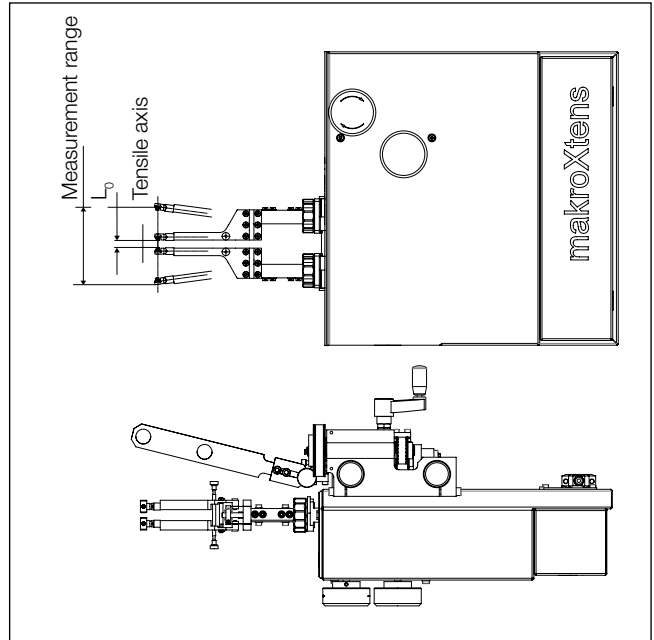
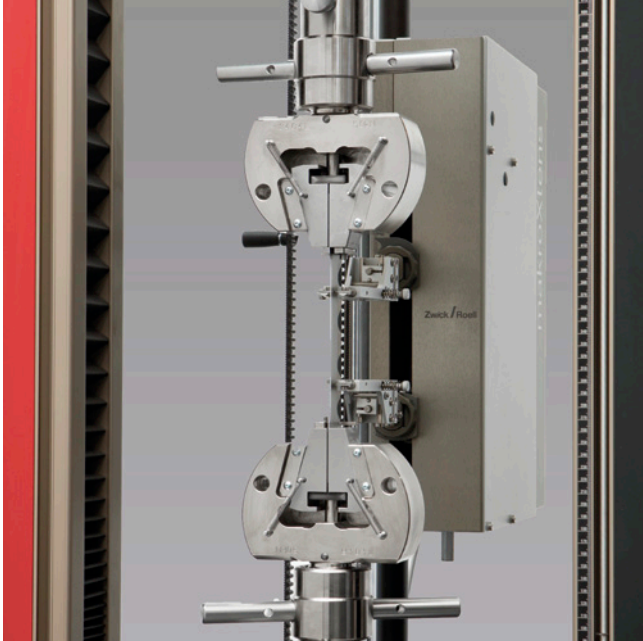


Product Information

makroXtens®



Range of applications

The makroXtens® is a versatile high-accuracy extensometer operating on the contact principle. Ideal for tensile, compression, flexure and cyclic tests on metals, plastics, composites and many other materials.

Advantages of the makroXtens®

- Standard extensometer in the metals, plastics and automotive industries, with an installed base of over 2.500 systems.
- Robust measuring system, also suitable for use in automated testing systems.
- Can be used up to specimen break, even with high forces and brittle specimen material.
- Integrated safety mechanism and tilting knife-edges provide optimum protection.
- Accuracy class 0.5 according to EN ISO 9513.
- Maximum error +/- 1 µm 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).
- makroXtens® is calibrated from 20 µm measurement travel in Class 0.5.
- Very low sensor-arm drag-force (< 0.05 N).
- Sensor arms can be changed without tools.
- Round or flat specimens can be accommodated by simply rotating the knife-edges.
- Freely adjustable sensor-arm contact-pressure.

- Compression and flexure tests can be performed simply by changing the sensor arms.
- makroXtens® can be used for alternating load tests.
- Large measuring range maintained constant by automatic specimen-centered tracking of measurement system.
- Measuring system is automatically tracked into the optimum position between the specimen grips - maximum measurement travel is always available.
- Operation with temperature chamber possible with suitable sensor arms.
- Intelligent tracking device (patent pending) for even greater measuring accuracy, particularly in the initial measuring range (HP versions).
- HP version released for closed-loop strain-rate control to ISO 6892-1 (2009) Method A (1) and to ASTM E 8 – 09 Method B.

Options

- Contact and non-contact transverse strain extensometers (e.g. for determination of r-value or Poisson's ratio).
- Motorised clamping/unclamping of the sensor arms (controlled via test software *testXpert® II*)
- Motorized gage-length setting (controlled via *testXpert® II* testing software)

Product Information

makroXtens®

Type	makroXtens 100, P	makroXtens 100, HP	makroXtens 205, P	makroXtens 205, HP	makroXtens 300, P	makroXtens 300, HP	
Item number	057074	057075	057076	057077	057078	057079	Unit
Resolution in connection with sensor arms and length							
300 mm	0.3	0.03	0.3	0.03	0.3	0.03	µm
450 mm	0.45	0.045	0.45	0.045	0.45	0.045	µm
600 mm	0.6	0.06	0.6	0.06	0.6	0.06	µm
Measurement range in connection with sensor arms and length							
300 mm	75	75	75	75	75	75	mm
450 mm	112.5	112.5	112.5	112.5	112.5	112.5	mm
600 mm	150	150	150	150	150	150	mm
L ₀ Range ⁽²⁾	to 100	to 100	to 205	to 205	to 300	to 300	mm
Dimensions							
Width	120	120	120	120	120	120	mm
Height	380	380	480	480	620	620	mm
Depth	375	375	375	375	375	375	mm
Drag force	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	N
Max. specimen width		60 mm					
Accuracy grade:		0.5 (1) according to EN ISO 9513 ⁽¹⁾					
Here is required:							
Sensor arms:		300, 450 or 600 mm lenght					
Measurement module:		Incremental card or CAN-BUS and controller					
For use with a temperature chamber:		drive unit					

⁽¹⁾ Accuracy grade 0.5 when using sensor arms with a length of 300 mm and 450 mm.

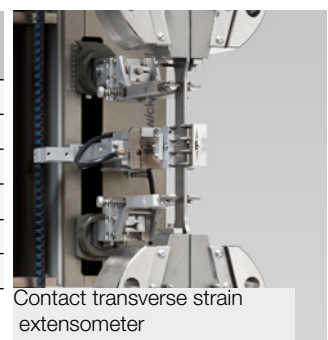
Accuracy grade 1 when using sensor arms with a length of 600 mm.

⁽²⁾ Adjustment range from 5mm possible via suitable sensor arms (standard 10 mm), with reduction of maximum value by 5 mm.

Contact transverse strain extensometer

	Meas. lines	Specimen width thickness		Meas. range	Resolution	Item number
Swivelled-out up to 90°, without mech. switching	4	10...25 mm	0...4 mm	≥ 6 mm	0.1 µm	057082
					0.01 µm	057083
	1				0.1 µm	057084
					0.01 µm	057085
	2				0.1 µm	057086
					0.01 µm	057087

Option: Drive unit for transverse strain extensometer with connection to CAN-BUS measurement module and control unit.



Contact transverse strain extensometer

videoXtens transverse strain extensometer

Description	Item number
videoXtens transverse strain extensometer	034025
Also required:	
videoXtens basic package	
Mounting kit for mounting on makroXtens®	
Free module bus slot on <i>testControl II</i>	



videoXtens transverse strain extensometer