

Model 100R High elongation extensometer

Compatible with
Tinius Olsen ST series
of materials testing
systems

Gage lengths
10, 15, 20, 25, 40,
50(mm)



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Model 100R is a high elongation extensometer that is designed to measure the 'stretch' of a wide range of materials including elastomers and non-rigid plastics. The initial measuring length, or gauge length, can be changed to suit the specimen size or the test standard that is being applied.

The unique design ensures an extremely low tracking force for testing sensitive materials, as well a robust construction that can easily withstand the high release forces and breaking energies with certain specimens. The design also incorporates a simple yet effective method with which the extensometer followers are attached to the specimen, allowing rapid throughput of testing.

Extension is measured by attaching two counterbalanced extensometer clamps to the specimen at a pre-selected gauge length. When tensile forces are applied to the specimen by the testing machine, the slightest change in gauge length is measured by an optical encoder. Signals from the optical encoder are fed into the signal conditioner interface for processing.

The 100R extensometer can be fitted to all sizes of screw driven materials testing systems.

TO order numbers

99-994-1000/01	Extensometer, High Elongation 100R Metric, Std. Height for Bench ST Series
99-994-1000/02	Extensometer, High Elongation 100R Metric, Ext. Height for Bench ST Series
99-994-1000/04	Extensometer, High Elongation 100R Metric, Ext. Height for Floor ST Series
99-994-2000/04	Extensometer, High Elongation 100R Metric, Ext. Height for Floor U Series
99-994-1000/0B	Bracket Set, Rotating Brackets, 100R on Bench Machine, Twin Column, ST Series
99-994-1000/0C	Bracket Set, Rotating Brackets, 100R on Floor Machine, Twin Column, ST Series
99-999-1055	100RC/SC Extensometer Swinging Brackets (Std 100R/S, Std M/C)
99-999-1055/1	100RC/SC Extensometer Swinging Brackets (Ext 100R/S, Std M/C)
99-999-1055/2	100RC/SC Extensometer Swinging Brackets (Ext 100R/S, Ext M/C)
99-999-1055/3	100RC/SC Extensometer Swinging Brackets (Std 100R/S, Ext M/C)
99-999-1056	100RC Extensometer-Standard Height for S/T/L Series (Requires Brackets)
99-999-1057	100RC Extensometer-Extended Height for S/T/L Series (Requires Brackets)

Specifications

Elongation measurement range	mm	720 (970 for extended model)
	in	28.35 (38.2 for extended mo)
Gage lengths	mm	10, 15, 20, 25, 40, 50
	in	0.39, 0.59, 0.78, 0.98, 1.57, 1.97
Accuracy	1% on 25mm gage length, ISO 5893 class A, ASTM E83 class C	
Resolution	mm	0.01
	in	0.0004

Specifications

Tracking force	gmf	<10
	lbf	<0.02
Specimen thickness	mm	0 to 5
	in	0 to 0.2
Dimensions (HWD)	mm	1015 x 53 x 200
	in	40 x 2.1 x 7.9
Weight	kg	5.5
	lbs	11