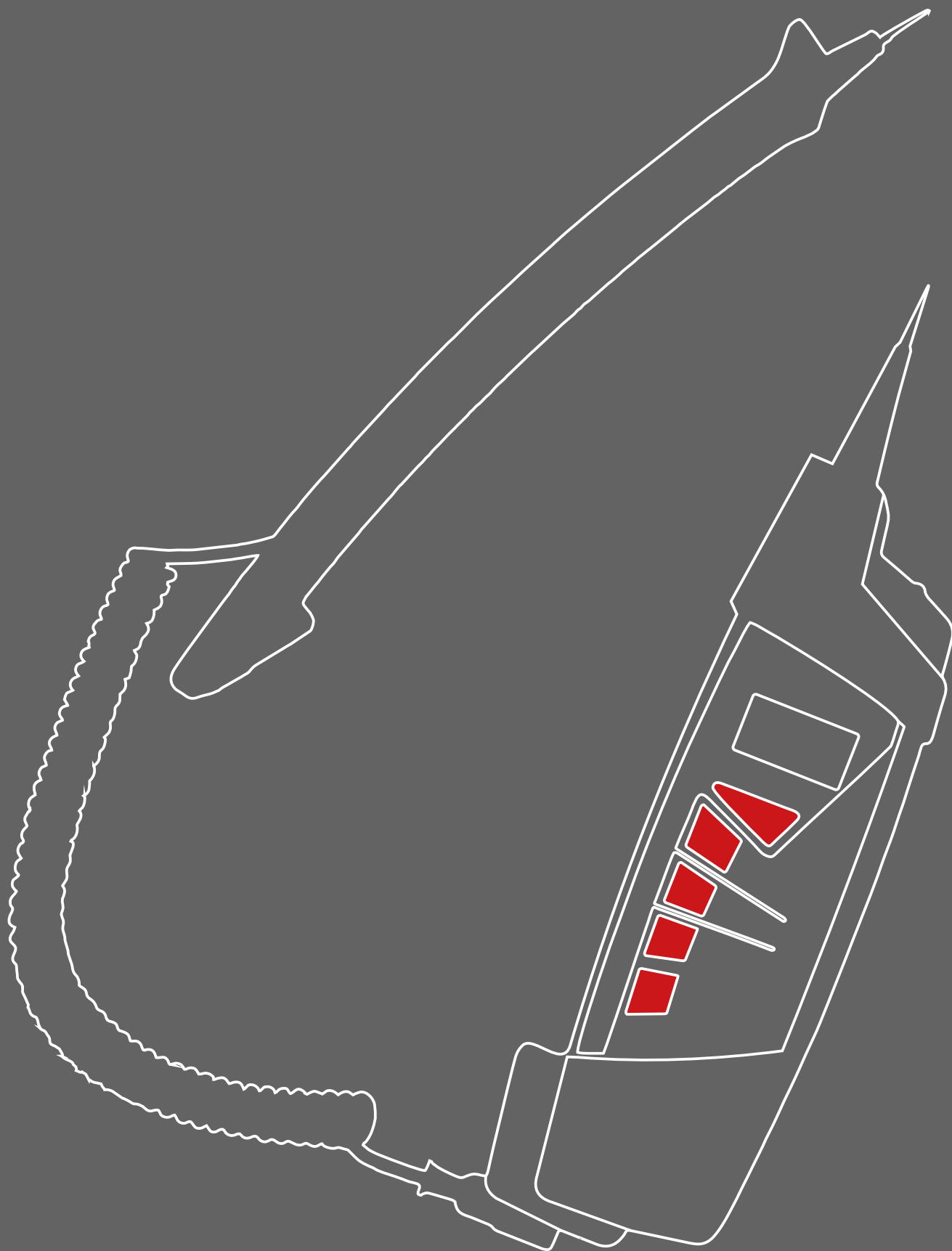


# THE PORTABLE TESTER

for measuring of varistors mA point, DC ignition voltage of GDTs and insulating resistances



## THE PORTABLE TESTER

for measuring of varistors mA point, DC ignition voltage of GDTs and insulating resistances



Simple portable diagnostic device designed for quick control of surge protection devices (SPD) containing metal oxide varistors and gas-filled surge arresters (GDT).

