

LTZ-A

High-Accuracy Tension Load Cells

- Small-Sized, High-Accuracy
- 500 N to 50 kN



TRANSDUCERS



Specifications

Performance

Rated Capacity :	See table below.
Nonlinearity :	Within±0.03% RO (LTZ-50KA to 200KA) Within±0.05% RO (LTZ-500KA to 5TA)
Hysteresis :	Within±0.03% RO (LTZ-50KA to 200KA) Within±0.05% RO (LTZ-500KA to 5TA)
Repeatability :	0.03% RO or less
Rated Output :	3 mV/V (6000µm/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

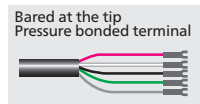
Safe Excitation Voltage :	20V AC or DC
Recommended Excitation Voltage :	1 to 10V AC or DC
Input Resistance :	350Ω±0.5%
Output Resistance :	350Ω±0.5%
Cable :	4-conductor (0.5 mm ²) chloroprene shielded cable, 8.5mm diameter by 3m long, with press-fit terminal for 4mm (Shield wire is not connected to mainframe.)

Mechanical Properties

Safe Overload Rating :	150%
Material :	Aluminum alloy (mainframe of 50 to 200KA)
Natural Frequency :	See table below.
Weight :	See table below.
Protection Rating :	IP64 (Splashproof type conforming to JIS C 0920)

Model	Rated Capacity	Natural Frequency (Approx.)	Weight (Approx.)*
LTZ-50KA	500N	1.25kHz	300g
LTZ-100KA	1kN	1.75kHz	
LTZ-200KA	2kN	2kHz	350g
LTZ-500KA	5kN	2.5kHz	
LTZ-1TA	10kN	2.8kHz	700g
LTZ-2TA	20kN	2.6kHz	
LTZ-5TA	50kN	4.3kHz	1.5kg
			4.4kg

*not including cable



Nonlinearity : within±0.05%RO

- Compact and lightweight
- Large output
- Usable also for compression load measurement
(Extra calibration and patch are required.)

The LTZ-A series load cells adopt a Roberval's mechanism to ensure 1/3333 nonlinearity 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. (Patented)

In Combination with Ball Joint



※Note: Not usable for special accessories for tension loads except ball joint.

