

# Load Washer Specification (SGLW)



## Product Description

The model SGLW is a stainless-steel sub miniature strain gauge-based transducer with compensated temperature performance. This type provides measurements up to 20000 lbf with better than  $\pm 0.5\%$  (full scale) non-linearity.

## Performance Specifications

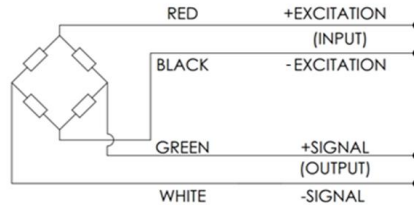
▪ CAPACITY	5 lbf – 2k lbf
▪ RATED OUTPUT (RO)	0.2mV/V (5lbf), 0.4mV/V (10lbf), 1mV/V (25lbf) 2 mV/V (50-20000lbf) nom.
▪ SAFE OVERLOAD	150 % of R.O.
▪ ZERO BALANCE	$\pm 5\%$ of R.O.
▪ EXCITATION (VDC OR VAC)	7 MAX
▪ BRIDGE RESISTANCE	700 $\Omega$ nom.
▪ NON-LINEARITY	$\pm 0.5\%$ of R.O.
▪ HYSTERESIS	$\pm 0.5\%$ of R.O.
▪ NONREPEATABILITY	$\pm 0.1\%$ of R.O.
▪ TEMP. SHIFT ZERO	$\pm 0.005\%$ of R.O./ $^{\circ}$ F ( $\pm 0.01$ of R.O./ $^{\circ}$ C)
▪ TEMP. SHIFT SPAN	$\pm 0.005\%$ of LOAD/ $^{\circ}$ F ( $\pm 0.01$ of LOAD/ $^{\circ}$ C)
▪ COMPENSATED TEMP.	5 to 160 $^{\circ}$ F (-15 to 71 $^{\circ}$ C)
▪ OPERATING TEMP	5 to 176 $^{\circ}$ F (-15 to 80 $^{\circ}$ C)
▪ MATERIAL	Stainless Steel
▪ IP RATING	IP64
▪ CALIBRATION TEST EXCITATION	5V Recommended, 10V Max
▪ CALIBRATION (STD)	5 pt. Compression

	WEIGHT (Nom)	DEFLECTION (Nom)
SGLW1	0.13 lb [60 g]	.002" [0.05mm]
SGLW2	0.22 lb [100 g]	.002" [0.05mm]
SGLW3	0.50 lb [227 g]	.002" [0.05mm]
SGLW4	1.65 lb [750 g]	.002" [0.05mm]

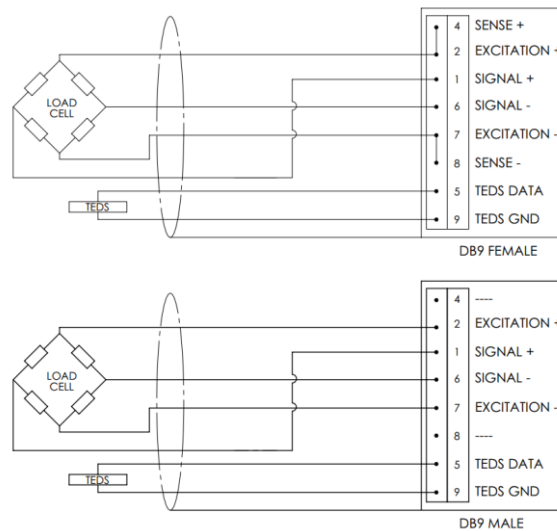
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## Wiring

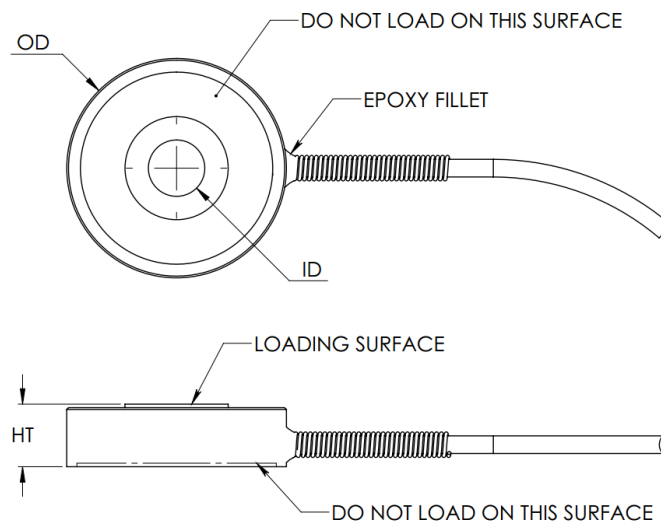
- Model SGLW1 is provided with a #32 AWG 4-conductor braided shielded cable with outer jacket, 0.086" [2.2 mm] diameter. Model SGLW2, SGLW3 & SGLW4 are provided with a #28 AWG 4-conductor braided shielded cable with outer jacket, 0.126" [3.2 mm] diameter. There is no connection between the shield and the sensor body. For additional protection, the cable is contained within a stainless-steel spring for strain relief purposes.
- Standard cable lengths are 3ft, 5ft and 10ft. See Order Details section.
- These load washers are offered with DB9 Male, DB9 Female and without connector. See Order Details section.
- Standard wire configuration as shown below.



