

High-accuracy Tension/Compression Load Cell

Nonlinearity is within $\pm 0.02\%$ RO
Tension/Compression load cells

●Remote sensing available* (See page 9-14.)

LUH-F series are tension/compression load cells featuring within $\pm 0.02\%$ RO nonlinearity. The hermetically-sealed structure with inert gas filled in ensures stable performance.

*To use the remote sensing function, use the recommended products for combination.

Specifications

Performance

Rated Capacity	See table below.
Nonlinearity	Within $\pm 0.02\%$ RO
Hysteresis	Within $\pm 0.02\%$ RO
Repeatability	0.02% RO or less
Rated Output	2 mV/V $\pm 0.1\%$

Environmental Characteristics

Safe Temperature	-35 to 80°C
Compensated Temperature	-10 to 60°C
Temperature Effect on Zero	Within $\pm 0.0015\%$ RO/°C
Temperature Effect on Output	Within $\pm 0.001\%$ /°C

Electrical Characteristics

Safe Excitation	20 V AC or DC
Recommended Excitation	1 to 10 V AC or DC
Input Resistance	350 $\Omega \pm 0.5\%$
Output Resistance	350 $\Omega \pm 0.5\%$
Cable	6-conductor (0.5 mm ²) chloroprene shielded cable, 9.5 mm diameter by 5 m long, bared at the tip (Shield wire is not connected to the case.)

Mechanical Properties

Safe Overloads	150%
Natural Frequencies	See table below.
Weight	See table below.
Others	Drop prevention stopper mountable *Customers have to prepare anti-dropping stoppers by themselves.

Standard Accessories 4 hexagon socket head bolts M5, L=10 mm
(30 mm with LUH-10TF and 20TF)
1 hexagon bar (Opposite side 2.5 mm)

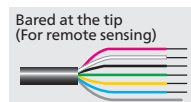
Optional Accessories Saddle CA
Mount base CF
Movable saddle ER-B
Ball joint TU

Models	Rated Capacity	Natural Frequencies (Approx.)	Weight* (Approx.)
●LUH-50KF	± 500 N	1.4 kHz	2.1 kg
●LUH-100KF	± 1 kN	2.2 kHz	
●LUH-200KF	± 2 kN	3.1 kHz	
●LUH-500KF	± 5 kN	4.6 kHz	
●LUH-1TF	± 10 kN	4.2 kHz	4 kg
●LUH-2TF	± 20 kN	6 kHz	
●LUH-5TF	± 50 kN	5.2 kHz	9 kg
●LUH-10TF	± 100 kN	4.5 kHz	18 kg
●LUH-20TF	± 200 kN	3.7 kHz	38 kg

●For delivery date, please contact us.

*Excluding cable

*Customers have to prepare anti-dropping stoppers by themselves.

Load Cells
(Load Transducers)

