

# ROSETTE STRAIN GAGES

## To Order (Specify Model Number)

TYPE SERIES	MODEL NO.	PRICE PER PKG OF 5	OHMS	DIMENSIONS [MM]				MAX EXC	TERM PADS	FIG
				GRID		CARRIER				
				A	B	C	D			
<b>0°/45°/90° Encapsulated with Ribbon Leads</b>  <b>RY51</b> Temperature characteristics matched to carbon steel  <b>RY53</b> Temperature characteristics matched to aluminum	SG-2/120-RY51	\$125	120	2.0	1.8	6.3	5.0	5	TP-1	1
	SG-3/350-RY51	139	350	3.0	1.6	7.0	6.8	8	TP-2	2
	SG-7/120-RY51	165	120	6.0	3.0	12.0	11.0	10	TP-3	3
	SG-2/120-RY53	125	120	2.0	1.8	6.3	5.0	5	TP-1	1
	SG-3/350-RY53	139	350	3.0	1.6	7.0	6.8	8	TP-2	2
	SG-7/120-RY53	165	120	6.0	3.0	12.0	11.0	10	TP-3	3

Diagrams Shown Larger Than Actual Size

For Accessory Terminal Pads, see page E-25.

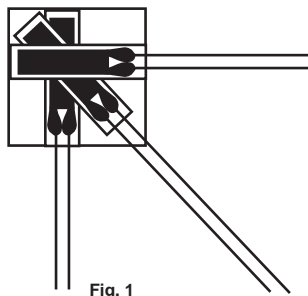


Fig. 1

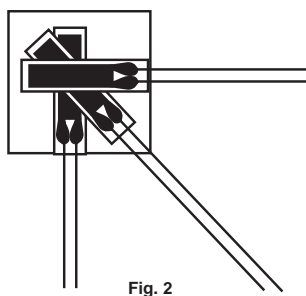


Fig. 2

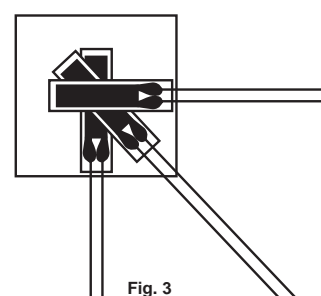


Fig. 3

## To Order (Specify Model Number)

TYPE SERIES	MODEL NO.	PRICE PER PKG OF 5	OHMS	DIMENSIONS [MM]				MAX EXC	TERM PADS	FIG
				GRID		CARRIER				
				A	B	C	D			
<b>0°/45°/90° Encapsulated with Solder Tabs</b>  <b>RY61</b> Temperature characteristics matched to carbon steel  <b>RY63</b> Temperature characteristics matched to aluminum	SG-2/120-RY61	\$125	120	2.0	1.8	6.3	5.0	5	TP-1	1
	SG-3/350-RY61	139	350	3.0	1.6	7.0	6.8	8	TP-2	2
	SG-7/120-RY61	165	120	6.0	3.0	12.0	11.0	9	TP-3	3
	SG-2/120-RY63	125	120	2.0	1.8	6.3	5.0	5	TP-1	1
	SG-3/350-RY63	139	350	3.0	1.6	7.0	6.8	8	TP-2	2
	SG-7/120-RY63	165	120	6.0	3.0	12.0	11.0	9	TP-3	3

Diagrams Shown Larger Than Actual Size

For Accessory Terminal Pads, see page E-25.



Fig. 1



Fig. 2

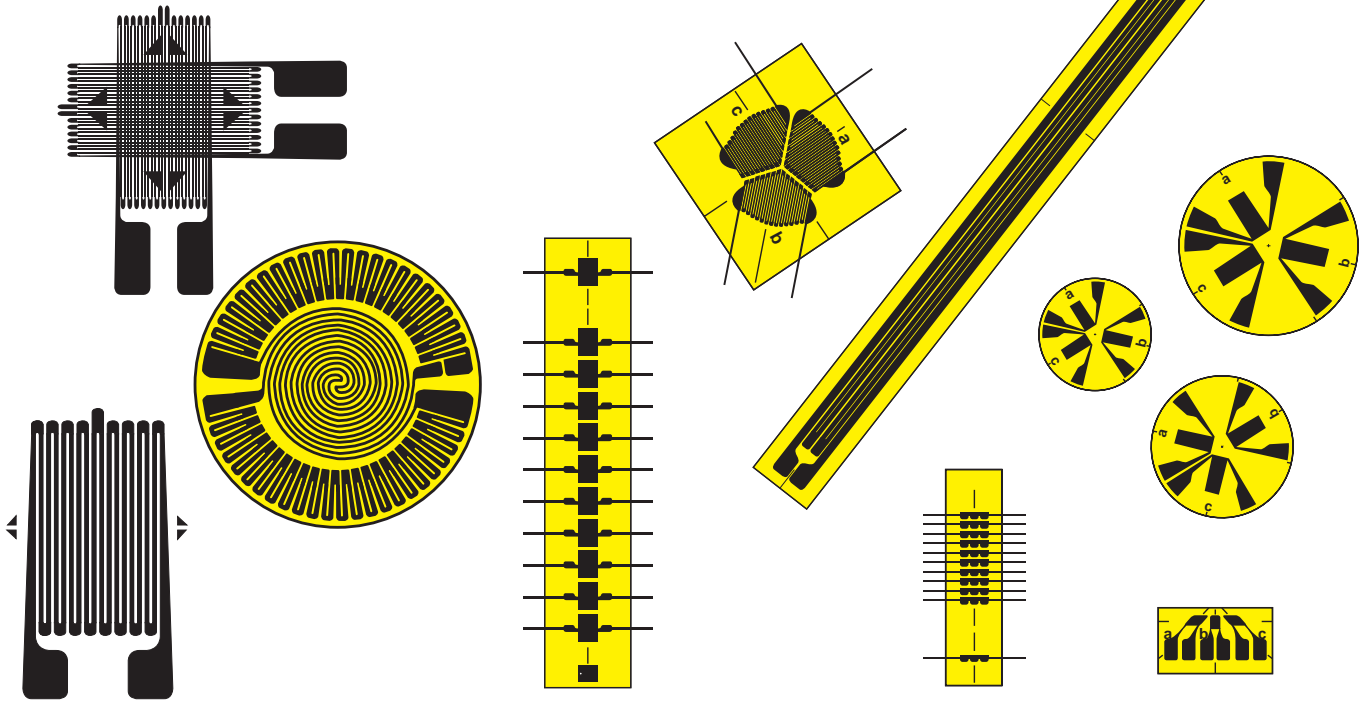


Fig. 3

**Ordering Example:**  
 SG-7/120-RY61, package of five rosette strain gages encapsulated with solder tabs, with temperature characteristics matched to carbon steel and max. excitation of 9 V, \$165.

# OMEGA<sup>®</sup> 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 (1/8 inch) —	5% or 50,000 µε Negligible > 10,000,000 cycles 3 mm (1/8 inch) Stated on each package



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