

Installation Information 2300 Series Load Cells

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1. The 2300 Series load cells mount by means of a bolt circle at either end, permitting secure mounting wherein relatively small screws can be tightened with a torque wrench. This is an advantage over load cells with a single large central thread where tightening is not possible except with securing a jam nut under tension load, a process often not available.
2. Interface 2300 Series Load Cells must be mounted on suitable surfaces that are flat and rigid enough so as not to deform appreciably under load. The mounting surfaces should have a minimum hardness of Rc 30. The mounting surfaces should be perpendicular to the load axis within 1 degree.
3. Interface load cells respond to forces in the axis perpendicular to the mounting surface. Load cell response to a force at an angle is proportional to that force times the cosine of the angle relative to the loading axis.
4. Washers are not required but may be used under the mounting screw heads to reduce wear on the load cell flanges. This may be a consideration in installations with frequent mounting and dismounting. Washers must be flat and hard (Grade 8 or Rc 38 minimum).
5. The two mounting surfaces should be parallel. To the extent they are not, a moment load is introduced into the load cell. The mounting surfaces of the load cell are manufactured to be parallel within 0.001 inch (0.03 mm).
6. The mounting surfaces may have raised rings but rings must cover the entire areas of the load cell rings as indicated in Table 2.
7. Mounting screws should be Grade 8 or Class 12.9. Torque the screws as indicated in Table 1.
8. For reverse-loading fatigue applications, recessed thread engagement of the mounting screws and minimum mounting plate thickness is recommended as indicated in Table 1.



Model 2340 ready for mounting. Note areas of paint masking for screw head contact.



Using hydraulic Torque Wrench with reaction bar to tighten mounting screws on 2350.

Table 1. Mounting Screw Information

Model	Capacity (kN)	Mounting Hole n	dia (mm)	Flange thickness (mm)	Recommended Screw Size	Fatigue G(mm)	H(mm)	Mounting Torque N·m	lb-ft
2330	500 630	12	21.4	25	M20	25	70	600	440
2340	1000	12	25.4	40	M24	25	100	950	700
2350	2000	12	32.5	57.5	M30	35	140	1900	1400

Table 2. Mounting Contact Ring Dimensions, inch (mm)

Model	A Mtg Bolt Circle	B Inner Ring I.D.	C Inner Ring O.D.	D Outer Ring I.D.	E Outer Ring O.D.	F Pilot O.D.
2330						
2340	7.874 (200.0)	5.71 (145.0)	6.33 (16.08)	9.16 (232.6)	9.45 (240.0)	0.473 (12.01) @30°
2350	9.843 (250.0)	6.72 (170.6)	7.68 (195.1)	11.50 (292.1)	12.01 (305.1)	0.473 (12.01) @30°

