

LCV-A

Small-Sized Compression Load Cells

● Compact but Large Capacity ● 500 kN & 1 MN



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

LCV-A series is compact and lightweight load cells developed for large capacities of 500 kN and 1 MN. They can easily be installed into existing facilities. The hermetically-sealed structure with inert gas filled in ensures stable and reliable performance with 1/1000 accuracy. Use of BISELCOM gage ensures increased output and improved reliability.

Features

- Compact and lightweight
- Accuracy: 1/1000
- Service life: 10 million times or more
- BISELCOM® gage is used.

Specifications

Performance

Rated Capacity: See table below.
 Nonlinearity: Within $\pm 0.1\%$ RO
 Hysteresis: Within $\pm 0.1\%$ RO
 Repeatability: 0.05% RO or less
 Rated Output: 2.5 mV/V (5000 $\mu\text{m/m}$) $\pm 0.2\%$

Environmental Characteristics

Safe Temperature Range: -20 to 80°C
 Compensated Temperature Range: -10 to 70°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 VAC or DC
 Recommended Excitation Voltage: 1 to 10 VAC or DC
 Input Resistance: $350 \Omega \pm 0.5\%$
 Output Resistance: $350 \Omega \pm 0.5\%$
 Cable: 4-conductor (0.5 mm^2) chloroprene shielded cable, 8.5 mm diameter by 5 m long, with press-fit terminal for 4 mm (Shield wire is not connected to mainframe.)

Mechanical Properties

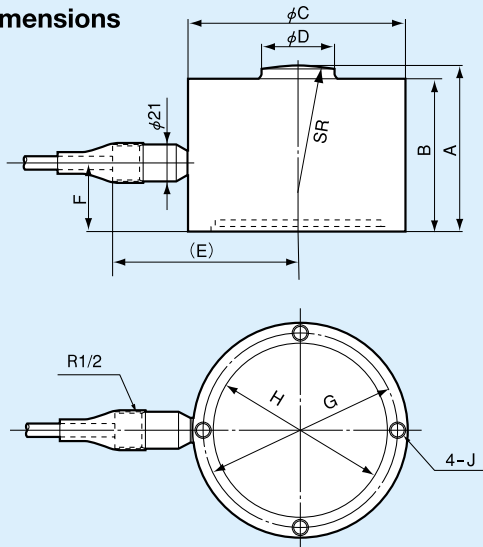
Safe Overload Rating: 150%
 Natural Frequency & Weight:

Model	Natural Frequency (Approx.)	Weight (Approx.)
LCV-A-500KN	13 kHz	6 kg
LCV-A-1MN	12 kHz	11 kg

Protection Rating: IP67

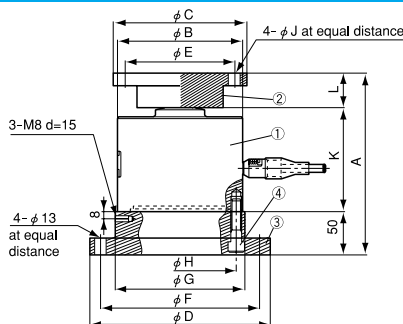
(Watertight type conforming to JIS C 0920)

Dimensions



Model	Rated Capacity	A	B	ϕC	ϕD	(E)	F	G	H	J	SR
LCV-A-500KN	500 kN	95	88	126	42	107	40	113	101	M10 d=12	125
LCV-A-1MN	1 MN	120	110	146	58	117	50	130	115	M12 d=18	180

Dimensions in Combination with Accessories



In Combination with Saddle CA and Mount Base CF

① Load Cell	② Saddle	③ Mount Base	④ Hex. socket Head Bolt	A	ϕB	ϕC	ϕD	ϕE	ϕF	ϕG	ϕH	ϕJ	K	L
LCV-A-500KN	CA-50B	CF-113F	4-M10 L=45	173	126	118	178	100	154	130	113	11	95	28
LCV-A-1MN	CA-1MH	CF-130F	4-M12 L=50	210	146	156	208	128	184	150	130	13	120	40

Hexagon socket head bolts to connect the load cell to the mount base are attached to the mount base.