



Model 3442RA1 with 50 mm gage length and 1.25 mm measuring range. Shown on 30 mm diameter test sample.

**With gage lengths of 1 and 2 inches (25 and 50 mm) and measuring ranges of 0.050 and 0.100 inches (1.2 and 2.5 mm), the Model 3442RA1 was designed for applications where compressive strength tests on small rock, concrete and other small compression samples is desired.**

Axial strain is measured on opposite sides of the test specimen and the output is an average of the two readings. The Model 3442RA1 is available in a variety of configurations for samples 2 inches (50 mm) or smaller in diameter. All are self-supporting on the specimen and mount very easily. The included conical point contacts are made from tungsten carbide. If desired, the two readings can be independent, providing two outputs. Epsilon has versions for use in oil to 20,000 psi at 400 °F (1360 bar at 200 °C). These units will fit in unusually small inside diameter vessels. For large diameter specimens, we suggest one of the Model 3542RA averaging axial extensometers.

The Model 3442RA1 extensometers are strain gaged devices, making them compatible with any electronics designed for strain gaged transducers. Most often they are connected to a test machine controller. The signal conditioning electronics for the extensometer is typically included with the test machine controller or may often be added. In this case the extensometer is shipped with the proper connector and wiring to plug directly into the electronics. For systems lacking the required electronics, Epsilon can provide a variety of solutions, allowing the extensometer output to be connected to data acquisition boards, chart recorders or other equipment. See the electronics section of this catalog for available signal conditioners and strain meters.

Contact Epsilon for your special testing requirements.

**Features**

- Full bridge, 350 ohm strain gaged design for compatibility with nearly any test system.
- High accuracy, averaging output or optional dual independent outputs.
- All standard units meet existing ASTM class B-1 and ISO 9513, class 0,5 requirements for accuracy.
- Rugged, dual flexure design for strength and improved performance.
- Includes high quality foam lined case.
- Easy mounting, attaches with integral springs.
- Self-supporting on the specimen.
- Designed for smaller diameter specimens.

**SPECIFICATIONS**

- Excitation:* 5 to 10 VDC recommended, 12 VDC or VAC max.
- Output:* 2 to 4 mV/V nominal, depending on model
- Linearity:* ≤0.20% of full scale measuring range, depending on model
- Temperature Range:* Standard (-ST) is -40 °C to +100 °C (-40 °F to 210 °F)
- Cable:* Integral, ultra-flexible cable, 8 ft (2.5 m) standard
- Operating Force:* <30 g typical per side

**OPTIONS**

- Connectors to interface to nearly any brand test equipment
- Shunt calibration module (see page 96)
- Dual independent outputs

**ORDERING INFORMATION**

**Model 3442RA Extensometer Standard Versions:** ANY combination of gage length, measuring range and temperature range listed below is available, except as noted. Test specimen diameter(s) must be specified at the time of order.

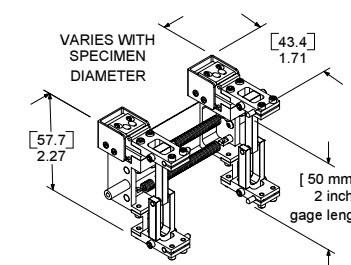
Gage Length		Measuring Range	
U.S.A.		DESIGNATION	
-0100	1.000"	-050T	±0.050"
-0200	2.000"	-100T	±0.100"
METRIC		METRIC	
-025M	25.0 mm	-125M	±1.25 mm
-050M	50.0 mm	-250M	±2.50 mm

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Temperature Range	
-LT	-265 °C to 100 °C (-450 °F to 210 °F)
-ST	-40 °C to 100 °C (-40 °F to 210 °F)
-HT1	-40 °C to 150 °C (-40 °F to 300 °F)
-HT2	-40 °C to 175 °C (-40 °F to 350 °F) <sup>1</sup>
-LHT	-265 °C to 175 °C (-450 °F to 350 °F) <sup>1</sup>

<sup>1</sup> Short term use to 200 °C (400 °F) acceptable.

**Example:** 3442RA1-0200-050T-ST: 2.0 inch gage length, 0.050 inch measuring range, standard temperature option (-40 °F to 210 °F)



3442RA1 WITH 2" OR 50 MM GAGE LENGTH DIMENSIONS: [mm] inches