



Strain Gages

Outline

Lead-wire cable

General

Waterproof

Concrete

Composite material
PCB
PlasticsUltra-small strain
High temp.
Low temp.

High elongation

Non-magneto
resistiveHydrogen gas
BendingWith protector
Embedded

Crack

Adhesive
Coating agentCustom-
designed

Waterproof Strain Gages (KFWS & KCW)

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

●KFWS Series Small-sized Waterproof Foil Strain Gages

RoHS

The KFWS series foil strain gages are small-sized waterproof gages suitable for outdoor or underwater strain measurement where gage bonding space is limited. The waterproof resin is as thin as 1.3 mm, making them flexible enough to be bonded to a curved surface of 10 mm diameter.

Applicable Adhesives

	Operating Temp. after Curing the Adhesive
CC-33A	-10 to 80°C
CC-36	-10 to 80°C

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

Type	Vinyl-coated flat 2-wire cable		Vinyl-coated flat 3-wire cable	
	C1	D16	C1	D16
Length				
15 cm	L15C2R	L15C2S	L15C3R	L15C3S
30 cm	L30C2R	L30C2S	L30C3R	L30C3S
1 m	L1M2R	L1M2S	L1M3R	L1M3S
3 m	L3M2R	L3M2S	L3M3R	L3M3S
5 m	L5M2R	L5M2S	L5M3R	L5M3S
Operating temp.	-10 to 80°C			
Remarks	L-6, L-9 for ≥ 6 m		L-7, L-10 for ≥ 6 m	

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

E.g.

For the gage with a vinyl-coated flat 2-wire cable 3 m long

→ **KFWS-2N-120-C1-11 L3M2R**

Uniaxial

Resistance: 120 Ω

Gage factor: Approx. 2.1



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

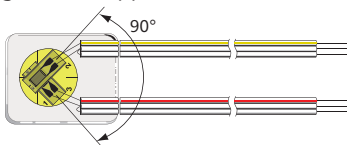
The following models are delivered with a vinyl-coated flat 3-wire cable 5 m long pre-attached.

KFWS-2N-120-C1-11 L5M3R				
KFWS-2N-120-C1-16 L5M3R	2	0.84	15	6
KFWS-2N-120-C1-23 L5M3R				

Biaxial, 0°/90° stacked rosette

Resistance: 120 Ω

Gage factor: Approx. 2.1



The following models are delivered with a vinyl-coated flat 3-wire cable 5m long pre-attached.

KFWS-2-120-D16-11 L5M3S				
KFWS-2-120-D16-16 L5M3S	2	1.2	15	12
KFWS-2-120-D16-23 L5M3S				

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

●KCW Series Weldable Waterproof Foil Strain Gages

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

E.g.

For the gage with a chloroprene-coated 3-wire cable 5 m long

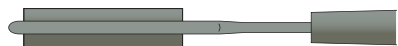
→ **KCW-5-120-G10-11 G5M3S**

Uniaxial 1 element

With chloroprene 3-wire cable

Resistance: 120 Ω

Gage factor: Approx. 2.2



Material: SUS304

The KCW series foil strain gages are weldable gages, which do not require any coating treatment for use under high pressure or under water. The G10 type endures a water pressure of approximately 10 MPa.

Mounting Method and Operating Temperature

Spot welding: -20 to 100°C

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

Type	Chloroprene 3-wire cable			
	G10			
Length				
15 cm	G15C3S			
30 cm	G30C3S			
1 m	G1M3S			
3 m	G3M3S			
5 m	G5M3S			
Operating temp.	-20 to 100°C			

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

The following type is for 3 m of chloroprene 3-wire cable.

KCW-5-120-G10-11 G3M3S	5	-	21	5
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Min. radius
of curvature R20
2 gages/ pkg

10 gages/ pkg unless otherwise specified.