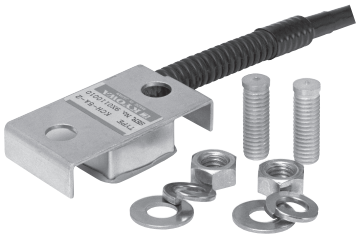
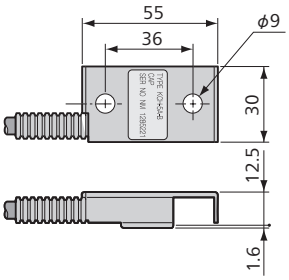
Gages with a Protector (KCH)

●KCH Series Foil Strain Gages with a Protector



The unique design simplifies gage bonding, wiring and moisture-proofing work in the field. In addition, the metal case protects the strain gage and significantly improves reliability compared with conventional gages.
Using stud bolts and adhesive allows the gages to be mounted to the bottom or side plate of a tank for strain measurement, to a hopper or tank for weight measurement, to the shaft of a truck for tare weight measurement or any other similar applications where the gages need to be protected against moisture, water or small stones.

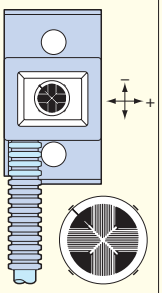
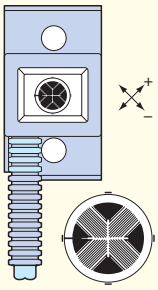
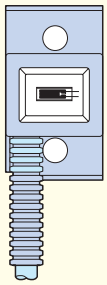
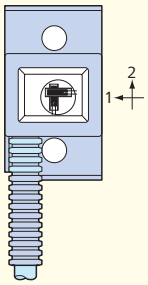
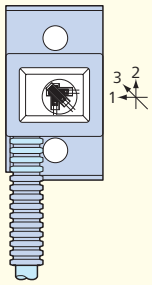


Applicable Adhesives

	Operating Temp. after Curing the Adhesive
EP-340	−40 to 100°C
CC-33A	−40 to 100°C

●Relay Cables (For KCH-5A-BJ/SJ) (Optional Accessories)

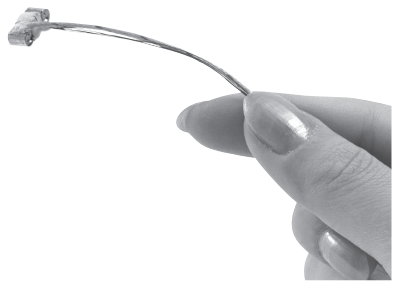
Models	TN-29	TN-30	TN-31	TN-32	TN-33
Cable length	2 m	3 m	7 m	10 m	12 m
Cable cover length	1.5 m	2.5 m	6.5 m	9.5 m	11.5 m
Remarks	With waterproof connector jack (R04-J6-F6.8) Bared at the tip				

Models	KCH-5A-B,KCH-5A-BJ	KCH-5A-S,KCH-5A-SJ	KCH-5A-1	KCH-5A-2	KCH-5A-3
Types	Full bridge	Full bridge (For shearing)	Uniaxial	Biaxial, 0/90° stacked rosette	Triaxial, 0/45/90° stacked rosette
Gage length	2 mm	2 mm	5 mm	5 mm	5 mm
Resistance	350 Ω	350 Ω	350 Ω	350 Ω	350 Ω
Gage patterns					
System	Full-bridge system	Full-bridge system	3-wire system	3-wire system	2-wire system
Cables	KCH-5A-B and S come with special flexible vinyl-shielded 4-conductor (0.3 mm²) cable, 6.8 mm diameter by 10 m long, bared at the tip. KCH-5A-BJ and SJ come with special flexible inyl-shielded 4-conductor (0.3 mm²) cable, 2 m long (cable cover 1.75 m long) by 6.3 mm diameter (10.2 mm including cable cover) and terminated with waterproof connector jack (R04-P6-M6.8). Relay cables (TN-29 to 33) are optional accessories.		Special flexible vinyl-shielded 4-conductor (0.3 mm²) cable, 6.8 mm diameter by 10 m long, bared at the tip.	Special flexible vinyl-shielded 6-conductor (0.3 mm²) cable, 6.8 mm diameter by 10 m long, bared at the tip.	

Embedded Gage (KMP)

●KMP Embedded Gage

Developed by Mitsubishi Electric Corp.
Commercialized by Kyowa Electronic Instruments Co., Ltd.



Embedded in resin, the KMP gage measures cure-shrinkage and internal strain. The compact design enables embedment in shaped resins and is suitable for internal stress measurement of products made by combining epoxy resin and metal.

Model	KMP-8-H3-L100
Gage Resistance	120 Ω
Gage Factor	Approx. 2.0
Length of Sensing Element	1 mm
Apparent Young Modulus	Approx. 70 GPa (Approx. 7000 kgf/mm²)
Operating Temperature	20 to 150°C
Compensated Temperature	20 to 120°C
Built-in Thermocouples	K (ϕ 0.1)