DYNAMIC SYSTEMS LOADCELLS

250 N - 2,500 kN

Instron® load cells are a key part of a materials testing system. Among our competitors, Instron is the only global materials testing supplier that designs and manufactures its own load cells. This ensures that Instron load cells meet the unique requirements of materials testing such as; high accuracy over a wide measurement range, high stiffness, resistance to offset loads, accurate alignment and excellent zero stability.

During tests carried out on dynamic machines, elements of the system are subject to acceleration. As a result, in addition to the force applied to the specimen, the load cell also reads forces resulting from its own movement and the mass of the grips and fixtures attached to it.

The accelerometer in a Dynacell™ is right at the heart of the load cell, directly on the load axis. This removes the risk of errors in the acceleration reading resulting from off center loading. This way, the accelerometer is on the load line eliminating both amplitude and phase errors and automatic set-up takes less than one minute.

Dynacell 2527 Series 250 N - 2500 kN

The 2527 Series load cells are designed for use with Dynamic Testing Systems; offering exceptional performance with the ability to measure forces as low as 1/250th of the force capacity to an accuracy of 0.5% of reading. Automatic transducer recognition and electrical calibration, makes them easy to use. The load cells can withstand loads up to 150% of their force capacity without damage and 300% without mechanical failure. All Instron load cells are individually temperature-compensated and tested for accuracy and repeatability on calibration apparatus that is traceable to international standards, with a measurement uncertainty that does not exceed one-third of the permissible error of the load cell.

BENEFITS

- Force capacities from ±250 N to ±2500 kN (56 -562500 lbf)
- Torque capacities from ±25 Nm to ±2000 Nm (225 - 17702 in-lb)
- Suitable for a range of test types, including tension, compression, cyclic and reverse stress
- Automatic recognition with electronic serial number and electrical calibration allows for simple, error-free operation
- 300% of force capacity overload capability –reduces the possibility of damage
- Precision machining and construction along with high axial and lateral stiffness helps to maintain system alignment
- Low sensitivity to offset loads improves consistency of results
- Complies with all international force measurement standards, including BS1610 Part 1 1992 Grade 0.5, ASTM E4, ISO 7500-1 class 0.5, EN10002-2 class 0.5 and JIS B7721, B7733
- Fatigue life in excess of 109 full stress reversed cycles
- Highly accurate static load cell, with a measurement accuracy better than 0.25% of reading down to 1% of the load cell full scale. When used with 8800MT, an accuracy of 0.5% of reading down to 1/250th of the load cell full scale is easily achieved.

INSTRON®

The difference is measurable®

SPECIFICATIONS

Catalogue Number	Force Capacity		Torque Capacity		Mechanical Fitting (Frame)	Mechanical Fitting (Load String)	Effective Length		Diameter		Weight	
	kN	lbf	Nm	in-lb			mm	in	mm	in	kg	lb
2527-131	±0.25	56	-	-	3x M6 on 57 mm PCD	Central M6 x 1	42	1.65	75	2.95	1	2.2
2527-130	±1	225	-	-	3x M6 on 57 mm PCD	Central M6 x 1	42	1.65	75	2.95	1	2.2
2527-302	±1	225	±25	±225	3x M6 on 75 mm PCD	3x M6 on 75 mm PCD or 3x M6 on 57 mm PDC	68	2.68	94	3.7	1,3	2,87
2527-129	±2	450	-	-	3x M6 on 57 mm PCD	Central M6 x 1	42	1.65	75	2.95	1	2.2
2527-153	±5	1,125	-	-	3x M6 on 75 mm PCD	3x M6 on 75 mm PCD or 3x M6 on 57 mm PDC	68	2.68	94	3.7	2	4.4
2527-303	±5	1,125	±25	±225	3x M6 on 75 mm PCD	3x M6 on 75 mm PCD or 3x M6 on 57 mm PDC	68	2.68	94	3.7	2	4.4
2527-102	±10	2,250	-	-	6x M6 on 75 mm PCD	Central M20x1.5	71	2.8	107	4.2	4	8.8
2527-202	±10	2,250	±100	±880	6x M8 on 75 mm PCD	6x M8 on 75 mm PCD	86	3.38	94	3.7	2.5	5.5
2527-205	±25	5,620	±150	±1300	6x M8 on 75 mm PCD	6x M8 on 75 mm PCD	86	3.38	94	3.7	2.5	5.5
2527-101	±25	5,620	-	-	Central M20x1.5 or 6 x M10 on 75 mm PCD	Central M20x1.5	71	2.8	107	4.2	4	8.8
2527-201	±25	5,620	±100	±880	6x M8 on 75 mm PCD	6x M8 on 75 mm PCD	86	3.38	94	3.7	2.5	5.5
2527-100	±50	11,250	-	-	Central M30x2 or 6x M10 on 100 mm PCD	Central M30x2	99	3.9	154	6.06	10	22
2527-111	±100	22,500	-	-	Central M30x2 or 6x M10 on 100 mm PCD	Central M30x2	99	3.9	154	6.06	10	22
2527-115	±250	56,250	-	-	Central M48x2	Central M48x2	131	5.15	203	8	25.5	56.21
2527-125	±500	112,500	-	-	Central M72	Central M72x2 6x M20 on 150 mm PCD 6x M30 on 225 mm PCD	232	9.13	305	12	95	209.4
2527-120	±1000	225,000	-	-	Central M100	Central M100 6x M20 on 150 mm PCD 12x M30 on 225 mm PCD	360	12.17	305	12	140	308.6
2527-140	±2500	562,500	-	-	Central M150	Central M150	450	17.71	428	16.85	322	710

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