



Solid Strain Gauge Load Cell



Annular Strain Gauge Load Cell





PRODUCT CATEGORY:

LOAD CELLS + PRESSURE SENSORS + STRESS METERS

## **Strain Gauge Load Cells**

Strain Gauge Load Cells incorporate from 8 to 16 high output electrical resistance strain gauges in a full bridge configuration that are bonded to a high strength steel or stainless steel spool. This arrangement compensates for both temperature effects and off center loading. Strain Gauge Load Cells are available in virtually any size, in both annular and solid styles. Gauge waterproofing utilizes the latest application techniques and protective materials. The rugged design includes heavy duty protective cover, sealed construction, and low deflection under load.

Mounting surfaces should be flat and parallel for optimum performance. RST recommends the use of top & bottom loading platens for best performance with annular load cells.

#### **APPLICATIONS**

Measure load/strain in various applications

#### **FEATURES**

Compatible with any conventional strain indicator instrument	Optional readout (SG350 Bridge Transducer Readout- see separate brochure) in engineering units		
High resistance strain gauges to minimize cable effects	Custom manufactured to fit project requirements		
Matched calibration for readout in engineering units	Heat treated and stress relieved load element		
Accommodates off center loading	High sensitivity		
Long term reliability	Temperature compensated		

Available with either a plug connector or with cable attached to load cells per client specified length

#### **BENEFITS**

✓	Increase Safety	✓	High Accuracy			
✓	High Reliability	✓	Custom Options			





# **Strain Gauge Load Cells**



### **SPECIFICATIONS + ORDERING**

with

Confidence

STANDARD DIMENSIONS								
MODEL	CAPACITY		I.D.		0.D.		HEIGHT	
	KIPS	KN	IN.	MM.	IN.	MM.	IN.	MM.
SGA-50-1	50	233	1.0	25	4.0	102	3.0	76
SGA-100-1	100	445	1.0	25	4.0	102	3.0	76
SGA-136-1.4	136	605	1.4	36	4.5	114	3.5	89
SGA-200-1.75	200	890	1.75	44	5.0	127	5.0	127
SGA-255-2.0	255	1135	2.0	51	5.5	140	5.25	133
SGA-300-2.0	300	1334	2.0	51	5.5	140	5.25	133
SGA-300-3.0	300	1334	3.0	76	6.0	152	6.25	159
SGA-400-2.5	400	1779	2.5	63	6.0	152	6.25	159
SGA-400-3.5	400	1779	3.5	89	7.0	1787	7.25	184
SGA-600-3.0	600	2669	3.0	76	7.0	178	7.5	190
SGA-600-4.0	600	2669	4.0	102	7.75	197	8.5	216
SGA-1665-LC	1665	7406	N/A	N/A	8.5	216	11.8	300

NOTE: These dimensions are typical only and may be modified to suit project requirements.

The model number is determined as follows: eg. SGA - 200 - 1.5

SGA - Strain Gauge Annular Cell

200 - Maximum capacity in Kips

1.5 - Hole size in inches

SPECIFICATIONS					
ITEM	DESCRIPTION				
Capacity	22.5 kN to 10675 kN (5,000 lbs to 2,400,000 lbs)				
Hole Size	16 mm to 356 mm (5/8 in. to 14 in.), as required				
Material	High strength steel or stainless elements				
Temperature Compensation	-40°F to +107°F (-40°C to +40°C)				
Overrange	100% FS				
Sensitivity	±2.0mV/V				

ORDERING INFO
Application
Annular or solid cell
Maximum capacity and smallest increment required
Environmental data
Size limitations
Cable connection and length
Loading Platens
Options

#### **ACCESSORIES OPTIONAL EQUIPMENT**

connectors (connectors not recommended in

waterproof applications) Readout: SG350 Bridge Transducer Readout

Armored cable Metal military, or plastic

Cable	
Load and bearing plates	_
Terminal stations	
Centralizer bushings if required	
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A pile test being performed with an RST Strain Gauge Load Cell (circled) with a capacity for 1,000 kips.