

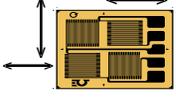
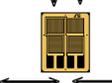
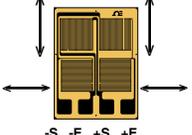
# TRANSDUCER QUALITY STRAIN GAGE

## FULL WHEATSTONE BRIDGE, BENDING OR AXIAL TENSION OR COMPRESSION PERPENDICULAR GRIDS SINGLE SURFACE GAGING

Quickly and easily design and build your own transducer for bending or axial strain applications where only one side of the beam is available for strain gage installation. Look up the Modulus of Elasticity and the Yield Strength of your material, and design your 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 material to the strain gage temperature characteristics. Install one full bridge, as the one carrier piece has all 4 strain

gages. Having one carrier with multiple strain gages offers several advantages. Alignment of the 4 strain gages with respect to each other has already done for you. Strain gages share common ribbon leads or solder pads which saves wiring steps and valuable time. Simply, position the bondable terminal pad close by, and connect your 4 leads (+Excitation, -Excitation, +Signal, -Signal) to the already completed full Wheatstone bridge. Power up your transducer, and calibrate it with a known applied load. The full bridge has 2 fully

active strain gages in the principal stress direction and 2 strain gages that will see the effect of Poisson's Ratio. The full Wheatstone bridge tends to cancel thermal and off-axis errors. SGT-3G/350-FB\*\* has 5 terminals, which means it has an open corner at the signal terminals, for addition of zero temperature compensation, and zero balance compensation resistors. All of the other full bridge gages on this page have 4 terminals.

To Order									
GAGE PATTERN Leads not shown	MODEL NO. Pkg of 5	NOM. RESIS- TANCE (Ω)	DIMENSIONS mm (inch)†				MAX V* (Vrms)	TERMINATION	TEMP COMP
			GRID		CARRIER				
			A	B	C	D			
 <p>Shown actual size, 10.5 mm</p>	SGT-3G/350-FB11	350	2.5 (0.098)	2.9 (0.114)	10.5 (0.413)	9.3 (0.366)	9	Ribbon Leads	ST
	SGT-3G/350-FB13	350	Full bridge for bending or axial strain, single surface gaging, 5 leads/solder pads, open corner in bridge 350 Ω				13	Ribbon Leads	AL
	SGT-3G/350-FB41	350					9	Solder Pads	ST
	SGT-3G/350-FB43	350					13	Solder Pads	AL
SGT-2/1000-FB11	1000	1.8 (0.071)					2.4 (0.094)	8.0 (0.315)	6.5 (0.256)
 <p>Shown actual size, 8 mm</p>	SGT-2/1000-FB13	1000	Full bridge for bending or axial strain, single surface gaging 1000 Ω				16	Ribbon Leads	AL
	SGT-2/1000-FB41	1000					12	Solder Pads	ST
	SGT-2/1000-FB43	1000					16	Solder Pads	AL
	SGT-2/350-FB11	350					1.8 (0.071)	2.0 (0.079)	10 (0.394)
 <p>Shown actual size, 10 mm</p>	SGT-2/350-FB13	350	Full bridge for bending or axial strain 350 Ω				9	Ribbon Leads	AL
	SGT-2/350-FB41	350					6.5	Solder Pads	ST
	SGT-2/350-FB43	350					9	Solder Pads	AL
	SGT-4/1000-FB11	1000					4.0 (0.157)	4.3 (0.169)	14.8 (0.583)
 <p>Shown actual size, 14.8 mm</p>	SGT-4/1000-FB13	1000	Full bridge for bending or axial strain, single surface gaging 1000 Ω				33	Ribbon Leads	AL
	SGT-4/1000-FB41	1000					23	Solder Pads	ST
	SGT-4/1000-FB43	1000					33	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).  
 \*\* FB11, FB13, FB41 or FB43  
**Note:** For strain gage accessories, visit us online.  
**Ordering Example:** SGT-2/350-FB11, package of 5, full bridge for bending, nominal resistance 350 Ω.

**NOTE**  
 ST = Steel  
 AL = Aluminum