
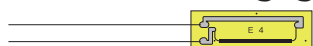
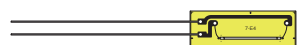


Gages for Ultra-small Strain Measurement (KSPH & KSPLB)

Patterns, Gage Resistance, Gage Factor	Models	Dimensions (mm)				Remarks											
		Gage (Grid)		Base													
		Length	Width	Length	Width												
<div>●KSPH Series High-output Semiconductor Strain Gages</div> <div>The KSPH series gages have high resistance, thereby making high excitation voltage applicable to obtain high output voltage.</div> <div>Uniaxial 2000Ω gage</div> <div>Resistance: 2000 Ω</div> <div>Gage factor: Approx. 170</div> <div></div> <div>Applicable Adhesives</div> <table><tr><th></th><th>Operating Temp. after Curing the Adhesive</th></tr><tr><td>CC-33A</td><td>-50 to 120°C</td></tr><tr><td>CC-36</td><td>-30 to 100°C</td></tr></table> <table><tr><td>KSPH-4-2K-E4</td><td>4</td><td>0.73</td><td>11</td><td>4</td></tr></table>								Operating Temp. after Curing the Adhesive	CC-33A	-50 to 120°C	CC-36	-30 to 100°C	KSPH-4-2K-E4	4	0.73	11	4
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<div>Uniaxial 10000Ω gage</div> <div>Resistance: 10000 Ω</div> <div>Gage factor: Approx. 170</div> <div></div> <div>KSPH-9-10K-E4</div> <div>9</div> <div>0.58</div> <div>16</div> <div>5</div>																	
Patterns, Gage Resistance, Gage Factor	Models	Dimensions (mm)				Remarks											
		Gage (Grid)		Base													
		Length	Width	Length	Width												
<div>●KSPLB Ultra Linear Semiconductor Strain Gage</div> <div>The KSPLB gage features a superior linearity of resistance change against strain in a comparatively wide range, thereby making it suitable as a sensing element of transducers.</div> <div>Uniaxial 60Ω gage</div> <div>Resistance: 60 Ω</div> <div>Gage factor: Approx. 90</div> <div></div> <div>Applicable Adhesives</div> <table><tr><th></th><th>Operating Temp. after Curing the Adhesive</th></tr><tr><td>CC-33A</td><td>-50 to 120°C</td></tr><tr><td>EP-340</td><td>-50 to 150°C</td></tr></table> <table><tr><td>KSPLB-7-60-E4</td><td>7</td><td>0.28</td><td>14</td><td>5</td></tr></table>								Operating Temp. after Curing the Adhesive	CC-33A	-50 to 120°C	EP-340	-50 to 150°C	KSPLB-7-60-E4	7	0.28	14	5
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CC-33A	-50 to 120°C																
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4 gages/pkg unless otherwise specified.

Encapsulated Gages

●Encapsulated Gages

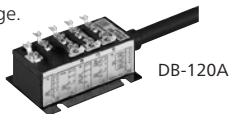
■MI cable length codes and optional accessories

E.g.
 1) KHCS-10-120-G12-11 C5M
 for KHCS with 5 m long MI cable.
 2) KHCS-10-120-G12-11 C2MV
 for KHCS with 2 m long MI cable and a bridge adapter pre-attached.

Optional Accessories

■Bridge box DB-120A/L

Connect KHCV or KCW to form the Wheatstone bridge.



●DB-120A

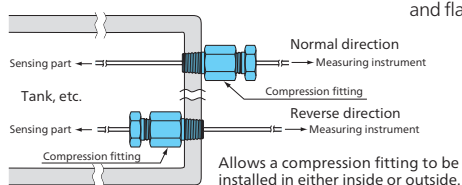
Cable: Chloroprene-coated 5 m long, terminated with a connector (NDIS4102 (7 pins)).
 Dimensions: 60 x 42 x 25 mm
 Weight: Approx. 600 g (Including cable)

●DB-120L (Compact plug-in type)

Cable: Removable type 5 m long, terminated with a connector (NDIS4102 (7 pins)).
 Dimensions: 60 x 20 x 20 mm
 Weight: Approx. 60 g (Excluding cable)

■Compression fitting

For fixing MI cables.
 When ordering, specify it.

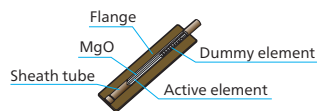


Hermetically sealed weldable strain gages consist of sensing part and cable.

When ordering, specify the model together with code of the desired MI cable length, suffixed with a space in between. The suffix may include codes of the optional bridge adapter and compression fitting (see table below.) In all case, the length of soft cable is 50 cm. (For extension, contact us.)

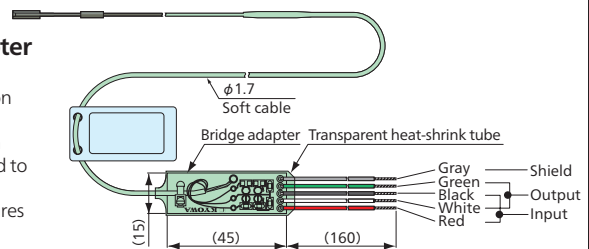
MI cable length	Code of MI cable length	Bridge adapter A	Compression fitting B	A & B
1 m	C1M	C1MV	C1MF	C1MFV
2 m (Std.)	C2M	C2MV	C2MF	C2MFV
3 m	C3M	C3MV	C3MF	C3MFV
4 m	C4M	C4MV	C4MF	C4MFV
5 m	C5M	C5MV	C5MF	C5MFV
6 m	C6M	C6MV	C6MF	C6MFV
8 m	C8M	C8MV	C8MF	C8MFV
10 m	C10M	C10MV	C10MF	C10MFV

■Sensing part (2-element)



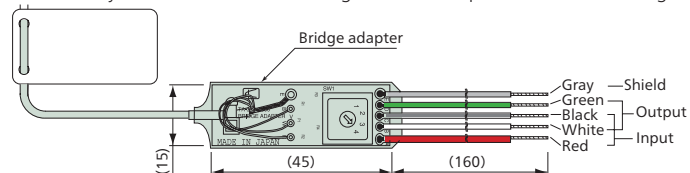
■Half bridge adapter

Equipped with optimum temperature compensation resistors for the operating temperature range. When delivered, it is pre-attached to the soft cable to prevent erroneous wiring and ensures labor saving.



■Quarter bridge adapter

A dedicated adapter to the KHCV, enables easy selection of the cutoff frequencies (1.6, 7.23, 16 Hz, and flat) as well as easy connection to the measuring instrument to prevent erroneous wiring.



Outline
 Lead-wire cable
 General
 Waterproof
 Concrete
 Composite material
 PCB
 Plastics
 Ultra-small strain
 High temp.
 Low temp.
 High elongation
 Non-magnetoresistive
 Hydrogen gas
 Bending
 With protector
 Embedded
 Crack
 Adhesive
 Coating agent
 Custom-designed