

# Gages for Ultra-small Strain Measurement (KSPB & KSNB)



Outline

Lead-wire cable

General

Waterproof

Concrete

Composite material  
PCB  
Plastics

Ultra-small strain  
High temp.  
Low temp.

High elongation

Non-  
magnetoiresistive

Hydrogen gas  
Bending

With protector  
Embedded

Crack

Adhesive  
Coating agent

Custom-  
designed

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

●KSPB Series Semiconductor Strain Gages


RoHS

Applicable Adhesives

	Operating Temp. after Curing the Adhesive
CC-33A	-50 to 120°C
EP-340	-50 to 150°C

The KSPB series gages are stable-performance semiconductor strain gages usable for general stress measurement and transducers. The F2 type has a half-bridge formed with a 2-element structure (Positive and Negative), for self-temperature compensation and is suitable for strain measurement of steel products.


Uniaxial



Resistance: 120 Ω  
Gage factor: Approx. 125

KSPB-2-120-E3	2	0.25	5	3	4 gages/ pkg
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Uniaxial



Resistance: 120 Ω  
Gage factor: Approx. 125

KSPB-2-120-E4	2	0.26	7.7	4	4 gages/ pkg
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Uniaxial 350Ω gage



Resistance: 350 Ω  
Gage factor: Approx. 125

KSPB-6-350-E4	6	0.27	13	5	4 gages/ pkg
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Uniaxial 350Ω gage



Resistance: 350 Ω  
Gage factor: Approx. 160

KSPB-1-350-E4	1	0.25	6.6	4	4 gages/ pkg
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Uniaxial 1000Ω gage



Resistance: 1000 Ω  
Gage factor: Approx. 170

KSPB-2-1K-E4	2	0.2	7.7	4	4 gages/ pkg
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Uniaxial, 2-element



Resistance: 120 Ω  
Gage factor: Approx. 235

KSPB-3-120-F2-11	3	N0.83 P0.47	10	4	2 gages/ pkg
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Patterns, Gage Resistance, Gage Factor	Models	Dimensions (mm)				Remarks
		Gage (Grid)		Base		
		Length	Width	Length	Width	

●KSNB Series Self-temperature-compensation Semiconductor Strain Gages

NEW


RoHS

Applicable Adhesives

	Operating Temp. after Curing the Adhesive
EP-340	-50 to 150°C
CC-33A	-50 to 120°C
CC-36	-30 to 100°C

The KSNB series gages use an N-type silicon as the resistive element to control the resistance temperature coefficient of the material according to the linear expansion coefficient of the measuring object. Thus, the change of thermally-induced resistance is minimized. (Excluding E5)

Uniaxial




Resistance: 120 Ω  
Gage factor: Approx. -100

\*The above picture is KSNB-2-120-E3-11.

KSNB-2-120-E3-11	2	0.3	5	3	4 gages/ pkg
KSNB-2-120-E3-16					

Uniaxial

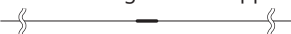


Resistance: 120 Ω  
Gage factor: Approx. -100

\*The above picture is KSNB-2-120-E4-11.

KSNB-2-120-E4-11	2	0.3	7.7	4	4 gages/ pkg
KSNB-2-120-E4-16					

Uniaxial

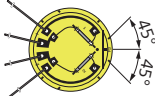


Resistance: 120 Ω  
Gage factor: Approx. -110

\*The above picture is KSNB-2-120-E5-11.

KSNB-2-120-E5-11	2	0.3	—		4 gages/ pkg Oxygen-free tin-plated copper wires 40 mm long
KSNB-2-120-E5-16					

Biaxial, 0°/90°  
plane arrangement




Resistance: 120 Ω  
Gage factor: Approx. -100

\*The above picture is KSNB-2-120-F3-11.

KSNB-2-120-F3-11	2	0.3	φ11		2 gages/ pkg
KSNB-2-120-F3-16					

Uniaxial 350Ω gages



Resistance: 350 Ω  
Gage factor: Approx. -100

\*The above picture is KSNB-6-350-E4-11.

KSNB-6-350-E4-11	6	0.31	13	5	4 gages/ pkg
KSNB-6-350-F4-16					