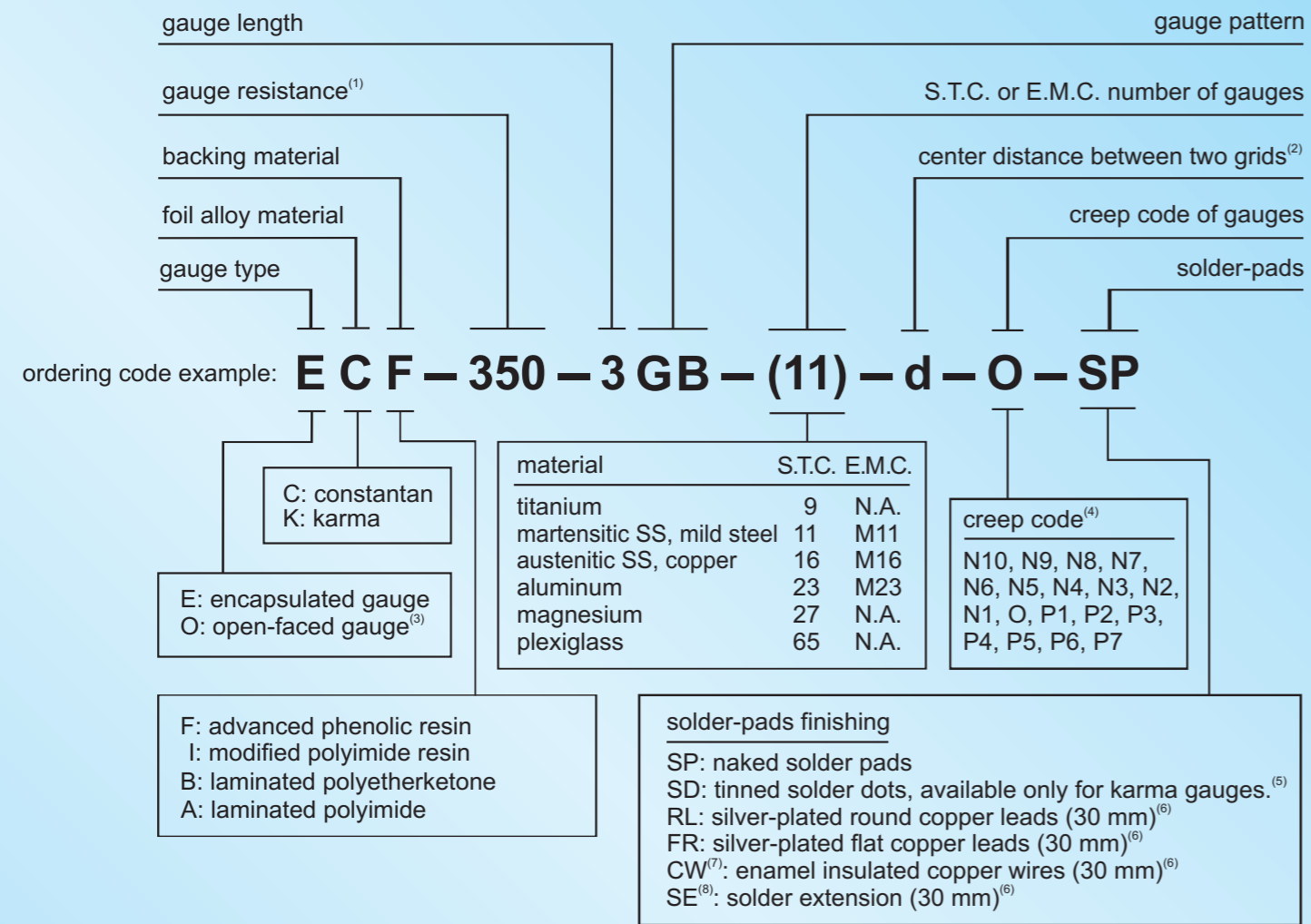


# Ordering Code of BCM Strain Gauges



- Notes: (1) The resistance tolerance, the resistance deviation from its nominal value, the resistance difference between the two grids of dual gauges, and the resistance unbalance over the four grids of full-bridge gauges, are on the package.
- (2) The parameter of "center distance between two grids" is only applied to half-bridge gauges and full-bridge gauges.
- (3) The open-faced strain gauge is made without the encapsulation, so its sensing grid will be exposed to air (oxygen, humidity and dust) during the bonding process. Therefore, it is not recommended for transducer application, unless the user wants to trim the gauge resistance after the bonding process.
