



Evaluate Live-Load Stresses

Overview

The ST350, manufactured by Bridge Diagnostics, Inc., is a strain transducer used to evaluate live-load stresses on structures such as bridges, buildings, cranes, and

amusement park rides. It is prewired to connect directly with our dataloggers, and is ideal for structural monitoring data acquisition systems.

Benefits and Features

- ▶ Improved signal-to-noise ratio means higher-resolution measurements
- ▶ Rugged enough for harsh environments
- ▶ Pay for themselves with just a few uses
- ▶ Compatible with most Campbell Scientific data loggers
- ▶ Quick installation with minimal preparation
- ▶ Efficient, reliable, and highly accurate

Technical Description

The ST350 uses Wheatstone bridge circuitry, which converts small changes in resistance to an output voltage that our data loggers can measure. Its construction avoids the tedious and time-consuming effort required when using foil

strain gages. This allows the ST350 to be installed within minutes on steel, concrete, timber, and FRP members.

Specifications

Accuracy	±2% (individually calibrated to NIST standards)
Force Required for 1000 µε	~76 N (17 lb)
Strain Range	±2000 µε
Sensitivity	~500 µε/mV/V
Circuit	Full Wheatstone bridge with 4 active 350 Ω foil gages, 4-wire hookup

Cable	BDI RC-187 (22 gage, two individually shielded pairs with drain; 15 ft length standard)
Material	Aluminum
Dimensions	11.1 x 3.2 x 1.3 cm (4.375 x 1.25 x 0.5 in.)
Weight	85 g (3 oz)

For comprehensive details, visit: www.campbellsci.eu/st350 