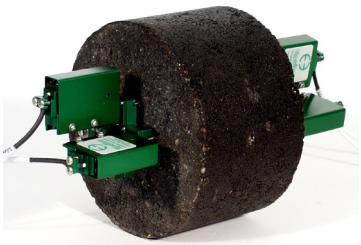
Designed for asphalt core testing applications with core samples having 100 and 150 mm (4 and 6 inch) diameters. The unit meets test method requirements for strain measurement developed under the U.S. Federal Highways SHRP program.



Model 3910-0100 with 1 inch gauge length

Model 3910 gluing template

These extensometers are for creep compliance, tensile strength testing and dynamic resilient modulus testing. They are single integral, bi-axial units which measure both lateral and vertical deformations. They quickly clip onto gage points mounted per the test requirements. They mount much faster and easier than other types.

Two units are typically required, with one extensometer mounting to each side of the test specimen. They are changeable from the 1 inch centers used for 4 inch diameter specimens, to the 1.5 inch centers used for 6 inch diameter samples using optional gauge length adapters. Magnets at each end of the extensometer snap instantly in place on the steel gage points glued to the test sample. The quick attachment is most advantageous when testing pre-conditioned samples that are heated or cooled, since the extensometers can be mounted before the sample changes temperature appreciably.

The standard Model 3910 has full scale measuring range of ±0.5 mm or ±0.020 inches. Gage points are included with the extensometers and optional gluing templates are available. This model can be converted to the Model 3909 with optional gauge length adapters.

The Model 3910 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.

Features

- Model 3910 for creep compliance, resilient modulus, and tensile strength for testing per AASHTO T322.
- Full bridge, 350 ohm strain gaged design for compatibility with nearly any test system.
- Easy mounting, attaches with magnets, which allows dynamic testing to 40 Hz.
- All standard units have linearity readings of 0.20% or better.
- Includes the Epsilon Shunt Calibration System for on-site electrical calibration.
- Rugged, dual flexure design for improved performance.
- Includes high quality foam lined case.

Specifications

Measuring Range:	±0.5 mm or ±0.020 inches
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 is -40 °C to +100 °C (-40 °F to +210 °F)
Cable:	Integral, flexible Teflon® cable, 2.5 m (8 ft) standard
Operating Force:	<30 g typical

Options

Gauge length adapters
Gluing template for gage points
Connectors to interface to nearly any brand of test equipment

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Ordering Information

Model 3910 Available Versions: Available in intermediate and larger gauge lengths on special order. *Other configurations may be available with special order; please contact Epsilon to discuss your requirements.*
±0.5 mm measuring range will be supplied with units that are ordered with gauge lengths in mm units.
±0.020" measuring range will be supplied with units that are ordered with gauge lengths in inch units.

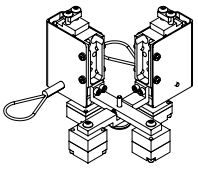
Gauge Length	
METRIC	
-025M	25 mm
-038M	38 mm
-050M[1]	50 mm
-076M[1]	76 mm
-100M[1]	100 mm
U.S.A.	
-0100	1.000"
-0150	1.500"
-0200[1]	2.000"
-0300[1]	3.000"
-0400[1]	4.000"

Model Number 3910- __ __ __ __

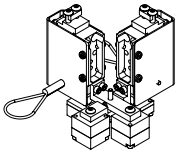
[1] *Special order.*

Example: 3910-0100: 1.000 inch gauge length with a full scale measuring range of ±0.020 inches

Visit our website at www.epsilontech.com
Contact us for your special testing requirements.



1.5" gauge length



1" gauge length

MODEL 3910 EXAMPLES