



F series

In the F series, strain gauges dedicated to a special usage (shearing strain measurement, torque measurement, residual stress measurement or stress concentration measurement) and 2-axis plane type strain gauges are compliant to RoHS Directive when they are supplied with Option-F.

Operating temperature range
-196~+150℃
Temperature compensation range
+10~+100℃

Applicable adhesives
CN -196~+120℃
P-2 -30~+150℃
EB-2 -60~+150℃

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

FRAS-2 -11 (-F) -3LJC (-F)

↑ Option F : LEAD-free soldering of leadwire
↑ Length in meter and type of integral leadwire
↑ Option F: LEAD-free soldering of strain gauge
↑ Objective material for temperature compensation
Gauge series name

Objective material for temperature compensation

(coefficient of linear thermal expansion $\times 10^{-6}/^{\circ}\text{C}$)

-11: Mild steel ■ -17: Stainless steel ■ -23: Aluminium ■

Residual stress measurement

Gauge pattern		Type		Gauge size(mm) Length Width		Backing size(mm) Length Width		Resist- ance Ω
●Residual stress measurement								
FR-5		FR-5		5	1.5	Φ12		120
EUBC-06		EUBC-06		0.6	0.7	Φ2.4		120
●Residual stress measurement using hole drilling method								
FRAS-2								
FRS-3								
Gauge center diameter								
Φ7.0mm		FRAS-2		2	1.1	9	9	120
Φ5.14mm		FRS-2		1.5	1.3	Φ9.5		120
Φ10.26mm		FRS-3		3	2.6	Φ17.5		120
Minimum order quantity is 10 strain gauges.								

Minimum order quantity is 10 strain gauges.