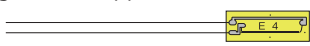
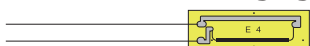
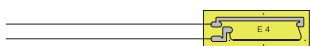


Gages for Ultra-small Strain Measurement KSPH & KSPL

| Patterns, Gage Resistance, Gage Factor | Models | Dimensions (mm) | | | | Remarks | | | | | | |
|---|--|-----------------|--|--------|--------------|---------|--------------|---|------|----|---|--------------|
| | | Grid | | Base | | | | | | | | |
| | | Length | Width | Length | Width | | | | | | | |
| <p>●KSPH Series High-output Semiconductor Strain Gages</p> <p>Uniaxial 2000Ω gage Resistance: 2000 Ω Gage factor: Approx. 170</p>  | <p>The KSPH series gages have the high resistance, thereby making high bridge voltage applicable to obtain high output voltage.</p> <p>Applicable Adhesives and Operating Temperature Range after Curing</p> <table border="1"> <thead> <tr> <th>Adhesives</th> <th>Operating Temp. after Gluing the Gages</th> </tr> </thead> <tbody> <tr> <td>CC-33A</td> <td>-50 to 120°C</td> </tr> <tr> <td>CC-36</td> <td>-30 to 100°C</td> </tr> </tbody> </table> | Adhesives | Operating Temp. after Gluing the Gages | CC-33A | -50 to 120°C | CC-36 | -30 to 100°C | 4 | 0.73 | 11 | 4 | 4 gages/ pkg |
| Adhesives | Operating Temp. after Gluing the Gages | | | | | | | | | | | |
| CC-33A | -50 to 120°C | | | | | | | | | | | |
| CC-36 | -30 to 100°C | | | | | | | | | | | |
| <p>Uniaxial 10000Ω gage Resistance: 10000 Ω Gage factor: Approx. 170</p>  | <p>Applicable Adhesives and Operating Temperature Range after Curing</p> <table border="1"> <thead> <tr> <th>Adhesives</th> <th>Operating Temp. after Gluing the Gages</th> </tr> </thead> <tbody> <tr> <td>CC-33A</td> <td>-50 to 120°C</td> </tr> <tr> <td>CC-36</td> <td>-30 to 100°C</td> </tr> </tbody> </table> | Adhesives | Operating Temp. after Gluing the Gages | CC-33A | -50 to 120°C | CC-36 | -30 to 100°C | 9 | 0.58 | 16 | 5 | 4 gages/ pkg |
| Adhesives | Operating Temp. after Gluing the Gages | | | | | | | | | | | |
| CC-33A | -50 to 120°C | | | | | | | | | | | |
| CC-36 | -30 to 100°C | | | | | | | | | | | |

| Patterns, Gage Resistance, Gage Factor | Models | Dimensions (mm) | | | | Remarks | | | | | | |
|--|--|-----------------|--|--------|--------------|---------|--------------|---|------|----|---|--------------|
| | | Grid | | Base | | | | | | | | |
| | | Length | Width | Length | Width | | | | | | | |
| <p>●KSPL Ultra Linear Semiconductor Gage</p> <p>Uniaxial 60Ω gage Resistance: 60 Ω Gage factor: Approx. 90</p>  | <p>The KSPL 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.</p> <p>Applicable Adhesives and Operating Temperature Range after Curing</p> <table border="1"> <thead> <tr> <th>Adhesives</th> <th>Operating Temp. after Gluing the Gages</th> </tr> </thead> <tbody> <tr> <td>CC-33A</td> <td>-50 to 120°C</td> </tr> <tr> <td>CC-36</td> <td>-30 to 100°C</td> </tr> </tbody> </table> | Adhesives | Operating Temp. after Gluing the Gages | CC-33A | -50 to 120°C | CC-36 | -30 to 100°C | 7 | 0.28 | 14 | 5 | 4 gages/ pkg |
| Adhesives | Operating Temp. after Gluing the Gages | | | | | | | | | | | |
| CC-33A | -50 to 120°C | | | | | | | | | | | |
| CC-36 | -30 to 100°C | | | | | | | | | | | |

Encapsulated Strain Gages

The specifications on this page are the typical values and may be changed on operating conditions.

●Encapsulated Strain Gages

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

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.

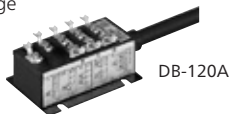
When ordering, specify the model together with code of the desired MI cable length, suffixed with a space in between. The suffix may include codes of the optional bridge adapter and compression fitting (See table below.) In all case, the length of soft cable is 50 cm (For extension, contact us).

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

Options

Bridge box DB-120A/L

Connect KHCV or KCW to form a Wheatstone bridge



●DB-120A

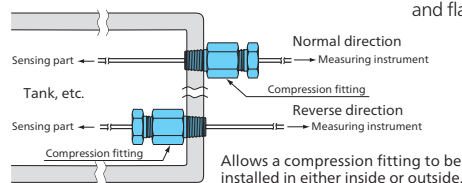
Cable: Chloroprene-coated 5 m long, terminated a NDIS connector.
Dimensions: 60 x 42 x 25 mm
Weight: Approx. 600 g (Including cable)

●DB-120L (Compact plug-in type)

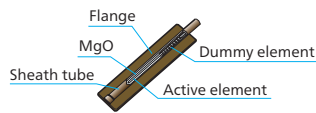
Cable: Removable type 5 m long, terminated a NDIS connector.
Dimensions: 60 x 20 x 20 mm
Weight: Approx. 60 g (Excluding cable)

Compression fitting

For fixing MI cables.
When ordering, specify it.

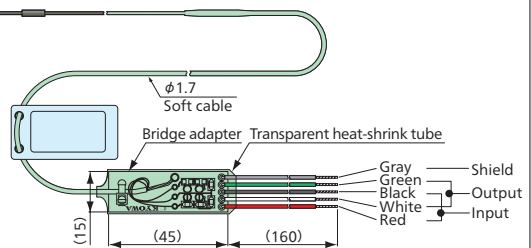


Sensing part (2-element)



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.