- (4) A new creep can be available on request for large orders.
- (5) It is not necessary to select the option of "SD (tinned solder dots)", unless the user is not able to solder the leads/wires onto the karma gauges (e.g., EKF-series).
- (6) 30mm is the standard length. Other lengths are available on request.
- (7) The highest operating temperature of enamel insulated copper wires (CW) is 150°C.
- (8) The soldering extensions (SE) are extensions of the gauge contacts formed on the gauge itself, and its maximum length is limited to 90mm.

The listed specifications are subject to change without prior notice.

**BCM**  
**SENSOR**

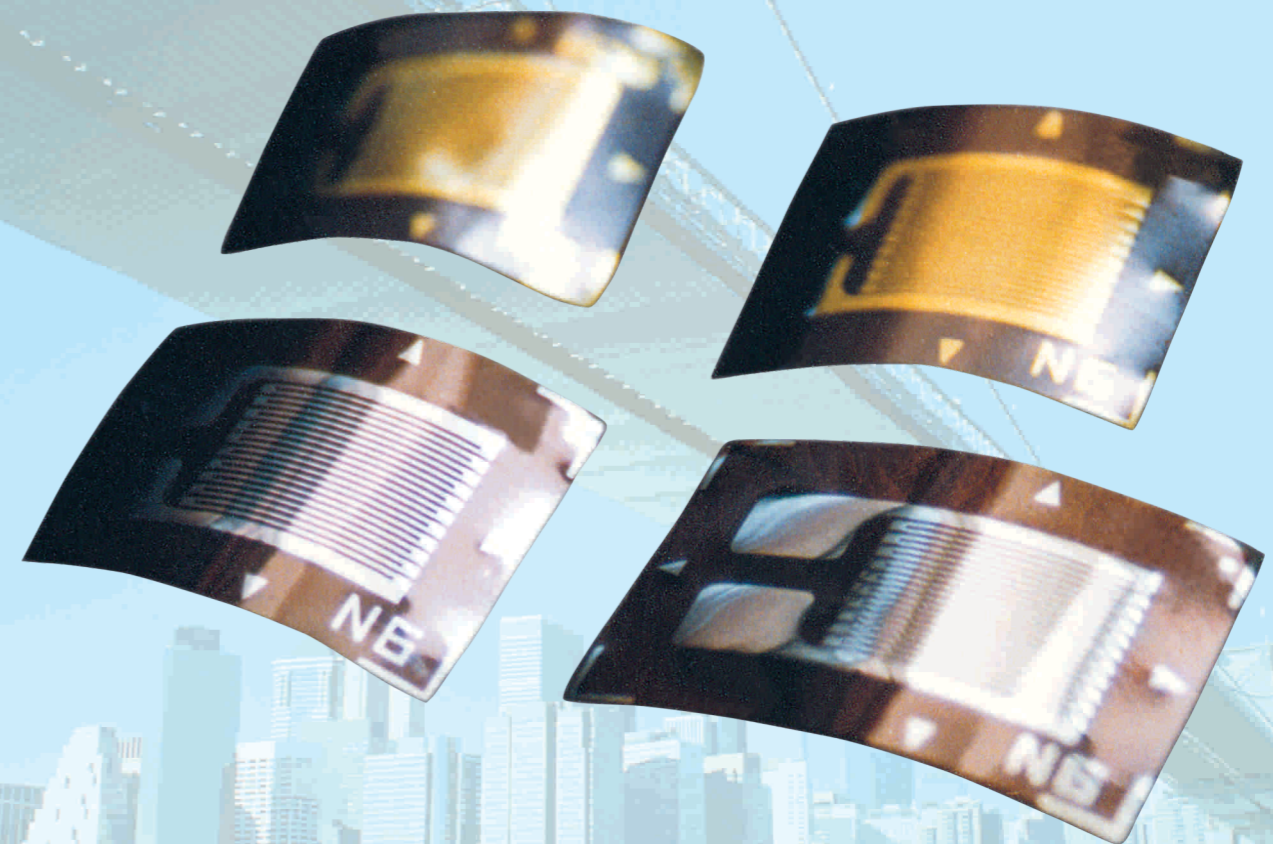
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Your Local Distributor:

