



SERIES FT4000

FORCE WASHER TRANSDUCERS

- High stiffness in a small package
- Pair of hardened ground washers to minimize effect of “spot” or “side” loading
- Furnished with an integral 5 ft. cable with pigtail leads
- Available in a variety of English and Metric sizes

APPLICATIONS

- Measure fastener clamping forces
- Verify threaded fastener tension calculations
- Test fasteners in a laboratory or assembly environment
- Measurement of static and dynamic forces

TORQUE-ANGLE-TENSION TESTING

PCB's RS Technologies Series FT4000 Force Washer Transducers are miniature load cells designed specifically for measuring fastener clamping forces. The design provides high stiffness in a small package, making these load cells ideal for static and dynamic measurements on fasteners, or structural test applications where space limitations exist. Force washer transducers come in a variety of English and Metric sizes.

All transducers are carefully sealed and thoroughly tested prior to shipment. Two hardened steel washers are provided with each unit and should be mounted on both sides of the transducer to minimize any transmitted rotational effects or spot/side loading.

Series FT4000 Load Washer Transducers can be used along with rotary torque or torque-angle transducers and a data acquisition instrument, such as the Model 962 Portable Transient Data Recorder, to acquire fastener testing data; If fastener clamp load alone is required, Model 922 Portable Digital Meter can quickly capture and record the data.

ENGLISH SIZES (IN)					
Model	Bolt Size (in)	Capacity (lbf)	Inner Diameter (in)	Outer Diameter (in)	Height (in)
054103-01252	#10	2500	0.196	0.625	0.255
054104-01502	¼	5000	0.257	0.674	0.255
054105-01802	⅜	8000	0.321	0.809	0.317
054106-01103	⅜	10,000	0.382	0.842	0.380
054107-01153	7/16	15,000	0.444	0.943	0.420
054108-01203	½	20,000	0.507	1.111	0.455
054109-01253	9/16	25,000	0.570	1.213	0.495
054110-01303	5/8	30,000	0.636	1.350	0.525
054112-01403	¾	40,000	0.757	1.620	0.595
054114-01603	7/8	60,000	0.882	1.888	0.665
054116-01803	1	80,000	1.006	2.160	0.735
054124-01104	2	100,000	2.047	3.730	0.933
METRIC SIZES (MM)					
Model	Bolt Size (mm)	Capacity (kN)	Inner Diameter (mm)	Outer Diameter (mm)	Height (mm)
054204-01093	M4	9	4.13	15.88	6.48
054206-01203	6	20	6.17	17.12	6.48
054208-01353	8	35	8.15	20.55	9.65
054210-01543	10	54	10.19	23.95	10.69
054212-01084	12	80	12.19	28.22	11.56
054214-01114	14	110	14.15	30.81	12.57
054216-01144	16	140	16.15	34.29	13.34
054218-01184	18	180	18.16	41.15	15.11
054220-01224	20	220	20.17	41.15	15.11
054222-01274	22	270	22.17	47.96	16.89
054224-01324	24	320	24.18	54.86	18.67
054230-01404	30	400	30.20	60.45	22.23
054236-01804	M36	800	36.27	79.50	22.23

COMMON SPECIFICATIONS	
Construction	Steel Flexure, Aluminum Cover
Output	1.5 mV/V FS Nominal
Overload Capacity	150% FS
Non-linearity	±5% FS
Hysteresis	±5% FS
Non-Repeatability	±2% FS
Excitation Voltage	Calibrated at 10 VDC, usable 5 to 20 VDC or VAC RMS
Bridge Resistance	350 Ohms
Operating Temperature Range	0 to +200 °F (-18 to +93 °C)
Supplied Accessories	
Top and Bottom Hardened Washers, Shunt Calibration Resistor, & A2LA Accredited Calibration Certificate	
Recommended Accessories	
Connector, DB15 Male	Add the suffix "/005DB15P" to a model number to have a DB15P connector installed on the end of a 5-ft integral cable. Other cable lengths are available.
097000-0015P	DB-15P Connector w/ Strain Relief & Thumbscrews
080922-01000	Model 922 Portable Digital Meter
080962-01000	Model 962 Portable Transient Data Recorder