

High-Accuracy Tension Load Cells

Small-Sized, High Accuracy

LTZ-A

500 N to 50 kN

Compact and Lightweight

Nonlinearity 1/3333

Large Output

Usable also for Compression Load Measurement

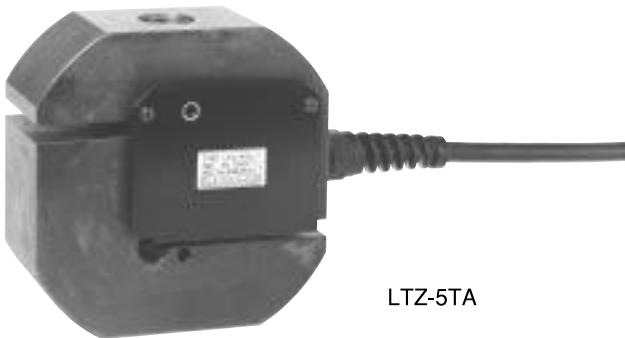
• Extra calibration and patch are required.



LTZ-50~200KA



LTZ-500KA~2TA



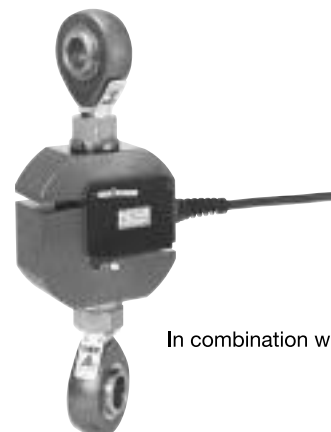
LTZ-5TA

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

The LTZ-A series load cells adopt a Roberval's mechanism to ensure 1/3333 accuracy and easy handling and maintenance. Since they can be installed with less burden to existing facilities, they are used as compact, lightweight load cells with excellent cost performance for weighing or testing systems in various fields.

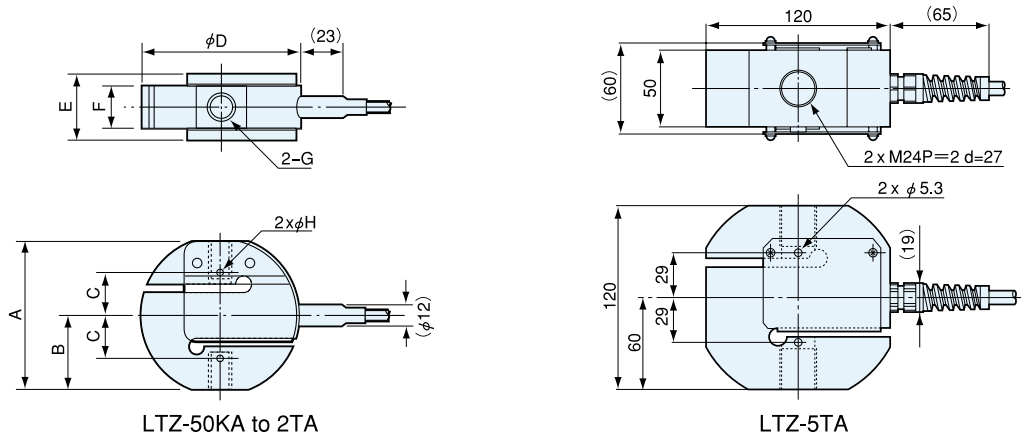
Specifications

Performance	
Rated Capacity	See table below.
Nonlinearity	Within $\pm 0.03\%$ RO (500KA to 5TA: Within $\pm 0.05\%$ RO)
Hysteresis	Within $\pm 0.03\%$ RO (500KA to 5TA: Within $\pm 0.05\%$ RO)
Repeatability	0.03% RO or less
Rated Output	3 mV/V (6000 $\mu\text{m/m}$) $\pm 0.2\%$
Environmental Capability	
Safe Temp. Range	-20 to 80°C
Comp. Temp. Range	-10 to 70°C
Temp. Effect on Zero Bal.	Within $\pm 0.005\%$ RO/°C
Temp. Effect on Out.	Within $\pm 0.005\%$ /°C
Electrical Characteristics	
Safe Excit. Voltage	20 V AC or DC
Recom. Excit. Voltage	1 to 10 V AC or DC
Input Resistance	350 $\Omega \pm 0.5\%$
Output Resistance	350 $\Omega \pm 0.5\%$
Cable	4-conductor (0.5 mm ²) chloroprene shielded cable, 8.5 mm dia. by 3 m long, with press-fit terminal for 4 mm (Shield wire is not connected to the mainframe.)
Mechanical Properties	
Safe Overload Rating	150%
Enclosure	Aluminum alloy (mainframe of 50 to 200KA)
Natural Frequency	See table below.
Weight	See table below.
Protection Rating	IP 64 (Sprashproof type conforming to JIS C 0920)