# BCM Strain Gauges

for Transducer Application

## Product Overview



BCM SENSOR TECHNOLOGIES bvba

### strain gauges (SG) for transducer application

**SG for bending beam**      **SG for compression & tension column beam**

strain gauge patterns

pattern name:	AA	FB	BB	BB-A	BB-B
gauge resistance:	350 Ω, 1 kΩ, 2 kΩ, 5 kΩ	350 Ω, 700 Ω, 1 kΩ, 2 kΩ	350 Ω, 700 Ω, 1 kΩ, 2 kΩ	350 Ω, 700 Ω, 1 kΩ, 2 kΩ	350 Ω, 700 Ω, 1 kΩ, 2 kΩ
metal foil material:	constantan, karma				
backing material:	(1) F: advanced phenolic resin, (2) I: modified polyimide resin, (3) B: laminated polyetherketone, (4) A: laminated polyimide				
working temp.:	(1) -30 ~ +80 °C, (2) -85 ~ +150 °C, (3) -45 ~ +150 °C, (4) -195 ~ +200 °C				

**SG for shear-beam**

strain gauge patterns

pattern name:	AB	AC	HA	HA-A	HA-B
gauge resistance:	350 Ω, 1 kΩ, 2 kΩ	350 Ω, 1 kΩ, 2 kΩ	350 Ω, 1 kΩ, 2 kΩ	350 Ω, 1 kΩ, 2 kΩ	350 Ω, 1 kΩ, 2 kΩ
metal foil material:	constantan, karma				
backing material:	(1) F: advanced phenolic resin, (2) I: modified polyimide resin, (3) B: laminated polyetherketone, (4) A: laminated polyimide				
working temp.:	(1) -30 ~ +80 °C, (2) -85 ~ +150 °C, (3) -45 ~ +150 °C, (4) -195 ~ +200 °C				

**half-bridge strain gauges**

strain gauge patterns

pattern name:	GB	GB-L	GB-AL	GB-BL	HA-C
gauge resistance:	350 Ω, 1 kΩ, 2 kΩ	350 Ω, 1 kΩ, 2 kΩ	350 Ω, 1 kΩ, 2 kΩ	350 Ω, 1 kΩ, 2 kΩ	350 Ω, 1 kΩ, 2 kΩ
metal foil material:	constantan, karma				
backing material:	(1) F: advanced phenolic resin, (2) I: modified polyimide resin, (3) B: laminated polyetherketone, (4) A: laminated polyimide				
working temp.:	(1) -30 ~ +80 °C, (2) -85 ~ +150 °C, (3) -45 ~ +150 °C, (4) -195 ~ +200 °C				

