

## MODEL 3173

Tension and compression 200 lbs. to 3,000 lbs.



### 3173 WITH TENSION BASE



**Consult factory  
for specials.**

### FEATURES :

- High accuracy
- Low deflection
- Proven fatigue resistant design and performance
- Low full-scale capacity
- Low profile
- Minimal sensitivity to extraneous loading

The Model 3173 is the newest member of a low profile tension and compression family of load cells. The Model 3173 covers the lower capacity ranges of 200 pounds force to 3,000 pounds force, while exhibiting the superior characteristics of stiffness and low profile. These load cells are well suited to materials testing machines and other applications requiring a rugged load sensor.

### PERFORMANCE SPECS :

#### 3173

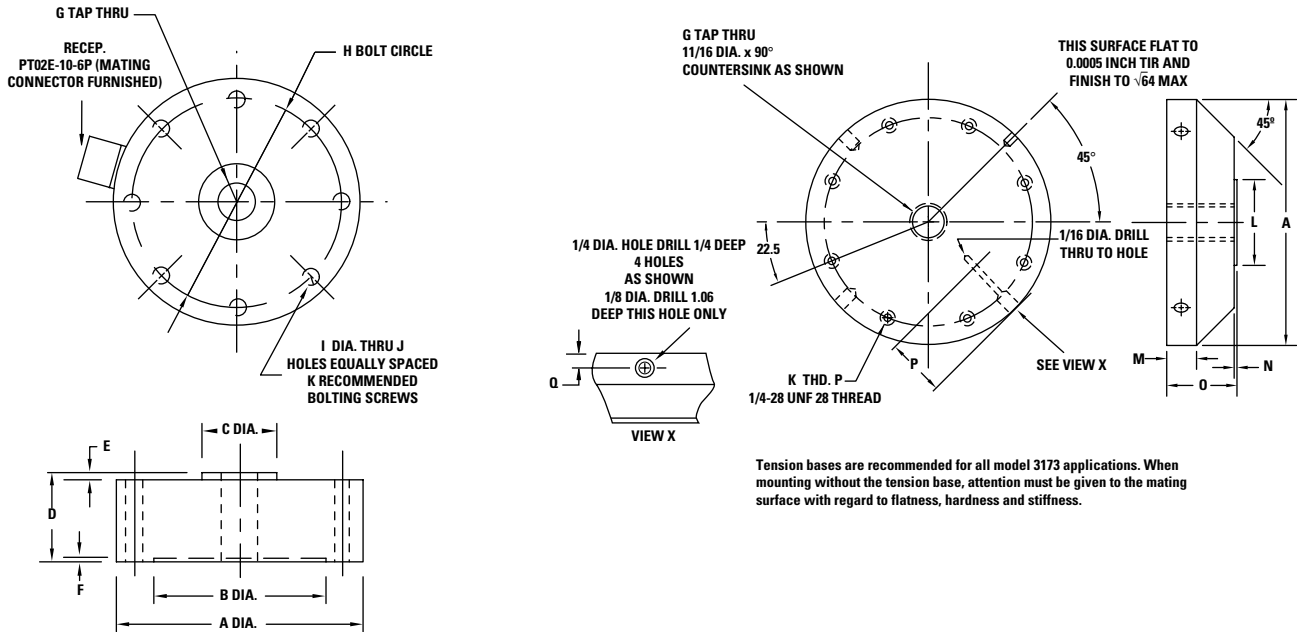
#### SPECIFICATIONS

<b>Capacity:</b> lbs.	200, 500, 1K, 2K, 3K
<b>Output:</b> millivolts per volt, nominal	1.50
<b>Output:</b> millivolts per volt, nominal (2K and 3K units)	2.00
<b>Overload:</b> at rated capacity	150%
<b>Nonlinearity best fit:</b> of rated output	$\leq \pm 0.05\%$
<b>Creep:</b> in 20 minutes of rated output	$\leq \pm 0.025\%$
<b>Hysteresis:</b> of rated output	$\leq \pm 0.05\%$
<b>Repeatability:</b> of rated output	$\pm 0.02\%$
<b>Input resistance:</b> nominal, ohms	700
<b>Output resistance:</b> nominal, ohms	700
<b>Excitation voltage:</b> maximum	20V
<b>Temperature range, compensated:</b> °F	+70 to +170
<b>Temperature range, usable:</b> °F	-65 to +200
<b>Temperature effect on output:</b> of reading per °F	$\leq 0.002\%$
<b>Temperature effect on zero:</b> of rated output per °F	$\leq 0.002\%$
<b>Fatigue life:</b> 0 to full fatigue load (cycles x 10 <sup>6</sup> )	$\geq 100$
<b>Fatigue life:</b> full fatigue tension to full fatigue comp. (cycles x 10 <sup>6</sup> )	$\geq 50$
<b>Deflection:</b> at rated capacity (200-1K)	.003 inch
<b>Deflection:</b> at rated capacity (2K-3K)	.001 inch



MODEL NUMBER	CAPACITY lbs. (N)	DIMENSIONS							NO. OF HOLES J	BOLTING SCREWS K	DIMENSIONS							
		A in. (cm.)	B in. (cm.)	C in. (cm.)	D in. (cm.)	E in. (cm.)	F in. (cm.)	G English (Metric)			H in. (cm.)	I in. (cm.)	L in. (cm.)	M in. (cm.)	N in. (cm.)	O in. (cm.)	P in. (cm.)	Q in. (cm.)
3173	200-3K	4.12	2.85	1.27	1.37	0.12	0.06	5/8-18 UNF-3B	3.50	0.28	8	1/4-28 hexhead	1.25	0.50	0.03	1.13	0.87	0.25
3173-101	(900-13.5K)	(10.47)	(7.24)	(3.23)	(3.48)	(0.31)	(0.15)	(M16 x 15mm-6H)	(8.89)	(0.71)	8	1 1/2 inches long	(3.18)	(1.27)	(0.08)	(2.87)	(2.21)	(0.64)

Tighten to  
200 in. lbs.



**SENSOR CHARACTERISTICS : 3173**

MODEL NUMBER	NOMINAL LOAD LIMIT CAPACITY $F_z$		STATIC OVERLOAD CAPACITY % OF NOM. CAPACITY	FATIGUE CAPACITY % OF NOM. CAPACITY	STATIC EXTRANEIOUS LOAD LIMITS			DEFLECTION AT NOM. LOAD LIMIT INCHES	RINGING FREQUENCY $H_z$
	LBS.	NEWTONS			SHEAR $F_x$ OR $F_y$ LBS.	BENDING $M_x$ OR $M_y$ LB. INCHES	TORQUE $M_z$ LB. INCHES		
3173	200	1K	150	100	4,471	185	3,477	0.003	1,500
	500	2K	150	100	15,625	466	5,208	0.003	2,440
	1K	5K	150	100	15,500	911	7,750	0.003	3,900
	2K	10K	150	100	4,000	2,133	1,523	0.001	5,500
	3K	15K	150	100	5,166	2,818	2,214	0.001	7,200