### The device allows you to control:

- The value of the so-called. varistor voltage  $U_V$  @ 1 mA [V] for the SPD to 1000 V containing varistors.
- The level of DC ignition voltage  $U_{VDC}$  [V] for the SPD to 1000 V containing gas discharge tubes (GDT).
- The value of an insulation resistance  $R_{iso}$  (from 25 V DC up to 1000 V DC).

Insulation resistance	
Measuring range	0,100 M $\Omega$ $\div$ 1,999 G $\Omega$ (U = 25 V $\div$ 99 V) 0,100 M $\Omega$ $\div$ 3,999 G $\Omega$ (U = 100 V $\div$ 249 V) 0,100 M $\Omega$ $\div$ 9,999 G $\Omega$ (U = 250 V $\div$ 1000 V)
Resolving power	0,001 M $\Omega$ / 0,01 M $\Omega$ / 0,1 M $\Omega$ / 0,001 G $\Omega$
Basic measurement error	$\pm$ (2% z MH + 10 D)* (R < 1 G $\Omega$ ) $\pm$ (4% z MH + 15 D)* (R $\geq$ 1 G $\Omega$ )
Work measurement error	$\pm$ (3% z MH + 20 D)* (R < 1 G $\Omega$ ) $\pm$ (5% z MH + 25 D)* (R $\geq$ 1 G $\Omega$ )
Rated measuring current	$\geq$ 1 mA
Short circuit current	< 3 mA
Automatic discharge of measured object	yes

Voltage DC and AC	
Measuring range $U_m$	0 V $\div$ 600 V DC / AC (45 Hz $\div$ 65 Hz)
Resolving power	1 V
Basic measurement error	$\pm$ (2% z MH + 2 D)*
Work measurement error	$\pm$ (3% z MH + 3 D)*

### Buttons specification:

#### 1)

- Key used to on (1x) or off (2x) device. If the device is switched on, you can briefly press the button to turn on (or off) light LEDs located on the front wall.

#### 2) $R_{iso}/U_{SPD}$ - Measuring mode selection button

-  $R_{iso}$  mode - in this mode it is necessary to preset setpoint max. measuring voltage using the buttons  $\downarrow \uparrow U_{TEST}$  (can be adjusted 25, 50, 100, 250, 500 or 1000 V). After starting the measurement with the START button on the bottom right display shows the measured value  $R_{iso}$ .

**SPD mode** - in this mode takes place after the start of the measurement by pressing START testing non-linear element connected DC current of 1 mA. If the measured element is metal oxide varistor, the display shows the value of current through the SPD  $U_V$  @ 1 mA [V]. If the measured

Surge protection devices	
Measuring range	40 V $\div$ 1050 V
Resolving power	1 V
Basic measurement error	$\pm$ (2% z MH + 2 D)*
Work measurement error	$\pm$ (3% z MH + 3 D)*
The measurement principle	increase voltage measurement through the SPD

Universally	
Power	4 x AAA (LR03) alkaline batteries 1,5 V or NiMH accumulator 1,2 V
Display	OLED, multicolored graphic
Protection class	II (double insulation)
Overvoltage category	CAT III / 300 V or CAT II / 600 V
Degree of pollution	2
Protection type	IP43
Dimensions	260 x 70 x 40 mm
Weight	0,36 kg
Article number	99000

- **MH** denotes a measured value, **D** represents a digit

component is the gas-filled surge arrester (GDT), the display shows the value its DC ignition voltage  $U_{VDC}$  [V].

#### 3) FUNC

- Button enabling in mode  $U_{SPD}$  set minimum ( $DC_{min}$ ) or maximum ( $DC_{max}$ ) level transmitter mA point  $U_V$  (in volts) for the so-called. repeated measurements of the same type SPD. Setting these levels to the desired value using the buttons  $\downarrow \uparrow U_{TEST}$ .

**Note:** If the setting of levels  $DC_{min}$  and  $DC_{max}$  are done correctly, the test result SPD display text is either .... Test OK .... or TEST x.

Detailed instructions for using the G-TESTER can be found at [www.acervoltage.cz](http://www.acervoltage.cz)