Low-Temperature Strain Gages

Pattern, Gage Resistance, Gage Factor	Model	Dimensions (mm)				Remarks
		Grid		Base		
		Length	Width	Length	Width	

●KFL Series 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 polyimde films. Thus, the KFL series gages are suitable for strain measurement of tanks and vessels containing low-temperature liquids such as LNG and LPG.

Applicable Adhesives and Operating Temperature Range after Curing
UC-26B –196 to 50℃ (mainly for concrete and lumber)
PC-600 –269 to 150℃   CC-33A –196 to 120℃

When ordering, suffix the leadwire cable code (see table at the right) to the model number with a space in between.

Examples :
KFL-5-120-C1-11 F5M3

for the gage with a fluororesin-coated high/low-temperature 3-wire cable 5 m long pre-attached
If no leadwire cable code is suffixed, the gage is delivered with gage leads only (silver-clad copper wires 25 mm long each).

■Types, lengths and codes of leadwire cables pre-attached to KFL series gages

Type \ Length	Polyester-coated 2-wire copper cable	Polyester-coated 3-wire copper cable	Middle-temperature. 2-wire cable	Middle-temperature. 3-wire cable	Fluoroplastic-coated high/low-temp. 3-wire cable
			C1,D25		
2 cm	N2C2	N2C3			
3	N3C2	N3C3			
4	N4C2	N4C3			
5	N5C2	N5C3			
10	N10C2	N10C3			
15	N15C2	N15C3	R15C2	R15C3	F15C3
30	N30C2	N30C3	R30C2	R30C3	F30C3
50	N50C2	N50C3	R50C2	R50C3	F50C3
1 m	N1M2	N1M3	R1M2	R1M3	F1M3
2			R2M2	R2M3	F2M3
3			R3M2	R3M3	F3M3
4			R4M2	R4M3	F4M3
5			R5M2	R5M3	F5M3
6			R6M2	R6M3	F6M3
7			R7M2	R7M3	F7M3
8			R8M2	R8M3	F8M3
9			R9M2	R9M3	F9M3
10			R10M2	R10M3	F10M3
15			R15M2	R15M3	F15M3
20			R20M2	R20M3	F20M3
25			R25M2	R25M3	F25M3
30 m			R30M2	R30M3	F30M3
Oprg. temp. range	−196 to 150℃		-100 to 150℃		-196 to 150℃
Remarks	Twisted for 50 cm and 1 m long		L-11	L-12	L-3

Uniaxial 350- gages

Resistance : 350Ω, Gage factor : Approx. 2.1

These gages are also available with 350Ω gage resistance, with a slight difference in size from 120Ω gages.

Model	Grid Length	Grid Width	Base Length	Base Width	Remarks
KFL-30-350-C1-5	30	2.7	36	5.2	Mainly for lumber
KFL-30-350-C1-11					Mainly for concrete

Uniaxial

Resistance : 120Ω, Gage factor : Approx. 2.1
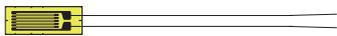
These gages are also available with 350Ω gage resistance, with a slight difference in size from 120Ω gages.

Model	Grid Length	Grid Width	Base Length	Base Width
KFL-5-120-C1-11	5	2.5	10	3.7
KFL-5-120-C1-16				
KFL-5-120-C1-23				
KFL-2-120-C1-11	2	2.5	6	3.7
KFL-2-120-C1-16				
KFL-2-120-C1-23				
KFL-1-120-C1-11	1	1.5	4	2.7
KFL-1-120-C1-16				
KFL-1-120-C1-23				
KFL-05-120-C1-11	0.5	1.4	3.3	2.7
KFL-05-120-C1-16				
KFL-05-120-C1-23				
KFL-02-120-C1-11	0.2	1	2.5	2.2
KFL-02-120-C1-16				
KFL-02-120-C1-23				

Triaxial, 0°/90°/45°

Resistance : 120Ω, Gage factor : Approx. 2.1
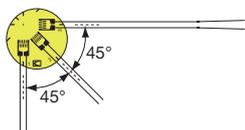
These gages are also available with 350Ω gage resistance, with a slight difference in size from 120Ω gages.

Model	Grid Length	Grid Width	Base	Remarks
KFL-1-120-D25-11	1	1.5	φ8	A minimum quantity 5 piece
KFL-1-120-D25-16				
KFL-1-120-D25-23				
KFL-05-120-D25-11	0.5	1.4	φ7.5	A minimum quantity 5 piece
KFL-05-120-D25-16				
KFL-05-120-D25-23				

A minimum quantity 10 piece