



Model 3548COD with no heat shields mounted to a Model 3590VHR calibrator

High temperature COD gages for use in split type materials testing furnaces with a slot for the ceramic rods. These liquid-cooled COD gages are for use to 1200 °C (2200 °F). The high temperature option allows use to 1600 °C (2900 °F). They are specifically designed for fracture mechanics testing.



Model 3548COD mounted to a compact tension specimen Model 3548COD mounts on a cooled manifold, which is mounted on an optional load frame mounting system from Epsilon or your furnace's side cut-out. Epsilon can provide load frame mounting brackets to fit nearly any test frame.

The standard temperature version (to 1200 °C) is supplied with high purity alumina rods. The high temperature option is furnished with alpha grade silicon carbide rods. Rods are made to order to the length required for your furnace. Contact edges on the test sample should be somewhat rounded (not sharp knife edges) for best performance with this model.

Model 3548COD gages 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 with electronics for a strain channel, and Epsilon will equip the extensometer with a compatible connector wired to plug directly into the controller. For systems lacking the required electronics, Epsilon can provide a variety of signal conditioning solutions that enable connecting to data acquisition systems or other equipment.

See the electronics section of this catalog for available signal conditioners and strain meters.



## Features

- May be left on through specimen failure.
- Full bridge, 350 ohm strain gaged design for compatibility with nearly any test system.
- For KIC/JIC testing, maximum accuracy is achieved with the smallest measuring range and the largest gauge length that will perform the test.
- All units come with either high purity alumina ceramic rods (1200 °C) or alpha grade silicon carbide rods (1600 °C).
- Includes the Epsilon Shunt Calibration System for on-site electrical calibration.
- Rugged, dual flexure design for strength and improved performance.
- · Includes high quality foam lined case and a spare set of ceramic rods.

#### SPECIFICATIONS

Excitation:	5 to 10 VDC recommended, 12 VDC or VAC max.			
Output:	2 to 4 mV/V nominal, depending on model			
Accuracy:	Standard configurations meet existing ASTM E1820 requirements for accuracy. A test certificate is included. Rod lengths >250 mm (10") can affect the final class rating.			
Linearity:	≤0.15% of full scale measuring range, depending on model			
Temperature Range:	Standard (-ST) is to 1200 °C (2200 °F), optional (-HT) 1600 °C (2900 °F)			
Cable:	Integral, ultra-flexible cable, 2.5 m (8 ft) standard			
Coolant Interface:	Two barbed hose fittings for 1/8" (3.2 mm) ID coolant hoses			
Operating Force:	<30 g typical			

### OPTIONS

Model EPS170 constant-temperature recirculating chiller - see the Options tab on the web page for important details about liquid cooling requirements Load frame mounting brackets

High temperature option (-HT suffix) for use to 1600 °C

Connectors to interface to nearly any brand of test equipment



# ORDERING INFORMATION

Model 3548COD Available Versions: ANY combination of gauge length, measuring range and temperature range listed below is available, except as noted. *Ceramic rod lengths are made to fit furnaces as required. Please provide furnace dimensions at the time of order. Other configurations may be available with special order; please contact Epsilon to discuss your requirements.* 

Gauge Length		Measuring Range	
METRIC		METRIC	
-005M	5.0 mm	-025M	+2.5 mm
-008M	8.0 mm	-040M	+4.0 mm
-010M	10.0 mm	-070M	+7.0 mm
-012M	12.0 mm	-100M	+10.0 mm
-020M <sup>1</sup>	20.0 mm	-120M	+12.0 mm
U.S.A. -0020 -0030 -0040 -0047 -0050	0.200" 0.300" 0.400" 0.475" 0.500"	U.S.A. -100T -150T -200T -250T -500T	+0.100" +0.150" +0.200" +0.250" +0.500"

### Model Number 3548COD



<sup>1</sup> Only available in small measuring ranges (rod length dependent).

*Example:* 3548COD-0050-200T-HT: 0.500 inch compressed gauge length, +0.20 inch measuring range, high temperature option (room temperature to 1600 °C (2900 °F))

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

### Model EPS170 Constant-Temperature Recirculating Chiller

This chiller provides a continuous flow of coolant at a constant temperature for liquidcooled extensometers. Capable of cooling or heating the coolant, coolant temperature is maintained within 0.1 °C. These units are ideal for obtaining the maximum stability of liquid-cooled extensometers. See website for dimensions.





MODEL 3548COD EXAMPLE

EPSILON TECH–Broadest product range with unrivaled quality.