

# Micromat C System



## Modular measuring system for mechanical watches

The Micromat C system is an intelligent equipment upon automatic measuring cycles. With the motorized microphone "Micromat C" and the appropriate PC software up to 10 test systems with independent measuring channels can be realised.

It is an ideal working station for adjusting and examining small series in production and also in the repair service.

Possible functions are long-term analyses, angle computation for emphasis errors and other more.

Measured values and results are stored and can be exported and printed out.

The system can additional be integrated by means of WiCoTrace at any time into a network.

## Witschi Electronic Ltd

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## Technical Data

### Measurement possibilities

- **Standard measurement** Rate accuracy, amplitude and beat error of mechanical watches
- **Endless measurement** Continuous diagram recording or graphic display of the beat noises
- **Interval measurement** Execution of the measurements in a definable interval during a certain period. Graphically display of the measurement results over the complete period.
- **Measurement of the gravity** Localisation of the balance wheel's unbalanced error
- **Long Term Measurement (Reserve)** This mode allows tests of watches with a power reserve of several days (max 12.5 days)

### Beat number

Manually selectable: 18000, 19800, 21600, 25200, 28800, 36000, 43200, 50400, 57600, 64800, 72000 and 360000 A/h  
Automatic selection for endless measurement

### Lift angle

Selectable from 10° to 90°

### Stabilisation time

Selectable from 00:00 to 60:00 minutes

### Measurement

Selectable from 00:00:02 to 300:00:00 hours

### Test modes

- **Std** Standard mode for watches with Swiss escapement
- **Spe1** Mode for watches with coaxial escapement.
- **Spe2** Mode for watches with AP escapement
- **Spe4** Mode with specific amplitude filter for watches with Swiss escapement
- **Spe6** Mode for Chronographe "Foudroyante"

### Signal gain

Selectable from 1 to 4

### Measurement capability

Rate measurement (high resolution)

Measurement range:  $\pm 999.9$  s/d ( $\pm 99.99$  s/d),

Resolution: 0.1 s/d (0.01 s/d), accuracy  $\pm 0.1$  s/d.

Beat error

Measurement range: 9.9 ms, resolution 0.1 ms,

Accuracy:  $\pm 0.1$  ms.

Amplitude (high resolution)

Measurement range: 80° to 360°, resolution 1° (0.1°),

Accuracy:  $\pm 0.4^\circ$ .

### Functions Micromat C

Motorised microphone for movements and watches with or without wristlet. By means of the inserted Joystick are manually up to 10 test positions selectable. 6 measuring positions are possible for the sequential measurement.

### Details Micromat C

Time base: Pre-aged and thermo-compensated high frequency quartz, OCXO

Stability:  $\pm 0.004$  s/d between 10° and 40° C

Aging: for the first year max.  $\pm 0.03$  s/d

USB interface

Plastic housing, anthracite colored

Front panel: aluminium, colorless anodised

Dimensions: 115 x 125 x 220 mm (w x h x d)

Weight: 1.7 kg

Mains connection

Mains adapter for 230V~ or 120V~, 1.2 A.

### Requirements of the PC

- Operating system: Windows 7, Windows 8 or Windows 10
- Processor: at least i5
- RAM: at least 4 GB
- Hard disc: at least 128 GB
- CD/DVD writer: for database backup
- Interfaces: USB and Ethernet
- Graphic card: separate with at least 512 RAM
- Monitor: at least 19" with a minimum resolution of 1280 x 1024

### Important!

For installing a multi-channel test system with Micromat C, depending upon the PC, an additional USB-HUB must be attached. Only a 4-channel USB-HUB examined by Witschi guarantees perfect functioning of the system.

### Accessories

PC Dell with 19" TFT monitor, keyboard, mouse and Windows. Art. 64.1210

Printer HP LaserJet. Art. JB01-HP-LJET-ML

Label printer CT-S851 with USB interface. Art. JB01-CT-S851BK

Thermo paper for CT-S851. Art. JB01-MM58-DPU20-N