

Low-temperature Gages

KFLB

RoHS

● Gage Factor	Approx. 2.0
● Applicable Linear Expansion Coefficients (x10 ⁻⁶ /°C)	5, 11, 16, 23
● Self-temperature-compensation Range	-196 to 50°C

Applicable Adhesives and Operating Temperature Ranges

PC-600: -269 to 150°C
 CC-33A: -196 to 120°C
 EP-270: -269 to 30°C

Low-temperature Foil Strain Gages

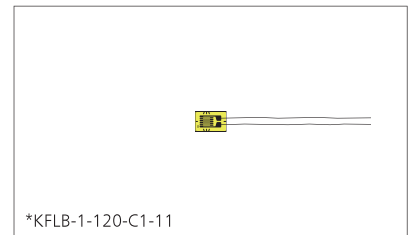
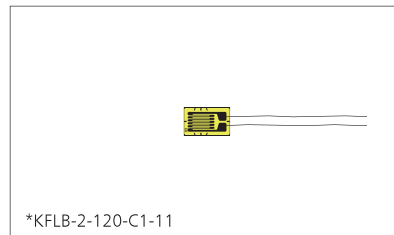
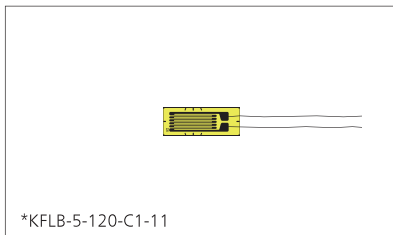
The gage element is made of NiCr alloy, which exhibits excellent characteristics under low-temperature environments and is sandwiched between polyimide films. Thus, the KFLB series gages are suitable for strain measurement of tanks and vessels containing low-temperature liquids such as LNG and LPG.

Types, lengths and codes of lead-wire cables pre-attached to KFLB series gages

Type	2 polyester-coated copper wires	3 polyester-coated copper wires	Mid-temperature. 2-wire cable	Mid-temperature. 3-wire cable	Fluoroplastic-coated high/low-temp. 3-wire cable
Length	C1, D25				
15 cm	N15C2	N15C3	R15C2	R15C3	F15C3
30 cm	N30C2	N30C3	R30C2	R30C3	F30C3
1 m	N1M2	N1M3	R1M2	R1M3	F1M3
3 m	—	—	R3M2	R3M3	F3M3
5 m	—	—	R5M2	R5M3	F5M3
Operating temp.	-196 to 150°C		-100 to 150°C		-196 to 150°C*
Remarks	Twisted for ≥ 50 cm		L-11**	L-12**	L-3**

- * -196°C: Because the gage leads are polyester-coated copper wires.
- ** For type R and type F of lead-wire cable with glass-cloth tape, see page 23.
- *** For other lead-wire cable lengths, contact us.

KFLB ● Uniaxial



Models	KFLB-5-120-C1-	11 16 23	KFLB-2-120-C1-	11 16 23	KFLB-1-120-C1-	11 16 23
Pattern	Uniaxial		Uniaxial		Uniaxial	
Base	10 × 3.7 mm		6 × 3.7 mm		4 × 2.7 mm	
Gage (Grid)	5 × 2.5 mm		2 × 2.5 mm		1 × 1.5 mm	
Resistance	120 Ω		120 Ω		120 Ω	
Pieces per Pack	10		10		10	

When ordering, specify the model number as follows.

KFLB-□-120-C1-□ Lead-wire Cable Code

e.g.

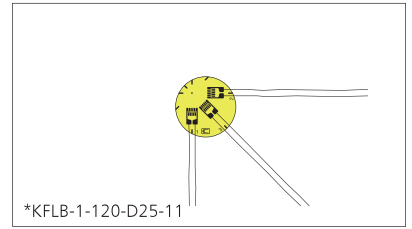
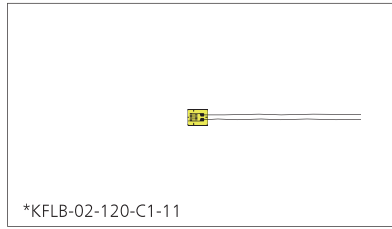
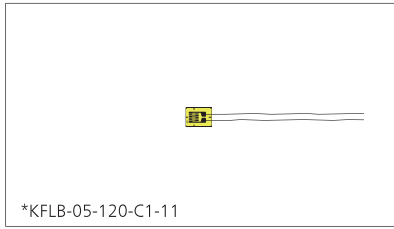
KFLB-5-120-C1-11 F1M3

*Values in □ and lead-wire cable code cannot be arbitrarily combined.

