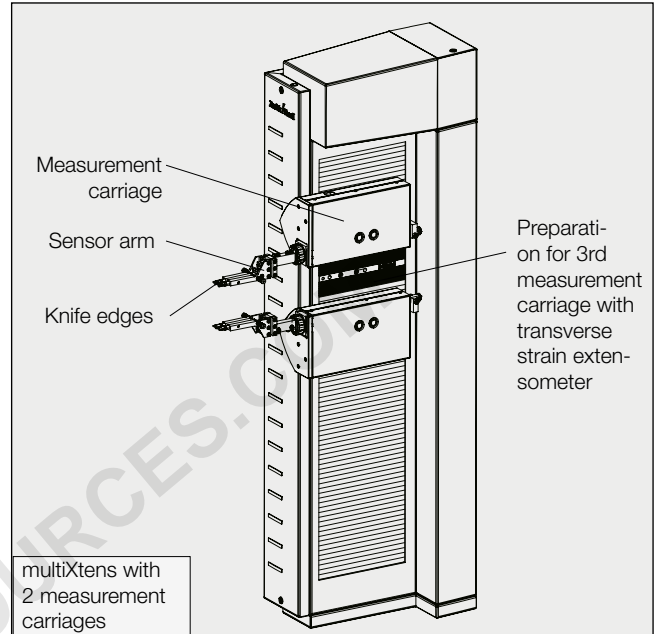


## Product Information

### multiXtens



#### Range of application

multiXtens is a versatile high-accuracy extensometer, ideally suited to tensile, compression, flexure and cyclic tests on plastics, elastomers, metals, composites, rigid foams and many other materials.

The extremely high measurement accuracy combined with the extremely large measurement range makes multiXtens the ideal tool for varying requirements (e.g. testing plastics and elastomers or plastics and metals).

#### Advantages/Features

- Can be used up to specimen break, even with high forces and brittle specimen material.
- Highest precision, even for long measurement paths (Up to 700 mm).
- Accuracy class 0.5 according to EN ISO 9513.
- Maximum error +/- 1µm in differential movement measurement between two measuring points in a range from 20 µm to 200 µm, completely satisfying the additional requirement to ISO 527-1 (2011).
- multiXtens is calibrated from 20 µm measurement travel in Class 0.5.
- Very low drag-force and freely adjustable sensor-arm contact-pressure enable safe, reliable, traceable testing of sensitive specimens.
- Compression and flexure tests can be run by simply exchanging the sensor arms.
- Round or flat specimens can be accommodated by simply rotating the knife-edges.

- multiXtens is also suitable for cyclic tests.
- A third measurement carriage enables transverse strain and fine strain extensometers to be automatically adapted to multiXtens.
- The sensor arms can be exchanged without the need for any tools and are automatically detected by multiXtens.
- Operation with temperature chambers possible using suitable sensor arms.
- Fully automatic system:
  - measurement of clearance between specimen grips,
  - measuring-slide centering,
  - automatic application and withdrawal of sensor arms,
  - automatic gage length setting.
- multiXtens is approved for closed loop strain-rate control to ISO 6892-1 (2009) Method A (1) and to ASTM E 8 – 09 Method B.

#### Options:

- Mechanical and video transverse strain extensometers (e.g. for determining r-value or Poisson's ratio)
- Fine-strain extensometer
- Precision swivel unit

## Product Information

### multiXtens

Item number	325063	325135
Basic unit	with 2 measurement carriages for connection of sensor arms for extension measurement (see below)	
3rd measurement carriage for the connection of a fine strain and/or transverse strain extensometer	Retrofitting realizable	Yes
Initial gage length	10 mm and higher, steplessly adjustable <sup>(1)</sup>	
Measurement range	700 mm (- initial gage length)	
Resolution in the fine strain measurement range	See resolution of the sensor arms	
Resolution out of the fine strain measurement range	0.08 µm	
Drag force	≤ 0.02 N	
Max. pursuance speed	500 mm/min	
Max. reverse travel speed	800 mm/min	
Maximum specimen thickness	30 mm	
Accuracy	Accuracy grade 0.5 according to EN ISO 9513 <sup>(2)</sup>	
Dimensions of the case (Width x Height x Depth)	Approx. 24 x 128 x 40 cm	
Power supply	100 - 240 Volt ± 10% Long range input	
Remote control with display (attaching sensor arms, positioning measuring heads, machine control) included in delivery.		
Required: CAN bus measurement module, sensor arms, mounting unit (Item number 057857)		

The multiXtens is mounted via a rigid or swivelling fixing device (Option).

<sup>(1)</sup> Also possible from 5 mm using special sensor arms.

<sup>(2)</sup> Accuracy Class 0.5 when using 300 mm-long sensor arms. Accuracy Class 1 when using longer sensor arms.

#### Sensor arms

Description	Measurement path (Fine strain meas. range)	Resolution (Fine strain meas. range)	Specimen temperature range
Sensor arm 300 mm	± 7 mm	0.02 µm	+10 ... +35 °C
Sensor arm 450 mm	± 10.5 mm	0.03 µm	-70 ... +250 °C
Sensor arm 600 mm	± 14 mm	0.04 µm	-70 ... +250 °C

#### Options:

##### Transverse strain extensometer (contact, absolute measurement)

- Transverse strain extensometer can be swiveled through 90° with measurement in 1, 2 or 4 cross-sectional planes (each available in two resolutions)
- Transverse strain extensometer can be swiveled through 15° with measurement in 2 cross-sectional planes (each available in two resolutions)\*
- Additionally required: drive unit

\* In connection with fine-strain extensometer only this type available.

##### Fine-strain extensometer (contact)

- Inductive extensometer with combined or two separate signals for fine-strain measurement
- Additionally required: USC measurement module and free module bus slot in *testControl II*.

##### Transverse strain extensometer (optical) videoXtens transverse strain extensometer

- When used with multiXtens the result is an ideal system combining contact and optical strain measurement
- Additionally required: videoXtens basic package, free module bus slot in *testControl II* and adapter kit.