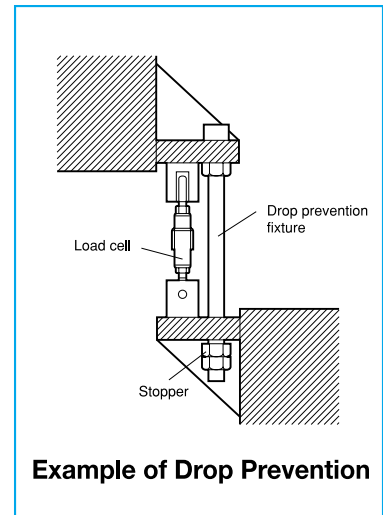
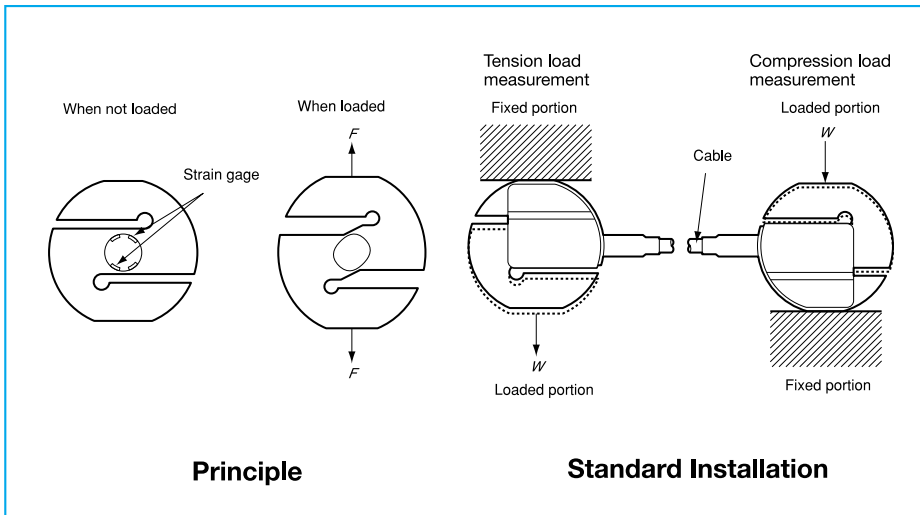


In combination with Ball Joint

Model	Rated Capacity	Natural Frequency (App.)	Weight (App.)
LTZ-50KA	500 N	1.25 kHz	300g
LTZ-100KA	1 kN	1.75 kHz	
LTZ-200KA	2 kN	2 kHz	
LTZ-500KA	5 kN	2.5 kHz	700g
LTZ-1TA	10 kN	2.8 kHz	
LTZ-2TA	20 kN	2.6 kHz	1.5 kg
LTZ-5TA	50 kN	4.3 kHz	4.4 kg



Model	A	B	C	φD	E	F	G	φH
LTZ-50KA	64	32	19	68	32	22	M6 P=1 d=14	1.6
LTZ-100KA								
LTZ-200KA								
LTZ-500KA	74	37	21	78	32	22	M12 P=1.75 d=18	3.5
LTZ-1TA								
LTZ-2TA	94	47	23	98	40	30	M18 P=1.5 d=25	3.5
LTZ-5TA	See the dimensional drawing above.							

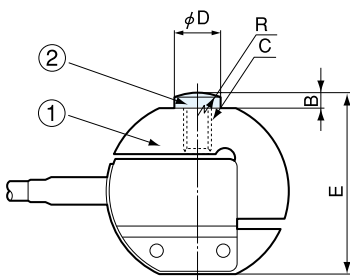


Dimensions in Combination with Special Accessories

● **Contact us for using the tension load cell in combination with special accessories.**

Note: Special accessories to tension load cells should be pre-attached to load cells at our factory.

