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# **High-elongation Strain Gages**

Gage Factor

Approx.2.1

KFEL

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

Туре	2 polyester-coated copper wires	Vinyl-coated flat 2-wire cable		Vinyl-coated flat 3-wire cable			
Length	C1, D34, D35	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		
Oprg. 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
KFEL-5-120-C1	Vinyl-coated flat 3-wire cable L-7 (L-10 for 6m or longer)		1m	KFEL-5-120-C1 L1M3R
		−10 to 80°C	3m	KFEL-5-120-C1 L3M3R
			5m	KFEL-5-120-C1 L5M3R
	Vinyl-coated flat 2-wire cable L-6 (L-9 for 6m or longer)		1m	KFEL-5-120-C1 L1M2R
		−10 to 80°C	3m	KFEL-5-120-C1 L3M2R
			5m	KFEL-5-120-C1 L5M2R
	2 polyester-coated copper wires		30cm	KFEL-5-120-C1 N30C2
	30cm 50cm·1m	-10 to 80°C	50cm	KFEL-5-120-C1 N50C2
	Julii III		1m	KFEL-5-120-C1 N1M2
Uniaxial   ● Base Size 11 x 3.5 mm   ● Gage Length 5 mm   ● Gage Resistance 120Ω   ● Pieces per Pack 10	Silver-clad copper wires	-10 to 80°C	25mm	KFEL-5-120-C1
KFEL-2-120-C1	Vinyl-coated flat 3-wire cable L-7 (L-10 for 6m or longer)		1m	KFEL-2-120-C1 L1M3R
		-10 to 80°C	3m	KFEL-2-120-C1 L3M3R
			5m	KFEL-2-120-C1 L5M3R
	Vinyl-coated flat 2-wire cable L-6 (L-9 for 6m or longer)		1m	KFEL-2-120-C1 L1M2R
		−10 to 80°C	3m	KFEL-2-120-C1 L3M2R
			5m	KFEL-2-120-C1 L5M2R
	2 polyester-coated copper wires		30cm	KFEL-2-120-C1 N30C2
		−10 to 80°C	50cm	KFEL-2-120-C1 N50C2
	- 11		1m	KFEL-2-120-C1 N1M2
Uniaxial  Base Size  8 x 4 mm  Gage Length  2 mm  Gage Resistance  120Ω	Silver-clad copper wires	-10 to 80°C	25mm	KFEL-2-120-C1

# KFEL Gages •Biaxial 120Ω

Pattern	Leadwire Cable - Type and Shape	Temp. Range	Leadwire Length	Model
KFEL-5-120-D34	Vinyl-coated flat 3-wire cable L-7 (L-10 for 6m or longer)		1m	KFEL-5-120-D34 L1M3S
		−10 to 80°C	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)		1m	KFEL-5-120-D34 L1M2S
"		-10 to 80°C	3m	KFEL-5-120-D34 L3M2S
			5m	KFEL-5-120-D34 L5M2S
	2 polyester-coated copper wires		30cm	KFEL-5-120-D34 N30C2
	30cm 50cm·1m	-10 to 80°C	50cm	KFEL-5-120-D34 N50C2
	30ciii iii		1m	KFEL-5-120-D34 N1M2
Biaxial, 0°/90°  Base Size 13 x 13 mm  Gage Length 5 mm  Gage Resistance 120Ω  Pieces per Pack 10	Silver-clad copper wires	-10 to 80°C	25mm	KFEL-5-120-D34
KFEL-2-120-D34	Vinyl-coated flat 3-wire cable L-7 (L-10 for 6m or longer)		1m	KFEL-2-120-D34 L1M3S
		-10 to 80°C	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)		1m	KFEL-2-120-D34 L1M2S
		-10 to 80°C	3m	KFEL-2-120-D34 L3M2S
			5m	KFEL-2-120-D34 L5M2S
	2 polyester-coated copper wires		30cm	KFEL-2-120-D34 N30C2
		−10 to 80°C	50cm	KFEL-2-120-D34 N50C2
			1m	KFEL-2-120-D34 N1M2
Biaxial, 0°/90°  Base Size 10 x 10 mm  Gage Length 2 mm  Gage Resistance 120Ω	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
KFEL-5-120-D3	5	Vinyl-coated flat 3-wire cable L-7 (L-10 for 6m or longer)		1m	KFEL-5-120-D35 L1M3S
			-10 to 80°C	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)		1m	KFEL-5-120-D35 L1M2S
	=		–10 to 80°C	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
	=	30cm 50cm·1m		50cm	KFEL-5-120-D35 N50C2
Triaxial, 0°/90°/45°  Base Size 13 x 13 mm  Gage Length 5 mm  Gage Resistance 120Ω  Pieces per Pack 10		336		1m	KFEL-5-120-D35 N1M2
		Silver-clad copper wires	–10 to 80°C	25mm	KFEL-5-120-D35
KFEL-2-120-D35		Vinyl-coated flat 3-wire cable L-7 (L-10 for 6m or longer)		1m	KFEL-2-120-D35 L1M3S
			–10 to 80°C	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)		1m	KFEL-2-120-D35 L1M2S
-			–10 to 80°C	3m	KFEL-2-120-D35 L3M2S
				5m	KFEL-2-120-D35 L5M2S
		2 polyester-coated copper wires		30cm	KFEL-2-120-D35 N30C2
			–10 to 80°C	50cm	KFEL-2-120-D35 N50C2
		11		1m	KFEL-2-120-D35 N1M2
● Gage Length 2 r	10 mm mm 20Ω	Silver-clad copper wires	-10 to 80°C	25mm	KFEL-2-120-D35
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