

LCTB-A

Thin Load Cells "Multiforce Sensors"

● Thin ● 5 to 50 kN

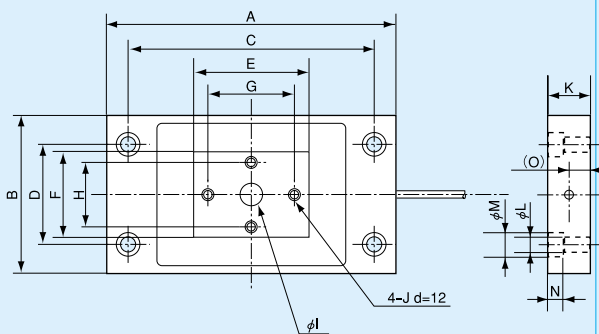


• TEDS-installed versions can be manufactured. Inquiries are welcome.

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 $\pm 0.03\%$ RO
 Hysteresis: Within $\pm 0.03\%$ RO
 Repeatability: 0.02% RO or less
 Rated Output: 1.5 mV/V (3000 $\mu\text{m/m}$) $\pm 0.2\%$

Environmental Characteristics

Safe Temperature Range: -20 to 70°C
 Compensated Temperature Range: -10 to 60°C
 Temperature Effect on Zero Balance: Within $\pm 0.005\%$ RO/ $^\circ\text{C}$
 Temperature Effect on Output: Within $\pm 0.005\%$ / $^\circ\text{C}$

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 mm²) chloroprene shielded cable, 6 mm diameter by 5 m long, bared at the tip

Mechanical Properties

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

Precautions

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

Applicable Accessories

Model	Stainless Steel Cover	Rubber Attachment	Base Plate
LCTB-A-5KN			
LCTB-A-10KN	COV01-2T	RA01-2T	BP01-2T
LCTB-A-20KN			
LCTB-A-30KN	COV01-5T	RA01-5T	BP01-5T
LCTB-A-50KN			

Stainless Steel Cover

Model	A	B	C	D	E	(phi F)	G	Weight (Approx.)
COV01-2T	206	116	25	5.5	45	18	M8	400 g
COV01-5T	270	160	35	9.5	60	22	M10	900 g

For rubber attachmen and base plate, refer to P. 2-29.

Model	Rated Capacity	A	B	C	D	E	F	G	H	phi I	J	K	phi L	phi M	N	(O)	Weight (Approx.)
LCTB-A-5kN	5 kN	200	110	170	70	80	60	60	45	16	M8	29	11	17	11	15	1.8 kg
LCTB-A-10kN	10 kN											16.5					2.3 kg
LCTB-A-20kN	20 kN											35					2.3 kg
LCTB-A-30kN	30 kN	260	150	220	90	90	80	60	60	20	M10	39	13	19	13	19	4.3 kg
LCTB-A-50kN	50 kN											49					5.3 kg