● In Combination with Patch CWM

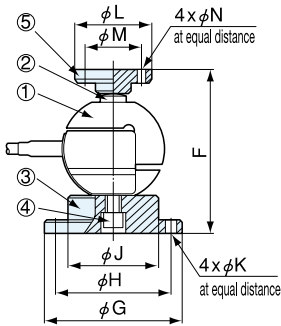


① Load Cell	② Patch	B	C	φD	E	R
LTZ-50KA	CWM-6	4	M6 P=1	10	68	SR30
LTZ-100KA						
LTZ-200KA						
LTZ-500KA	CWM-12	7	M12 P=1.75	19	81	SR30
LTZ-1TA						
LTZ-2TA	CWM-18	10	M18 P=1.5	26	104	SR70
LTZ-5TA	CWM-24	17	M24 P=2	36	137	

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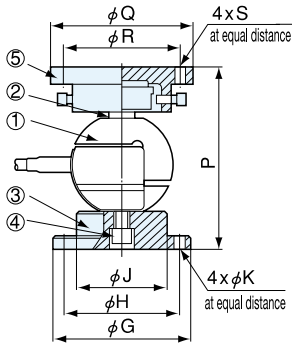
● **In Combination with Patch CWM, Mount Base CF and Saddle CA**



① Load Cell	② Patch	③ Mount Base	④ Hexagon Socket Head Bolt*	⑤ Saddle	F	φG	φH	φJ	φK	φL	φM	φN
LTZ-50KA	CWM-6	CF-6	M6 P=1 L=20	CA-2B	107	88	72	56	7	53	38	7
LTZ-100KA												
LTZ-200KA												
LTZ-500KA	CWM-12	CF-12	M12 P=1.75 L=30	CA-2B	130	105	87	70	9	53	38	7
LTZ-1TA												
LTZ-2TA	CWM-18	CF-18	M18 P=1.5 L=30	CA-2B	153	105	87	70	9	53	38	7
LTZ-5TA	CWM-24	CF-24	M24 P=2 L=40	CA-10B	201	148	124	100	13	98	80	11

*Hexagon socket head bolt is attached to the mount base for its connection to the load cell.

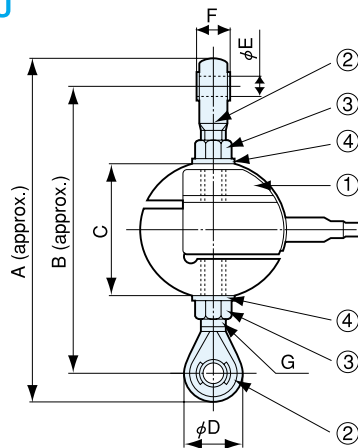
● **In Combination with Patch CWM, Mount Base CF and Movable Saddle ER**



① Load Cell	② Patch	③ Mount Base	④ Hexagon Socket Head Bolt*	⑤ Movable Saddle	φG	φH	φJ	φK	P	φQ	φR	S
LTZ-50KA	CWM-6	CF-6	M6 P=1 L=20	ER-2B	88	72	56	7	122	108	90	M8
LTZ-100KA												
LTZ-200KA												
LTZ-500KA	CWM-12	CF-12	M12 P=1.75 L=30	ER-2B	105	87	70	9	145	108	90	M8
LTZ-1TA												
LTZ-2TA	CWM-18	CF-18	M18 P=1.5 L=30	ER-2B	105	87	70	9	168	108	90	M8
LTZ-5TA	CWM-24	CF-24	M24 P=2 L=40	ER-5B	148	124	100	13	226	148	128	M12

*Hexagon socket head bolt is attached to the mount base for its connection to the load cell.

● **In Combination with Ball Joint TU**



① Load Cell	② Ball Joint	③ Hexagon Nut	④ Spring Washer	A	B	C	φD	φE	F	G	Static Breaking Load (Approx.)
LTZ-50KA	TU-6C	M6 P=1	#2 6S	128	110	64	18	6	9	M6 P=1	1.4 kN
LTZ-100KA											2.9 kN
LTZ-200KA											5.8 kN
LTZ-500KA	TU-12C	M12 P=1.75	#2 12S	196	166	74	30	12	16	M12 P=1.75	14.7 kN
LTZ-1TA											29.4 kN
LTZ-2TA	TU-18C	M18 P=1.5	#2 18S	232	190	94	42	18	23	M18 P=1.5	58.8 kN
LTZ-5TA	TU-24C	M24 P=2	#3 24S	346	276	120	70	25	37	M24 P=2	147 kN

Dimensions A and B are approximate, since the ball joint is screw-in type.