

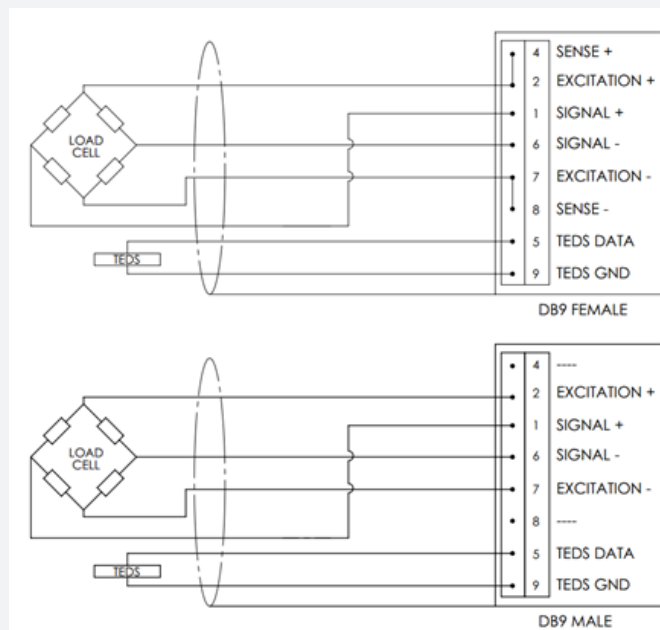
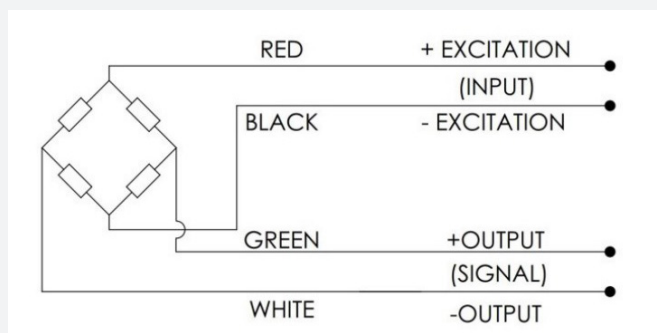
# LOAD WASHER

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.
- 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.
- For connector versions, pin configuration as shown below.



# DIMENSIONS

Available upon request  
Common capacities

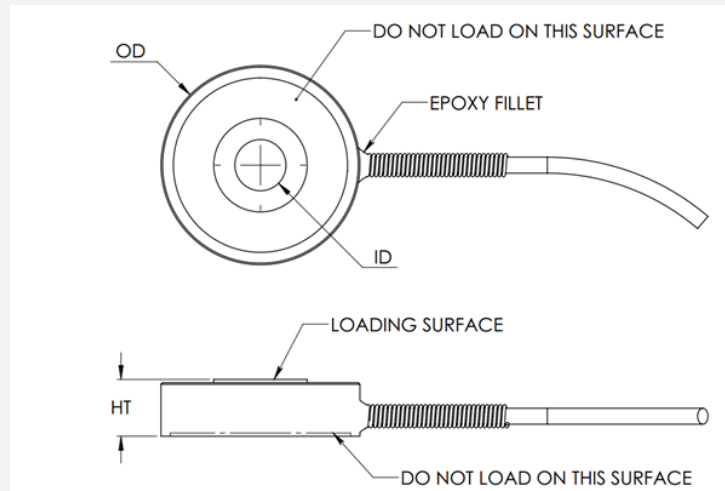
MODEL	OD	ID	SCREW SIZE	HT	CAPACITIES (LBF)													
					5	10	25	50	100	250	500	1K	2K	5K	7.5K	10K	20K	30K
ALW1	1	0.136	1/8	0.28														
	1	0.201	3/16	0.28														
	1	0.266	1/4	0.28														
	1	0.332	5/16	0.28														
	1	0.397	3/8	0.28														
ALW2	1.5	0.397	3/8	0.5														
	1.5	0.469	7/16	0.5														
	1.5	0.531	1/2	0.5														
	1.5	0.656	5/8	0.5														
ALW3	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														
	2	0.656	5/8	0.63														
ALW4	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														

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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	Screw Size (inch)	Capacity (lbf)	Connector type	Cable length (ft)
<b>ALWX</b>	<b>X/X</b>	<b>XXXXX</b>	<b>X</b>	<b>X</b>
ALW1*	1/8	5	M - DB9 Male	3
ALW2*	3/16	10	F - DB9 Female	5
ALW3*	1/4	25	N - Without connector	10
ALW4*	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 ¼			
	1 ½			

\* Optional

Example: **ALW2-1/4-5000-N-5**

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# SPECIFICATION

PARAMETER	RANGE
Capacity (lbf)	5 – 20K
Rated Output (RO) (mV/V)	0.2 (5lbf), 0.4 (10lbf), 1 (25lbf), 2 (50-20000lbf) nominal
Safe Overload (%)	150 of RO
Zero Balance (%)	±2 of RO
Excitation (VDC or VAC)	7 max.
Bridge Resistance	700 $\Omega$ nom.
Non-Linearity (%)	±0.5 of RO
Hysteresis (%)	±0.5 of RO
Non-Repeatability (%)	±0.1 of RO
Temperature Shift Zero (%)	±0.005 of RO/°F (±0.01 of RO/°C)
Temperature Shift Span (%)	±0.005 of load/°F (±0.01 of load/°C)
Compensated Temperature (°F)	+5 to +160 (-15 to +71°C)
Operating Temperature (°F)	+5 to +176 (-15 to +80°C)
Material	Stainless Steel
IP Rating	IP64
Calibration Test Excitation (V)	5, 10
Calibration (std.)	5 pt. compression

	WEIGHT (NOM.)	DEFLECTION (NOM.)
ALW1	0.13lb [60g]	.002" [0.05mm]
ALW2	0.22lb [100g]	.002" [0.05mm]
ALW3	0.50lb [227g]	.002" [0.05mm]
ALW4	1.65lb [750g]	.002" [0.05mm]

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