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MODEL 3093 LOWER TIBIA LOAD CELL

Used in the HIII 95th, HIII 50th, HIII 5th, BioSID and SID-IIs

Applications:

The Model 3093 Lower Tibia Load Cell is designed for use in instrumented lower legs for assessment of tibia injuries. The top of a Model 3093 Load Cell attaches to a leg tube with four Denton Model 1912 screws and the bottom is bolted to the dummy's ankle joint. The load cell contains one force channel and two moment channels. Each channel is a full bridge strain gage circuit. A nineteen-pin receptacle, recessed into the top of the load cell, contains wiring for all channels. When connecting the cable assembly, route the cable through the strain relief provided on the leg tube. Model 3093 has the same external dimensions as Model 1584, 3114, and 3287 Lower Tibia load cells and can be used in Hybrid III 95th Percentile, 50th Percentile and 5th Percentile dummies, as well as BIOSID and SID-IIs Side Impact dummies.

Specifications:

Channel	Capacity		Bridge Resistance (nom)	Output Sensitivity (nom)
	Metric	English		
Fz	11120.6 N	2500 lb	700 ohms	1.0 mv/v
Mx	395.4 Nm	3500 in-lb	350 ohms	3.0 mv/v
My	395.4 Nm	3500 in-lb	350 ohms	3.0 mv/v

Nonlinearity.....less than 1% of full scale
 Hysteresis.....less than 1% of full scale
 Crosstalk.....less than 5% of full scale
 Excitation.....10 VDC nom. 15 VDC max.
 Mass (load cell only).....(1.1 lb) 0.5 kg

Wiring:

Mx Channel		My Channel		Fz Channel	
Brown	+Exc.	Red Stripe	+Exc.	Green	+Exc.
Red	+Sig.	Black	+Sig.	Blue	+Sig.
Orange	-Exc.	White	-Exc.	Violet	-Exc.
Yellow	-Sig.	Black Stripe	-Sig.	Gray	-Sig.

RAD3093PS

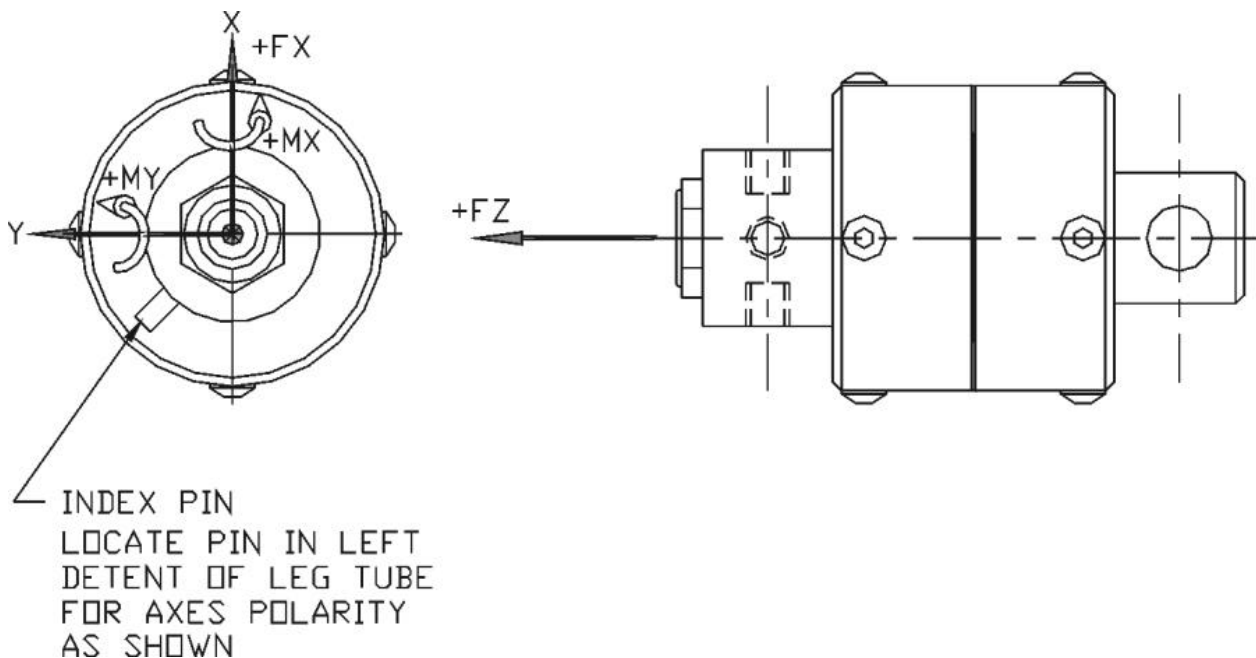
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NOTES

1. Use Denton Model 3337 calibration fixture. (Ref. Calibration Fixture drawing 3093-C)
2. If the model tag on the load cell includes a "J" suffix, the load cell is wired for SAE J211 Right Hand Rule sign convention.
3. If the model tag on the load cell includes a "G" suffix, the shield of the cable is grounded to the body of the part.
4. If the model tag on the load cell includes an "I" suffix, there is an ID module in the body of the load cell. The number following the "I" indicates the type of ID module.
5. The standard cable length for this load cell is 9.1 meters (30'). If the cable is cut shorter, the calibration will change. Upon request, the load cell can be made and calibrated with a custom cable length.



Creating the Standard in Safety Measurement Since 1974

Robert A. Denton, Inc. maintains a high level of control over the manufacture of its products to ensure quality, accuracy and reliability. Continued improvement necessitates that we reserve the right to modify these specifications without notice.

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