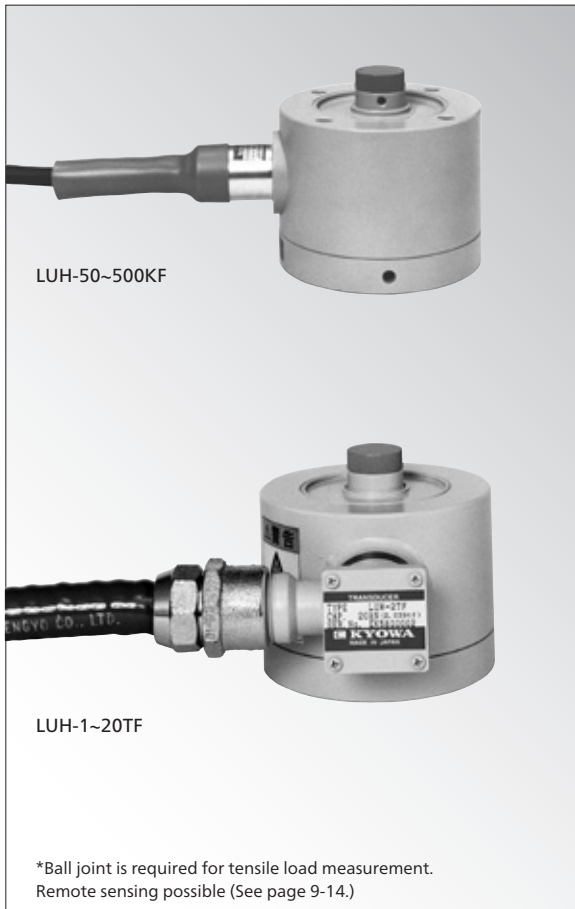


LUH-F

●Nonlinearity: Within ±0.02%RO ●500 N to 200 kN

High-accuracy Tension/Compression Load Cell



Specifications

Performance

Rated Capacity	See table below.
Nonlinearity	Within ±0.02% RO
Hysteresis	Within ±0.02% RO
Repeatability	0.02% RO or less
Zero Float	0.02% RO or less for 500 N to 5 kN
Rated Output	2 mV/V ±0.1%

Environmental Characteristics

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

Electrical Characteristics

Safe Excitation	20 V AC or DC
Recommended Excitation	1 to 10 V AC or DC
Input Resistance	350 Ω ±0.5%
Output Resistance	350 Ω ±0.5%
Cable	6-conductor (0.5 mm ²) chloroprene shielded cable, 9.5 mm diameter by 5 m long, with Crimp-style terminals for 4 mm (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 (*)
Ultimate Overload	1000% (500 N to 5 kN)

Standard Accessories 4 hexagon socket head setscrews M5, L=10 mm (30 mm with LUH-10TF and 20TF)
1 hexagon bar (Opposite side 25 mm)

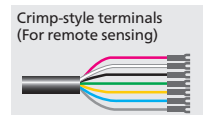
Optional Accessories (For details, see pages 2-72 to 2-76)

- Saddle CA-B
- Mount Base CF
- Movable Saddle ER-B
- Ball Joint TU

Models	Rated Capacity	Natural Frequencies	Weight*
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	≈ 4 kg
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

*Excluding cable

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



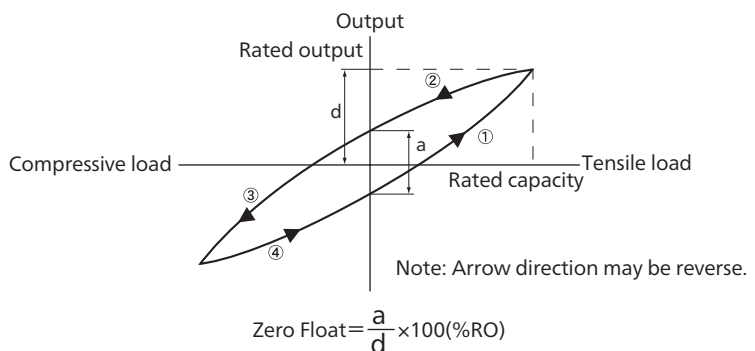
Excellent Zero Float Characteristics (LUH-50KF to 500KF) Tension/Compression Load Cells

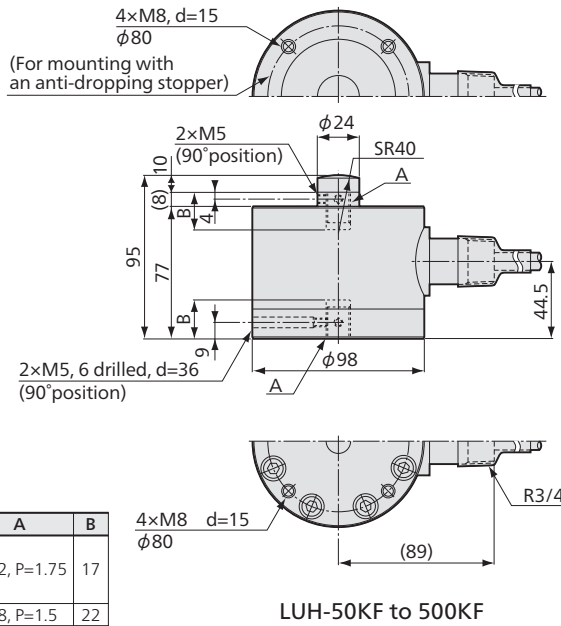
●Remote sensing possible (See page 9-14.)

