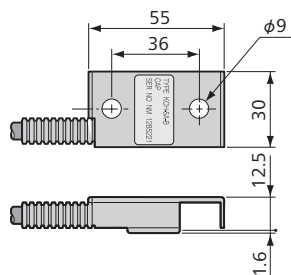
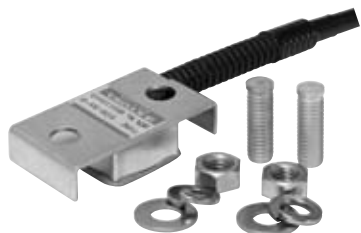


Gages with a Protector KCH

●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, the gages can be mounted to the bottom and side plate of tank for strain measurement, to a hopper or tank for weight measurement, to the shaft of a truck for tare weight measurement or in any similar applications where the gages need to be protected against moisture, water or small stones. (Patented)

Applicable Adhesives and Operating Temperature Range after Curing

EP-340: -40 to 100°C CC-33A: -40 to 100°C

●Relay Cables (for KCH-5A-BJ/SJ) (Option)

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); the other end is bared.				

Models	KCH-5A-B,KCH-5A-BJ	KCH-5A-S,KCH-5A-SJ	KCH-5A-1	KCH-5A-2	KCH-5A-3
Types	Bridge (for bending)	Bridge (for shearing)	Uniaxial	Biaxial, 0/90° stacked rosette	Triaxial, 0/90/45° 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 Pattern					
System	4-gage system	4-gage system	3-wire system	3-wire system	2-wire system
Cable	KCH-5A-B and S come with special flexible vinyl-shielded 4-conductor (0.3 mm ²) cable, 6.8-mm diameter by 10-m long, and bared at the tip; KCH-5A-BJ and SJ, with flexible vinyl-shielded 4-conductor (0.3 mm ²) cable, 2 m long (cable cover 1.75 m long) by 6.3 mm diameter (that of cable cover 10.2 mm) and terminated with waterproof connector plug (R04-P6-M6.8). Relay cables TN-29 to 33 are separately sold.		Comes with special flexible vinyl-shielded 4-conductor (0.3 mm ²) cable, 6.8 mm diameter by 10 m long, and bared at the tip.	Come with special flexible vinyl-shielded 6-conductor (0.3 mm ²) cable, 6.8 mm diameter by 10 m long and bared at the tip.	

Embedded Gage KMP

●KMP Embedded Gage Developed by Mitsubishi Electric Corp. and 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	120Ω
Gage factor	Approx. 2.0
Length of sensing element	1 mm
Apparent Young modulus	Approx. 70 GPa (Approx. 7000 kgf/mm ²)
Operating temperature range	20 to 150°C
Built-in thermocouple	K (φ 0.1 mm)