

**New**

**HIOKI**

2002

# 3173 PORTABLE WITHSTANDING VOLTAGE HITESTER

Safety Standards  
Measuring Instruments



## Compact, Lightweight and Easy-to-Use

Simple design with a selected set of functions

### Timer Function

Setting range: 1 to 99 seconds  
(1-second resolution)

### External Control

Standard equipped with external I/O

### Measures between 0 and 3 kV AC



CE



ISO14001  
JQA-E-90091



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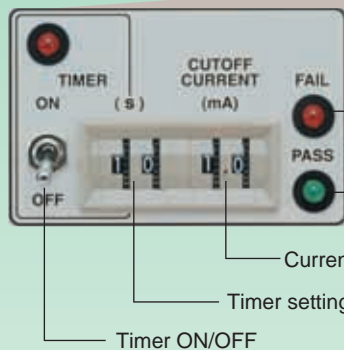
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#### 3931 HIGH VOLTAGE CONTACT CHECKER (optional, soon to be released)

During voltage withstand testing, an erroneous pass result is returned in the event of test lead discontinuity or bad connection. The 3931 can verify connection of measurement leads to assure reliable testing.

## Selected set of functions in a portable unit

The 3173 comes equipped with a timer function and external I/O as standard in a handy portable unit, and can perform voltage withstand testing up to 3 kV AC and 10 mA. Further, the unit features a safe design that complies with EN61010-1 safety standards.



Timer ON/OFF

Current threshold setting range: 0.1 to 9.9 mA

Test result display: LED

Timer setting range: 1 to 99 sec



Adjustable range of output voltage: 0 to 3 kV AC

### External I/O

Input signal: START (active LOW)  
STOP (active LOW)  
 Output signal: PASS (relay contact)  
FAIL (relay contact)  
TEST (open collector)



## Basic Specifications

### [ Voltage generator ]

Output voltage range : 0 to 3 kV AC (single range)  
 Voltage application method : Zero power switch  
 Transformer capacity : 30 VA  
 Voltage adjustment method : Manual adjustment  
 Voltage meter : Analog voltage meter, 0 to 3 kV AC (full scale)  
 Accuracy :  $\pm 5\%$  f.s.  
 Waveform : Power waveform  
 Frequency : Synchronized to power

### [ Current detector ]

Current cut-off : 0.1 to 9.9 mA, resolution of 0.1 mA with  
 setting range digital switching  
 Current cut-off accuracy : Setting value  $\pm (5\%+0.05\text{mA})$   
 Evaluation method : Using an analog comparator  
 Evaluation content : PASS: when testing stops because the current  
 being measured falls below the selected current  
 cut-off value (when using timer shut-off)  
 FAIL: when the current being measured is the  
 same or greater than the selected current cut-  
 off value  
 Evaluation process : Outputs a buzzer sound and external I/O for  
 each evaluation result

### [ Interface ] (rear panel)

EXT I/O input signal : START and STOP for external control  
 EXT I/O output signal : PASS and FAIL (contact make method using  
 relay contact)  
TEST (open collector output)

### [ Timer area ]

Setting range : 1 to 99 sec (1-second resolution) or continuous  
(timer OFF)  
 Timer accuracy : Setting value  $\pm (1\%+50\text{msec})$

3173 PORTABLE WITHSTANDING VOLTAGE HITESTER (100 V AC)  
 3173-01 PORTABLE WITHSTANDING VOLTAGE HITESTER (120 V AC)  
 3173-02 PORTABLE WITHSTANDING VOLTAGE HITESTER (220 V AC)

## General Specifications

Operating temperature : 0 to 40°C, 80% rh or less (non-condensating)  
 range  
 Storage temperature : -10 to 50°C, 90% rh or less (non-condensating)  
 range  
 Temperature range for :  $23 \pm 5^\circ\text{C}$ , 80% rh or less (non-condensating)  
 guaranteed accuracy After a 10-minute warm-up period  
 Operating environment : Indoors, up to 2000 m ASL  
 Power supply : 100 V AC (3173)  
 120 V AC (3173-01), 220 V AC (3173-02)  
 230 V AC (3173-03), 240 V AC (3173-04)

Power frequency : 50/60 Hz  
 Maximum rated power : 50 VA (common to all voltages)  
 Withstand voltage : Between power supply and chassis;  
 1.35 kV AC, 10 mA, 1 minute  
 Dimensions : Approx. 149 (W) x 200 (H) x 215 (D) mm  
 Mass : Approx. 6.3 kg (for 100 V AC)  
 Approx. 7.0 kg (for 120 to 240 V AC)  
 Operating fuse : 100 to 120 V AC (250 V T1AL)  
 220 to 240 V AC (250 V T0.5AL)  
 Supplied accessories : Power cord, spare fuse,  
 1 x 9615-01 H.V. TEST LEAD (red - high voltage side),  
 1 x 9615-02 H.V. TEST LEAD lead (black - return side)  
 Conforming standards : EMC: EN61326-1:1997+A1:1998 CLASS A  
 EN61000-3-2:1995+A14:2000  
 EN61000-3-3:1995  
 Safety: EN61010-1:1993+A2:1995  
 Power area: Pollution level 2, overvoltage category  
 (the expected transient overvoltage is 2500 V),  
 Input area: Pollution level 2, overvoltage category,  
 EN61010-2-031:1994



9615-01 H.V. TEST LEAD (red - high voltage side)  
 9615-02 H.V. TEST LEAD (black - return side)  
 Lead length: 1.5 m

3173-03 PORTABLE WITHSTANDING VOLTAGE HITESTER (230 V AC)  
 3173-04 PORTABLE WITHSTANDING VOLTAGE HITESTER (240 V AC)

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