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

ZERO FLOAT

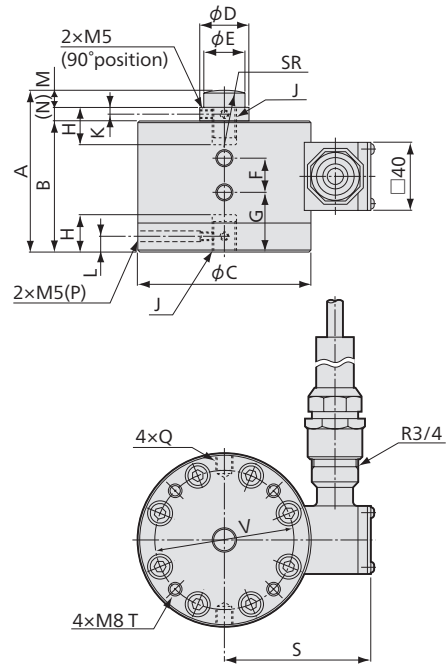
Zero float means such a phenomenon that a cycle of continuously applied tensile & compressive loads causes the zero to float. The value is expressed in percentage of the rated output. It is also called cyclic zero shift.





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

LUH-50KF to 500KF



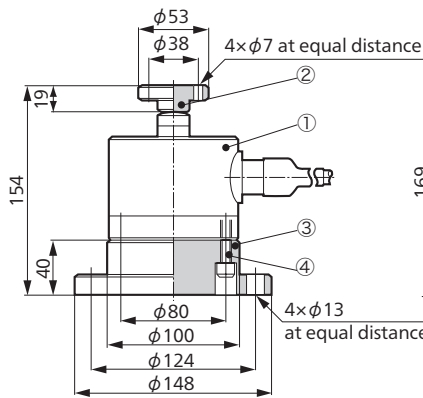
LUH-1TF to 20TF

Models	A	B	φC	φD	φE	F	G	H	J	K	L	M	(N)	(P)	Q	SR	S	T	U	V
LUH-1TF	95	77	100	24	24	20	35	22	M14, P=2	4	9	10	8	6 drilled, d=36	M8, d=10	40	84.5	d=12	24.5	80
LUH-2TF	95	77	100	24	24	20	35	22	M18, P=1.5	4	9	10	8	6 drilled, d=36	M10, d=10	40	84.5	d=12	24.5	80
LUH-5TF	127	100	130	36	36	30	50	30	M26, P=2	5	13	17	10	9 drilled, d=42	M16, d=16	60	99.5	d=15	40	95
LUH-10TF	170	135	160	50	50	40	60	45	M36, P=2	8	17	20	15	9 drilled, d=54	M20, d=15	70	115.5	d=15	60	120
LUH-20TF	228	175	200	68	64	50	80	65	M50, P=3	12	23	28	25	9 drilled, d=65	M24, d=20	100	135.5	d=15	80	160

■ LUH-50KF to 5TF Dimensions in Combination with Mount Base

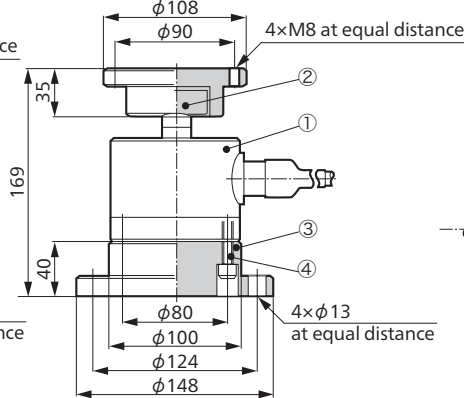
When using in combination with special accessories, consult with our sales engineer.

● In Combination with Saddle CA and Mount Base CF (LUH-50KF to 500KF)

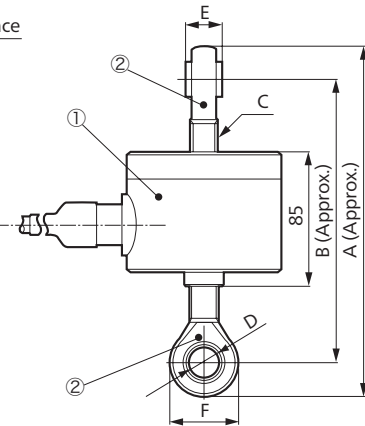


- ① Load cell LUH-F
- ② Saddle CA-2B
- ③ Mount base CF-80
- ④ Hexagon socket head bolt 4xM8, L=25 (Including in standard accessories of mount base)

● In Combination with Movable Saddle ER and Mount Base CF (LUH-50KF to 2TF)



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



① Load Cells	② Ball Joints	A	B	C	D	E	F	Static Breaking Load (Approx.)
LUH-50KF	TU-12	207	177	M12, P=1.75	12	16	30	1.4 kN
LUH-100KF		231	189	M18, P=1.5	18	23	42	2.9 kN
LUH-200KF		231	189	M18, P=1.5	18	23	42	5.8 kN
LUH-500KF	TU-18	231	189	M18, P=1.5	18	23	42	14.7 kN

*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.

● Physical quantity indication ● Static measurement ● Dynamic measurement

LUH-F Recommended products for combination

Instrumentation Amplifier WGA-710C → 3-100

Data Logger UCAM-60B → 3-25

Signal Conditioner CDV-900A → 3-9

Universal Recorder EDX-200A → 3-55

Universal Recorder EDX-100A → 3-63