**full-bridge strain gauges**

strain gauge patterns

pattern name:	FG-L	FF-L	FF-AL	FF-BL	EB	EC
gauge resistance:	350 Ω, 1 kΩ, 2 kΩ	350 Ω, 1 kΩ, 2 kΩ	350 Ω, 1 kΩ, 2 kΩ	350 Ω, 1 kΩ, 2 kΩ	350 Ω, 1 kΩ, 2 kΩ	350 Ω, 1 kΩ, 2 kΩ
metal foil material:	constantan, karma					
backing material:	(1) F: advanced phenolic resin, (2) I: modified polyimide resin, (3) B: laminated polyetherketone, (4) A: laminated polyimide					
working temp.:	(1) -30 ~ +80 °C, (2) -85 ~ +150 °C, (3) -45 ~ +150 °C, (4) -195 ~ +200 °C					

**diaphragm SG for pressure applications**

strain gauge patterns

pattern name:	KA	KA-A	KA-B
gauge resistance:	350 Ω, 650 Ω, 1 kΩ, 2 kΩ, 3 kΩ	350 Ω, 650 Ω, 1 kΩ, 2 kΩ, 3 kΩ	350 Ω, 650 Ω, 1 kΩ, 2 kΩ, 3 kΩ
metal foil material:	constantan, karma		
backing material:	(1) F: advanced phenolic resin, (2) I: modified polyimide resin, (3) B: laminated polyetherketone, (4) A: laminated polyimide		
working temp.:	(1) -30 ~ +80 °C, (2) -85 ~ +150 °C, (3) -45 ~ +150 °C, (4) -195 ~ +200 °C		

**diaphragm SG for force sensor applications**

strain gauge patterns

pattern name:	KC	KC-A	KC-B
gauge resistance:	350 Ω, 650 Ω, 1 kΩ, 2 kΩ, 3 kΩ	350 Ω, 650 Ω, 1 kΩ, 2 kΩ, 3 kΩ	350 Ω, 650 Ω, 1 kΩ, 2 kΩ, 3 kΩ
metal foil material:	constantan, karma		
backing material:	(1) F: advanced phenolic resin, (2) I: modified polyimide resin, (3) B: laminated polyetherketone, (4) A: laminated polyimide		
working temp.:	(1) -30 ~ +80 °C, (2) -85 ~ +150 °C, (3) -45 ~ +150 °C, (4) -195 ~ +200 °C		

**bondable compensation resistors**      **bondable soldering terminals**

resistor patterns

pattern name:	RZ(C), RT(C)	FE(A)	CT(E), CS(E)	TCG	TCI
resistance:	1 Ω, 2 Ω, 3 Ω, 4 Ω	5Ω, 10Ω, 30Ω, 50Ω, 110Ω, 200Ω	3 Ω, 3.5 Ω, 17 Ω	NA	NA
metal foil material:	constantan, nickel		constantan, nickel	gold-plated copper	gold-plated copper
backing material:	(1) F: advanced phenolic resin, (2) I: modified polyimide resin, (3) B: laminated polyetherketone, (4) A: laminated polyimide				
working temp.:	(1) -30 ~ +80 °C, (2) -85 ~ +150 °C, (3) -45 ~ +150 °C, (4) -195 ~ +200 °C				

**example of soldering extension (SE)**  
extension length: 30, ..., 90 mm

strain gauge patterns

pattern name:	EB pattern as example
gauge resistance:	350 Ω, 1 kΩ, 2 kΩ
metal foil material:	constantan, karma
backing material:	(1) F: advanced phenolic resin, (2) I: modified polyimide resin, (3) B: laminated polyetherketone, (4) A: laminated polyimide
working temp.:	(1) -30 ~ +80 °C, (2) -85 ~ +150 °C, (3) -45 ~ +150 °C, (4) -195 ~ +200 °C

**semiconductor SG**

gauges with backing      naked gauges

series	SB series	SN series
resistance	15, 30, 60, 120, 350, 1k, 3k Ω	15, 30, 60, 120, 350, 1k, 3k Ω
material	doped silicon	doped silicon
backing	modified epoxy resin, modified phenolic resin	no backing layer
temp. range	-50 ~ +85 °C, -50 ~ +250 °C	-50 ~ +120 °C, -50 ~ +250 °C