# MultiSafe DSP 5

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





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 150 mV up to 1200 V AC 30 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  $0,01~k\Omega$  up to  $1000~k\Omega$
- Easy operation, large illuminated display with two colour display
- Additional load to determine interference voltages and RCD-tripping (not DSP 5B)





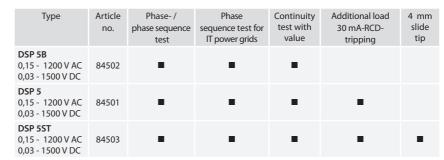
### Many functions

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 (push button on the back)
- Additional load for start-up tests of
- electronic electricity meters\*
- Front spot lightning
- Integrated self-test by buttonpress
- One-hand operation for testing sockets Adjustable electrode length\*
- Belt clip for easy transport
- \* Type-dependent, see table



Spotlight and illuminated LCD for dark environments





extremely robust for use in all weather conditions

#### Highest level of safety

- Large protective resistors protect the user and device especially against dangerous voltage peaks and energy from external sources, CAT IV 1000 V.
- 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



One-hand operation for testing sockets

## 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

#### **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 (according to VDE: automatic switch on / over >12 V and additional load up to max. 1200 V AC / DC)

0,15 V ... 1200 V AC 0,03 V ... 1500 V DC

#### Frequency

15 Hz ... 10 kHz < 500 V,

# Indication of voltage/phase/phase sequence

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

#### Measuring ranges - voltage

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)

DC: 0,01...19,99/20,0...99,9/100...1500 (1,5% + 3 D)

# Indication of resistance/continuity/diodes

Green LED for continuity up to 1000  $k\Omega$ and diodes, LCD 3½-digit for k $\Omega$ -measurement value, buzzer  $\leq$  10,00 k $\Omega$ 

#### Measuring range - resistance

0,01 ... 1000 kΩ (5 % + 4 D)

#### Measuring ranges - frequency

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

## 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 ton / recover-time toff

at 230 V / 400 V unlimited

#### 2 min t<sub>on</sub> / 2 min t<sub>off</sub> at U<sub>N</sub>

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

## Standards

DSP 5B / DSP 5: EN/IEC 61243-3 (VDE 0682 Teil 401) DSP 5ST: in addition to UK HSE GS38

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

PUR sheated 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)