Outline

Compressive

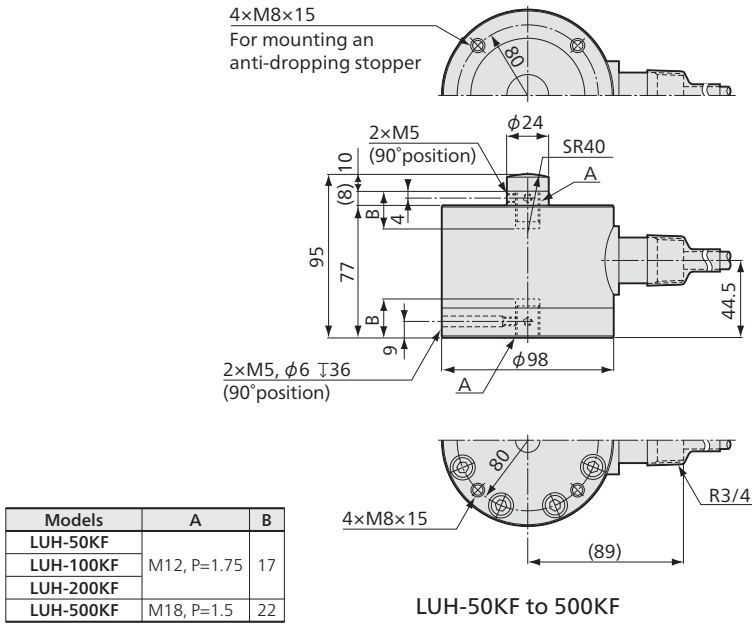
Tensile

Tensile &
compressive

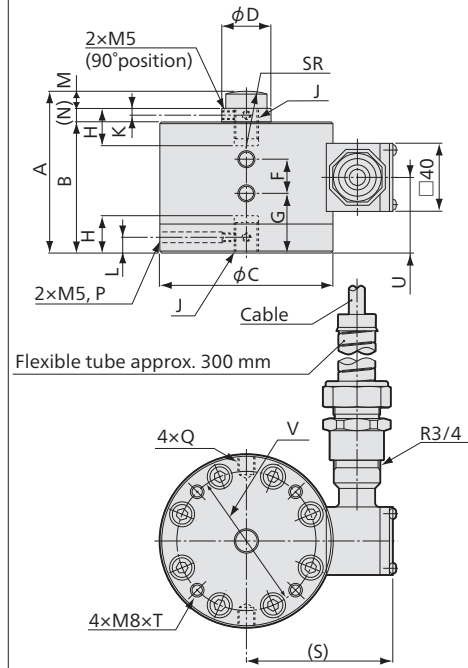
Component

Special

Other



Models	A	B
LUH-50KF	M12, P=1.75	17
LUH-100KF		
LUH-200KF		
LUH-500KF	M18, P=1.5	22

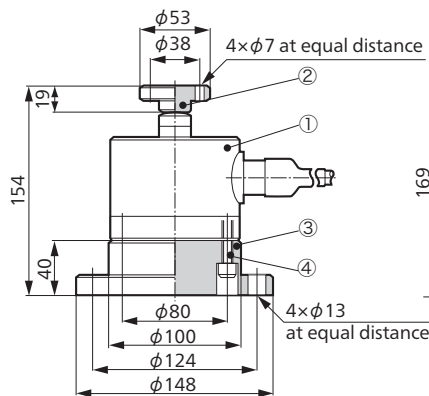


Models	A	B	ϕC	ϕD	F	G	H	J	K	L	M	(N)	P	Q	SR	(S)	T	U	V
LUH-1TF	95	77	100	24	20	35	22	M14, P=2	4	9	10	8	6 drilled, d=36	M8, d=10	40	84	d=12	44.5	80
LUH-2TF	95	77	100	24	20	35	22	M18, P=1.5	4	9	10	8	6 drilled, d=36	M10, d=10	40	84	d=12	44.5	80
LUH-5TF	127	100	130	36	30	50	30	M26, P=2	5	13	17	10	9 drilled, d=42	M16, d=16	60	99	d=15	60	95
LUH-10TF	170	135	160	50	40	60	45	M36, P=2	8	17	20	15	9 drilled, d=54	M20, d=15	70	115	d=15	80	120
LUH-20TF	228	175	200	68	50	80	65	M50, P=3	12	23	28	25	9 drilled, d=65	M24, d=20	100	135	d=15	100	160

■ Dimensions in combination with mount base

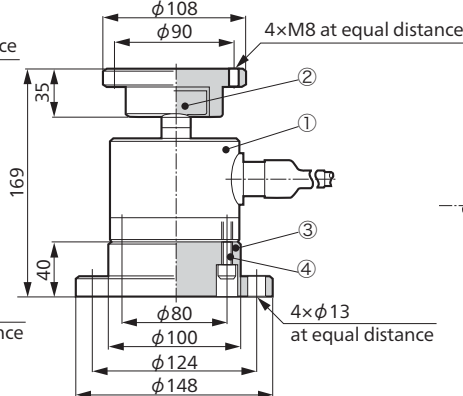
When using in combination with special accessories, consult with our sales engineer.

● In combination with saddle (CA) and mount base (CF) (LUH-50KF to 500KF)



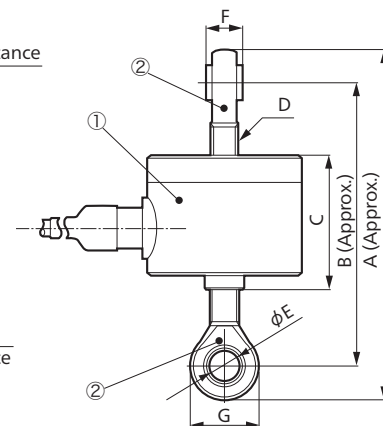
- ① Load cell LUH-F
- ② Saddle CA-2B
- ③ Mount base CF-80
- ④ Hexagon socket head bolt 4xM8, L=25 (Standard accessories of mount base)

● In combination with movable saddle (ER) and mount base (CF) (LUH-50KF to 500KF)



- ① Load cell LUH-F
- ② Movable saddle ER-2B
- ③ Mount base CF-80
- ④ Hexagon socket head bolt 4xM8, L=25 (Standard accessories of mount base)

● In combination with ball joint (TU)



① Load Cells	② Ball Joints	A	B	C	D	ϕE	F	G
LUH-50KF	TU-12	207	177	85	M12 P=1.75	12	16	30
LUH-100KF					M14 P=2	14	17	37
LUH-200KF					M18 P=1.5	18	23	42
LUH-500KF	TU-18	231	189	110	M18 P=1.5	18	23	42
LUH-1TF	TU-14	210	173		M14 P=2	14	17	37
LUH-2TF	TU-18	231	189		M18 P=1.5	18	23	42
LUH-5TF	TU-26	350	280	110	M26 P=2	25	37	70

*From the viewpoint of guaranteed accuracy, allows neither a hook nor a shackle to be combined.

Note: Special accessories for tensile load measurement should be assembled at our factory.