

MODEL 3270

Tension and compression 100 lbs. to 200,000 lbs.



Models 3272, 3273 and 3274
Capacities 100 lbs. to 20,000 lbs.



Models 3275, 3276 and 3277
Capacities 50,000 lbs. to 200,000 lbs.

**Consult factory
for specials.**

FEATURES :

- 100 lbs. through 200,000 lbs. standard capacities
- Universal tension and compression loading
- Hermetically sealed, glass to metal military style connector IP67 rating
- Heat treated 17-4PH stainless steel
- 10⁷ cycles extended life design, .001" to .003" FS deflection
- Compact package sizes
- 200% FS safe overload capability
- Superior resistance to extraneous loading
- Standardized output of 2mV/V +/-0.25% minimizes test setup
- Built-in wrench flat design provides easy installation
- Available in single, (optional) dual, or (optional) triple bridge configurations
- Metric sizes, special capacities and custom configurations available

The Model 3270 load cell series has been designed to work in harsh environments. These tension/compression load cells are made from 17-4PH stainless steel and are hermetically sealed to an IP67 rating.

The Model 3270 family is designed for demanding applications in automotive, aerospace, agricultural, chemical, military, and paper and pulp markets. The family consists of 12 different capacities from 100 lbs. to 200,000 lbs.

Some of the advantages of these load cells are: small size, high overload capacity, high frequency response, higher stiffness and extended life.

PERFORMANCE SPECS :

3270

SPECIFICATIONS

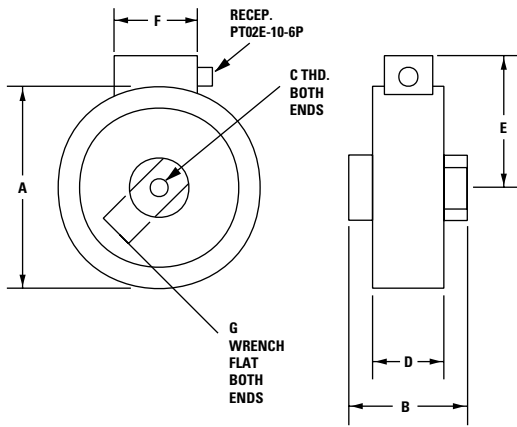
| | |
|---|---------------|
| Output at rated capacity: <i>millivolts per volt</i> | 2 ±0.25% * |
| Maximum nonlinearity error: <i>of full scale output</i> | ±0.10% |
| Maximum hysteresis error: <i>of full scale output</i> | ±0.10% |
| Maximum non-repeatability: <i>of rated output</i> | ±0.05% |
| Zero balance: <i>of rated output</i> | ±1.00% |
| Bridge resistance: <i>ohms</i> | 350 and 700** |
| Excitation voltage, maximum: <i>volts DC or AC rms</i> | 20 |
| Temperature range, operating: °F | -65 to +250 |
| Temperature range, compensated: °F | 0 to +150 |
| Maximum temperature effect on output: <i>of reading per °F</i> | ± 0.002% |
| Maximum temperature effect on zero: <i>of rated output per °F</i> | ± 0.002% |
| Static overload capacity: <i>of rated capacity</i> | 200% |

*Model 3272-100 output 1.5mV/V ±0.25%.

**Models 3272 and 3273 are 350 ohms; models 3274, 3275, 3276 and 3277 are 700 ohms.



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| MODEL NUMBER | CAPACITY LBS. | DIMENSIONS | | | | | | |
|--------------|---------------|------------|------|----------|------|------|------|------|
| | | A | B | C | D | E | F | G |
| 3272 | 100-200 | 2.75 | 1.50 | 3/8-24 | 1.10 | 2.38 | 1.75 | 0.63 |
| 3273 | 500-5K | 3.50 | 2.00 | 1/2-20 | 1.45 | 2.83 | 1.75 | 0.88 |
| 3274 | 5K, 10K, 20K | 4.50 | 2.50 | 1-14 | 1.56 | 3.39 | 1.75 | 1.50 |
| 3275* | 50K | 6.25 | 4.25 | 1 1/2-12 | 2.97 | 4.32 | 1.75 | 2.13 |
| 3276* | 100K | 7.75 | 5.00 | 1 3/4-12 | 3.52 | 4.96 | 1.75 | 2.50 |
| 3277* | 200K | 9.75 | 5.75 | 2 1/4-12 | 3.93 | 6.11 | 1.75 | 3.25 |

Dimensions are in inches.

*Has external tension base plate.

SENSOR CHARACTERISTICS: 3270

| MODEL NUMBER | NOMINAL LOAD LIMIT CAPACITY F _z | | STATIC OVERLOAD 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 | | |
| 3272 | 100 | 500 | 200 | 1,300 | 115 | 725 | 0.003 | 1,200 |
| | 200 | 1K | 200 | 1,900 | 230 | 1,000 | 0.003 | 1,700 |
| 3273 | 500 | 2K | 200 | 3,200 | 550 | 3,200 | 0.003 | 1,900 |
| | 1K | 5K | 200 | 4,500 | 1,100 | 4,500 | 0.003 | 2,700 |
| | 2K | 10K | 200 | 8,300 | 2,200 | 8,200 | 0.003 | 3,900 |
| | 5K | 20K | 200 | 13,000 | 2,700 | 10,900 | 0.003 | 6,100 |
| 3274 | 5K | 20K | 200 | 7,200 | 7,400 | 10,000 | 0.002 | 5,100 |
| | 10K | 50K | 200 | 14,500 | 14,800 | 18,400 | 0.002 | 7,200 |
| | 20K | 100K | 200 | 34,600 | 29,700 | 39,800 | 0.002 | 10,100 |
| 3275 | 50K | 200K | 200 | 39,000 | 39,000 | 54,000 | 0.001 | 11,700 |
| 3276 | 100K | 500K | 200 | 78,000 | 92,000 | 123,000 | 0.001 | 12,200 |
| 3277 | 200K | 1M | 200 | 118,000 | 222,000 | 296,000 | 0.001 | 12,700 |