

Thin Load Cell "Multi Force Sensor"



*TEDS-installed models are available. Inquiries are welcome.

Advanced Thin Design 1/2 to 1/3 height to the Conventional one More Applications are possible

- 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.
- Safety factor is 3 to 5 times higher than conventional type. Endures lateral loads up to 20% of the rated capacity.
- Rubber attachment attenuates impact energy and lessens the effects of thermal expansion of system and the moment of fixed section.
- Rubber attachment enables easy installation without concern for parallelism.
- Varieties of accuracies and output signals are available, enabling configuration of the most suitable system for each application.
- Combination instruments such as amplifiers are easily connected since the wirings are the same as conventional load cells.

Specifications

Performance

Rated Capacity	See table below.
Nonlinearity	Within $\pm 0.05\%$ RO (10 to 50 kN) Within $\pm 0.1\%$ RO (100 kN)
Hysteresis	Within $\pm 0.05\%$ RO (10 to 50 kN) Within $\pm 0.1\%$ RO (100 kN)
Repeatability	$\pm 0.03\%$ RO or less (10 to 50 kN) $\pm 0.05\%$ RO or less (100 kN)
Rated Output	2 mV/V $\pm 0.2\%$

Environmental Characteristics

Safe Temperature	-20 to 70°C
Compensated Temperature	-10 to 60°C
Temperature Effect on Zero	Within $\pm 0.003\%$ RO/°C
Temperature Effect on Output	Within $\pm 0.003\%$ /°C

Electrical Characteristics

Safe Excitation	20 V DC
Recommended Excitation	1 to 10 V DC
Input Resistance	350 $\Omega \pm 1.5\%$
Output Resistance	350 $\Omega \pm 1.5\%$
Cable	4-conductor (0.3 mm ²) chloroprene shielded cable, 6 mm diameter by 5 m long but 10 m for 100 kN, bared at the tip (Shield wire is not connected to the case.)

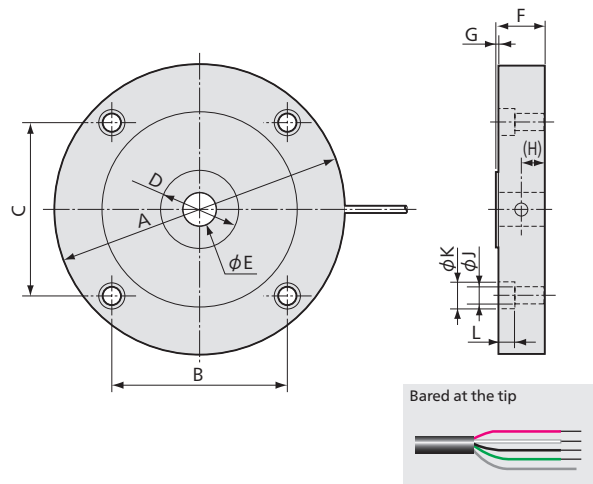
Mechanical Properties

Safe Overloads	150%
Ultimate Lateral Load	50% (Maximum load which does not cause any mechanical damage)
Weight	See table below.
Materials	Special steel

Precautions

1. No LCTE-A is used for any onboard measurement.
2. No LCTE-A is used in an environment where it is frequently exposed to lateral loads.
3. No LCTE-A is installed to any inclined or vertical surfaces.

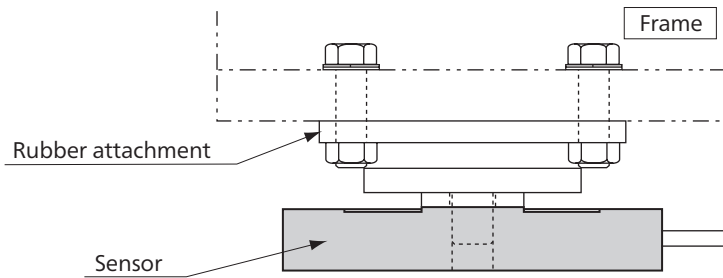
Dimensions



Models	Rated Capacity	A	B	C	D	ϕE	F	G	(H)	ϕJ	ϕK	L	Weight*
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	20	35	3	17	14	20	13	≈ 6.9 kg
LCTE-A-50KN	50 kN						37						≈ 7.2 kg
LCTE-A-100KN	100 kN												

*Excluding cable

Optional Accessories




Applicable Accessories

Models	Rubber Attachment
LCTE-A-10KN	RA01-2T
LCTE-A-20KN	
LCTE-A-30KN	RA01-5T
LCTE-A-50KN	RA01-5T, RA01-10T
LCTE-A-100KN	




● Physical quantity indication ● Static measurement ● Dynamic measurement


LCTE-A
Recommended
products for
combination




Instrumentation Amplifier
WGA-900A
→ 3-95




Instrumentation Amplifier
WGA-680A
→ 3-97




Data Logger
UCAM-60B
→ 3-25



Strain Amplifier
DPM-900 Series
→ 3-5



Universal Recorder
EDX-200A
→ 3-55



Universal Recorder
EDX-100A
→ 3-63