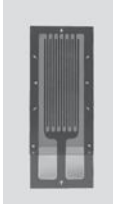
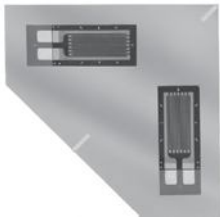


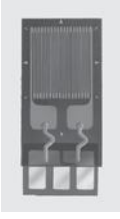


Special Use Sensors—Weldable Strain Gages

GAGE PATTERN AND DESIGNATION Insert Desired S-T-C No. in Spaces Marked XX. See Note 1		RES. IN OHMS	DIMENSIONS					inch	millimeter		
			CARRIER			ACTIVE GRID		MATRIX		Legend: ES = Each Section	
			Length	Width	Thick	Length	Width	Length	Width		
CEA-XX-W250A-120 CEA-XX-W250A-350		120 ± 0.4% 350 ± 0.4%	0.63	0.34	0.005	0.230	0.125	0.44	0.17		
			16.0	8.6	0.13	5.84	3.18	11.2	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 ± 0.4% 350 ± 0.4%	0.90	0.90	0.005	0.230	0.125	0.44	0.17		
			22.9	22.9	0.13	5.84	3.18	11.2	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 ± 0.4%	0.88	0.32	0.005	0.250	0.125	0.62	0.17		
			22.4	8.1	0.13	6.35	3.18	15.7	4.3	Wide-temperature-range linear pattern with 10 in (250 mm) protective coatings.	
LWK-XX-W250D-350		350 ± 0.4%	1.15	1.15	0.005	0.250	0.125	0.62	0.17		
			29.2	29.2	0.13	6.35	3.18	15.7	4.3	Tee rosette, used in biaxial stress states where directions of principal stresses are known and a wide operating temperature range is required.	
WWT-TG-W200B-050		50 ± 0.4% @ +75°F (+24°C)	0.71	0.43	0.005	0.200	0.200	0.52	0.26		
			18.0	10.9	0.13	5.08	5.08	13.1	6.6	Easy-to-use temperature sensor that can be welded or adhesively bonded to the test structure. For standard bondable temperature sensors, see Document Number 11522, "Temperature Sensors and LST Networks."	

Note 1: Products with designations and options shown in bold are not RoHS compliant.

Special Use Sensors—Weldable Strain Gages

Micro-Measurements Sealed Weldable Strain Gages are specially designed for spot welding to structures and components. They are ideally used for applications where test or environmental conditions preclude clamping and curing an adhesively bonded gage installation. These gages are equally advantageous when strain measurements must be made at elevated temperatures, but the nature of the test object does not permit the use of an elevated temperature-curing adhesive. Additionally, all Micro-Measurements Sealed Weldable Strain Gages come with a preinstalled protective coating providing both protection in moist environments and savings in the time and effort required for making the complete gage installation.

All sensors are fabricated with EA-Series strain gages, laboratory-prebonded with a high-performance adhesive to a thin [0.005 in (0.127 mm)] stainless steel carrier, and fully encapsulated for protection against moisture. They have a ± 5000 microinch/in strain range, and a normal operating temperature range of -40°F (-40°C) to $+180^{\circ}\text{F}$ ($+83^{\circ}\text{C}$). These gages can be used on surfaces with a radius of curvature of 3.0 in (76 mm) or greater.

The three leadwire-series of Micro-Measurements Sealed Weldable Strain Gages have physical constructions designed for various environmental exposures and installation constraints.



R-LEADWIRE-SERIES

These gages are designed for long-term out-of-doors use. Primarily used in applications such as railroad and civil structures, they can be exposed to oil and water splash and short-term submersion [24 in (60 cm)]

Exposure of the vinyl-insulated cable to strong solvents—especially MEK—should be avoided to prevent damage. Long-term exposure to sub-freezing temperatures requires careful handling to avoid cracking of the vinyl insulation.

DESIGNATION	NOMINAL RESISTANCE (Ohms)	NOMINAL GAGE FACTOR	GRID GEOMETRY	GAGE LENGTH (in)	LEADWIRE	SHIM LENGTH (in)	SHIM WIDTH (in)
LEA-06-W125E-350/3R	350	2.0	Axial	0.125	Vinyl	0.8	0.4
	<p>Bridge Circuit</p>		<p>Configuration</p>				
LEA-06-W125F-350/3R	350	2.0	Shear	0.125	Vinyl	1.0	0.5
	<p>Bridge Circuit</p>		<p>Configuration</p>				

Special Use Sensors—Weldable Strain Gages

T-LEADWIRE-SERIES

This series is designed to withstand exposure to water pressures of up to 500 psi. They can also withstand short-term (up to 14 days) immersion in crude oil. A flexible stainless steel tube, providing wire routing from the strain gage to a cable transition, enables fine positioning of the sensor as well as providing strain relief. These sensors are typically used on larger civil structures, including bridges, dams, and buildings, or for exposures of up to a year in seawater.

DESIGNATION	NOMINAL RESISTANCE (Ohms)	NOMINAL GAGE FACTOR	GRID GEOMETRY	GAGE LENGTH (in)	LEADWIRE	SHIM LENGTH (in)	SHIM WIDTH (in)
LEA-06-W125E-350/10T	350	2.0	Axial	0.125	Shielded Vinyl	0.8	0.4
	<p>Bridge Circuit</p> <p>Configuration</p>						
LEA-06-W125F-350/10T	350	2.0	Shear	0.125	Shielded Vinyl	1.0	0.5
	<p>Bridge Circuit</p> <p>Configuration</p>						

L-LEADWIRE-SERIES

The L-Leadwire-Series sensors are designed to have a performance similar to the T-Leadwire-Series but without a cable transition. They can be used in similar applications when the sensor will be exposed to smaller strains, and care can be taken during installation to anchor the leadwire to provide for strain relief. The L-Leadwire-Series gages are particularly useful where space constraints preclude the use of the cable transition of T-Leadwire-Series gages.

DESIGNATION	NOMINAL RESISTANCE (Ohms)	NOMINAL GAGE FACTOR	GRID GEOMETRY	GAGE LENGTH (in)	LEADWIRE	SHIM LENGTH (in)	SHIM WIDTH (in)
LEA-06-W125E-350/10L	350	2.0	Axial	0.125	Shielded Vinyl	1.5	0.6
	<p>Bridge Circuit</p> <p>Configuration</p>						
LEA-06-W125F-350/10L	350	2.0	Shear	0.125	Shielded Vinyl	1.5	0.6
	<p>Bridge Circuit</p> <p>Configuration</p>						