



# **ADHESIVE-FREE. FIELD-READY. PROVEN WHERE IT MATTERS.**

**WELDABLE STRAIN GAGES  
FOR DEMANDING CONDITIONS**

**MICRO**≡  
**MEASUREMENTS**  
A VPG Brand

## A Proven Alternative to Adhesive-Bonded Strain Gages

In environments where adhesives don't cure well, won't hold over time, or add risk and time during installation, Micro-Measurements weldable strain gages provide a faster and more reliable solution.

Field-proven for long-lasting high performance, they deliver stable, precise strain data, even in extreme temperatures, high-vibration settings, and dusty or humid conditions. By eliminating surface preparation constraints as well as curing time and heat, our weldable gages simplify and speed installation in the most challenging environments and applications.

## Install Anywhere and Measure with Confidence

Micro-Measurements weldable strain gages are designed for spot welding to steel structures and components, eliminating the need for clamping, curing, or high-temperature adhesives. Each gage is factory-prebonded to a thin metal carrier for consistent placement and reduced variability.

Installation requires only removal of surface finishes and corrosion. Spot welding is performed with a portable, compact tool such as our Model 700B, enabling consistent, repeatable attachment across a wide range of metals and geometries.

The encapsulated grid provides mechanical protection during handling and installation, while the thin metal carrier ensures placement stability and consistent weld performance.

## The Weldable Gage Advantage

- **Field-ready installation:** No adhesives, curing time, or complex surface preparation
- **Proven durability:** Withstands heat, vibration, rough handling, and outdoor exposure
- **Prebonded consistency:** Factory-applied bonding ensures placement reliability
- **Flexible and high-temperature options:** Choose the right fit for curved surfaces or elevated heat
- **Compact welding tools:** Compatible with portable spot welders like the Model 700B
- **Trusted performance:** Used worldwide in safety-critical testing and monitoring



## From Stress Analysis to Structural Health Monitoring

Micro-Measurements CEA and LWK series strain gages meet exacting performance requirements for monitoring and testing in demanding conditions, including in civil infrastructure, energy, offshore, automotive, and industrial systems.

### CEA Series

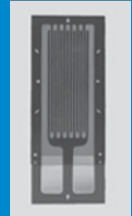
**Ideal for field installation and direct wiring**

- Rugged construction with polyimide-encapsulated constantan foil
- Copper-coated tabs for easy leadwire attachment before or after installation
- Flexible carrier contours to curved surfaces as small as  $\frac{1}{2}$ " (12.7 mm) radius
- Operating range: -100°F to +200°F (-73°C to +93°C); short-term up to 300°F (149°C)

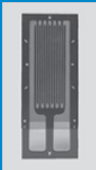
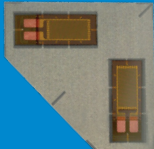

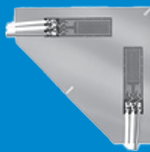
### LWK Series

**Engineered for extreme temperatures and demanding industrial use**

- Nickel-chromium alloy grid for thermal stability and long-term accuracy
- Fiberglass-reinforced epoxy phenolic encapsulation for high durability
- Prewired with 10 in (254 mm) Teflon®-insulated leads
- Operating range: -320°F to +500°F (-196°C to +260°C); short term up to 550°F (288°C)



To learn more about selecting and installing weldable strain gages,  
visit [micro-measurements.com](http://micro-measurements.com)

Gage pattern and designation Insert desired S-T-C number in spaces marked XX.		Resistance	Inches Millimeters		
			Carrier L x W x T	Active grid L x W	Matrix L x W
CEA-XX-W250A-120 CEA-XX-W250A-350		120 $\Omega \pm 0.4\%$	0.63 x 0.34 x 0.005	0.230 x 0.125	0.44 x 0.17
		350 $\Omega \pm 0.4\%$	16.0 x 8.6 x 0.13	5.84 x 3.18	11.2 x 4.3
		Most flexible and conformable pattern. Type 326-DFV and 330-DFV flat three-conductor cable typically used to solder directly to copper-coated tabs.			
CEA-XX-W250C-120 CEA-XX-W250C-350		120 $\Omega \pm 0.4\%$	0.90 x 0.90 x 0.005	0.230 x 0.125	0.44 x 0.17
		350 $\Omega \pm 0.4\%$	22.9 x 22.9 x 0.13	5.84 x 3.18	11.2 x 4.3
		Tee rosette, used in biaxial stress states where directions of principal stresses are known. See W250A pattern for typical leadwire recommendations.			
LWK-XX-W250B-350		350 $\Omega \pm 0.4\%$	0.88 x 0.32 x 0.005	0.250 x 0.125	0.62 x 0.17
			22.4 x 8.1 x 0.13	6.35 x 3.18	15.7 x 4.3
		Wide-temperature-range linear pattern with 10 in (250 mm) pre-attached leads. Teflon insulation is pretreated for best bond to protective coatings.			
LWK-XX-W250D-350		350 $\Omega \pm 0.4\%$	1.15 x 1.15 x 0.005	0.25 x 0.125	0.62 x 0.17
			29.2 x 29.2 x 0.13	6.35 x 3.18	15.7 x 4.3
		Tee rosette, used in biaxial stress states where directions of principal stresses are known and a wide operating temperature range is required.			

## About Micro-Measurements

### *Sensing What Matters*

Micro-Measurements, a Vishay Precision Group (VPG) brand, delivers resistive foil-based sensing solutions engineered for precision and reliability exactly where they matter most – at the critical points of performance, safety, and control. With more than six decades of experience in aerospace-grade force sensing, we empower engineers to test, validate, and embed sensing with unmatched accuracy and dependability. Leveraging our full selection of sensors, strain gages, coatings, data acquisition systems (DAQ), and accessories, our solutions are trusted throughout the industrialized world to measure critical physical variables, including force, torque, pressure, weight, and more.

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Wherever conditions challenge adhesive-bonded installations, Micro-Measurements weldable strain gages deliver consistent high performance – no compromises.

