# LOAD WASHER

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



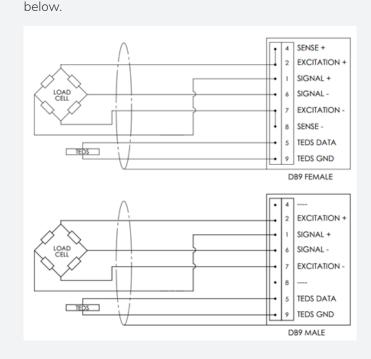
#### WIRING

- Model LW1 is provided with a #32 AWG 4-conductor braided shielded cable with outer jacket, 0.086" [2.2 mm] diameter. Model LW2, LW3 & LW4 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 wire configuration as shown below.

Details section.
These load washers are offered with DB9 Male, DB9 Female and without connector. See Order Details

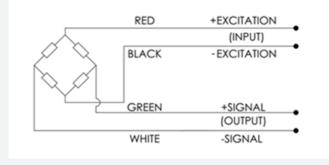
• Standard cable lengths are 3ft, 5ft and 10ft. See Order

section.For connector versions, pin configuration as shown



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#### DIMENSIONS

Available upon request

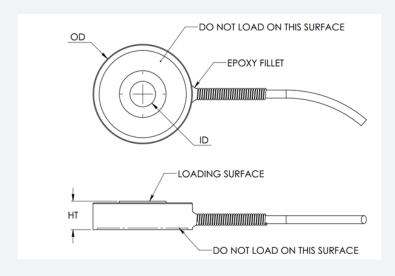
Common capacities

	OD ID		SCREW SIZE	CAPACITIES (LBF)														
MODEL		ID		HT	5	10	25	50	100	250	500	1K	2K	5K	7.5K	10K	20K	30K
5010-10 - 5080-10	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														
	1	0.397	3/8	0.28														
5090-10 5100-10	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														
	2	0.136	1/8	0.63														
	2	0.201	3/16	0.63														
	2	0.266	1/4	0.63														
5110-10	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														
	2	0.656	5/8	0.63														
	3	0.136	1/8	1														
	3	0.201	3/16	1														
	3	0.266	1/4	1														
5120-10	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														

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### **DIMENSIONS CONTINUED**



#### ORDER DETAILS

To order a specific load washer required, compile and quote a unique part number from the example below. Special cable lengths and pin configurations available upon request

Model ALWX	_	Screw Size (inch) X/X	Capacity (I – XXXXX		Cable length (ft) - X
5010-10*		1/8	5	M - DB9 Male	3
5010-10*		3/16	10	F - DB9 Female	5
LW3*		1/4	25	N - Without connector	10
LW4*		5/16	50		
		3/8	100		
		7/16	250		
		1/2	500		
		9/16	1000		
		5/8	2000		
		3/4	5000		
		7/8	10000		
		1	20000		
		1 1/4			
		1 1/2			
* Optional					

#### \* Optional

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



## SPECIFICATION

PARAMETER	RANGE					
Capacity	5lbf – 2klbf					
Rated Output (RO)	0.2mV/V (5lbf), 0.4mV/V (10lbf), 1mV/V (25lbf), 2 mV/V (50-20000lbf) nom.					
Safe Overload	150% of RO					
Zero Balance	±2% of RO					
Excitation (VDC or VAC)	7 max.					
Bridge Resistance	700 Ω nom.					
Non-Linearity	±0.5% of RO					
Hysteresis	±0.5% of RO					
Non-Repeatability	±0.1% of RO					
Temp. Shift Zero	±0.005% of RO/°F (±0.01 of RO/°C)					
Temp. Shift Span	±0.005% of load/°F (±0.01 of load/°C)					
Compensated Temp.	5 to 160°F (-15 to 71°C)					
Operating Temp.	5 to 176°F (-15 to 80°C)					
Material	Stainless Steel					
IP Rating	IP64					
Calibration Test Excitation	5V, 10V					
Calibration (std.)	5 pt. compression					

	WEIGHT (NOM.)	DEFLECTION (NOM.)
LW1	0.13lb [60g]	.002" [0.05mm]
LW2	0.22lb [100g]	.002" [0.05mm]
LW3	0.50lb [227g]	.002" [0.05mm]
LW4	1.65lb [750g]	.002" [0.05mm]

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