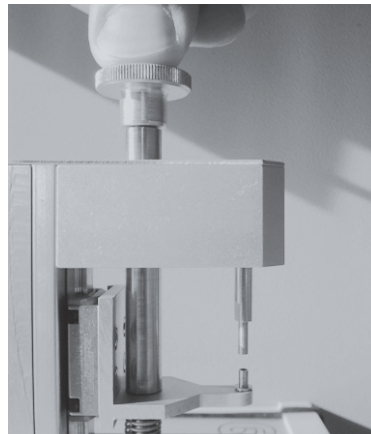
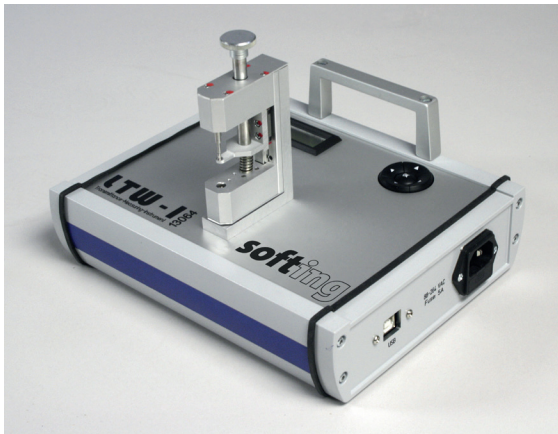


Transmission Tester LTW-1

Quality Assurance of Plastic Housings and Molds

Measurement of the light transmission on plastic parts provided for laser welding, specifically for housing covers with groove.



Your Benefits

The calibration with relevant reference materials allows the use of multiple test devices across different locations. All test devices will provide comparable measurements within the given tolerance range.

In addition, the measurement principle is designed in such a way that the device is optimized for materials with glass fiber constituents.

This, along with a strong application orientated approach makes the device especially suitable for applications in the laser welding process of plastic materials.

The Measurement Principle

The light from a LED passes through a point shaped aperture with 1.5 mm diameter to the sample to be inspected. On the other side of the sample, the transmitted light is caught by the opening of a stainless steel tube with an inner

diameter of <math><1.2\text{ mm}</math>.

An optical fiber in the tube receives the light at a solid angle of about 60° and guides it to a photodiode. The photodiode current is proportional to the amount of transmitted light.

This measurement method is in particular best suited for materials with glass fiber constituents.

PC-Software

The configuration and measurement software manages all relevant device settings as well as up to 10 measurement programs (recipes).

Four different operating modes are available as well as the monitoring of Min. / Max values and the data export in CSV format.

The integrated user administration prevents unintentional parameter changes.

Applications

- Quality Assurance
- Material Qualification
- Plastic Processing
- Incoming Inspection

Benefits

- Compact workstation solution
- Easy handling
- Comfortable configuration
- Further processing of measured values via PC possible
- Comparable measurements across different locations
- Other wavelengths on request
- Practical measurement methods



Technical Specifications

General	
Voltage	88-264V _{AC} @ 50-60Hz
Fuse	5A
Interface	1 x USB (PC interface for configuration and data transfer)
Control panel	5 keys
Display	LCD with 2 x 16 characters
Wavelength of the LED	950nm
Spectral bandwidth (FWHM)	55nm
Recipes memory	10 recipes (extensible on request)
Warm-up time	3 minutes (minimum)

Measurement	
Display range transmission	0 – 100%
Resolution	±0,1%
Display accuracy	0,01% (2 decimal places)
Tolerance between multiple devices	±3% of measured value
Data format for export	CSV and TXT

Dimensions

Width x Depth x Height	ca. 235 x 200 x 180 mm
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PC-Software

General
Access authorization and user administration
Configuration of the device parameters
Parameterization function of the measured plastic (pass/reject detection, ...)
Creation and management of measurement programs (10 recipe memory)
Visualization and storage of measured values (various storage modes: Individual measurements, continuous recording, timed recording)
Relative measurement
Data export to CSV or TXT
Creation and editing of signal envelopes (message when exceeding min/max limits)
Zoom Display Functions
Configuration of the limit value monitoring
Generation of LOG-files
Device Self-Test by reference value monitoring