

# High-elongation Strain Gages

# KFEM

RoHS

● Resistance	120 Ω
● Gage Factor	Approx. 2.0
● Operating Temperature Range	-20 to 80°C
● Strain Limit at Room Temperature	20% to 30%
● Applicable Adhesive	CC-36

## ■ Ultrahigh-elongation Foil Strain Gages

KFEM series ultrahigh-elongation foil gages allow strain to be measured on various regions of structures, from elastic to plastic, and are suitable for large strain measurement. They can measure 20% to 30% of material deformation.

\*Strain limit of 20% to 30% is ensured for simple tension applied to the gage bonded on stainless steel (SUS 304) or aluminum alloy (A1050) at normal temperature.

\*Strain limit will be decreased under the following conditions.

- In case of bonding to non-adhesive materials such as aluminum alloy (A7075) and plastics (Polypropylene)
- In case of the targets have discontinuous distortion, or any crack on its surface
- In case of measurement at high/low temperature.

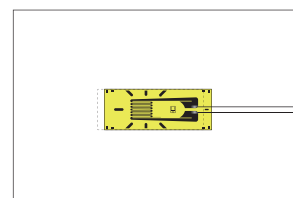
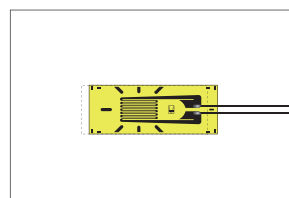
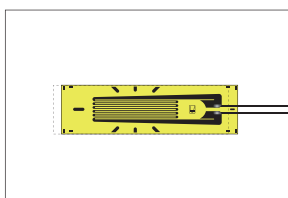
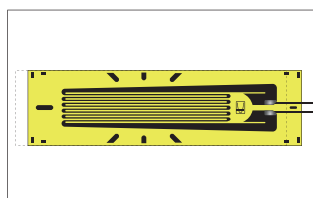
- Measurement of 20% to 30% material deformation possible
- Laminate protruding from the tip of gage base ensures improved adhesive property, making the gages hard to peel off.
- Foil material has an improved elongation property and is hard to disconnect.

## ■ Types, lengths and codes of lead-wire cables pre-attached to KFEM gages

Type	2 polyester-coated copper wires	Vinyl-coated flat 2-wire cable	Vinyl-coated flat 3-wire cable
Length	C1		
15 cm	N15C2	L15C2R	L15C3R
30 cm	N30C2	L30C2R	L30C3R
1 m	N1M2	L1M2R	L1M3R
3 m	—	L3M2R	L3M3R
5 m	—	L5M2R	L5M3R
Operating temp.	-20 to 80°C	-10 to 80°C	
Remarks	Twisted for ≥ 50 cm	L-6 L-9 for ≥ 6 m	L-7 L-10 for ≥ 6 m

\* For other lead-wire cable lengths, contact us.

## KFEM ● Uniaxial



Models	KFEM-10-120-C1	KFEM-5-120-C1	KFEM-2-120-C1	KFEM-1-120-C1
Pattern	Uniaxial	Uniaxial	Uniaxial	Uniaxial
Base	17.5 × 4.5 mm	11.5 × 3 mm	8.5 × 3 mm	7.0 × 2.5 mm
Gage (Grid)	10 × 2.5 mm	5 × 1.5 mm	2 × 1.5 mm	1 × 1.3 mm
Resistance	120 Ω	120 Ω	120 Ω	120 Ω
Pieces per Pack	10	10	10	10

When ordering, specify the model number as follows.

**KFEM-□-120-C1** Lead-wire Cable Code

(e.g.) KFEM-2-120-C1

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

Lead-wire Cable Type and Shape	Oprg. Temp.	Length	Code
Vinyl-coated flat 3-wire cable L-7 (L-10 for 6 m or longer)	-10 to 80°C	1 m	L1M3R
		3 m	L3M3R
		5 m	L5M3R
Vinyl-coated flat 2-wire cable L-6 (L-9 for 6 m or longer)	-10 to 80°C	1 m	L1M2R
		3 m	L3M2R
		5 m	L5M2R
2 polyester-coated copper wires	-20 to 80°C	30 cm	N30C2
		50 cm	N50C2
		1 m	N1M2
Silver-covered copper wires	-20 to 80°C	25 mm	

\*Gage (Grid): Length × Width