

# Tension/Compression Load Cells

For Both Tension & Compression Loads

LU-E Made to order

500 N to 200 kN

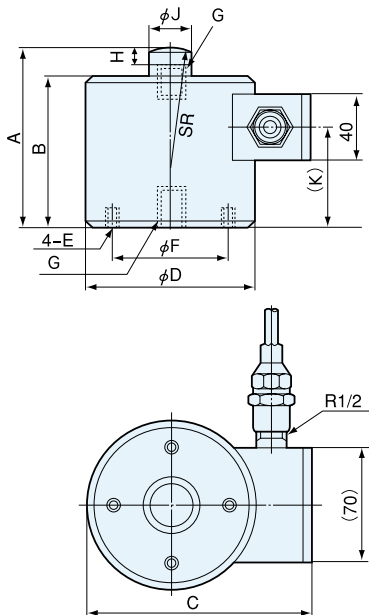
Hermetically-Sealed Structure with Inert Gas Filled in

For Both Tension & Compression Loads



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

## Dimensions



Model	Rated Capacity	Nat. Freq. (App.)	A	B	C	φ D	E	φ F	G	H	φ J	K	R	Weight (App.)	Saddle	Movable Saddle	Mount Base
LU-50KE	±500 N	1.54 kHz	91.5	77.5	114	80	M5 d=8	50	M8 P=1.25 d=12	10	12	32.5	30	3.9 kg	CA-1B	ER-1B	CF-50
LU-100KE	±1 kN	2.16 kHz															
LU-200KE	±2 kN	3.28 kHz															
LU-500KE	±5 kN	2.66 kHz	105	90	134	100	M8 d=8	80	M12 P=1.75 d=17	10	19	40	30	3.9 kg	CA-1B	ER-1B	CF-80
LU-1TE	±10 kN	4.2 kHz	108	90	130	100	M8 d=12	80	M14 P=2 d=22	10	26	60	50	3.4 kg			
LU-2TE	±20 kN	4.97 kHz	108	90	130	100	M8 d=12	80	M18 P=1.5 d=22	10	26	60	70	3.4 kg			
LU-5TE	±50 kN	3.5 kHz	167	140	144	112	M8 d=15	95	M26 P=2 d=35	17	36	100	70	5.2 kg			
LU-10TE	±100 kN	3.14 kHz	220	190	172.5	138	M8 d=15	120	M36 P=2 d=45	20	50	145	70	11.0 kg			
LU-20TE	±200 kN	2.5 kHz	277	235	221	186	M8 d=15	160	M50 P=3 d=65	27	64	190	100	22.5 kg			

The detection portion is hermetically sealed with inert gas filled in to prevent aging deterioration and to ensure reliability and stability for a long period of time.

## Specifications

### Performance

Rated Capacity	See table below.
Nonlinearity	Within ±0.2% RO
Hysteresis	Within ±0.1% RO
Repeatability	0.1% RO or less
Rated Output	2 mV/V (4000 μm/m) ±0.2%

### Environmental Capability

Safe Temp. Range	-30 to 85°C
Comp. Temp. Range	-10 to 70°C
Temp. Effect on Zero Bal.	Within ±0.005% RO/°C
Temp. Effect on Out.	Within ±0.005%/°C

### Electrical Characteristics

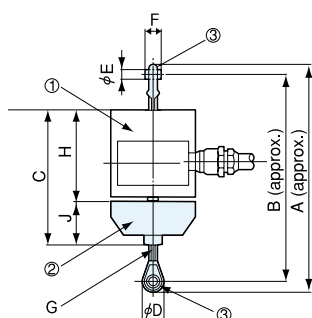
Safe Excit. Voltage	20 V AC or DC
Recom. Excit. Voltage	1 to 10 V AC or DC
Input Resistance	350 Ω ±0.5%
Output Resistance	350 Ω ±0.5%
Cable	4-conductor (0.3 mm <sup>2</sup> ) chloroprene shielded cable, 7.5 mm dia. by 5 m long, terminated with NDIS connector plug (Shield wire is not connected to the mainframe.)

### Mechanical Properties

Safe Overload Rating	150%
Natural Frequency	See table below.
Weight	See table below.
Protection Rating	IP 32

Note: When using for compression load measurement, fully screw in the saddle.

## Dimensions in Combination



## In Combination with Rotating Attachment RJ and Ball Joint TU

① Load Cell	② Rotating Attachment	③ Ball Joint	A	B	C	φ D	φ E	F	G	H	J	Static Breaking Load (Approx.)
LU-50KE	RJ-02	TU-8	217	195	125	22	8	11	M8 P=1.25	81.5	45	1.4kN
LU-100KE												2.9kN
LU-200KE												5.8kN
LU-500KE	RJ-05	TU-12	262	232	140	30	12	16	M12 P=1.75	95	45	14.7kN
LU-1TE	RJ-1	TU-14	283	246	160	37	14	17	M14 P=2	98	62	29.4kN
LU-2TE	RJ-2	TU-18	304	262	160	42	18	23	M18 P=1.5	98	62	58.8kN
LU-5TE	RJ-5	TU-26	463	393	235	70	25	37	M26 P=2	150	85	136.3kN
LU-10TE	RJ-10	TU-36										
LU-20TE	RJ-20	TU-50										

Notes: 1. Rotation attachment RJ is not applicable for compression load measurement.  
2. Special accessories for tension loads should be mounted at our factory.  
3. Dimensions A and B are approximate, since the ball joint is screw-in type.

Contact us for dimensions in these cases.