

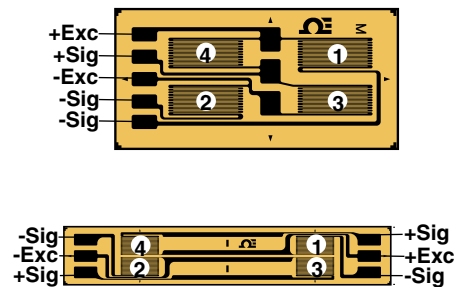
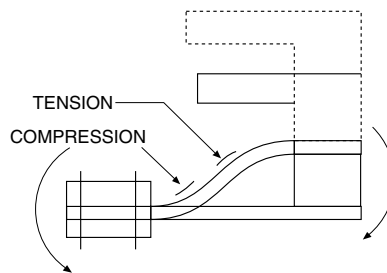
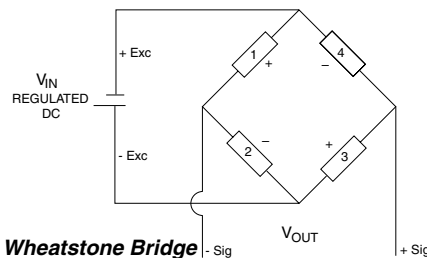
TRANSDUCER QUALITY STRAIN GAGE

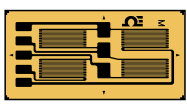
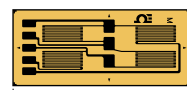

FULL WHEATSTONE BRIDGE, REVERSED-BENDING BEAM OR CONTRAFLEXURE BEAM ALL GRIDS IN THE SAME DIRECTION

Design and build your own transducers. These full bridge strain gages might be used to design transducers for beams that have a contraflexure point. Contraflexure is defined as a point in a structure where bending occurs in opposite directions. This may also be described as a reversed bending beam, or a double bending beam. The 4 grids are linear, all in the same direction. Look up the modulus of elasticity and the yield strength of your material, and design the spring element so that you will be working in the linear portion of the stress-strain curve. For best results use stainless steel or aluminum and match the strain gage temperature

characteristics. You may use these full bridge strain gages for bending strain applications where only one side of the beam is available for strain gage installation. These gages are easy to work with as the carrier piece has all 4 strain gages for fast and easy installation. Having one carrier with multiple strain gages offers several advantages. Alignment of the 4 strain gages with respect to each other is already done. Some of the strain gages share common ribbon leads or Solder Pads which saves wiring steps and valuable time. The corners of the Wheatstone bridge at the signal output have been left open so that

sensor performance can be tested and improved. Zero temperature compensation resistors and zero balance compensation resistors can be easily added into the open corners of the Wheatstone bridge circuit. An extra bondable terminal pad can be placed at the open corner so that the appropriate resistors can be wired in. Or you can simply connect your 4 leads (+Excitation, -Excitation, +Signal, -Signal) and jumper the signal leads together as needed to complete the Wheatstone bridge. Power up your transducer, and calibrate it with a known applied load.



To Order									
GAGE PATTERN Leads not shown	MODEL NO. Pkg of 5	NOM. RESISTANCE (Ω)	DIMENSIONS mm (inch)†				MAX V* (Vrms)	TERMINATION	TEMP COMP
			GRID		CARRIER				
			A	B	C	D			
Shown smaller than actual size, 13.8 mm 	SGT-3E/350-FB11	350	3.2 (0.126)	1.5 (0.059)	13.8 (0.543)	6.8 (0.268)	7.5	Ribbon Leads	ST
	SGT-3E/350-FB13	350	Full bridge pattern for double bending beam, center line spacing 6.35 mm (0.25") 350 Ω				11	Ribbon Leads	AL
	SGT-3E/350-FB41	350					7.5	Solder Pads	ST
	SGT-3E/350-FB43	350					11	Solder Pads	AL
Shown smaller than actual size, 15.9 mm 	SGT-3F/350-FB11	350	3.2 (0.126)	1.5 (0.059)	15.9 (0.626)	6.8 (0.268)	7.5	Ribbon Leads	ST
	SGT-3F/350-FB13	350	Full bridge pattern for double bending beam, center line spacing 8.38 mm (0.33") 350 Ω				11	Ribbon Leads	AL
	SGT-3F/350-FB41	350					7.5	Solder Pads	ST
	SGT-3F/350-FB43	350					11	Solder Pads	AL
Shown smaller than actual size, 28 mm 	SGT-3/1000-FB11	1000	3.0 (0.118)	1.6 (0.063)	28.0 (1.102)	4.9 (0.193)	13	Ribbon Leads	ST
	SGT-3/1000-FB13	1000	Full bridge pattern for double bending beam, higher resistance, reduced heat generation, center line spacing 15 mm (0.59") 1000 Ω				17	Ribbon Leads	AL
	SGT-3/1000-FB41	1000					13	Solder Pads	ST
	SGT-3/1000-FB43	1000					17	Solder Pads	AL

DISCOUNT SCHEDULE	
1 to 10 pkgs.	Net
11 to 24 pkgs.5%
25 to 49 pkgs.	10%
50 and up and OEM . .	Consult Factory

† For dimensions key, visit us online.
 * Maximum permitted bridge energizing voltage (Vrms).
Note: For strain gage accessories, visit us online.
Ordering Example: SGT-3/1000-FB11, package of 5 full bridge pattern for double bending beam, nominal resistance 1000 Ω.

NOTE
 ST = Steel
 AL = Aluminum