



ε

F-SERIES (GOBLET) Foil Strain Gauges

GENERAL USE



Strain gauges compliant to RoHS2 Directive 2011/65/EU are added to the lineup in F series. They are supplied with CE marking as standard specification. Our logo GOBLET, which is an abbreviation of “Gauges Of Brilliant Lifespan and Environmental Thoughtful”, is marked on the package of these gauges.

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

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

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

FLA B -5 (-350) -11 -3LJC-F

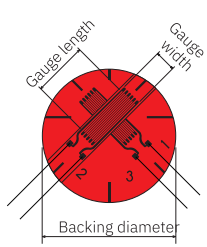

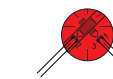


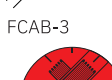

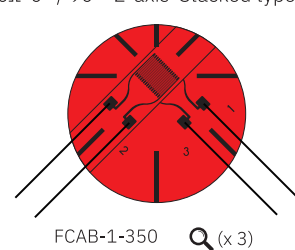






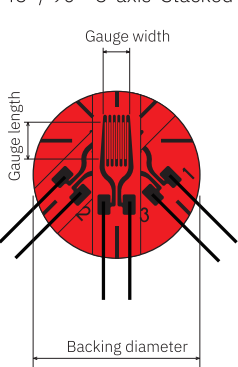
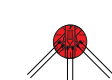


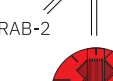
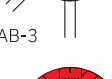

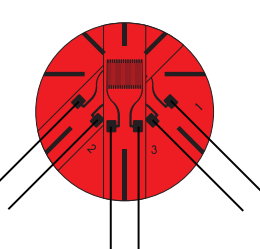



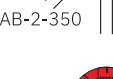
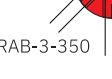

Length in meter and type of integral leadwire CE compliant leadwire
Objective material for temperature compensation
Gauge resistance (blank for 120Ω)
Gauge length
Gauge series name

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

Gauge pattern		Type	Gauge size(mm) Length Width		Backing size(mm) Length Width		Resistance Ω
Single axis		FLGB-02	0.2	1.4	3.5	2.5	120
		FLGB-1	1	1.1	6	2.5	120
		FLAB-03	0.3	1.4	3	2	120
		FLAB-05	0.5	1.2	4.3	2.2	120
		FLAB-1	1	1.3	5	2.5	120
		FLAB-2	2	1.5	6.5	3	120
		FLAB-3	3	1.7	7.7	3.5	120
		FLAB-3-60	3	1.2	7.7	3	60
		FLAB-5	5	1.5	10	3	120
		FLAB-6	6	2.2	11	4.3	120
General use		FLAB-10	10	2.5	15.4	5	120
		FLAB-30	30	2	35	5	120
		FLKB-1	1	0.7	4.5	1.4	120
		FLKB-2	2	0.9	5.5	1.5	120
		FLKB-6	6	1	11	2.2	120
		FLKB-10	10	1.6	15	3.8	120
		FLAB-1-350	1	1.6	4.5	3	350
		FLAB-1W-350	1	2	4.7	3.6	350
		FLAB-2-350	2	1.9	6	3.5	350
		FLAB-3-350	3	1.6	7.2	3	350
350Ω Single axis		FLAB-3W-350	3	3.2	8.5	5	350
		FLAB-5-350	5	1.8	9.4	3.8	350
		FLAB-6-1000	6	4.6	11	7	1000
Gauge resistance 350Ω							
Gauge resistance 1000Ω							
Minimum order quantity is 10 strain gauges.							



