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F-SERIES (GOBLET)

Foil Strain Gauges

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

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)		Backing size(mm)		Resistance Ω
		Length	Width	Length	Width	
Single axis						
General use	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
FLK pattern with narrow gauge width	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
350Ω Single axis	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
	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

Minimum order quantity is 10 strain gauges.

GENERAL USE

Gauge pattern	Type	Gauge size(mm) Length	Gauge size(mm) Width	Backing size(mm) Length	Backing size(mm) Width	Resistance Ω
0° / 90° 2-axis Stacked type						
	FCAB-1	1	0.7	$\varnothing 4.5$	120	
	FCAB-2	2	0.9	$\varnothing 7$	120	
	FCAB-3	3	1.7	$\varnothing 11$	120	
	FCAB-5	5	1.9	$\varnothing 12$	120	
	FCAB-6	6	2.4	$\varnothing 14$	120	
	FCAB-10	10	2.5	$\varnothing 17$	120	
350 Ω 0° / 90° 2-axis Stacked type						
	FCAB-1-350	1	1.6	$\varnothing 8$	350	
	FCAB-2-350	2	1.9	$\varnothing 9.5$	350	
	FCAB-3-350	3	2	$\varnothing 10$	350	
	FCAB-5-350	5	1.8	$\varnothing 10$	350	
0°/45° / 90° 3-axis Stacked type						
	FRAB-1	1	0.7	$\varnothing 4.5$	120	
	FRAB-2	2	0.9	$\varnothing 7$	120	
	FRAB-3	3	1.7	$\varnothing 11$	120	
	FRAB-5	5	1.9	$\varnothing 12$	120	
	FRAB-6	6	2.4	$\varnothing 14$	120	
	FRAB-10	10	2.5	$\varnothing 17$	120	
350 Ω 0°/45°/90° 3-axis Stacked type						
	FRAB-1-350	1	1.6	$\varnothing 8$	350	
	FRAB-2-350	2	1.9	$\varnothing 9.5$	350	
	FRAB-3-350	3	2	$\varnothing 10$	350	
	FRAB-5-350	5	1.8	$\varnothing 10$	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	Gauge size(mm) Width	Backing size(mm) Length	Backing size(mm) Width	Resistance Ω
Single axis	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	2	0.9	$\varnothing 7$		120
	FCAB-5-8	5	1.9	$\varnothing 12$		120
0° / 45° / 90° 3-axis Stacked type	FRAB-2-8	2	0.9	$\varnothing 7$		120
	FRAB-5-8	5	1.9	$\varnothing 12$		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

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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 TLJB/TLJBT-F	-20 ~ +80	FLA-5-11-3 TLJB
1-Gauge 4-Wire measurement	Polypropylene 4-wire paralleled LQM/LQM-F	-20 ~ +100	FLA-5-11-3 LQM (modular plug attached)

The information provided herein is to the best of our knowledge true and accurate, it is provided for guidance only. All specifications are subject to change without prior notification.

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