

Small-sized Compression Load Cell



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

Compact & Lightweight Nonlinearity: 1/1000

- Service life: 10 million times or more
- BISELCOM® gages are used.

LCV-A series is a compact & lightweight load cell developed for large capacity 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 nonlinearity. Use of BISELCOM ensures increased output and improved reliability.

*BISELCOM gages are self-temperature-compensation gages with the sensitivity temperature compensation function added.

Specifications

Performance

Rated Capacity	See table below.
Nonlinearity	Within ±0.1% RO
Hysteresis	Within ±0.1% RO
Repeatability	0.05% RO or less
Rated Output	2.5 mV/V (5000 µm/m) ±0.2%

Environmental Characteristics

Safe Temperature Range	-20 to 80°C
Compensated Temperature Range	-10 to 70°C
Temperature Effect on Zero Balance	Within ±0.005% RO/°C
Temperature Effect on Output	Within ±0.005%/°C

Electrical Characteristics

Safe Excitation Voltage	20 V AC or DC
Recommended Excitation Voltage	1 to 10 V AC or DC
Input Resistance	350 Ω±0.5%
Output Resistance	350 Ω±0.5%
Cable	4-conductor (0.5 mm ²) chloroprene shielded cable, 8.5 mm diameter by 5 m long, with crimp-style terminals for 4 mm (Shield wire is not connected to mainframe.)

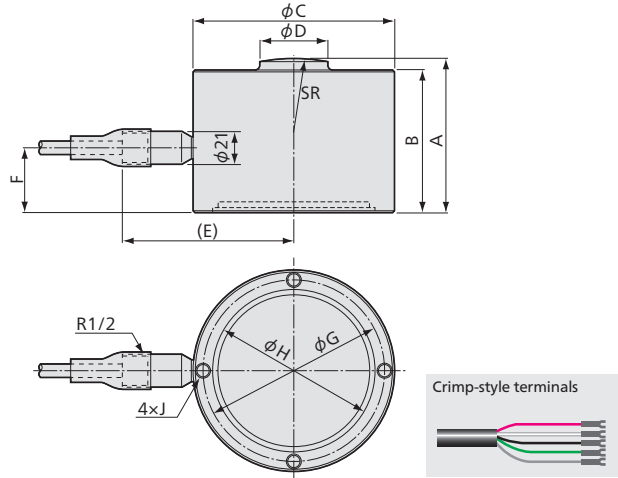
Mechanical Properties

Safe Overload Rating	150%
Natural Frequencies & Weight	See table below.
Degree of Protection	IP67 (IEC 60529)

Optional Accessories (For details, refer pages 2-72 to 2-76)

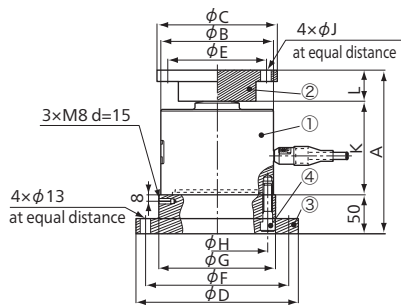
- Saddle CA-B
- Mount Base CF

■ Dimensions



Models	Rated Capacity	Natural Frequencies (Approx.)	A	B	φC	φD	(E)	F	φG	φH	J	SR	Weight (Approx.)
LCV-A-500KN	500 kN	13 kHz	95	88	126	42	107	40	113	101	M10 d=12	125	6 kg
LCV-A-1MN	1 MN	12 kHz	120	110	146	58	117	50	130	115	M12 d=18	180	10 kg

■ Dimensions in Combination with Accessories



● In Combination with Saddle CA and Mount Base CF

① Load Cells	② Saddles	③ Mount Bases	④ Hex. socket Head Bolts	A	φB	φC	φD	φE	φF	φG	φH	φJ	K	L
LCV-A-500KN	CA-50B	CF-113F	4xM10 L=45	173	126	118	178	100	154	130	113	11	95	28
LCV-A-1MN	CA-1MH	CF-130F	4xM12 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.

- Physical quantity indication
- Static measurement
- Dynamic measurement

LCV-A
Recommended
products for
combination

Instrumentation Amplifier
WGA-900A
→ 3-95

Instrumentation Amplifier
WGA-680A
→ 3-97

Data Logger
UCAM-60B
→ 3-25

Strain Amplifier
DPM-900 Series
→ 3-5

Universal Recorder
EDX-200A
→ 3-55

Universal Recorder
EDX-100A
→ 3-63