



Strain Gauges GF series €€



These strain gauges are suited to the measurement on materials such as plastics, which have low elastic modulus compared to metal. Our original specially-designed grid lowers the rigidity of the strain gauge and reduces the stiffening effect to the specimen material. These strain gauges are CE marked (compliant to RoHS2 Directive) and have joined to our "GOBLET" series.

Operating temperature range -30~+80°C	Applicable adhesives CN -30~+80°C
Temperature compensation range +10~+80°C	

Please specify the type number as shown in the example below.

GFLAB -3 (-350) -50 -3LJC-F

Objective material for temperature compensation (coefficient of linear thermal expansion $\times 10^{-6}/^{\circ}\text{C}$)
 -50: Epoxy resin ■ -70: Acrylic resin, ABS resin ■

Gauge pattern	Type	Gauge size(mm)		Backing size(mm)		Resistance Ω
		Length	Width	Length	Width	
<p>● Single axis</p>	GFLAB-3	3	2.3	9.5	4	120
	GFLAB-6	6	2.5	14	5	120
	GFLAB-3-350	3	2.9	9.5	5	350
	GFLAB-6-350	6	2.7	14	5	350
<p>● 0° / 90° 2-axis Plane type</p>	GFCAB-3	3	1.4	10.5	10.5	120
	GFCAB-3-350	3	2.9	14.5	14.5	350
<p>● 0° / 45° / 90° 3-axis Plane type</p>	GFRAB-3	3	1.4	10.5	10.5	120
	GFRAB-3-350	3	2.9	14.5	14.5	350

Minimum order quantity is 10 strain gauges.



Important point

● Influence of elastic modulus

A strain gauge bonded on a material having low elastic modulus such as plastics may disturb the stress distribution of the material around the area where the strain gauge is bonded. It may cause an apparent lowering of the gauge factor of the strain gauge. This is called a stiffening effect of strain gauge. The lower the elastic modulus is, the larger the stiffening effect becomes. The gauge factor correction is necessary if the elastic modulus of the test object is approx. 2.9 GPa (300 kgf/mm²) or lower.

● Effect of Joule heat

The strain gauge of this series has a specially designed grid to reduce the effect of Joule heat in the strain gauge. The allowable current for a strain gauge is 30 mA when it is bonded on a metal. However, if the strain gauge is bonded on plastics, it is recommended to keep the current at 10 mA or less.