

# New Tech Handy II



## Measurement of the rate accuracy, the current consumption and test of components of quartz watches.

For repair service, the watchmaker needs a test instrument with a simple way to perform all electrical measurements and tests on quartz watches. The instrument provides all measuring and test facilities required in a professional search for defects in quartz watches.

Operation is very easy, due to largely automated measurement functions, the functional layout of operating elements and the highly readable results and parameters on an illuminated display.

### Witschi Electronic Ltd

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## Technical Data

### Measurement possibilities

Rate accuracy, consumption, coil resistance, isolation and battery voltage.

### Signal sensor

Sensors of highest sensitivity and selectivity for acoustical, magnetical and capacitive signals. Signal sensing over the supply current. LED display for the signal intensity. The sensors are also adequate for watches with closed straps.

### Rate measurement

Measurement over the quartz frequency. Signal sensing acoustical, capacitive or over the supply current. Measurement over the motor pulses, magnetical or over the supply current. Measurement over the LCD-operating frequency. Rate measurement for mechanical watches.

### Measuring times

Over the quartz frequency 1s. Over the motor pulses or LCD-operating frequency: automatic determination for normal or inhibition watches; from 2 up to 60 s. Manual selection from 2 up to 480 s. 8 s for mechanical watches. Short beep sound after the elapsed measuring time of 10 s or more.

### Display of the results

Selectable display mode in s/d or s/month. Measuring range +/- 33.3 s/d resp. +/- 999 s/month. Resolution 0.01 s/d resp. 1 s/month. Display of the measured motor pulse period. Display of the remaining measuring time (count down).

### Module power supply

Supply voltage adjustable from 1.00 up to 1.55 V in steps of 0.05 V and from 2.20 up to 3.00 V in steps of 0.10 V. Current limit: 20 mA. Display of short circuits or interruptions. Mobile probes for direct contacting on the working surface of the instrument. Test leads with test probes. Built in mirror for the observation of the hands during measurement.

### Current measurement

Instant measurement of the IC consumption. Integrated measurement of the average current consumption over a motor pulse period.

### Measuring times

Automatic: IC consumption 1 s. Total consumption over a motor pulse period, min. 1 s, max. 60 s.

Manual: same as the selected measuring time for the rate measurement.

### Display of the results

3 digit display with automatic commutation of the range. Measuring range: from 10 nA up to 20 mA. Resolution: 1 nA. Display of the IC consumption after 1 s. Display of the total consumption after one motor pulse period, not before 5 s.

### Battery test

Measuring range from 0 up to 5 V. Basic load: 2 MOhm. When contacting the battery a load of 2 kOhm is automatically applied for the duration of 10 ms. Switch on a load of 100 Ohm for the duration of 500 ms by means of the key. Simultaneous display of the voltages for all activated loads.

### Resistance measurement

Measuring range from 1 Ohm up to 15 MOhm. Automatic commutation of the measuring range. 3 digit display. Resolution: 1 Ohm.

### Interface

RS232 for the connection of the Witschi thermo-printer, of a PC or the Witschi GPS receiver. Print out of the numeric results.

### Details

Time base: high frequency quartz time base, OCXO. Stability: +/- 0.004 s/d between 10° and 50° C. Aging in the first year: +/- 0.03 s/d.

Illuminated LCD display: two lines with 24 characters each.

Plastic casing, light grey. Dimensions: 260x130x150 mm (w x h x d). Weight: 1.5 kg.

Mains connection: plug supply adapter available for 230 V~ or 120 V~, power 1.2 A.

Power consumption: max. 3 W.

### Accessories

Set of dummy batteries with cable and wooden box.	Item 65.2860
Thermo printer Witschi with graphic mode, universal mains adapter 90 V~ - 260 V~, cable and 1 paper roll	Item JB01-MCP7810
Thermp paper, roll.	Item JB01-MM58-DPU20-N
Autoprint: PC software for the numeric result file transmission to a PC.	Item 64.55.901PK1
Witschi GPS receiver.	Item 19.91PK1 (230 V~) 19.91PK1 (120 V~)