

Thin Load Cells "Multiforce Sensor"

LCTA-A

500 N to 3 kN

Thin

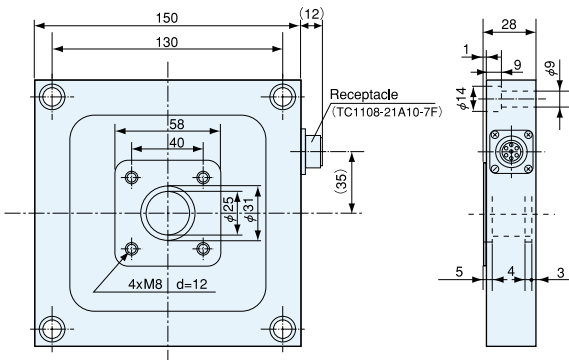


- TEDS-installed versions can be manufactured. Inquiries are welcome.

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 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



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.

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 Capability

Safe Temp. Range	-20 to 70°C
Comp. Temp. Range	-10 to 60°C
Temp. Effect on Zero Bal.	Within $\pm 0.01\%$ RO/°C
Temp. Effect on Out.	Within $\pm 0.01\%$ /°C

Electrical Characteristics

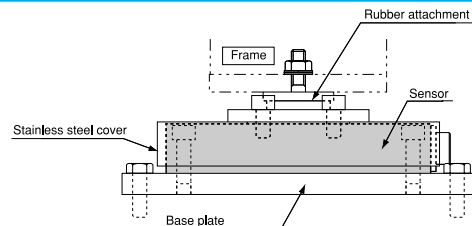
Safe Excit. Voltage	20 V DC
Recom. Excit. Voltage	1 to 10 V DC
Input Resistance	350 $\Omega \pm 1.5\%$
Output Resistance	350 $\Omega \pm 1.5\%$
Cable	4-conductor (0.5 mm ²) vinyl sheath shielded cable, 8 mm dia. by 5 m long, bared at the tip (Shield wire is not connected to the mainframe.)

Mechanical Properties

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

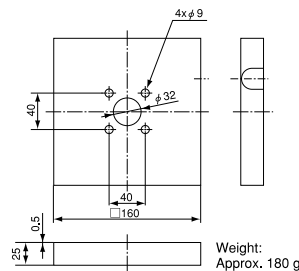
Precautions

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.



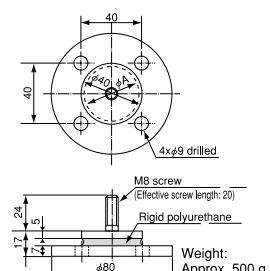
Applicable Accessories

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



Stainless Steel Cover

Weight: Approx. 180 g



Rubber Attachment

Weight: Approx. 500 g

For base plate, refer to page 40.

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