GENERAL USE


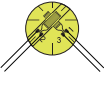
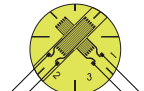
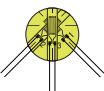
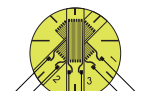
Gauge pattern		Type	Gauge size(mm) Length Width		Backing size(mm) Length Width		Resist- ance Ω
0° / 90° 2-axis Stacked type							
		FCAB-1		FCAB-2			
		FCAB-3		FCAB-5			
		FCAB-6		FCAB-10			
350Ω 0° / 90° 2-axis Stacked type							
		FCAB-1-350		FCAB-2-350			
		FCAB-2-350		FCAB-3-350			
		FCAB-5-350		FCAB-5-350			
0°/45°/ 90° 3-axis Stacked type							
		FRAB-1		FRAB-2			
		FRAB-3		FRAB-5			
		FRAB-6		FRAB-10			
350Ω 0°/45°/90° 3-axis Stacked type							
		FRAB-1-350		FRAB-2-350			
		FRAB-3-350		FRAB-5-350			
		FRAB-3-350		FRAB-5-350			
Minimum order quantity is 10 strain gauges.							



GLASS, CERAMIC USE



Please specify the type number as shown in the example below
-8: Glass, Ceramic

Gauge pattern	Type	Gauge size(mm) Length Width		Backing size(mm) Length Width		Resistance Ω
Single axis  (x 2) FLAB-5-8	FLAB-2-8	2	1.5	6.5	3	120
	FLAB-5-8	5	1.5	10	3	120
0° / 90° 2-axis Stacked type  FCAB-2-8  FCAB-5-8	FCAB-2-8	2	0.9	Ø7		120
	FCAB-5-8	5	1.9	Ø12		120
0° / 45° / 90° 3-axis Stacked type  FRAB-2-8  FRAB-5-8	FRAB-2-8	2	0.9	Ø7		120
	FRAB-5-8	5	1.9	Ø12		120
Minimum order quantity is 10 strain gauges.						

Dedicated leadwires recommendable for F series strain gauge (GOBLET)

We supply various leadwires dedicated to strain gauges so as to meet our customers' requirements. Please refer to page 30 to 38 for the details of combination of a strain gauge and a leadwire. For CE marked GOBLET series strain gauges, only the leadwires using lead-free solder are available.

Type and designation of leadwires (GOBLET)

Usage	Leadwire name	Operating temperature range of leadwire (°C)	Type number example
General purpose (without temperature change)	Paralleled vinyl LJB-F Paralleled vinyl LJC-F	-20 ~ +80	FLAB-5-11-3 LJB-F FLAB-5-11-3 LJC-F
General use	3-wire paralleled vinyl LJBT-F 3-wire paralleled vinyl LJCT-F	-20 ~ +80	FLAB-5-11-3 LJBT-F FLAB-5-11-3 LJCT-F
Mid-high temperature	3-wire paralleled vinyl LXT-F	-20 ~ +150	FLAB-5-11-3 LXT-F
1-Gauge 4-Wire measurement	Polypropylene 4-wire paralleled LQM-F	-20 ~ +100	FLAB-5-11-3 LQM-F (modular plug attached)

NB: For use with CE compliant GOBLET strain gauges, specify leadwire with option -F having lead-free solder on order.

Dedicated leadwires recommendable for F series strain gauge

We supply various leadwires dedicated to strain gauges so as to meet our customers' requirements. Please refer to page 30 to 38 for the details of combination of a strain gauge and a leadwire.

Type and designation of leadwires

Usage	Leadwire name	Operating temperature range of leadwire (°C)	Type number example
General purpose (without temperature change)	Paralleled vinyl LJB/LJB-F Paralleled vinyl LJC/LJC-F	-20 ~ +80	FLA-5-11-3 LJB FLA-5-11-3 LJC
General use	3-wire paralleled vinyl LJBT/LJBT-F 3-wire paralleled vinyl LJCT/LJCT-F	-20 ~ +80	FLA-5-11-3 LJBT FLA-5-11-3 LJCT
Mid-high temperature	3-wire paralleled vinyl LXT/LXT-F	-20 ~ +150	FLA-5-11-3 LXT
Temperature integration	3-wire paralleled vinyl TLJBT/TLJBT-F	-20 ~ +80	FLA-5-11-3 TLJBT
1-Gauge 4-Wire measurement	Polypropylene 4-wire paralleled LQM/LQM-F	-20 ~ +100	FLA-5-11-3 LQM (modular plug attached)