

LVS-A/LTS-A

Ultrasmall-Capacity Load Cells

● Compact & Lightweight ● 50 mN to 20 N



LVS-A



LTS-A

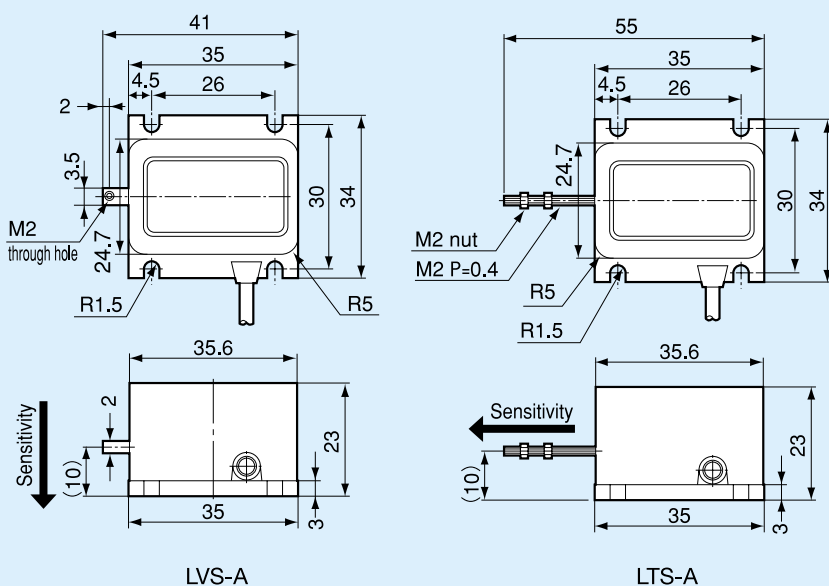
- TEDS-installed versions can be manufactured. Inquiries are welcome.

These load cells are designed to accurately measure small loads ranging from 50 mN to 20 N. Easy to install and handle, the LVS-A series measures loads in vertical direction to the mounted surface and the LTS-A series, in horizontal direction.

Features

- Compact and lightweight
- High accuracy
- Easy to handle

Dimensions



Specifications

Performance

Rated Capacity:

Model		Rated Capacity	Critical Overload
LVS-5GA	—	50 mN	1000%
LVS-10GA	—	100 mN	
LVS-20GA	—	200 mN	
LVS-50GA	LTS-50GA	500 mN	500%
LVS-100GA	LTS-100GA	1 N	
LVS-200GA	LTS-200GA	2 N	
LVS-500GA	LTS-500GA	5 N	250%
LVS-1KA	LTS-1KA	10 N	
LVS-2KA	LTS-2KA	20 N	

Nonlinearity: Within $\pm 0.5\%$ RO

Hysteresis: Within $\pm 0.5\%$ RO

Repeatability: 0.5% RO or less

Rated Output:

1.2 mV/V (2400 $\mu\text{m/m}$) or more (LVS-5GA & 10GA)

1.5 mV/V (3000 $\mu\text{m/m}$) or more (LVS/LTS-20GA to 2KA)

Environmental Characteristics

Safe Temperature Range: -10 to 70°C

Compensated Temperature Range: 0 to 60°C

Temperature Effect on Zero Balance: Within $\pm 0.05\%$ RO/ $^\circ\text{C}$

Temperature Effect on Output: Within $\pm 0.1\%$ / $^\circ\text{C}$

Electrical Characteristics

Safe Excitation Voltage: 6 VAC or DC

Recommended Excitation Voltage: 1 to 2 VAC or DC

Input Resistance: $120 \Omega \pm 10\%$

Output Resistance: $120 \Omega \pm 10\%$

Cable: 4-conductor (0.05 mm^2) chloroprene shielded cable, 3 mm diameter by 1 m long, terminated with connector plug (Shield wire is not connected to mainframe.)

Mechanical Properties

Safe Overload Rating: 120%

Critical Overload: See table above.

Weight: Approx. 50 g

Model	Natural Frequency (Approx.)	Model	Natural Frequency (Approx.)
LVS-5GA	50 Hz	LTS-50GA	256 Hz
LVS-10GA	111 Hz	LTS-100GA	385 Hz
LVS-20GA	147 Hz	LTS-200GA	625 Hz
LVS-50GA	294 Hz	LTS-500GA	1000 Hz
LVS-100GA	455 Hz	LTS-1KA	1670 Hz
LVS-200GA	667 Hz	LTS-2KA	1700 Hz
LVS-500GA	1220 Hz		
LVS-1KA	1600 Hz		
LVS-2KA	2500 Hz		

To Ensure Safe Usage

- The load cell should be carefully installed. Especially, never apply any impact (force) in sensitivity direction.

- When mounting the rod to the measuring object, do not apply any bending or twisting force to it.

Note: LVS-A M1 which is interchangeable with T-B (old version of LVS-A) and LTS-A M1 which is interchangeable with T-D (old version of LTS-A) can also be manufactured, Inquiries are welcome.