

# LCTE-A

## Thin Load Cells "Multiforce Sensors"

●Thin ●10 to 100 kN

Thin

NEW

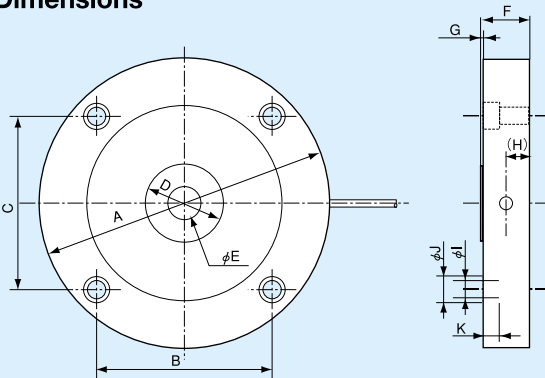


• TEDS-installed versions can be manufactured. Inquiries are welcome.

### 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



### Specifications

#### Performance

Rated Capacity: See table below.  
 Nonlinearity: Within  $\pm 0.05\%$  RO ( $\pm 0.1\%$  RO with 100kN)  
 Hysteresis: Within  $\pm 0.05\%$  RO ( $\pm 0.1\%$  RO with 100kN)  
 Repeatability: 0.03% RO ( $\pm 0.05\%$  RO with 100kN) or less  
 Rated Output: 2 mV/V (4000  $\mu\text{m/m}$ )  $\pm 0.2\%$

#### Environmental Characteristics

Safe Temperature Range:  $-20$  to  $70^\circ\text{C}$   
 Compensated Temperature Range:  $-10$  to  $60^\circ\text{C}$   
 Temperature Effect on Zero Balance: Within  $\pm 0.003\%$  RO/ $^\circ\text{C}$   
 Temperature Effect on Output: Within  $\pm 0.003\%$ / $^\circ\text{C}$

#### Electrical Characteristics

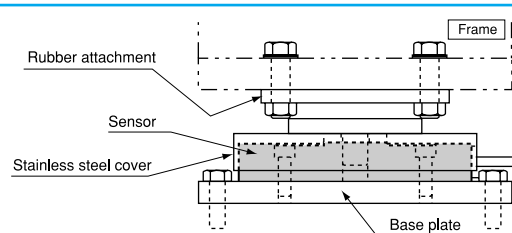
Safe Excitation Voltage: 20 VDC  
 Recommended Excitation Voltage: 1 to 10 VDC  
 Input Resistance:  $350 \Omega \pm 1.5\%$   
 Output Resistance:  $350 \Omega \pm 1.5\%$   
 Cable: 4-conductor (0.3 mm<sup>2</sup>) chloroprene shielded cable, 6 mm diameter by 5 m long (10 m long with 100kN), bared at the tip (Shield wire is not connected to mainframe)

#### Mechanical Properties

Safe Overload Rating: 150%  
 Critical Lateral Load: 50% (maximum load which does not cause any mechanical damage)  
 Weight: See table below.  
 Material: Special steel

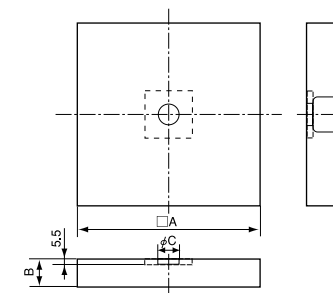
#### Precautions

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



#### Applicable Accessories

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



#### Stainless Steel Cover

Model	A	B	phi C	Weight (Approx.)
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 2-29.

Model	Rated Capacity	A	B	C	D	phi E	F	G	(H)	phi I	phi J	K	Weight (Approx.)
LCTE-A-10KN	10 kN	148	90	90	40	16	25	1	13	9	14	8.5	3.2 kg
LCTE-A-20KN	20 kN	178	110	110	62		31		15	11	18	11	5.1 kg
LCTE-A-30KN	30 kN					198	124	124	80	35	17	14	20
LCTE-A-50KN	50 kN	37	3	7.2 kg									
LCTE-A-100KN	100 kN												