



€ 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	Applicable adhesives	CN -196 ~ +120°C
Temperature compensation range	+10 ~ +100°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

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)		Backing size(mm)		Resistance Ω	
		Length	Width	Length	Width		
<ul style="list-style-type: none"> 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	
	FLAB-10	10	2.5	15.4	5	120	
	FLAB-30	30	2	35	5	120	
	<ul style="list-style-type: none"> General use 	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	
<ul style="list-style-type: none"> 350 Ω Single axis 	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	
	FLAB-3W-350	3	3.2	8.5	5	350	
	FLAB-5-350	5	1.8	9.4	3.8	350	
<ul style="list-style-type: none"> Gauge resistance 350 Ω 	FLAB-6-1000	6	4.6	11	7	1000	
<ul style="list-style-type: none"> Gauge resistance 1000 Ω 							

Fseries (GOBLET)

Single axis

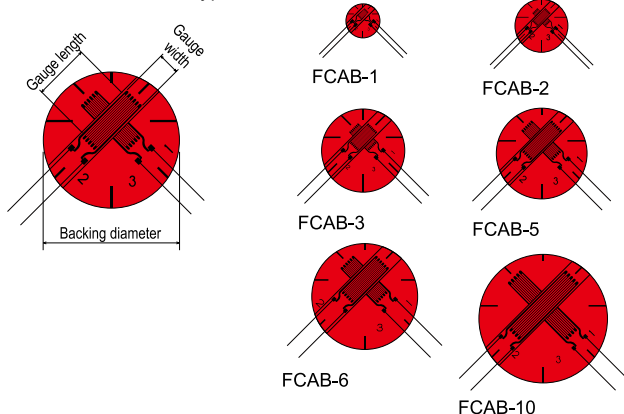
Minimum order quantity is 10 strain gauges.

GENERAL USE

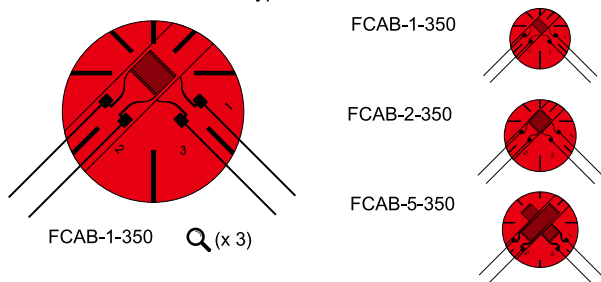
F series (GOBLET)

Multi-axis

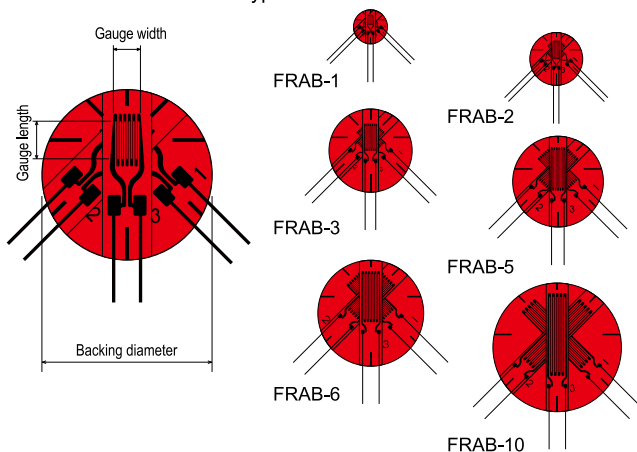
• 0°/90° 2-axis Stacked type



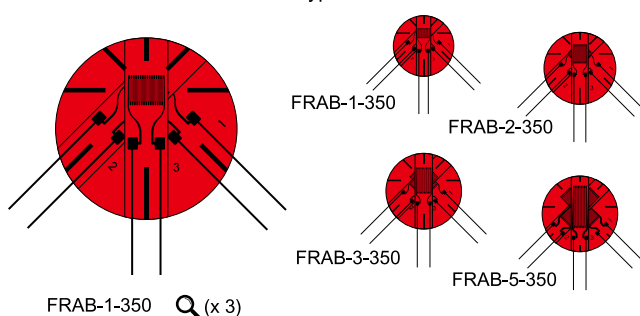
• 350Ω 0°/90° 2-axis Stacked type



• 0°/45°/90° 3-axis Stacked type



• 350Ω 0°/45°/90° 3-axis Stacked type



Minimum order quantity is 10 strain gauges.

