Encapsulated Strain Gages

KHCX

- Gage Factor: Approx. 1.5 (950°C)
- Applicable Linear Expansion Coefficients: 11, 13

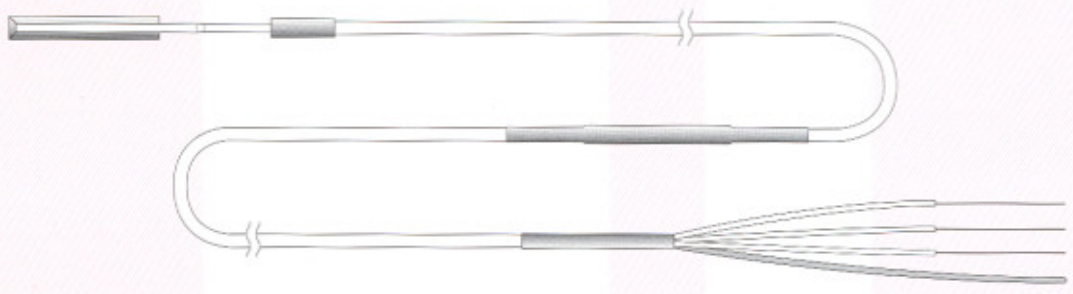
Mounting Method and Operating Temperature Range
Spot welding: −196 to 950°C

■Encapsulated Gages for Static/Dynamic Strain Measurement at 950°C

The KHCX gages are uniaxial 2-element temperature compensation Capsule Gages. The maximum operating temperature is 950°C, the highest level in the world.

KHCX Gages ●Uniaxial 120Ω

Pattern	Leadwire Cable – Type and Shape	Operating Temp. Range	Leadwire Length	Model
KHCX-10-120-G13-11 13	3-conductor shielded cable	−196 to 950°C	MI cable, 2m Soft cable, 50cm	KHCX-10-120-G13-11 C2M
	3-conductor shielded cable with bridge adapter	−196 to 950°C	MI cable, 2m Soft cable, 50cm	KHCX-10-120-G13-11 C2MV

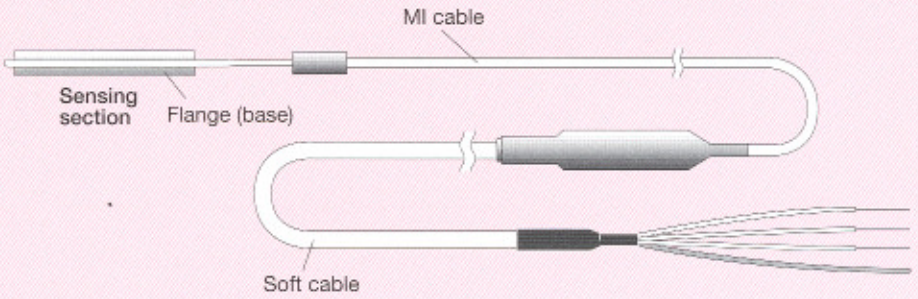


Uniaxial 2-element, temperature compensation

- Base Size: 20 x 3 mm
- Gage Length: 10 mm
- Gage Resistance: 120Ω
- Pieces per Pack: 1

Encapsulated Strain Gages

Encapsulated strain gages are 2-element, temperature compensation gages applicable at high temperatures. The capsule has active and dummy gages embedded in a metal tube filled with insulation (MgO). The leadwire cable is composed of an MI cable and a soft cable, 3 conductors each, for easy handling. Except for the KHCD gage, measurement is performed in conjunction with the dedicated HDB adapter to form a strain-gage bridge. Also available is a bridge adapter which is connected directly to the terminal of the soft cable in place of the HDB.



●Extension of MI Cable/Soft Cable

Extension of MI Cable

The MI cable can be extended to 0.5, 1, 1.5, 2m and thereafter by every 1m step to 30m. Since the MI cable resistance of the KHCD gage is as high as approximately 40Ω/1m reciprocated, its extension considerably reduces the gage factor. Thus, it is recommended to extend the soft cable.

Extension of Soft Cable

The soft cable can be extended up to 30m by every 1m step.

●MI Cables

Gage	Cable Extension Unit
KHCS	0.5m, 1m, 1.5m, 2m and thereafter by every 1m step to 30m
KHCM	
KHC G8	
KHC G9	
KHCX	2m to 30m by every 1m step

●Soft Cables

Gage	Cable Extension Unit
KHCX, KHCD, KHCS, KHCM, KHC	Up to 30m by every 1m step

Options

■Dedicated Adapters HDB-B/C

The dedicated adapter enables the user to easily configure a strain-gage bridge by soldering the temperature compensation resistor (accessory to encapsulated gage) to the terminal of the adapter (excluding the KHCD gage).

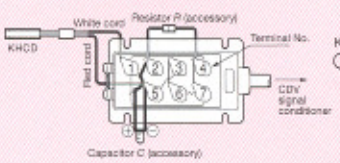
Applicable Gage Resistance	Model	Cable Length	Dimensions & Mass
120Ω	HDB-120B	1m long, terminated with arrow-shaped chip	86 x 54 x 33 mm, approx. 200g
	HDB-120C	1m long, terminated with NDIS connector plug	
60Ω	HDB-60B	1m long, terminated with arrow-shaped chip	
	HDB-60C	1m long, terminated with NDIS connector plug	

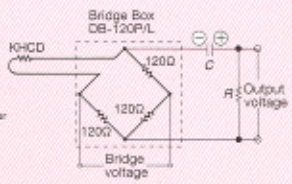

HDB-120B,C

■Bridge Boxes DB-120P/L

The bridge box enables the user to easily configure a measuring circuit by soldering the resistor and capacitor (accessories to KHCD gages) to the terminal of the box.

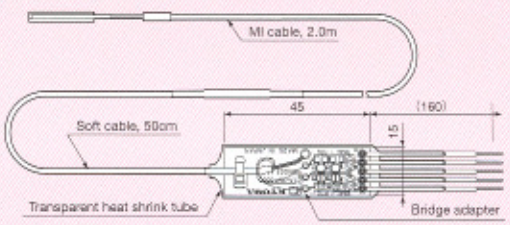

DB-120P





■Bridge Adapter

The bridge adapter has the most suitable temperature compensation resistor for the operating temperature range mounted to the board. It is connected to the soft cable when delivered. It makes the dedicated HDB adapter unnecessary, while eliminating any possible erroneous wiring and ensuring labor-saving. (excluding the KHCD gage).



■Compression Fitting (Cable Extractor)

(Except for KHCX and KHCD)