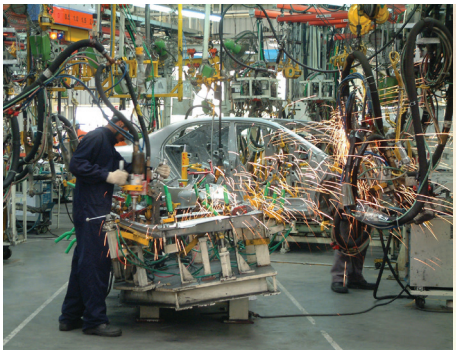
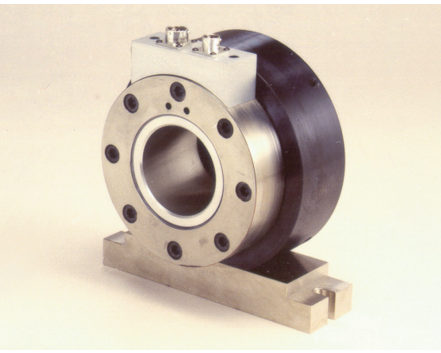
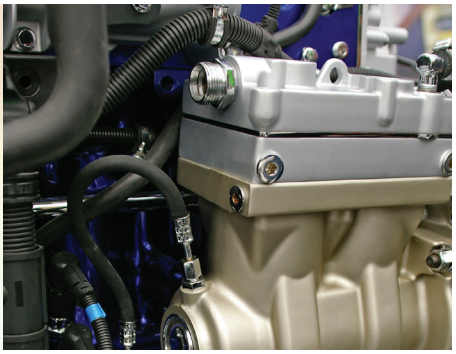
PCB PIEZOTRONICS
AN AMPHENOL COMPANY

SERIES **FT9000 & FTA9000**

FASTENER TESTING LOAD CELLS

- Fastener tension load cell capacities range from 3372 lbf to 112 klbf (15 kN to 500 kN)
- Fastener Torque-Tension load cell capacities range from 4 496 lbf to 405 klbf (20 kN to 1 800 kN)
- Uses standard Skidmore-Wilhelm plates
- Slotted base allows fast and easy securing to existing test fixtures

APPLICATIONS

- Measure/analyze threaded fastener characteristics
- Perform laboratory evaluation of fastener tension & thread torque characteristics
- Measure fastener tension and/or thread friction torque during rundown operations
- Test special devices (such as locknuts, serrated underheads, etc.)
- Measure effects of materials, surface finishes, platings, and coatings

FOR TORQUE AND TORQUE-TENSION

PCB Load & Torque Division's RS Technologies Series FT9000 & FTA9000 Fastener Tension and Fastener Torque-Tension Load Cells use a full bridge strain gage design. This complete line of fastener testing load cells provides a signal proportional to the tension developed in a test fastener when the tightening torque is applied. In addition, the fastener torque-tension version, also referred to as a research head, measures the thread torque (pitch torque plus thread friction torque) at the same time. The tension or torque-tension output signals from either type of load cell are read using conventional strain gage readout device or recorded by a data acquisition system. These load cells serve as an integral part of a torque-tension fastener test system when used with a torque-angle sensor and a suitable data acquisition instrument; Model 962 Portable Data Recorder, Model 3210 LabMaster Portable, or Model 3200 LabMaster Professional, available from RS Technologies, are recommended.

PCB provides calibration services for this and their other torque and force products at its A2LA Accredited Calibration Laboratory in Farmington Hills, Michigan.

As with all PCB instrumentation, these products are complemented with toll-free applications assistance, 24-hour technical service, and are backed by a no-risk policy that guarantees total customer satisfaction or your money refunded.

COMMON SPECIFICATIONS	
Output at Rated Capacity	2 mV/V
Non-linearity	±0.2% FS
Overload Capacity	50% FS
Hysteresis	± 0.2% FS
Excitation Voltage [1]	±10 VDC
Bridge Resistance	350 Ohms, Full Bridge, Bonded Strain Gage
Supplied Accessories	
Shunt Calibration Resistor, A2LA Accredited Calibration Certificate	

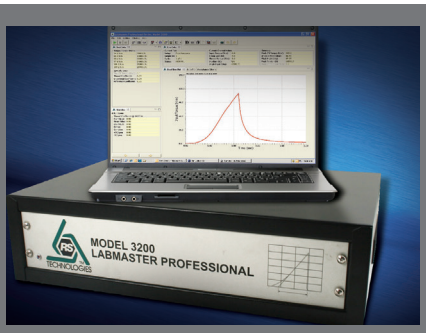
[1] Calibrated at 10 VDC, usable 5 to 20 VDC or VAC RMS

SERIES FTA9000 FASTENER TENSION LOAD CELLS		
Model	**Thread Torque Capacity**	**Fastener Tension Capacity**
059400-01024	15 lbf-ft (20 Nm)	4496 lbf (20 kN)
059500-01044	44 lbf-ft (60 Nm)	8992 lbf (40 kN)
059600-01104	110 lbf-ft (150 Nm)	22 klbf (100 kN)
059625-01304	590 lbf-ft (800 Nm)	67 klbf (300 kN)
059650-01604	1475 lbf-ft (2000 Nm)	135 klbf (600 kN)
059720-01095	2950 lbf-ft (4000 Nm)	202 klbf (900 kN)
059740-01185	5900 lbf-ft (8000 Nm)	405 klbf (1800 kN)

SERIES FT9000 FASTENER TENSION LOAD CELLS	
Model	**Capacity**
059810-01153	3372 lbf (15 kN)
059810-01253	5620 lbf (25 kN)
059810-01104	22 klbf (100 kN)
059810-01304	67 klbf (300 kN)
059810-01504	112 klbf (500 kN)

RECOMMENDED ACCESSORIES	
Model	**Description**
080962-01000	Model 962 Recorder
083210-01000	Model 3210 LabMaster Portable
083200-01000	Model 3200 LabMaster Professional
099404-30610	Cable (Series FT9000)
099404-30566	Cable (Series FTA9000)

Model 962 Portable Data Recorder



Model 3200 LabMaster Professional

Model 3210 LabMaster Portable

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