

# OMEGA® STRAIN GAGES

## FOR MONITORING BENDING STRAINS

### To Order (Specify Model Number)

TYPE SERIES	MODEL NO.	PRICE PER PKG OF 5	NOMINAL RESISTANCE ( $\Omega$ )	DIMENSIONS [MM]				MAX PERMITTED BRIDGE ENERGIZING VOLTAGE (V RMS)	ACCESSORY TERMINAL PADS PART NO.	FIG.
				A	B	C	D			
<b>✓ Encapsulated with Ribbon Leads</b>  <b>DY11</b> Temperature characteristics matched to steel  <b>DY13</b> Temperature characteristics matched to aluminum	SG-2/1000-DY11	\$65	1000	2.1	2.7	8.0	9.0	5	TP-2	1
	SG-3/1000-DY11	55	1000	3.0	3.0	9.0	9.0	10	TP-3	2
	SG-7/1000-DY11	69	1000	7.0	3.8	12.0	11.0	15	TP-3	3
	SG-7/350-DY11	49	350	7.0	3.8	12.0	11.0	15	TP-3	3
	SG-2/1000-DY13	65	1000	2.1	2.7	8.0	9.0	5	TP-2	1
	SG-3/1000-DY13	55	1000	3.0	3.0	9.0	9.0	10	TP-3	2
	SG-7/1000-DY13	69	1000	7.0	3.8	12.0	11.0	15	TP-3	3
	SG-7/350-DY13	49	350	7.0	3.8	12.0	11.0	15	TP-3	3

Diagrams to Actual Size



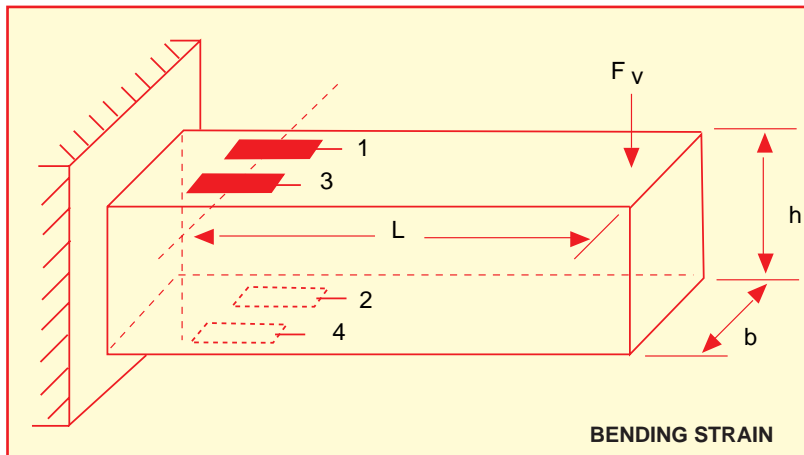
For Accessory Terminal Pads, see page E-25.

<b>✓ Encapsulated with Solder Pads</b>  <b>DY41</b> Temperature characteristics matched to steel  <b>DY43</b> Temperature characteristics matched to aluminum	SG-2/1000-DY41	\$59	1000	2.1	2.7	8.0	9.0	5	TP-2	1
	SG-3/1000-DY41	49	1000	3.0	3.0	9.0	9.0	10	TP-3	2
	SG-7/1000-DY41	59	1000	7.0	3.8	12.0	11.0	15	TP-3	3
	SG-7/350-DY41	49	350	7.0	3.8	12.0	11.0	15	TP-3	3
	SG-2/1000-DY43	59	1000	2.1	2.7	8.0	9.0	5	TP-2	1
	SG-3/1000-DY43	49	1000	3.0	3.0	9.0	9.0	10	TP-3	2
	SG-7/1000-DY43	59	1000	7.0	3.8	12.0	11.0	15	TP-3	3
	SG-7/350-DY43	49	350	7.0	3.8	12.0	11.0	15	TP-3	3

