

# High-elongation Strain Gages

# KFEL

● Gage Factor

Approx.2.1

Applicable Adhesive and  
Operating Temperature Range

CC-36: -10 to 80°C

## ■ High-elongation Foil Strain Gages

Developed to measure strain in elastic to plastic regions on structures, the KFEL gages can measure strain as large as 10 to 15% with simple tension strain. Thus, these gages are applicable for large strain measurement and destructive testing of metals (steel, stainless steel and aluminum) and plastics (polyethylene and polypropylene).

### ■ Types, lengths and codes of leadwire cables pre-attached to KFEL gages

Length	Type	Vinyl-coated flat 2-wire cable		Vinyl-coated flat 3-wire cable	
	2 polyester-coated copper wires	C1	D34, D35	C1	D34, D35
2 cm	N2C2				
3	N3C2				
4	N4C2				
5	N5C2				
10	N10C2				
15	N15C2	L15C2R	L15C2S	L15C3R	L15C3S
30	N30C2	L30C2R	L30C2S	L30C3R	L30C3S
50	N50C2	L50C2R	L50C2S	L50C3R	L50C3S
1 m	N1M2	L1M2R	L1M2S	L1M3R	L1M3S
2		L2M2R	L2M2S	L2M3R	L2M3S
3		L3M2R	L3M2S	L3M3R	L3M3S
4		L4M2R	L4M2S	L4M3R	L4M3S
5		L5M2R	L5M2S	L5M3R	L5M3S
6		L6M2R	L6M2S	L6M3R	L6M3S
8		L8M2R	L8M2S	L8M3R	L8M3S
10		L10M2R	L10M2S	L10M3R	L10M3S
15		L15M2R	L15M2S	L15M3R	L15M3S
20		L20M2R	L20M2S	L20M3R	L20M3S
30 m		L30M2R	L30M2S	L30M3R	L30M3S
Opng. temp. range		-10 to 80°C			
Remarks	Twisted for 50cm and 1m long	L-6; L-9 for 6m or longer		L-7; L-10 for 6m or longer	

# KFEL Gages • Uniaxial 120Ω

Pattern	Leadwire Cable – Type and Shape	Operating Temp. Range	Leadwire Length	Model	
<b>KFEL-5-120-C1</b>        	<b>Vinyl-coated flat 3-wire cable</b> L-7 (L-10 for 6m or longer)	-10 to 80°C	1m	KFEL-5-120-C1 <b>L1M3R</b>	
			3m	KFEL-5-120-C1 <b>L3M3R</b>	
			5m	KFEL-5-120-C1 <b>L5M3R</b>	
		<b>Vinyl-coated flat 2-wire cable</b> L-6 (L-9 for 6m or longer)	-10 to 80°C	1m	KFEL-5-120-C1 <b>L1M2R</b>
		3m		KFEL-5-120-C1 <b>L3M2R</b>	
		5m		KFEL-5-120-C1 <b>L5M2R</b>	
		<b>2 polyester-coated copper wires</b>	-10 to 80°C	30cm	KFEL-5-120-C1 <b>N30C2</b>
		50cm • 1m		50cm	KFEL-5-120-C1 <b>N50C2</b>
				1m	KFEL-5-120-C1 <b>N1M2</b>
	<b>Uniaxial</b> ● Base Size 11 x 3.5 mm ● Gage Length 5 mm ● Gage Resistance 120Ω ● Pieces per Pack 10	<b>Silver-clad copper wires</b>	-10 to 80°C	25mm	KFEL-5-120-C1
	<b>KFEL-2-120-C1</b>        	<b>Vinyl-coated flat 3-wire cable</b> L-7 (L-10 for 6m or longer)	-10 to 80°C	1m	KFEL-2-120-C1 <b>L1M3R</b>
				3m	KFEL-2-120-C1 <b>L3M3R</b>
		5m		KFEL-2-120-C1 <b>L5M3R</b>	
		<b>Vinyl-coated flat 2-wire cable</b> L-6 (L-9 for 6m or longer)	-10 to 80°C	1m	KFEL-2-120-C1 <b>L1M2R</b>
		3m		KFEL-2-120-C1 <b>L3M2R</b>	
		5m		KFEL-2-120-C1 <b>L5M2R</b>	
		<b>2 polyester-coated copper wires</b>	-10 to 80°C	30cm	KFEL-2-120-C1 <b>N30C2</b>
				50cm	KFEL-2-120-C1 <b>N50C2</b>
				1m	KFEL-2-120-C1 <b>N1M2</b>
<b>Uniaxial</b> ● Base Size 8 x 4 mm ● Gage Length 2 mm ● Gage Resistance 120Ω ● Pieces per Pack 10		<b>Silver-clad copper wires</b>	-10 to 80°C	25mm	KFEL-2-120-C1

