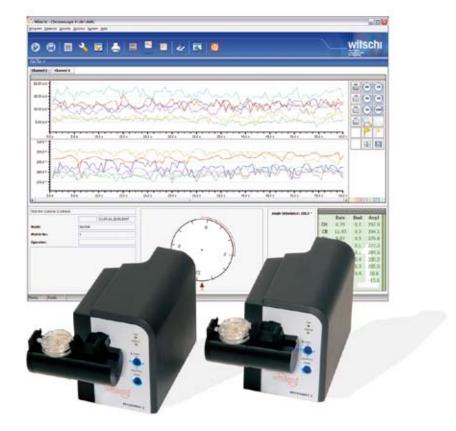# Micromat C System

Modular measuring system for mechanical watches

The Micromat C system is an inteligent equipment upon automatic measuring cycles. With the motorized micro-phone "Micromat C" and the appropriate PC software up to 8 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 computa-tion for emphasis errors and other more.

Measured values and results are stored and can be export-ed and printed out.

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

witschi

Micromat C System

Technical Date

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.

Beat number
Manually selectable from 3600 to 36000 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
— **Stnd** 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.

Signal gain
Selectable from 1 to 4.

Measurement capability
Rate measurement (high resolution):
Measurement range +/– 999.9 s/d (+/– 999.99 s/d),
Resolution 0.1 s/d (0.01 s/d), accuracy +/– 0.1 s/d.

Beat error:
Measurement range 9.9 ms, resolution 0.1 ms,
Accuracy +/– 0.1 ms.

Amplitude (high resolution):
Measurement range 80° to 360°, resolution 1° (0.1°),
Accuracy +/–0.4°.

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.

USB interface.

Details Micromat C
Time base: Pre-aged and thermo-compensated high frequency quartz, OCXO.
Stability: + / – 0.004 s /d between 10° and 50° C.
Aging for the first year: max. + / – 0.03 s /d.

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 230 V~ or 120 V~, 1.2 A.

Requirements of the PC
- Processor: min. P4, 2 GHz.
- RAM: min. 1 GB.
- Requested free space on hard disc: min. 40 GB.
- CD or DVD drive (for the database backup).
- RS232-interface with use of Chronoscope S1/M1.
- USB- interface with use of Micromat C.
- Network interface is necessary for networking (WiCoTrace).
- Operating system: Windows XP, SP2 or Windows 7.
- Monitor with 1280x1024 Pixel. We recommend a 19"LCD monitor.

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 XP Professional.	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
Earphone, Sony MDR-E829V	Art. CA06-MDR-E829
Image System: 80GB hard disc USB 2.0 with Software Norton Ghost.	Art. 64PK1

WiCoTrace
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