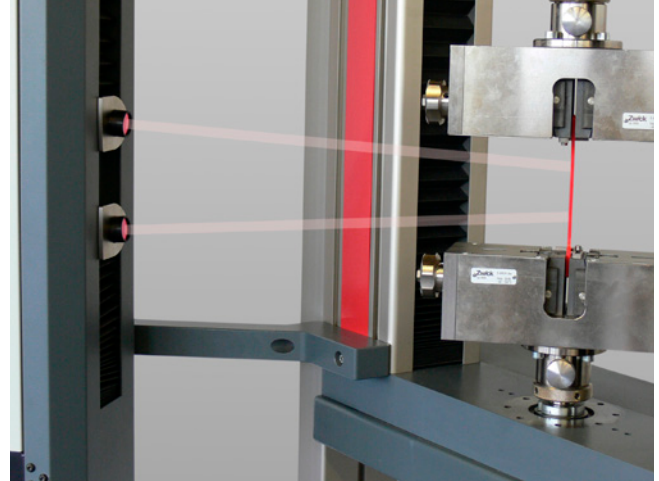
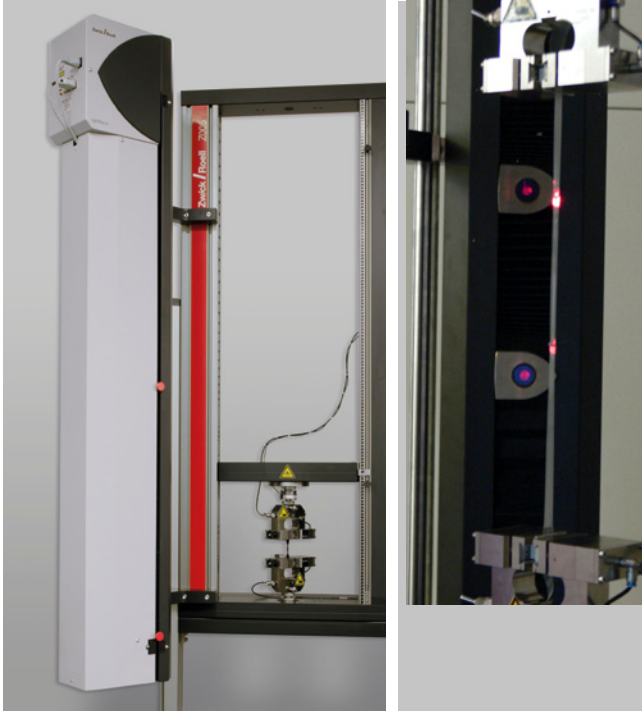


Product Information

lightXtens: non-contact, simple, fully automatic extensometer for high-extension materials



Advantages and features

Robust, resistant, reliable

lightXtens is a robust and highly reliable system, even in harsh environments. It is resistant to external influences such as light variations, extraneous light and air currents. lightXtens is wear-free in operation.

Non-contact, simple, fully automatic

The lightXtens extensometer is fully automatic in operation. It is extremely easy to operate and requires no special knowledge. There is no need to adjust or configure the optics and the test sequence is completely automatic:

- automatic determination of initial gage-length, with transmission to *testXpert*® II testing software
- reliable automatic identification of gage marks
- tracking of gage marks and transmission of all data to *testXpert*® II testing software
- return to start position.

Before the test, specimens receive dot or strip marks made of a special film - a range of marking systems is available.

Range of application

- tensile tests on **high-extension, highly elastic materials**: rubber and elastomers (e.g. to ISO 37, ASTM D412, DIN 53504), natural rubber (latex), films and foils (e.g. to ISO 527-3, ASTM D882, ASTM D5323, textiles (esp. ropes, belts, industrial textiles))
- tensile tests on specimens with **high initial gage-lengths**, e.g. wire ropes, litz wire
- for specimens with **high fracture-energy** and prone to whipping at break which might damage mechanical, contact-type measuring systems.

lightXtens is a non-contact extensometer for standardized testing situations. It is extremely **easy to operate**, with a **fully automatic test sequence**.

Use in an extended temperature range

lightXtens is also suitable for use in an extended temperature range in conjunction with temperature chambers - no special set-up procedure required!

Product Information

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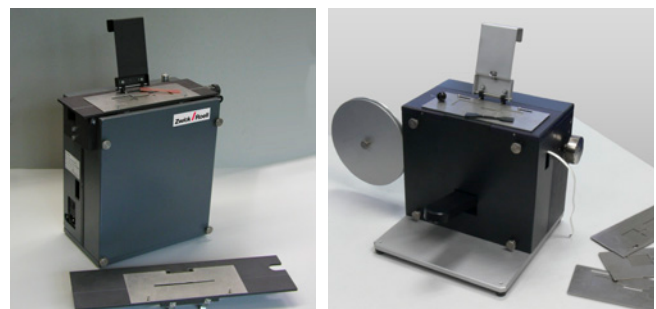
Item number	1004755	1004756
	lightXtens for mounting at AllroundLine materials testing machines	ProLine lightXtens for mounting at a ProLine test machine Z005 up to Z050
Accuracy class	1 to EN ISO 9513 from 3 mm	1 to EN ISO 9513 from 3 mm
Initial gage length L_0	10 ... 900 mm	10 ... 900 mm
Measurement path	1000 - L_0 mm	1000 - L_e mm
Resolution	1.5 μ m	3 μ m
Optical grab range of the scan heads in horizontal and vertical directions	dia. 6 mm	dia. 6 mm
Positioning speed	1800 mm/min	1800 mm/min
Distance sensor head to specimen	490 mm	490 mm
Measurement value logging rate	2000 Hz	2000 Hz
Temperature range	-40 ... +120 °C	+10 ... +35 °C
Light source	Laser, red, Class 1 no protective measures required	Laser, red, Class 1 no protective measures required
Electrical requirements	100 - 240 V – 50/60 Hz	100 - 240 V – 50/60 Hz
Power consumption	50 W	50 W
Dimensions (width x height x depth)	192 x 1790 x 310 mm	192 x 1790 x 310 mm
Automatic correction of gage length L_e on reaching pre-load.		
Also required:	Item number	Item number
Mounting to table-top machine front side left 20°	034909	086058
to test machine front side left 45°	031213	-
to test machine rear side left 45° (Mounting rear side is required when using a safety shield)	031214	087406
<i>testXpert</i> ® II from version V3.6 and testControl II		
Connection: Direct connection via the EtherCAT interface of the testControl II electronics. No additional module or extra module slot is required.		
Recommended:		
Remote control with display, especially recommended in the event of frequent retooling	057984	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.

Marking devices / Accessories

- Automatic marking device (item no. 310910): dot markings of particular reflex foil were applied to the specimen at the push of a button. Adjustment of gage length L_0 from 10 to 50 mm, or L_0 from 50 to 100 mm by additional template.
- Manual marking device (item no. 1015549): Same device as above, but with manual punch and manual reflex band transport
- Self adhesive marking strips made of reflex foil, used for ropes and other round specimens (item no. 1010355)



Marking devices for dot markings: device with automatic operation on the left, manual operation on the right