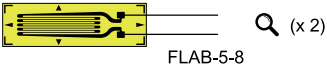

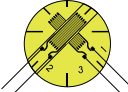
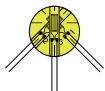
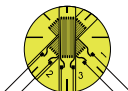
Type	Gauge size(mm)		Backing size(mm)		Resist- ance Ω
	Length	Width	Length	Width	
FCAB-1	1	0.7	Ø4.5		120
FCAB-2	2	0.9	Ø7		120
FCAB-3	3	1.7	Ø11		120
FCAB-5	5	1.9	Ø12		120
FCAB-6	6	2.4	Ø14		120
FCAB-10	10	2.5	Ø17		120
FCAB-1-350	1	1.6	Ø8		350
FCAB-2-350	2	1.9	Ø9.5		350
FCAB-3-350	3	2	Ø10		350
FCAB-5-350	5	1.8	Ø10		350
FRAB-1	1	0.7	Ø4.5		120
FRAB-2	2	0.9	Ø7		120
FRAB-3	3	1.7	Ø11		120
FRAB-5	5	1.9	Ø12		120
FRAB-6	6	2.4	Ø14		120
FRAB-10	10	2.5	Ø17		120
FRAB-1-350	1	1.6	Ø8		350
FRAB-2-350	2	1.9	Ø9.5		350
FRAB-3-350	3	2	Ø10		350
FRAB-5-350	5	1.8	Ø10		350

GLASS, CERAMIC USE

GLASS, CERAMIC USE



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

Gauge pattern	Type	Gauge size(mm)		Backing size(mm)		Resistance Ω
		Length	Width	Length	Width	
<ul style="list-style-type: none"> • Single axis  <p>FLAB-5-8</p>	FLAB-2-8	2	1.5	6.5	3	120
	FLAB-5-8	5	1.5	10	3	120
<ul style="list-style-type: none"> • 0°/90° 2-axis Stacked type  <p>FCAB-2-8</p>  <p>FCAB-5-8</p>	FCAB-2-8	2	0.9	∅7		120
	FCAB-5-8	5	1.9	∅12		120
<ul style="list-style-type: none"> • 0°/45°/90° 3-axis Stacked type  <p>FRAB-2-8</p>  <p>FRAB-5-8</p>	FRAB-2-8	2	0.9	∅7		120
	FRAB-5-8	5	1.9	∅12		120

Minimum order quantity is 10 strain gauges.

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 32 to 40 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-5-11-3LJB-F FLAB-5-11-3LJC-F
General use	3-wire paralleled vinyl LJBT-F 3-wire paralleled vinyl LJCT-F	- 20 ~ + 80	FLAB-5-11-3LJBT-F FLAB-5-11-3LJCT-F
Mid-high temperature	3-wire paralleled vinyl LXT-F	- 20 ~ + 150	FLAB-5-11-3LXT-F
1-Gauge 4-Wire measurement	Polypropyrene 4-wire paralleled LQM-F	- 20 ~ + 100	FLAB-5-11-3LQM-F (modular plug attached)

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

Single axis / Multi-axis

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 32 to 40 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-5-11-3LJB FLA-5-11-3LJC
General use	3-wire paralleled vinyl LJBT/LJBT-F 3-wire paralleled vinyl LJCT/LJCT-F	- 20 ~ + 80	FLA-5-11-3LJBT FLA-5-11-3LJCT
Mid-high temperature	3-wire paralleled vinyl LXT/LXT-F	- 20 ~ + 150	FLA-5-11-3LXT
Temperature integration	3-wire paralleled vinyl TLJBT/TLJBT-F	- 20 ~ + 80	FLA-5T-11-3TLJBT
1-Gauge 4-Wire measurement	Polypropyrene 4-wire paralleled LQM/LQM-F	- 20 ~ + 100	FLA-5-11-3LQM (modular plug attached)