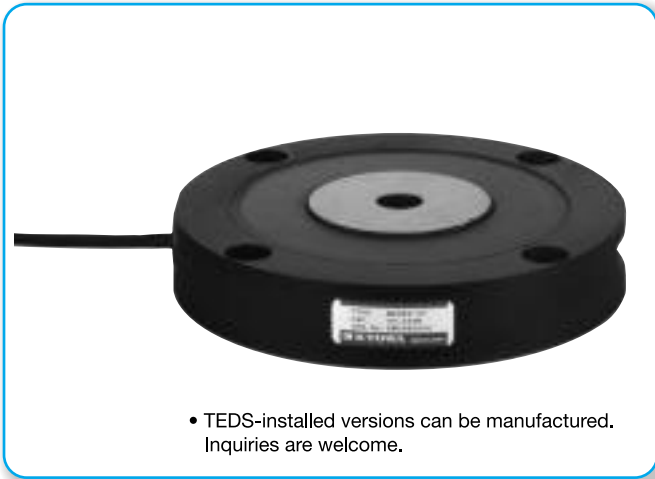


Thin Load Cells "Multiforce Sensor"

LCTE-A

10 to 100 kN

Thin

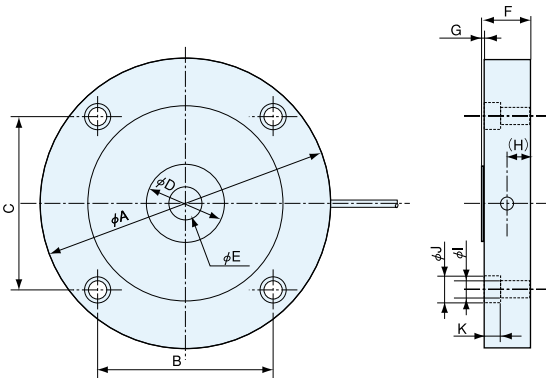


• TEDS-installed versions can be manufactured. Inquiries are welcome.

Features

- Advanced thin design – When compared with conventional load cells, the height is 1/2 to 1/3. Space saving expands the application range.
- Usable with top and bottom fixed – Optional dedicated rubber attachment enables fixing the top and bottom with bolts, thereby making it possible to design the system with no tension rod or stay rod used.
- Strong against lateral load – Safety factor is 3 to 5 times higher than conventionals. Endures lateral loads up to 50% of the rated capacity.
- Excellent impact/vibration resistance – Rubber attachment attenuates impact energy and lessens the effects of thermal expansion of system and moment of fixed section.
- Easy installation – Rubber attachment facilitates installation with less care about parallelism.
- Wide variation in accuracy and reliability – Varieties of accuracies and outputs are available, enabling configuration of the most suitable system for each individual application.
- Compatibility with peripheral equipment – Since wirings are the same as conventional load cells, peripheral instruments such as amplifiers can easily be connected.

Dimensions



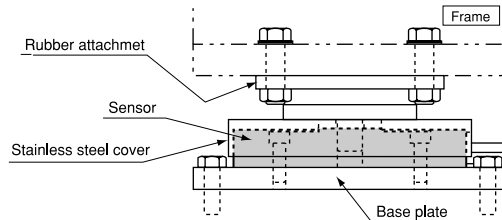
| Model | Rated Capacity | φA | B | C | φD | φE | F | G | H | φI | φJ | K | Weight (App.) |
|---------------|----------------|-----|-----|--------|----|-----|-----|-----|----|----|----|-----|---------------|
| LCCTE-A-10KN | 10 kN | 148 | 90 | 90 | 40 | 16 | 25 | 1 | 13 | 9 | 14 | 8.5 | 3.2 kg |
| LCCTE-A-20KN | 20 kN | 178 | 110 | 110 | 62 | | 31 | | 15 | 11 | 18 | 11 | 5.1 kg |
| LCCTE-A-30KN | 30 kN | | | | | 198 | 124 | 124 | 80 | 35 | 17 | 14 | 20 |
| LCCTE-A-50KN | 50 kN | 37 | 3 | 7.2 kg | | | | | | | | | |
| LCCTE-A-100KN | 100 kN | | | | | | | | | | | | |

Specifications

| Performance | |
|----------------------------|--|
| Rated Capacity | See table below. |
| Nonlinearity | Within ±0.05% RO (100KN: Within ±0.1% RO) |
| Hysteresis | Within ±0.05% RO (100KN: Within ±0.1% RO) |
| Repeatability | 0.03% RO or less (100KN: 0.05% RO or less) |
| Rated Output | 2 mV/V (4000 μm/m) ±0.2% |
| Environmental Capability | |
| Safe Temp. Range | -20 to 70°C |
| Comp. Temp. Range | -10 to 60°C |
| Temp. Effect on Zero Bal. | Within ±0.003% RO/°C |
| Temp. Effect on Out. | Within ±0.003%/°C |
| Electrical Characteristics | |
| Safe Excit. Voltage | 20 V DC |
| Recom. Excit. Voltage | 1 to 10 V DC |
| Input Resistance | 350 Ω ±1.5% |
| Output Resistance | 350 Ω ±1.5% |
| Cable | 4-conductor (0.3 mm ²) chloroprene shielded cable, 6 mm dia. by 5 m long (100KN: 10 m long), bared at the tip (Shield wire is not connected to the mainframe.) |
| Mechanical Properties | |
| Safe Overload Rating | 150% |
| Critical Lateral Load | 50% (Maximum load which does not cause any mechanical damage) |
| Weight | See table below. |
| Enclosure | Special steel |

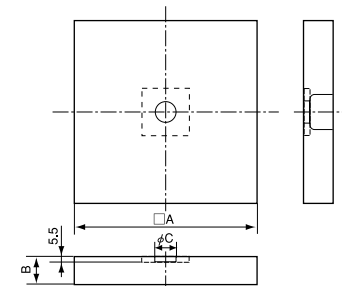
Precautions

1. LCCTE-A cannot be used for any onboard measurement.
2. LCCTE-A cannot be used in an environment where it is frequently exposed to lateral load.
3. LCCTE-A cannot be installed to any inclined or vertical surface.



Applicable Accessories

| Model | Stainless Steel Cover | Rubber Attachment | Base Plate | Base Plate (when stainless cover is used) |
|---------------|-----------------------|-------------------|------------|---|
| LCCTE-A-10KN | COV04-1T | RA01-2T | BP04-1T | BP04-1T01 |
| LCCTE-A-20KN | COV04-3T | | BP04-2T | BP04-2T01 |
| LCCTE-A-30KN | | RA01-5T | BP04-3T | BP04-3T01 |
| LCCTE-A-50KN | COV04-10T | RA01-10T | BP04-5T | BP04-5T01 |
| LCCTE-A-100KN | | | BP04-10T02 | BP04-10T03 |



Stainless Steel Cover

| Model | A | B | φC | Weight (App.) |
|-----------|-----|----|----|---------------|
| COV04-1T | 155 | 25 | 18 | 230 g |
| COV04-3T | 185 | 30 | 22 | 380 g |
| COV04-10T | 205 | 35 | 22 | 670 g |

For rubber attachment and base plate, refer to page 41.

Thin Load Cells "Multiforce Sensor" LCCTE-A