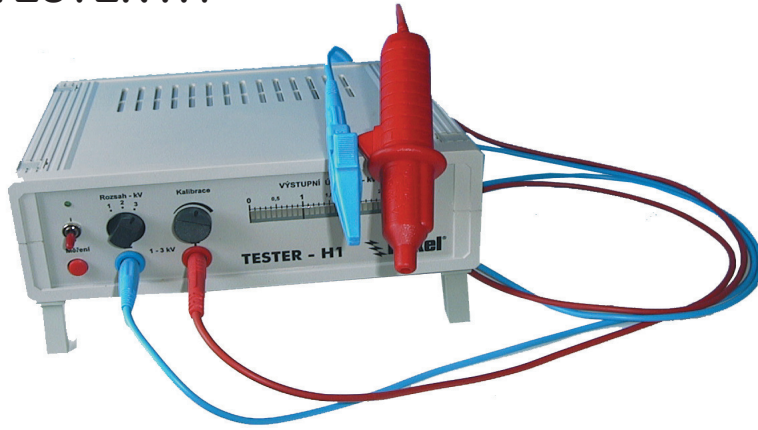


# TESTER H1



### Equipment accessories:

1. 2 pieces of jumper cables
2. 2 pieces of safety crocodile clips
3. 1 piece of HV probe CHAUVIN ARNOUX

### Advantages:

- a quick diagnostics of SPDs
- it optimally loads SPDs during tests so it does not lessen their lifetime
- used for servicing activity
- simple service

### Tests:

- residual voltage arrester measuring
- disconnected arrester diagnostics
- internal short-circuit arrester diagnostics

## TESTER H1

Portable service equipment intended for a quick diagnostics of operation ability of power net SPDs - class I II and III (SPD with MOVs, GDTs and HAKEL spark gaps). Due to its friendly maintenance and wide versatility is using this appliance recommended at service and development workplaces.

### Technical parameters:

Supply voltage:	230V ± 10%. 50Hz
Supply:	max. 50VA
Output voltage (open circuit):	1kV, 2kV, 3kV at a test impulse waveshape 1.2/50 $\mu$ s
Source resistance:	c. 200 $\Omega$
Dimensions:	222 x 198 x 71mm
Weight:	3kg
Article number:	70 015

### Indication of the output voltage:

By the column LED display (one LED diode switching on refers to level greatness of the output voltage with step about 100V).

### Calibration of the column display:

The calibration is carried out by the potentiometer CALIBRATION, when MEASUREMENT button is pressed and output is unloaded. The calibration is carried out by switching on the 1<sup>st</sup> decade (0~1kV) of display in 1kV range, it is carried out by switching on the 1<sup>st</sup> and 2<sup>nd</sup> decade (0~2kV) in 2kV range and by switching on the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> decade (0~3kV) in 3kV range. The last diode in the top decade may glimmer during the calibration.

### Measurement:

The measured arrester must be disconnected from supply conductors before measuring. Output of TESTER (+ and-) should be connected by 2 pieces of jumpers cables with safety crocodile clips. The button MEASUREMENT should be pressed and then you should watch the data on the display for approximately two seconds. After reading the data you can release the button MEASUREMENT. Accuracy of read level of SPD residual voltage from the LED display is c. ±100V

For increasing of the measuring accuracy and measuring comfort is possible to connect suitable oscilloscope with HV probe 1:100 to output of TESTER. Nevertheless the oscilloscope using is necessary namely for testing of GDT and HAKEL spark gaps (measuring of residual impulse spark overvoltage).

Protective units of class I and II are typically measured in 3kV range.

Protective units of class III are typically measured in 1kV or 2kV range depending on the fitted protective elements.

### Example of using:

Operational verification of MOV units in Hakel products

Product	(Fluke 1507) Varistor voltage @ 1mA	(Tester H1) Protection level at 3kV(1.2/50)
PIII 60	120V±10%	c. 200V
PIII 120	240V±10%	c. 400V
PIII 230	430V±10%	500 - 700V
PIII 280	510V±10%	500 - 800V
PIII 400	715V±10%	800 - 1100V
PIII 500	910V±10%	1200 - 1500V
PIV 120	230V±10%	c. 400V
PIV 230	500V±10%	500 - 800V
PIV 400	705V±10%	800 - 1100V
PIV 500	900V±10%	1200 - 1500V
SPC1 60	500V±10%	
SPC1 90	500V±10%	
SPC1 120	500V±10%	500 - 800V
SPC1 150	500V±10%	
SPC3 60	500V±10%	
SPC3 90	500V±10%	
SPC3 120	500V±10%	500 - 800V
SPC3 150	500V±10%	



(주)재신정보

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