

LTS-A/LVS-A

Ultra Small-capacity Load Cell

CE

1
-90

Sensor



Load cells for small-capacity load measurement

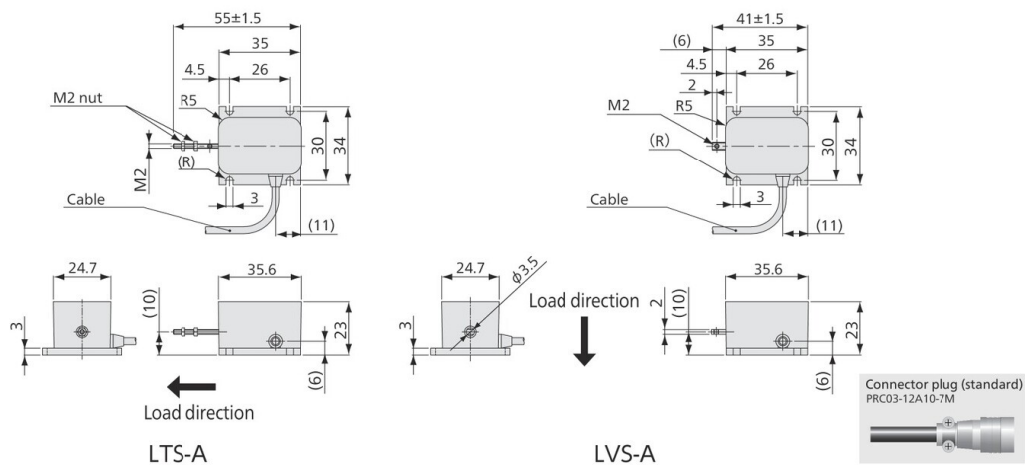
- Rated capacity: 50 mN to 20 N
- Two load directions (LTS-A : Horizontal direction, LVS-A : Vertical direction)

LVS-A is for use in measuring loads in the direction vertical to the mounted surface, while LTS-A is used for the horizontal direction.

To Ensure Proper Usage

- Use caution when mounting.
In particular, never apply strong force such as an impact in the sensing direction.
- When mounting the rod to the measuring object, do not apply any bending or twisting.

Dimensions



Specifications

Performance	
Rated Capacity	See table below.
Nonlinearity	Within $\pm 0.5\%$ RO
Hysteresis	Within $\pm 0.5\%$ RO
Repeatability	0.5% RO or less
Rated Output	1.5 mV/V or more (5, 10GA is 1.2 mV/V or more)
Environmental Characteristics	
Safe Temperature	-10 to 70°C
Compensated Temperature	0 to 60°C
Temperature Effect on Zero	Within $\pm 0.05\%$ RO/°C
Temperature Effect on Output	Within $\pm 0.1\%$ °C
Electrical Characteristics	
Safe Excitation	6 V AC or DC
Recommended Excitation	1 to 2 V AC or DC
Input Resistance	120 Ω $\pm 10\%$
Output Resistance	120 Ω $\pm 10\%$
Cable	4-conductor (0.05 mm ²) chloroprene shielded cable, 3 mm diameter by 1 m long, terminated with a connector plug PRC03-12A10-7M (Shield wire is not connected to the case.)

Mechanical Properties

Safe Overloads	120%
Ultimate Overloads	See table below.
Natural Frequencies	See table below.
Weight	Approx. 50 g (Excluding cable)
Compliance	Directive 2011/65/EU, (EU)/2015/863 (10 restricted substances) (RoHS)

Models

Model	Rated Capacity	Natural Frequencies (Approx.)	Ultimate Overloads
LTS-50GA	500 mN	256 Hz	500%
LTS-100GA	1 N	385 Hz	
LTS-200GA	2 N	625 Hz	
LTS-500GA	5 N	1000 Hz	250%
LTS-1KA	10 N	1670 Hz	
LTS-2KA	20 N	1700 Hz	
LVS-5GA	50 mN	50 Hz	1000%
LVS-10GA	100 mN	111 Hz	
LVS-20GA	200 mN	147 Hz	
LVS-50GA	500 mN	294 Hz	500%
LVS-100GA	1 N	455 Hz	
LVS-200GA	2 N	667 Hz	
LVS-500GA	5 N	1220 Hz	250%
LVS-1KA	10 N	1600 Hz	
LVS-2KA	20 N	2500 Hz	

*TEDS-installed models are available. Please contact us.

Strain Gage

Load Cell

Pressure
Sensor

Acceleration
Sensor

Torque
Sensor

Displacement
Sensor

Component
Force
Sensor

Automotive
Sensor

Civil
Engineering
Sensor