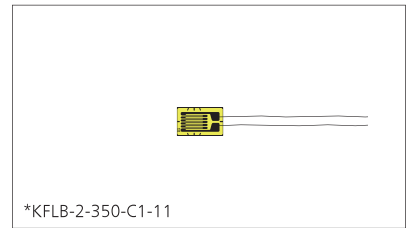
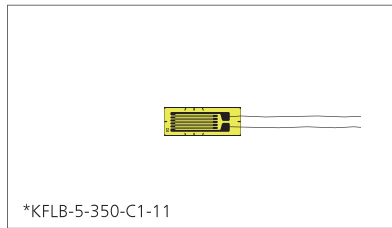
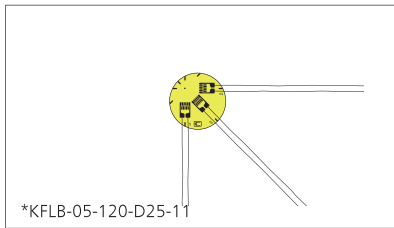
Lead-wire Cable Type and Shape	Oprg. Temp.	Length	Code
Fluoroplastic-coated high/low temp. 3-wire cable L-3	-269 to 150°C	1 m	F1M3
		3 m	F3M3
		5 m	F5M3
Mid-temperature 3-wire cable L-12	-100 to 150°C	1 m	R1M3
		3 m	R3M3
		5 m	R5M3
Mid-temperature 2-wire cable L-11	-100 to 150°C	1 m	R1M2
		3 m	R3M2
		5 m	R5M2
3 polyester-coated copper wires	-196 to 150°C	30 cm	N30C3
		50 cm, 1 m	N50C3
		1 m	N1M3
2 polyester-coated copper wires	-196 to 150°C	30 cm	N30C2
		50 cm, 1 m	N50C2
		1 m	N1M2
Silver-covered copper wires	-269 to 150°C	25 mm	

*Gage (Grid): Length × Width

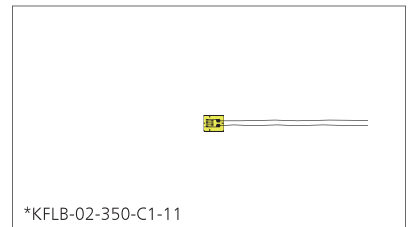
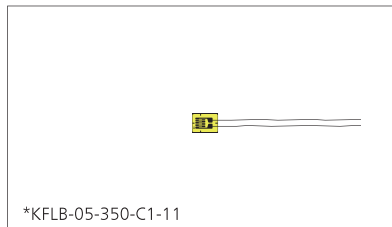
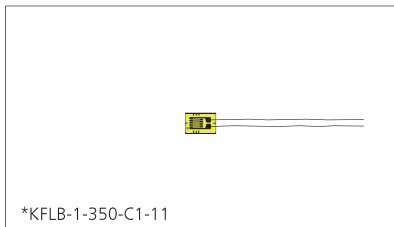
KFLB ● Uniaxial, Triaxial



Models	KFLB-05-120-C1-	11 16 23	KFLB-02-120-C1-	11 16 23	KFLB-1-120-D25-	11 16 23
Pattern	Uniaxial		Uniaxial		Triaxial, 0°/90°/45°	
Base	3.3 × 2.7 mm		2.5 × 2.2 mm		φ8	
Gage (Grid)	0.5 × 1.4 mm		0.2 × 1 mm		1 × 1.5 mm	
Resistance	120 Ω		120 Ω		120 Ω	
Pieces per Pack	10		10		5	

