Chronoscope® M20

Chronoscope M20, for the industrial-scale measurement of 20 mechanical watches
The simple loading system with the automatic infeed and ejection of watch pallet forks and rapid changeover to 6 test positions make the M20 the workhorse you can't afford to be without in watchmaking. The sensors for the measurement of beat noises are positioned directly on the watch glass or calotte of the watch movement and deliver accurate results for rate variation, beat error and amplitude.

Automatic identification
A precise camera system for reading barcodes, QR and DataMatrix codes is available as an option. It enables all movements to be automatically and accurately identified in one step before the measurement starts.

Greater productivity thanks to WiCoTRACE
The Chronoscope M20 is connected to a PC via a USB port. This means that the M20 is completely integrated into the central WiCoTRACE test parameter and result management system and benefits from a traceable, productive and efficient measurement process.

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LEADING SWISS PRODUCTS

Chronoscope® M20

Chronoscope M20

- Simultaneous acoustic measurement of the beat noises of 20 mechanical watches
- Quick and precision-positioning motor control system for efficient measurement in up to 6 different test positions
- Watches with beat rates up to 10 Hz/72,000 A/h can be measured
- Efficient test parameter and result management thanks to WiCoTRACE
- Precise and fast code scanner camera for automatic identification of the watches on the pallet (optional)
- Ease of access and ease of maintenance
- Easy calibration and firmware updates up to and including the measuring module
- Automation interface and expandability for perfect integration into the process chain
- Automatic infeed of watch pallet fork

General

Operation/Display	Integrated 7" touchscreen and Windows PC with WiCoTRACE
Languages	German, French, English, Spanish, Italian
Interfaces	1x USB Type B
Dimensions	591 x 1'462.5 x 787.5 mm (W x H x D), including trolley
Weight	190 kg
WiCoTRACE	compatible from WiCoTRACE 3
Code scanner (optional)	With camera up to 20 codes simultaneously. Supports the most common 1D and 2D codes.

Measurement

Measurement principle	Acoustic measurement of beat noises
Measurement channels	20
Speed	-999 to +999 s/d ± 0.1 s/d High resolution: -99.99 to 99.99 s/d ± 0.01 s/d
Amplitude	80 to 360° ± 1.0° High resolution: 80 to 360° ± 0.1°
Beat error	0 to 9.9 ms ± 0.1 ms

Result management

Print-out	PC printer
Results memory	Yes
Export	Excel, PDF

Measuring conditions

Stabilisation time	Manual
Amplification control	Signal amplification adjustable, 1 to 4
Measurement time	2 s to 300 h
Test positions	6
Beat rate	Manual, 18,000 to 72,000 A/h (10 Hz)
Lift angle	Adjustable 10 to 90°
Time base	OCXO (± 0.030 s/d)
Ambient conditions	Temperature: 10 - 40 °C Relative humidity: max. 80 %

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