

Product Information

lightXtens extensometer



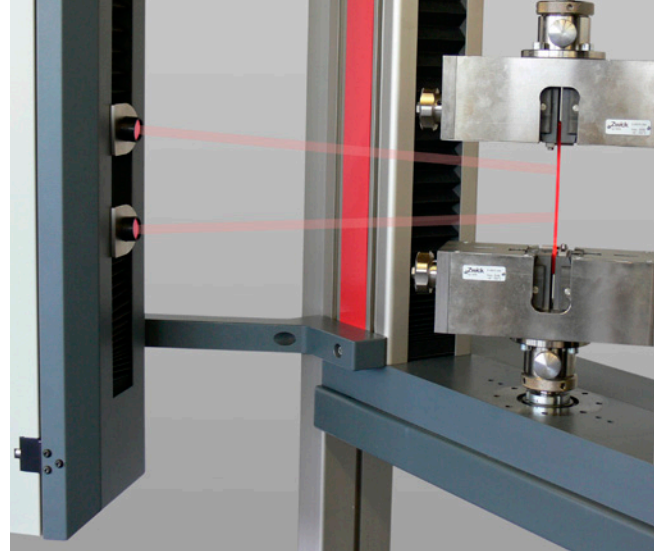
Applicational range

This optical extensometer is ideal for providing reliable, accurate measurements in tensile tests on highly ductile, highly elastic and touch-sensitive materials such as elastomers and latex plus all types of foil.

It is suitable for all specimens that exhibit high fracture energy and whiplash at break and are therefore liable to damage mechanical, contact-measuring systems. This is often the case with belts, ropes and steel litz wire, for example.

It provides accurate, non-contact strain measurement, even over extended temperature ranges in temperature chambers.

lightXtens' robustness in test conditions and ease of operation make it an attractive alternative to video or laser-based respectively contact extensometers.



Advantages of lightXtens

- Non-contact operation - suitable for tensile tests
- Suitable for use over an extended temperature range when employed in conjunction with temperature chambers as changing between ambient and raised temperature requires no special set-up operations
- Connection to *testControl* electronics via a digital bus system, with synchronized force-travel measurement
- Automatic and secure gage mark recognition
- Initial gage length is measured at pre-load automatically during the test and transmitted to testXpert
- Wear-free, low-maintenance operation
- Operating lightXtens is very easy:
 - Straightforward specimen preparation
 - No need to adjust or configure optics
 - Automatic test sequence (including automatic measurement of initial gage length and automatic positioning of extensometer at start location
 - Insensitive to varying environmental conditions such as extraneous light

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Item number	031081	
lightXtens extensometer with mounting arms for attachment to an Allround-Line materials testing machine		
Accuracy class	1 to EN ISO 9513 from 3 mm	
Initial gage length L_e	10 ... 900 mm	
Measurement path	900 - L_e mm	
Resolution	1.5 μ m	
Optical grab range of the scan heads in horizontal and vertical directions	\varnothing 6 mm	
Positioning speed	1800 mm/min	
Distance sensor head - specimen	490 mm	
Light source	Laser, red, Class 1 no protective measures required	
Electrical requirements	100 - 240 V – 50/60 Hz	
Power consumption	50 W	
Dimensions (width x height x depth)	192 x 1790 x 310 mm	
Automatic correction of gage length L_e on reaching pre-load.		
Required:		Item number
1 CAN Module		057857
Mounting of lightXtens	to the Allround-Line testing machine left front 45°	031213
	to the Allround-Line testing machine left rear 45°	031214
	to the Allround-Line table-top testing machine left front 20°	034909
<i>testXpert®</i> II Version V3.1 or higher		
Recommended:		
Enhanced <i>testControl</i> II remote control, especially recommended (In the event of frequent retooling)		057984

Please note:

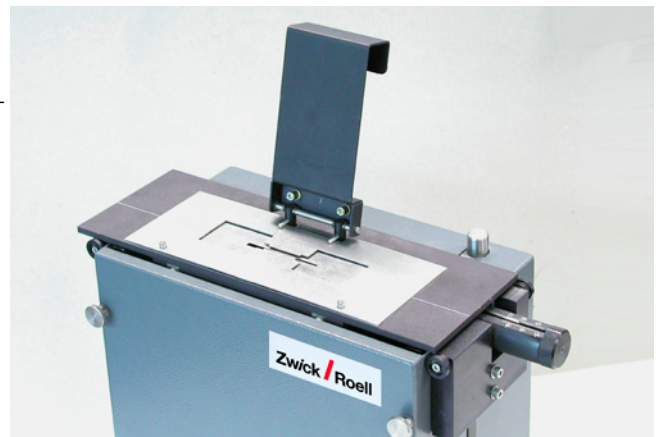
Validity of hysteresis after pretests or on request.

Danger of misting exists when using the extensometer with CO₂ and LN₂ temperature chambers at certain humidity and temperature of - 20 ... 0 °C, then there may be several minutes to wait until the test can be started.

The temperature range is restricted to - 40 ... + 120 °C in operation with a temperature chamber because of the measurement markers.

Additionally available:

Marking units and further accessories on request



Gage length marking device