

QF-Series High Temperature Strain Gauges

DESCRIPTION

These are foil strain gauges having a polyimide resin backing, which exhibits excellent performance in high temperature up to 200°C. Stress concentration measurement gauges and shear stress measurement gauges are also available in this series. Integral leadwires using lead-free solder are available with option –F.

Operating temperature range	-20 ~ +200°C	Applicable adhesives	
Temperature compensation range	+10 ~ +100°C	NP-50	-20 ~ +200°C
		C-1/EB-2	-20 ~ +200°C
		CN	-20 ~ +120°C

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

QFCT -2 (-350) -11 (-F) -3LJC (-F)

- QFCT: Gauge series name
- 2: Gauge length
- (-350): Gauge resistance (blank for 120Ω)
- 11: Objective material for temperature compensation
- (-F): Option F: LEAD-free soldering of strain gauge
- 3LJC: Length in meter and type of integral leadwire
- (-F): Option F: LEAD-free soldering of leadwire

Objective material for temperature compensation (coefficient of linear thermal expansion $\times 10^{-6}/^{\circ}\text{C}$)
 -11: Mild steel -17:Stainless steel -23:Aluminium -28:Magnesium

Note: The backing color of QF series gauges are the same for every material for temperature compensation.

SHEARING / TORQUE / PLANE

Gauge pattern	Type	Gauge size(mm)		Backing size(mm)		Resistance Ω	
		Length	Width	Length	Width		
<p>• Shearing strain measurement</p>	<p>Q(x 3)</p> <p>Q(x 3)</p> <p>Q(x 3)</p> <p>Q(x 3)</p> <p>Q(x 3)</p>	<p>QFLT-05A-11-002LE</p> <p>QFLT-05B-11-002LE</p> <p>QFLT-1A-11-002LE</p> <p>QFLT-1-350A-11-002LE</p> <p>QFLT-1B-11-002LE</p> <p>QFLT-1-350B-11-002LE</p>	<p>0.55</p> <p>0.55</p> <p>1.2</p> <p>1.2</p> <p>1.2</p> <p>1.2</p>	<p>0.66</p> <p>0.66</p> <p>1.1</p> <p>1.1</p> <p>1.1</p> <p>1.1</p>	<p>4</p> <p>4</p> <p>5.7</p> <p>5.7</p> <p>5.7</p> <p>5.7</p>	<p>1.3</p> <p>1.3</p> <p>2</p> <p>2</p> <p>2</p> <p>2</p>	<p>120</p> <p>120</p> <p>120</p> <p>350</p> <p>120</p> <p>350</p>
<p>• Torque measurement</p>	<p>QFCT-2</p> <p>QFCT-2-350</p>	<p>QFCT-2</p> <p>QFCT-2-350</p>	<p>2</p> <p>2</p>	<p>1.5</p> <p>1.5</p>	<p>8.7</p> <p>7.6</p>	<p>6.5</p> <p>5.3</p>	<p>120</p> <p>350</p>
<p>• 0°/90° 2-axis Plane type</p>	<p>QFCB-2</p>	<p>QFCB-2</p>	<p>2</p>	<p>1.5</p>	<p>X / Y axis</p> <p>8.2 8</p>	<p>8</p>	<p>120</p>

Minimum order quantity is 10 strain gauges.



STRESS CONCENTRATION MASUREMENT

Gauge pattern	Type	Gauge size(mm)		Backing size(mm)		Resist- ance Ω	
		Length	Width	Length	Width		
<ul style="list-style-type: none"> • 5-element Single-axis 	Gauge pitch 2mm	QFXV-1-11-002LE	1	1.3	5	12	120
		QFYV-1-11-002LE	1	1.4	5	12	120
	-002LE: Polyimide insulated gauge lead of 2-cm pre-attached						
	Gauge pitch 1mm	QFBXV-04-11-005LE	0.4	1.3	5.4	7.4	120
		QFBYV-06-11-005LE	0.6	0.8	5.3	7	120
	-005LE: Polyimide insulated gauge lead of 5-cm pre-attached						
<ul style="list-style-type: none"> • Single axis Single element cut away from the above Stress Concentration gauge 	QFBX-04-11-005LE	0.4	1.3	5.4	1	120	
	QFBY-06-11-005LE	0.6	0.8	5.3	1	120	
	QFLX-1-11-002LE	1	1.3	5	2	120	
-005LE: Polyimide insulated gauge lead of 5-cm pre-attached -002LE: Polyimide insulated gauge lead of 2-cm pre-attached							

Minimum order quantity is 10 strain gauges.