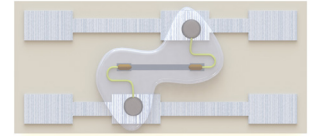
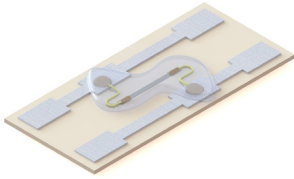


SS "BAR" & "U" Backed Semiconductor Strain Gages



Introduction

Piezo-Metrics understands that specific customer applications, or their exposure and experience with the use of semiconductor strain gages vary widely. We offer our SS Semiconductor Bar & U strain gages already pre-mounted, or "Backed", on a flexible insulated circuit substrate. This simplifies the installation of the strain gage and provides flexibility for our customers from R&D through full production stages. Note that additional backed gage sizes are available in our SC gage product line.**

Benefits

Easy to install

The semiconductor strain gages are mounted on a flexible insulated circuit with versatile solder pads making this device easy to install. The gage and gold wires are over-coated to seal out moisture and to provide additional protection of the gage during application and use. Installation of our backed strain gages can be done using similar tools and adhesives that are used on foil gages.

Flexible

The insulated circuit is flexible enough to bend around a rod as small as 0.5 inches (12.7 mm) in diameter without damaging the gage.

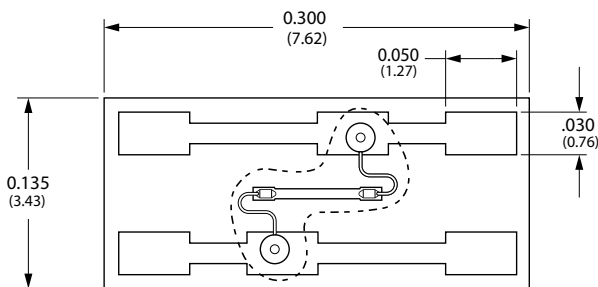
Performance

Our SS backed semiconductor strain gages have been found to have 50 to 75 times greater sensitivity than that of foil gages. On load cells and foil bridges our gages have been used as a linearity corrector where a non-linearity of 0.125 % FS can be corrected to less than .05 % of full scale. The actual backed gage performance and benefits will be based on your specific application.

Suggested Uses

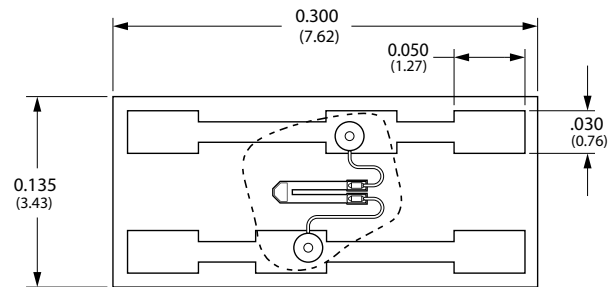
Piezo-Metrics backed semiconductor strain gages have been used in many applications such as Prototyping, R & D applications, transient or high frequency measurements, and end item production parts.

Backed SS "BAR" Strain Gage



Dimension Nominal in Inches (mm)

Backed SS "U" Strain Gage



Backing Material Specifications:

Backing Material: FR-4 TG-250
 Thickness: 0.005 in. (0.127 mm)
 Electrical Trace Material: 1Oz Copper / Tin
 (Top Side Only)

Contact: www.piezo-metrics.com • sales@piezo-metrics.com
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PIEZOMETRICS
 Inc.



DS-SS-BK Issue: 7/2025

Backed SS "Bar" Gage Part Number *	Nominal Resistance Ohms@78°F
SS-027-013-500PB - []	540
SS-037-022-500PB - []	540
SS-080-050-120PB - []	120
SS-080-050-345PB - []	345
SS-080-050-500PB - []	540
SS-080-050-1000PB - []	1050
SS-090-060-500PB - []	540
SS-090-060-1150PB-[]	1125
SS-150-124-15PB - []	15
SS-150-124-40PB - []	40
SS-250-225-120PB - []	120

Backed SS "U" Gage Part Number *	Nominal Resistance Ohms@78°F
SS-037-022-500PUB - []	540
SS-047-025-350PUB - []	325
SS-060-033-500PUB - []	540
SS-060-033-2000PUB - []	2000
SS-080-050-10000PUB - []	10000
SS-095-060-350PUB - []	350

For actual gage specifications please refer to Piezo-Metrics SS "Bar" Gage Data Sheet DS-SS-BAR or SS "U" Gage Data Sheet DS-SS-U.

Ordering Information

Example

A - B	SS-060-033-2000PUB - S4
<p>A. Backed SS Gage Part Number (* See Above Tables) **</p> <p>B. Specifies Matched Gage Sets or Single Gage</p> <p>Match Set Options:</p> <ul style="list-style-type: none"> S4 Matched set of 4 gages with temperature data S2 Matched set of 2 gages with temperature data S1 Single gage with temperature data <p><i>For Matched Sets of S5 up to sets of S16 - Consult Factory</i></p>	<p>A. SS-060-033-2000PUB is the backed gage part number which indicates this is a model SS semiconductor strain gage with a total length of .060", an active length of .033", a base resistance of 2000 ohms, Dopant P, U type gage, and is backed B.</p> <p>B. -S4 specifies a matched set of 4 backed gages.</p>

Standard Gage Matching **

Temperature °F	0°	78°	278°	Percent of Base Resistance <i>(Note that matching is done at the gage level prior to bonding to backing)</i>
Standard Matching	±0.6%	±0.4%	±0.4%	

** • Matched sets larger than -S4, custom gage temperature matching, or additional temperature test data points are available - Consult Factory.
 • For additional "Bar" & "U" backed gage sizes see Piezo-Metrics SC Precision_Matched™ "BAR" and "U" backed gage data sheet DS-SC-BK.
 • All SS backed gages are packaged as singles or matched sets and shipped with resistance vs temperature data for each gage.

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