# KFEL Gages ● Biaxial 120Ω

Pattern	Leadwire Cable - Type and Shape	Operating Temp. Range	Leadwire Length	Model	
<b>KFEL-5-120-D34</b> 	Vinyl-coated flat 3-wire cable L-7 (L-10 for 6m or longer)	-10 to 80°C	1m	KFEL-5-120-D34 L1M3S	
			3m	KFEL-5-120-D34 L3M3S	
			5m	KFEL-5-120-D34 L5M3S	
		Vinyl-coated flat 2-wire cable L-6 (L-9 for 6m or longer)	-10 to 80°C	1m	KFEL-5-120-D34 L1M2S
		3m		KFEL-5-120-D34 L3M2S	
		5m		KFEL-5-120-D34 L5M2S	
		2 polyester-coated copper wires	-10 to 80°C	30cm	KFEL-5-120-D34 N30C2
		50cm		KFEL-5-120-D34 N50C2	
		1m		KFEL-5-120-D34 N1M2	
	<b>Biaxial, 0°/90°</b> <ul style="list-style-type: none"> <li>● Base Size 13 x 13 mm</li> <li>● Gage Length 5 mm</li> <li>● Gage Resistance 120Ω</li> <li>● Pieces per Pack 10</li> </ul>	Silver-clad copper wires	-10 to 80°C	25mm	KFEL-5-120-D34
	<b>KFEL-2-120-D34</b> 	Vinyl-coated flat 3-wire cable L-7 (L-10 for 6m or longer)	-10 to 80°C	1m	KFEL-2-120-D34 L1M3S
				3m	KFEL-2-120-D34 L3M3S
		5m		KFEL-2-120-D34 L5M3S	
		Vinyl-coated flat 2-wire cable L-6 (L-9 for 6m or longer)	-10 to 80°C	1m	KFEL-2-120-D34 L1M2S
		3m		KFEL-2-120-D34 L3M2S	
		5m		KFEL-2-120-D34 L5M2S	
		2 polyester-coated copper wires	-10 to 80°C	30cm	KFEL-2-120-D34 N30C2
		50cm		KFEL-2-120-D34 N50C2	
		1m		KFEL-2-120-D34 N1M2	
<b>Biaxial, 0°/90°</b> <ul style="list-style-type: none"> <li>● Base Size 10 x 10 mm</li> <li>● Gage Length 2 mm</li> <li>● Gage Resistance 120Ω</li> <li>● Pieces per Pack 10</li> </ul>		Silver-clad copper wires	-10 to 80°C	25mm	KFEL-2-120-D34

# KFEL Gages • Triaxial 120Ω

Pattern	Leadwire Cable – Type and Shape	Operating Temp. Range	Leadwire Length	Model
<b>KFEL-5-120-D35</b>  	Vinyl-coated flat 3-wire cable L-7 (L-10 for 6m or longer)	-10 to 80°C	1m	KFEL-5-120-D35 L1M3S
			3m	KFEL-5-120-D35 L3M3S
			5m	KFEL-5-120-D35 L5M3S
	Vinyl-coated flat 2-wire cable L-6 (L-9 for 6m or longer)	-10 to 80°C	1m	KFEL-5-120-D35 L1M2S
			3m	KFEL-5-120-D35 L3M2S
			5m	KFEL-5-120-D35 L5M2S
	2 polyester-coated copper wires	-10 to 80°C	30cm	KFEL-5-120-D35 N30C2
			50cm	KFEL-5-120-D35 N50C2
			1m	KFEL-5-120-D35 N1M2
	<b>Triaxial, 0°/90°/45°</b> <ul style="list-style-type: none"> <li>● Base Size 13 x 13 mm</li> <li>● Gage Length 5 mm</li> <li>● Gage Resistance 120Ω</li> <li>● Pieces per Pack 10</li> </ul>	Silver-clad copper wires	-10 to 80°C	25mm
<b>KFEL-2-120-D35</b>  	Vinyl-coated flat 3-wire cable L-7 (L-10 for 6m or longer)	-10 to 80°C	1m	KFEL-2-120-D35 L1M3S
			3m	KFEL-2-120-D35 L3M3S
			5m	KFEL-2-120-D35 L5M3S
	Vinyl-coated flat 2-wire cable L-6 (L-9 for 6m or longer)	-10 to 80°C	1m	KFEL-2-120-D35 L1M2S
			3m	KFEL-2-120-D35 L3M2S
			5m	KFEL-2-120-D35 L5M2S
	2 polyester-coated copper wires	-10 to 80°C	30cm	KFEL-2-120-D35 N30C2
			50cm	KFEL-2-120-D35 N50C2
			1m	KFEL-2-120-D35 N1M2
	<b>Triaxial, 0°/90°/45°</b> <ul style="list-style-type: none"> <li>● Base Size 10 x 10 mm</li> <li>● Gage Length 2 mm</li> <li>● Gage Resistance 120Ω</li> <li>● Pieces per Pack 10</li> </ul>	Silver-clad copper wires	-10 to 80°C	25mm