



High Precision A-Scan ECHOMETER 1077 Data
Measurement Of Wall Thickness And Sound Velocity

KARL DEUTSCH

ECHOMETER 1077 Data

High precision measurement with A-scan indication



Delivery in a handy carrying case



User interface on the display: Menu structure, A-scan representation for observation of the signal response with measuring points and large numerical indication of readings with many additional information on the evaluation



Selection of probes with and without delay line for the various measuring demands

The benefits of the A-Scan ECHOMETER 1077 Data at a glance

- High resolution graphics display of the ultrasonic signal for optimal observation of the signal response (which is particularly useful with sonically difficult material)
- Highest measuring precision by selection of individual gate parameters and measurement at zero crossing of the signal
- Through coating measurement by evaluation of backwall echo sequences
- Multi-lingual operating menu
- In the readings screen mode three function keys for freely programmable menu items are available
- Square wave transmitter with a pulse width individually adapted to the probe for high resolution and energy
- During calibration the gauge automatically detects probe properties like centre frequency and frequency range and automatically selects the measuring range
- Automated adjustment for every suitable single element probe
- For special applications, probes with high temperature delay lines are available
- Selectable: Automatic gain control and - unique worldwide - compensation of the material attenuation by **automatic depth correction**
- Very high measuring rate
- As under Windows®: Storage of readings with easy data administration in files with alphanumeric designation
- Configuration manager for fast opening of default set-ups of standard probes
- Customized set-ups may be stored with alphanumeric naming
- Statistical data evaluation:
 - » Minimum and maximum values
 - » Mean value
 - » Standard deviation
- Limit monitoring
- Individual storage of calibration in the respective files
- PC software "EasyExport" for easy export of individual readings or complete data files to Windows® applications
- Output of readings via the data interface for customized applications
- Robust and durable: Shock absorbing rubber protective holster with stand
- Splash-proof housing compliant to IP 54

Technical Data ECHOMETER 1077 Data

Display	TFT colour display, 320 x 240 px, approx. 50 mm x 37 mm, illuminated
Measurands	Wall thickness, sound velocity, transit time
Measurement uncertainty of gauge for wall thickness measurement (resolution)	0.1 mm, 0.01 mm, 0.001 mm, 0.0001 Inch, 0.001 µs (selectable)
Measurement uncertainty of gauge for sound velocity measurement (resolution)	1 m/s, 0.1 m/s and 1 Inch/s (selectable)
Ranges for wall thickness measurement	0.25 mm .. 200 mm (depending on probe)
Measurement uncertainty (gauge) in mm	0.001 mm (may be limited by application)
Measurement uncertainty (gauge) in Inch	0.001 Inch (may be limited by application)
Interface	RS232C for printer and PC (PC USB connection via adapter cable), 38400 Baud
Measuring rate	100 Hz
Storage	arrangeable in five files with up to 999 readings each
Power supply	2 ea. alkali manganese batteries or 2 ea. NiMH batteries, in each case type AA/IEC R6
Battery level indicator	Symbol with additional acoustical and optical alarm signal on undervoltage condition
Size, weight	135 mm x 82 mm x 32 mm approx., 237 g (with batteries and holster)

*stated measuring ranges in mm steel

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