

General-purpose Foil Strain Gages (KFRB)

Patterns Gage Resistance, Gage Factors	Models	Dimensions (mm)				Remarks
		Gage (Grid)		Base		
		Length	Width	Length	Width	

●KFRB Series Foil Strain Gages

RoHS

The KFRB series foil strain gages are durable and easy-to-use high-grade strain gages. The gage element is sandwiched between a heat-resistant polyimide base and cover, thereby letting it exhibit high performance in a wide temperature range.

Applicable Adhesives

	Operating temp. after Curing the Adhesive		Operating temp. after Curing the Adhesive
PC-600	-196 to 150°C	EP-340	-55 to 150°C
CC-36	-30 to 100°C	CC-35	-30 to 120°C
CC-33A	-196 to 120°C		

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

Type	2 polyester-coated copper wires	3 polyester-coated copper wires	Vinyl-coated flat 2-wire cable		Vinyl-coated flat 3-wire cable		Mid-temperature 2-wire cables	Mid-temperature 3-wire cable
	C1, D25		C1	D25	C1	D25	C1, D25	
Length								
15 cm	N15C2	N15C3	L15C2R	L15C2S	L15C3R	L15C3S	R15C2	R15C3
30 cm	N30C2	N30C3	L30C2R	L30C2S	L30C3R	L30C3S	R30C2	R30C3
1 m	N1M2	N1M3	L1M2R	L1M2S	L1M3R	L1M3S	R1M2	R1M3
3 m	—	—	L3M2R	L3M2S	L3M3R	L3M3S	R3M2	R3M3
5 m	—	—	L5M2R	L5M2S	L5M3R	L5M3S	R5M2	R5M3
Operating temp.	-196 to 150°C		-10 to 80°C				-100 to 150°C	
Remarks	Twisted for ≥ 50 cm		L-6 L-9 for ≥ 6 m		L-7 L-10 for ≥ 6 m		L-11	L-12

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

When ordering, suffix the lead-wire cable code to the model number with a space in between. (Except for D9 and D19)

E.g. KFRB-02N-120-C1-11 With 2 polyester-coated copper wires 10 cm long → [KFRB-02N-120-C1-11 N10C2](#)

KFRB-05-120-D25-11 With a vinyl-coated flat 3-wire cable 5 m long → [KFRB-05-120-D25-11 L5M3S](#)

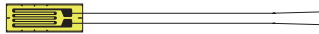
If no lead-wire cable code is suffixed, the gage is delivered with gage leads only. (Silver-covered copper wires 25 mm long)

Uniaxial

Resistance: 120 Ω

Gage factor: Approx. 2.1

(KFRB-02N: Approx. 1.9)



The KFRB series gages are also available with the gage resistance of 350 Ω.

(Excluding the KFRB-02N)

The size is slightly different from 120Ω gages.

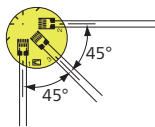
KFRB-5-120-C1-11				
KFRB-5-120-C1-16	5	2.5	10	3.7
KFRB-5-120-C1-23				
KFRB-2-120-C1-11				
KFRB-2-120-C1-16	2	2.5	6	3.7
KFRB-2-120-C1-23				
KFRB-1-120-C1-11				
KFRB-1-120-C1-16	1	1.5	4	2.7
KFRB-1-120-C1-23				
KFRB-05-120-C1-11				
KFRB-05-120-C1-16	0.5	1.4	3.3	2.7
KFRB-05-120-C1-23				
KFRB-02-120-C1-11				
KFRB-02-120-C1-16	0.2	1	2.5	2.2
KFRB-02-120-C1-23				
KFRB-02N-120-C1-11				
KFRB-02N-120-C1-16	0.2	0.9	1.6	1.2
KFRB-02N-120-C1-23				

*The above picture is KFRB-5-120-C1-11.

Triaxial 0°/90°/45°

Resistance: 120 Ω

Gage factor: Approx. 2.1



These KFRB series gages are also available with the gage resistance of 350Ω.

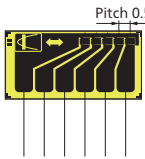
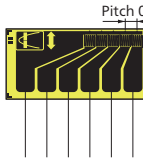
The size is slightly different from 120Ω gages.

KFRB-1-120-D25-11				
KFRB-1-120-D25-16	1	1.5	φ8	5 gages/ pkg
KFRB-1-120-D25-23				
KFRB-05-120-D25-11				
KFRB-05-120-D25-16	0.5	1.4	φ7.5	5 gages/ pkg
KFRB-05-120-D25-23				

*The above picture is KFRB-1-120-D25-11.

10 gages/ pkg unless otherwise specified.

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		Gage (Grid)		Base																							
		Length	Width	Length	Width																						
Uniaxial 5-element, for concentrated stress measurement Resistance: 120 Ω Gage factor: Approx. 1.95																											
 D9		 D19		*When measuring with dynamic strain amplifiers or signal conditioners, the KFRB measures data one element by one element. Measurement using 2 elements or more at the same time is not available. *Since the gage resistance is 120±15Ω (deviation among 5-element: 5 Ω), each element requires an external resistor having the same resistance when connected to the measuring instrument. *Standard type: With polyester-coated copper wires (10 cm)																							
*The above picture is KFRB-015-120-D9-11 N10C2. (Left) *The above picture is KFRB-015-120-D19-11 N10C2. (Right)		<table border="1"> <tr> <td>KFRB-015-120-D9-11 N10C2</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>KFRB-015-120-D9-16 N10C2</td> <td>0.15</td> <td>0.34</td> <td>6</td> <td>3</td> <td></td> <td>P (Pitch): 0.5 mm 5 gages/ pkg</td> </tr> <tr> <td>KFRB-015-120-D9-23 N10C2</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	KFRB-015-120-D9-11 N10C2							KFRB-015-120-D9-16 N10C2	0.15	0.34	6	3		P (Pitch): 0.5 mm 5 gages/ pkg	KFRB-015-120-D9-23 N10C2										
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Strain Gages

Outline

Lead-wire cable

General

Waterproof

Concrete

Composite material
PCB
Plastics

Ultra-small strain
High temp.
Low temp.

High elongation

Non-magneto-resistive

Hydrogen gas
Bending

With protector
Embedded

Crack

Adhesive
Coating agent

Custom-designed