Diagrams to Actual Size

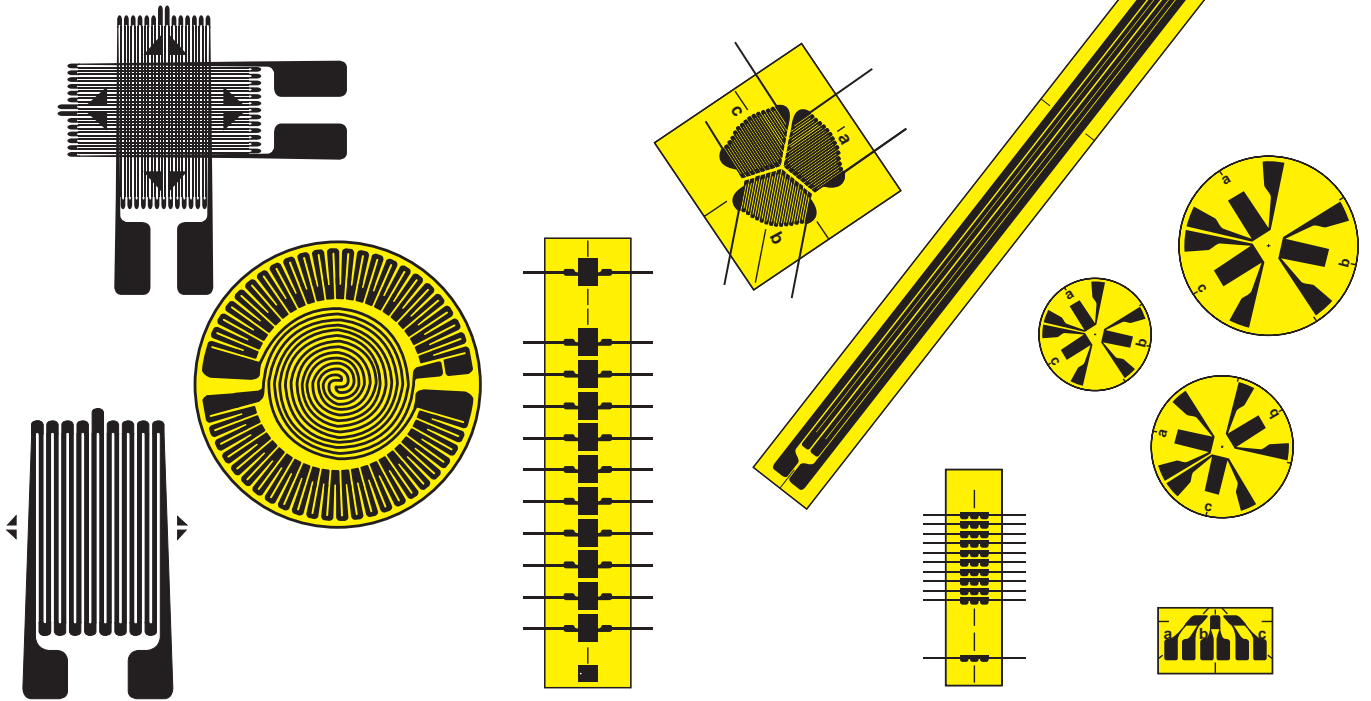


For Accessory Terminal Pads, see page E-25.



# OMEGA® STRAIN GAGES

## SPECIFICATIONS CHART



	SG SERIES	KFG SERIES
Foil strain gages are constructed by embedding a foil measuring element into a carrier. Foil measuring grid Carrier Substrate thickness Cover thickness Connection dimensions in (mm) [in]	Constantan foil 5 µm thick Polyimide 50 µm 25 µm Solder pads or ribbon leads (30 long x .05 thick x 3 wide) [1.2 long x .002 thick x .012 wide]	Constantan foil 6 µm thick Kapton 15 µm 9 µm 27 AWG strand polyvinyl insulation (1 x 2) [.04 x .08]
Nominal resistance Resistance tolerance per package Gage factor ( $\mu\Omega/\mu\mu\Omega$ ) (actual value printed on each package) Gage factor tolerance per package	Stated in "to order" box 0.5% Approximately 2.0 1.0%	120 ±0.4 ohms 03% 2.10 ±10% 1.0%
Thermal Properties Reference temperature Service temperature: Static measurements Dynamic measurements Temperature characteristics: Steel Aluminum Uncompensated Temperature compensated range Tolerance of temp. compensation	23°C/73°F -30 to 250°C (-22 to 482°F) -30 to 300°C (-22 to 572°F) 11 ppm°C (6.1 ppm°F) 23 ppm°C (12.8 ppm°F) ±20 ppm°C (±11.1 ppm°F) -5 to 120°C (5 to 248°F) 1 ppm°C (0.5 ppm°F)	23°C/73°F -20 to 100°C (-4 to 212°F) -20 to 100°C (-4 to 212°F) 10.8 ppm°C (6 ppm°F) — 10 to 80°C (50 to 176°F) 1 ppm°C (0.5 ppm°F)
Mechanical Properties Maximum strain Hysteresis Fatigue (at ±1500 µε) Smallest bending radius Transverse sensitivity	3% or 30,000 µε Negligible > 10,000,000 cycles 3 mm (½ inch) —	5% or 50,000 µε Negligible > 10,000,000 cycles 3 mm (½ inch) Stated on each package

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