

Tension/Compression load cell

TCLB

- Capacities : 500N...5kN
- Small size
- Wide capacity range



Model

| Rated Capacity | |
|----------------|----------------------|
| TCLB- | <input type="text"/> |
| 50L | 500N (51kgf) |
| 100L | 1kN (102kgf) |
| 200L | 2kN (204kgf) |
| 500L | 5kN (510kgf) |

Specifications

| | |
|--------------------------------|--|
| Rated output (R.O.) | 0.5mV/V : [500N] 1mV/V : [1kN] 2mV/V : [2kN, 5kN] |
| Rated output tolerance | ±10% : [500N...2kN] ±0.5% : [5kN] |
| Zero balance | ±10%R.O. |
| Nonlinearity | ±0.5%R.O. : [500N...2kN] ±0.15%R.O. : [5kN] |
| Hysteresis | ±0.5%R.O. : [500N...2kN] ±0.15%R.O. : [5kN] |
| Repeatability | ±0.5%R.O. : [500N...2kN] ±0.05%R.O. : [5kN] |
| Temperature effect on zero | ±0.05%R.O./°C : [500N...2kN] ±0.005%R.O./°C : [5kN] |
| Temperature effect on output | ±0.05%LOAD/°C : [500N...2kN] ±0.01%LOAD/°C : [5kN] |
| Temperature range, compensated | -10°C~+60°C |
| Temperature range, safe | -20°C~+70°C |
| Maximum safe overload | 150%R.C. |
| Excitation, recommended | 5V : [500N, 1kN] 10V : [2kN, 5kN] |
| Excitation, maximum | 10V : [500N, 1kN] 15V : [2kN, 5kN] |
| Input impedance (approx.) | 500Ω : [500N...2kN] 425Ω±50Ω : [5kN] |
| Output impedance (approx.) | 500Ω : [500N...2kN] 350Ω±5Ω : [5kN] |
| Insulation resistance | >1000MΩ (B/E DC50V) |
| Cable type | φ3 (φ5 : [5kN]) , 4-wire, PVC, braid shield |
| Cable length | 3m : [500N...2kN] 5m : [5kN] |
| Construction | Aluminum : [500N, 1kN] SUS : [2kN, 5kN] |

Cable color code

| Item | φ3 Cable | φ5 Cable |
|-----------------|----------|----------|
| Excitation + | Red | Red |
| Excitation - | White | White |
| Signal output + | Green | Green |
| Signal output - | Black | Blue |
| Shield | Yellow | Yellow |

Mechanical characteristics

| Model | Rated deflection | Natural frequencies (Approx.) | Weight (Approx.) |
|-----------|------------------|-------------------------------|------------------|
| TCLB-50L | <0.01mm | 16kHz | 20g |
| TCLB-100L | | 22kHz | |
| TCLB-200L | | 20kHz | |
| TCLB-500L | <0.02mm | | 600g |

Outline dimensions (mm)

