

# MultiSafe DSP 5

Highest precision and safety up to 1200 V AC / 1500 V DC



**NEW**



DSP 5ST - Slide tip with adjustable electrode length 4 mm / 16 mm.



Colour change of the LCD lighting during voltage

Der MultiSafe DSP 5 is a safe testing device for all applications in power engineering - easy handling, high-precision, multifunctional and reliable.

- Precise indication of voltage from 100 mV up to 1200 V AC  
10 mV up to 1500 V DC
- Extended measuring range for low- and battery-voltage up to 19,99 V
- Phase, phase sequence tester (possible with gloves)
- Fast continuity test 0,01 kΩ up to 1000 kΩ
- Easy operation, large illuminated display with two colour display
- Additional load to determine interference voltages and RCD-tripping (not DSP 5B)



EN/IEC 61243-3

CAT IV 1000 V



### Many functions

Fast and safe measuring and testing of:

- Direct and alternating voltage (TRMS)
- Resistance / continuity
- Polarity
- Phase
- Phase sequence grounded from 165 up to 1200 V / 50 Hz
- Phase sequence ungrounded (IT power grids)
- Frequency measurement
- Monitored additional load / RCD-tripping (not DSP 5B)
- Additional load for start-up tests of electronic electricity meters
- Front spot point lightning

### Easy operation

Fully automated test procedures obviate operating errors:

- The MultiSafe DSP 5 switches on, or from continuity over to voltage testing
- Direct indication of the type of voltage / polarity / frequency
- Automatic range selection from 0,10 V up to 1500 V
- Integrated self-test per keypress
- One-hand operation for testing sockets
- Integrated flashlight function for working in any environment
- Belt clip for easy transport

### Robust design

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

- Impact resistant plastic casing and break-proof display cover
- Dust- and waterproof (IP 65, approved for operation in outdoor areas)
- Tightly integrated test contacts
- Twin insulated PUR control cable



Additional load / RCD-tripping, backwards

### Highest level of safety

- Large protective resistors protect the user and device especially against dangerous voltage peaks and energy from external sources.
- Large two-colour display for hazardous voltages > 50 V AC / 120 V DC, and LED-warning which works without battery
- The MultiSafe has been tested and certified by VDE

### Safety accessories

Accessories are not included in scope of delivery

- Pin prods for measuring points that are difficult to reach
- Adapter for test lines with 4 mm plug
- Extensions for overhead lines



Front spot lighting

### Technical data

Two-pole voltage- and continuity tester  
MultiSafe DSP 5 / DSP 5B / DSP 5ST  
tested and certified by VDE in accordance with  
EN/IEC 61243-3 (VDE 0682 part 401)

#### Nominal voltage

12 ... 1000 V AC / 1200 V DC DSP 5 / DSP 5ST  
12 ... 1000 V AC / 1500 V DC DSP 5B  
(according to VDE: automatic switch on / over >12 V  
and additional load up to max. 1200 V AC / DC)

#### Display range

0,01 V ... 1500 V DC  
0,10 V ... 1200 V AC

#### Frequency

15 Hz ... 10 kHz < 500 V,  
15 Hz ... 2 kHz > 500 V

#### Indication of voltage/phase/phase sequence

Red LED for voltage, green for continuity, yellow for  
phase sequence, LC display, two color backlighted  
7-segment-letters, 2 lines, 0 ... 1999 Digit

#### Measuring ranges - voltage

DC: 0,01...19,99/20,0...99,9/100...1500 (1,5% + 3 D)  
AC: 0,10...19,99/20,0...99,9/100...1200 V  
TRMS 15... 500 Hz (1,5% + 3 D)  
sineff > 500 Hz (15% + 3 D)

#### Indication of resistance/continuity/diodes

Green LED for continuity up to 1000 kΩ  
and diodes, LCD 3½-digit for kΩ-measurement  
value, buzzer ≤ 10,00 kΩ

#### Measuring range - resistance

0,01 ... 1000 kΩ (5 % + 4 D)

#### Measuring ranges - frequency

15,0 ... 99,9 Hz / 100 ... 9999 Hz

#### Input resistance

412 kΩ at 50 V / 50 Hz  
200 kΩ at 1000 V AC, 720 kΩ at 1000 V DC

#### Current peak value

5 mA at 1000 V direct  
< 300 mA at 1000 V switched (not for DSP 5B)

#### On-time $t_{on}$ / recover-time $t_{off}$

at 230 V / 400 V unlimited  
at  $U_N$  2 min  $t_{on}$  / 2 min  $t_{off}$

#### Overvoltage category

CAT IV 1000 V  
in accordance with IEC 60664-1 (VDE 0110)

#### Surge voltage strength

>19,2 kV case insulation to user  
>12 kV circuit between test prods

#### Insulation test voltage

6 kV unit inspection of case and line

#### Operating temperature

-15°C ... + 55°C

#### Power supply

2 x 1,5 V AAA energy- saving circuit,  
automatic switch-off after 30 s without measuring  
multi-stage battery indicator

#### Casing

ABS-PC/ TPE , display cover PC impact resistant,  
handgrip to clip in, belt clip

#### Protection category

IP 65, device can be used in moist environments

#### Connection line

PUR sheathed cable, 1000 V, 1 m, with protective cap

#### Repeated inspection / calibration

Recommended every 6 years

#### Dimensions / Weight

275 x 89 x 35 mm (handgrip and display part)  
275 x 60 x 35 mm (display part)  
270 g

Type	Article no.	Phase-/ phase sequence test	Phase sequence test for IT power grids	Continuity test with value	Additional load 30 mA-RCD-tripping	4 / 16 mm slide tip
DSP 5B 0,3 - 1200 V AC 0,01 - 1500 V DC	84502	■	■	■		
DSP 5 0,3 - 1200 V AC 0,01 - 1500 V DC	84501	■	■	■	■	
DSP 5ST 0,3 - 1200 V AC 0,01 - 1500 V DC	84503	■	■	■	■	■