	DSP / LSP attachable adapter with 4 mm socket, 1000 V
84312	DSP-S-ADAS	DSP adapter screwable with 4 mm socket, 1000 V
84316	DSP-HS5-**	High voltage test probe 5 kV screwable for DSP 3-G with thread (84019), 5 kV AC / 7 kV DC, 2 extensions essential!
84311	L-SETR	Test line 0.8 m with crocodile clip 1000 V, CAT III, red
81030	SP-LED	Leather bag for SPB / DSP / EP / ISO, 30 x 12 x 6 cm
81032	SP-KLT	Artificial leather bag SPB / DSP, 30 x 12 x 6 cm
84020	DSP-ETU	Artificial leather case for DSP / LSP, 32 x 13 cm
84021	DSP-COR	Cloth bag Cordura for DSP, 30 x 16 cm
81035	SP-KLT-S600	Artificial leather bag for SPB / DSP / LSP and test probes to 600 mm, 65 x 17 cm
84022	ALU-KOF-KL	Solid box for HS5, 42 x 32 x 11 cm
81031	S-HUELSE	Plastic casing for extension test probes up to 600 mm

### ProfiSafe LSP

85322	LSP 3-400	ProfiSafe 12-400 V LED steps with phase and phase sequence indication, continuity and self-test
85321	LSP 3-690	ProfiSafe 24-690 V LED steps with phase and phase sequence indication, continuity and self-test

### Accessories LSP

85320	LSP-COR	Cloth bag Cordura for LSP, 29 x 14 cm
84313	LSP-S500-*	DSP / LSP extension 500 mm insulated stainless steel tube attachable, 1000 V
84013	DSP-S70	DSP / LSP pin prod for test holes and tight contacts, flexible pin 3 x 63 mm, CAT IV, 1000 V
84011	DSP-S-ADA	DSP / LSP attachable adapter with 4 mm socket, 1000 V
84311	L-SETR	Test line 0.8 m with crocodile clip 1000 V, CAT III, red

\* standard shape of electrode Y, alternative i, G. Please specify!

\*\* standard shape of electrode i, alternative Y, G. Please specify!

# Article list

## High voltage testers / Telescope voltage testers / Special types

Art.-No.	Type	Description
<b>High voltage testers</b>		
89305	DSP 3HS3M	High voltage tester 3 kV AC / DC with backlighted LCD, self-test, contact magnet
89335	DSP 3HS3K	High voltage tester 3 kV AC / DC with backlighted LCD, self-test, universal clamp
84316	DSP-HS5-**	High voltage test probe 5 kV screwable for DSP 3-G with thread (84019), 5 kV AC / 7 kV DC, 2 extensions essential!
89304	DSP 3HS11	High voltage tester 11 kV AC / 16 kV DC with backlighted LCD, self-test
89308	DSP 3HS36	High voltage tester 36 kV AC / DC with backlighted LCD, self-test, frequency indication, universal clamp
<b>Telescope voltage testers</b>		
89306	DSP 3TT1M	Telescope voltage tester 1 kV AC / 1,5 kV DC with backlighted LCD, self-test, contact magnet, test height up to 6,2 m
89336	DSP 3TT1K	Telescope voltage tester 1 kV AC / DC with backlighted LCD, self-test, clamp for the rail foot, test height up to 6,2 m
89307	DSP 3TT3M	Telescope voltage tester 3 kV AC / DC with backlighted LCD, self-test, contact magnet, test height up to 6,2 m
89337	DSP 3TT3K	Telescope voltage tester 3 kV AC / DC with backlighted LCD, self-test, clamp for the rail foot, test height up to 6,2 m
89309	DSP 3TT36	Telescope voltage tester 36 kV AC / DC with backlighted LCD, self-test, frequency indication, clamp for the rail foot, test height up to 6,2 m
<b>Special types</b>		
81388	SPB 1000UB1	Voltage tester analog 1000 V with continuity and self-test, additional with green LED, acoustic signal at voltage, clamp for the rail foot, curved probe for testing of underground
<b>Accessories</b>		
84331	DSP-HS-KLT	Artificial leather bag for HS3 / 11, 111 x 28 cm
84022	ALU-KOF-KL	Solid box for HS5, 42 x 32 x 11 cm
84330	ALU-KOF-MI	Solid box for HS3 / 11 / 36, 124 x 27 x 12 cm
84332	TT-KLT	Artificial leather bag for Telescope tester, 176 x 24 cm
63042	TT-WAND	Wall holder / 2 spring clips for TT
<b>Electrodes</b>		
89311	ELEK-i	Electrode-i for HS5 / SPB-S900 / DSP-S900 for testing conductor rails
89312	ELEK-iHS	Electrode-i for HS3 / HS11 / HS36 for testing conductor rails
89313	ELEK-G	Electrode-G for HS5 / SPB-S900 / DSP-S900 for special applications
89314	ELEK-GHS	Electrode-G for HS3 / HS11 / HS36 for special applications
89315	ELEK-Y	Electrode-Y for HS5 / SPB-S900 / DSP-S900 for testing overhead lines
89316	ELEK-YHS	Electrode-Y for HS3 / HS11 / HS36 for testing overhead lines
89317	ELEK-1	Suspension test electrode (small) for SPB-S900 / DSP-S900
89318	ELEK-U	Suspension test electrode for Telescope tester for testing overhead lines

\*\* standard shape of electrode i, alternative Y, G. Please specify!