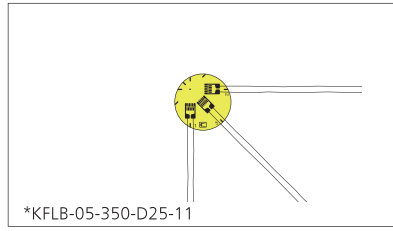
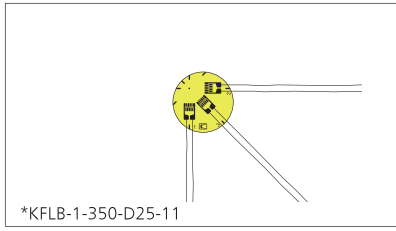


Models	KFLB-05-120-D25-	11 16 23	KFLB-5-350-C1-	11 16 23	KFLB-2-350-C1-	11 16 23
Pattern	Triaxial, 0°/90°/45°		Uniaxial		Uniaxial	
Base	φ7.5		10 × 3.7 mm		6 × 3.7 mm	
Gage (Grid)	0.5 × 1.4 mm		5 × 2.4 mm		2 × 2.4 mm	
Resistance	120 Ω		350 Ω		350 Ω	
Pieces per Pack	5		10		10	

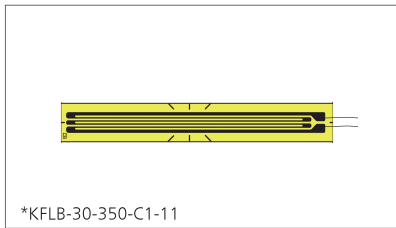


Models	KFLB-1-350-C1-	11 16 23	KFLB-05-350-C1-	11 16 23	KFLB-02-350-C1-	11 16 23
Pattern	Uniaxial		Uniaxial		Uniaxial	
Base	4 × 2.7 mm		3.5 × 2.7 mm		3 × 2.7 mm	
Gage (Grid)	1 × 1.5 mm		0.5 × 1.5 mm		0.2 × 1.5 mm	
Resistance	350 Ω		350 Ω		350 Ω	
Pieces per Pack	10		10		10	

KFLB ● Triaxial, Uniaxial for concrete and lumber



Models	KFLB-1-350-D25-	11	KFLB-05-350-D25-	11
		16		16
		23		23
Pattern	Triaxial, 0°/90°/45°		Triaxial, 0°/90°/45°	
Base	φ8		φ7.5	
Gage (Grid)	1 × 1.5 mm		0.5 × 1.5 mm	
Resistance	350 Ω		350 Ω	
Pieces per Pack	5		5	



Models	KFLB-30-350-C1-	5
		11
Pattern	Uniaxial (For concrete and lumber)	
Base	36 × 5.2 mm	
Gage (Grid)	30 × 2.7 mm	
Resistance	350 Ω	
Applicable Linear Expansion Coefficients	5 (lumber) 11 (concrete)	
Pieces per Pack	10	

When ordering, specify the model number as follows.

KFLB-□-350-□-□ Lead-wire Cable Code

e.g.

KFLB-5-350-C1-11 F1M3

*Values in □ and lead-wire cable code cannot be arbitrarily combined.

Lead-wire Cable Type and Shape	Oprg. Temp.	Length	Code
 Fluoroplastic-coated high/low temp. 3-wire cable L-3	-269 to 150°C	1 m	F1M3
		3 m	F3M3
		5 m	F5M3
 Mid-temperature 3-wire cable L-12	-100 to 150°C	1 m	R1M3
		3 m	R3M3
		5 m	R5M3
 Mid-temperature 2-wire cable L-11	-100 to 150°C	1 m	R1M2
		3 m	R3M2
		5 m	R5M2
 3 polyester-coated copper wires	-196 to 150°C	30 cm	N30C3
		50 cm, 1 m	N50C3
		1 m	N1M3
 2 polyester-coated copper wires	-196 to 150°C	30 cm	N30C2
		50 cm, 1 m	N50C2
		1 m	N1M2
 Silver-covered copper wires	-269 to 150°C	25 mm	

*Gage (Grid): Length × Width