

LCTA-A

Thin Load Cells "Multiforce Sensors"

● Thin ● 500 N to 3 kN

Thin

NEW



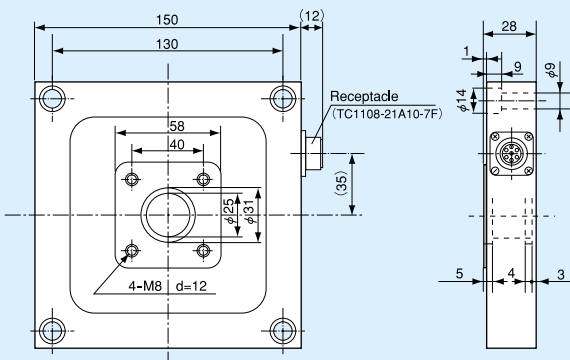
- TEDS-installed versions can be manufactured. Inquiries are welcome.

High technologies cultivated in weight control of large-scale airplanes and original ideas are incorporated into the revolutionary thin design of LCTA-A series load cells. Besides accuracy, the integrated flat design and rubber attachment enable use with the top and bottom fixed and provide excellent buffer function and ease of use.

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 conventional. Endures lateral loads up to 20% 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:	Model	Rated Capacity
	LCTA-A-500N	500 N
	LCTA-A-800N	800 N
	LCTA-A-1KN	1 kN
	LCTA-A-2KN	2 kN
	LCTA-A-3KN	3 kN

Nonlinearity: Within $\pm 0.05\%$ RO
 Hysteresis: Within $\pm 0.05\%$ RO
 Repeatability: 0.03% RO or less
 Rated Output: 2 mV/V (4000 $\mu\text{m/m}$) $\pm 0.2\%$

Environmental Characteristics

Safe Temperature Range: -20 to 70°C
 Compensated Temperature Range: -10 to 60°C
 Temperature Effect on Zero Balance: Within $\pm 0.01\%$ RO/ $^\circ\text{C}$
 Temperature Effect on Output: Within $\pm 0.01\%$ / $^\circ\text{C}$

Electrical Characteristics

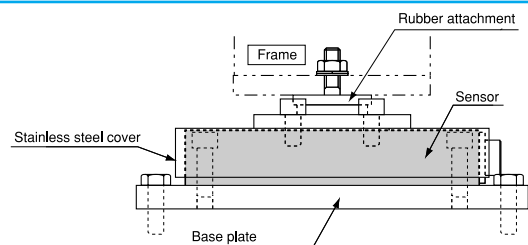
Safe Excitation Voltage: 20 VDC
 Recommended Excitation Voltage: 1 to 10 VDC
 Input Resistance: $350 \Omega \pm 1.5\%$
 Output Resistance: $350 \Omega \pm 1.5\%$
 Cable: 4-conductor (0.5 mm²) vinyl sheath shielded cable, 8 mm diameter by 5 m long, bared at the tip (Shield wire is not connected to mainframe)

Mechanical Properties

Safe Overload Rating: 150%
 Critical Lateral Load: 20% (maximum load which does not cause any mechanical damage)
 Weight: Approx. 1.1 kg
 Material: Aluminum alloy

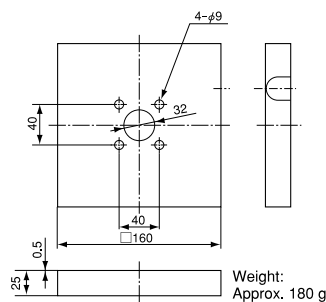
Precautions

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

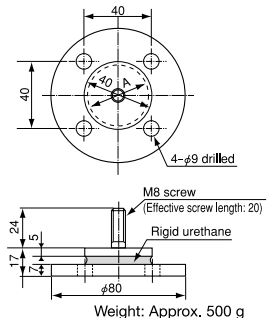


Applicable Accessories

Model	Stainless Steel Cover	Rubber Attachment	Base Plate
LCTA-A-500N	COV03-300K	RA02-100K	BP03-300K
LCTA-A-800N			
LCTA-A-1KN		RA02-300K	
LCTA-A-2KN			
LCTA-A-3KN			



Stainless Steel Cover



Rubber Attachment

Model	A
RA02-100K	30
RA02-300K	36

For base plate, refer to page 2-29.