## Ex-proof and measuring devices

Art.-No.	Type	Description
<b>ΩMegaSafe EP</b>		
83302	EP 4	Earth resistance tester 0,01 Ω - 1999 kΩ in accordance with EN 61557-4, incl. test line
83301	EP 4Ex	Ex-Earth resistance tester 0,01 Ω - 1999 kΩ in accordance with EN 61557-4, incl. test line

### Accessories EP

62013	BAT-AIMn	Battery Daimon MN 1604, Al-Mn-block 9 V, yellow
73009	EP-LEI	Test line for EP 4, CAT II, with protective cap CAT III, 1000 V, black
84311	L-SETR	Test line 0.8 m with crocodile clip 1000 V, CAT III, red
84314	L-SETS	Test line 0.8 m with crocodile clip 1000 V, CAT III, black
73021	EP-LED	Leather bag for EP / ISO, 37 x 20 x 12 cm
81030	SP-LED	Leather bag for SPB / DSP / EP / ISO, 30 x 12 x 6 cm
73006	EP-DH50	50 m measuring line on wire reel
73004	EP-RH50	50 m measuring line on decoiler. NOT for ex-areas!
73001	EP-EK	Earth clamp with 4 mm standard socket
73007	EP-SAW	Sawtooth test prod for EP, attachable, CAT II

### ΩMegaSafe ISO

83310	ISO 1Ex	Ex-Megohmmeter 1 kΩ - 2 TΩ in accordance with EN 61557-2, incl. test lines
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### Accessories ISO

62013	BAT-DAIM	Battery Daimon MN 1604, Al-Mn-block 9 V, yellow
84311	L-SETR	Test line 0.8 m with crocodile clip 1000 V, CAT III, red
84314	L-SETS	Test line 0.8 m with crocodile clip 1000 V, CAT III, black
73021	EP-LED	Leather bag for EP / ISO, 37 x 20 x 12 cm
81030	SP-LED	Leather bag for SPB / DSP / EP / ISO, 30 x 12 x 6 cm
73008	ISO-PROBE	Attachable test probe for ISO 1Ex, CAT III
73010	ISO-TOL	Terraohm line for high bleeder resistors
73011	ISO-ELR	Annular electrode for surface resistance and volume resistivity, delivery in solid box with calibration plate in accordance with EN 61340-5-1 / 61340-2-3
73012	ISO-ELVO	Electrode for surface resistance in accordance with EN 61340-4-1 and 61340-2-3
73013	ISO-3FUSS	Tripod electrode for floors and surfaces in accordance with EN 1081













# Article list

## Ex-proof measuring and testing devices











Art.-No.	Type	Description
<b>VarioSafe EXM</b>		
82024	EXM 24A	Ex-voltage and resistance measuring device with NiMH-accu / T4 incl. test line, without Plug-in power supply NG4
82023	EXM 24LB	Ex-voltage and resistance measuring device with lithium battery / T6 incl. test line
82025	EMX 25A	Ex-Multimeter with NiMH-accu / T4 incl. test line, without Plug-in power supply NG4
82026	EMX 25LB	Ex-Multimeter with lithium battery / T6 incl. test line
<b>Accessories EXM</b>		
72025	AK72025/T4	EXM NiMH-accu , 9 V, 170 mAh / 40 h operation
72026	LB72026 Li/T6	EXM Lithium-battery 3,6 V, 2400 mAh / 300 h operation
82010	WID	Test lines for resistance and current
72010	SPA	Voltage test prods for EXM 3,4,5,24,25, 1000 V, CAT IV
72011	SPA-HS2	Voltage test prods for EXM 25, 2000 V
72012	SPA-HS7	Voltage test prods for EXM 25, 7000 V, only Ex I limited
82011	EXM-LED	Ever-ready bag (leather) for EXM, 18 x 19 x 5 mm
72328	NG4	Plug-in power supply NG4 for charging the NiMH-accu
82318	TMZ 25	Temperature measurement accessory for EXM 25, without sensor
82107	EXM-TFU	Universal sensor for TMZ, 250 mm
82108	EXM-TFO	Surface sensor for TMZ, 110 mm
82319	MZ 1005	clamp-on ammeter for EXM 25, 1000 A AC / DC, incl. accu and charger
62022	AKKU-MZ	NiMH-accu, 9 V, 170 mAh for MZ 1005

# Explanation of symbols

## Functions

	Voltage testing up to ... V
	Continuity / Self-test up to ... kV
	Phase tester
	Phase sequence tester
	Digital evaluated rotating field without accessible electrode
	Acoustic signal at voltage
	Acoustic signal at continuity
	Frequency measurement
	Current measurement
	Temperature measurement
	Voltage tests work without battery
	Push-button for load

## Safety / Range of application

	EC conformity
	Mark of approval from VDE in accordance with IEC/EN 61243-3
	Overvoltage category
	Can be used in moist environments Protection category
	For indoor and outdoor applications
	Approved for Ex-areas
	Suitable for grounded voltage
	Suitable for non-grounded voltage
	Suitable for tests in accordance with VDE 0413-4 / protective conductor test
	Suitable for tests in accordance with VDE 0413-2 / Insulation test

# Equipment labelling

	Attention! Observe user instructions!		Device for live working
	Mark of approval from VDE test authority		Push-button (switched)
	EC conformity		This devices may not be disposed with the domestic waste (WEEE 2002/96 EG).
	On-time for voltage testing		Approved for Ex-areas in accordance with ATEX (DIN IEC 60079-0 and DIN IEC 60079-11)

**Quality creates safety.**

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