- For connector versions, pin configuration as shown below.



## Dimensions (inch)



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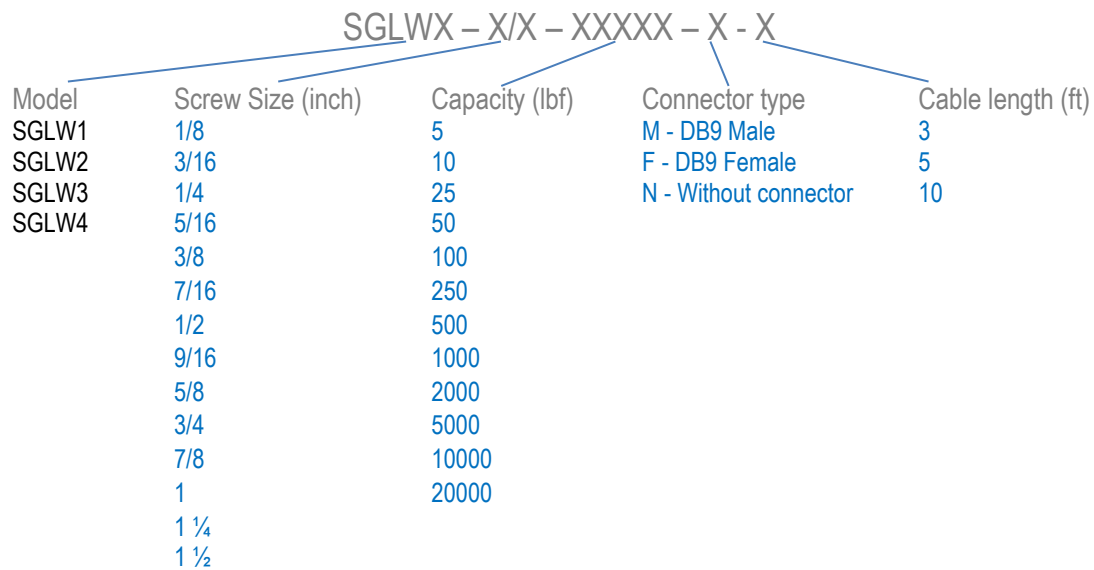
MODEL	OD	ID	SCREW SIZE	HT	CAPACITIES (lbf)												
					5	10	25	50	100	250	500	1k	2k	5k	7.5k	10k	20k
SGLW1	1	0.136	1/8	0.28													
	1	0.201	3/16	0.28													
	1	0.266	1/4	0.28													
	1	0.332	5/16	0.28													
SGLW2	1.5	0.397	3/8	0.5													
	1.5	0.469	7/16	0.5													
	1.5	0.531	1/2	0.5													
	1.5	0.656	5/8	0.5													
SGLW3	2	0.136	1/8	0.63													
	2	0.201	3/16	0.63													
	2	0.266	1/4	0.63													
	2	0.332	5/16	0.63													
	2	0.397	3/8	0.63													
	2	0.469	7/16	0.63													
	2	0.531	1/2	0.63													
	2	0.594	9/16	0.63													
SGLW4	3	0.136	1/8	1													
	3	0.201	3/16	1													
	3	0.266	1/4	1													
	3	0.332	5/16	1													
	3	0.397	3/8	1													
	3	0.469	7/16	1													
	3	0.531	1/2	1													
	3	0.594	9/16	1													
	3	0.656	5/8	1													
	3	0.781	3/4	1													
	3	0.906	7/8	1													
	3	1.031	1	1													
	3	1.281	1 1/4	1													
3	1.531	1 1/2	1														

	Common capacities
	Available on request

## Order Details

To order a specific load washer required, compile and quote a unique part number from the illustration below



EX: 5010-10-1/4-F-5

**OPTIONAL**

Special cable lengths and pin configurations on request