● Physical quantity indication

● Static measurement ● Dynamic measurement

LTZ-A
Recommended
products for
combination

Instrumentation Amplifiers
WGA-900A
→ 2-159

Instrumentation Amplifiers
WGA-670B
→ 2-161

Data Loggers
UCAM-60B
→ 3-25

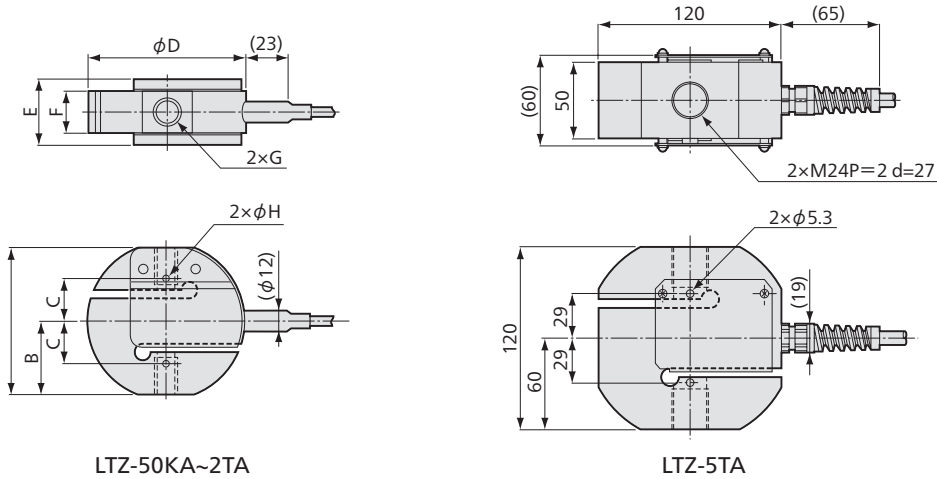
Strain Amplifiers
DPM-900 Series
→ 3-5

Universal Recorders
EDX-100A
→ 3-65

Memory Recorder/Analyzers
EDX-3000A
→ 3-79

Field
to recommend



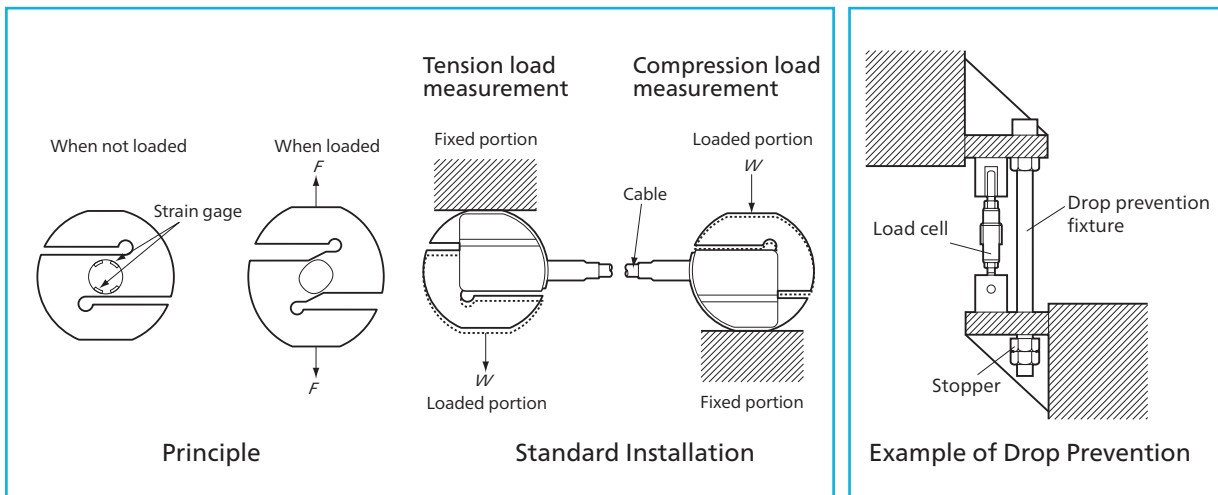
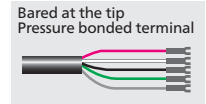


LTZ-50KA~2TA

LTZ-5TA

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 above dimensional drawing.



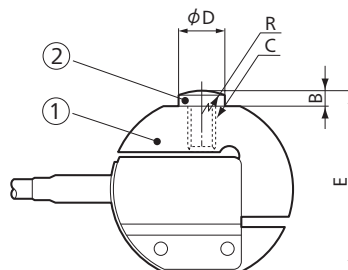
Field to recommend



■ Dimensions in Combination with Special Accessories

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

● In Combination with Patch CWM

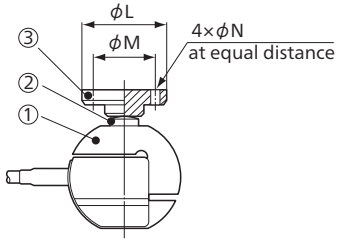


① Load Cell	② Patch	B	C	ϕD	E	R
LTZ-50KA	CWM-6	4	M6 P=1	10	68	SR30
LTZ-100KA						
LTZ-200KA						
LTZ-500KA	CWM-12	7	M12 P=1.75	19	81	SR30
LTZ-1TA						
LTZ-2TA	CWM-18	10	M18 P=1.5	26	104	SR30
LTZ-5TA	CWM-24	17	M24 P=2	36	137	



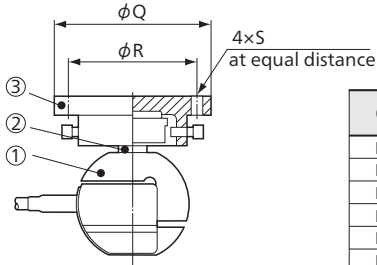
■ Dimensions in Combination with Special Accessories

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



① Load Cell	② Patch	③ Mount Base	ϕL	ϕM	ϕN
LTZ-50KA	CWM-6	CA-2B	53	38	7
LTZ-100KA					
LTZ-200KA	CWM-12	CA-2B	53	38	7
LTZ-500KA					
LTZ-1TA					
LTZ-2TA	CWM-18	CA-2B	53	38	7
LTZ-5TA	CWM-24	CA-10B	98	80	11

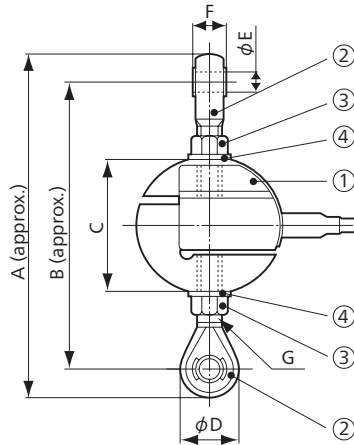
● In Combination with Patch CWM, Mount Base CF and Movable Saddle ER



① Load Cell	② Patch	③ Movable Saddle	ϕQ	ϕR	S
LTZ-50KA	CWM-6	ER-2B	108	90	M8
LTZ-100KA					
LTZ-200KA	CWM-12	ER-2B	108	90	M8
LTZ-500KA					
LTZ-1TA					
LTZ-2TA	CWM-18	ER-2B	108	90	M8
LTZ-5TA	CWM-24	ER-5B	148	128	M12

● In Combination with Ball Joint TU

Note: Ball joint(TU) should be mounted to load cell at our factory.



① Load Cell	② Ball Joint	③ Hexagon Nut 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	1.4kN
LTZ-100KA											2.9kN
LTZ-200KA	TU-12C	M12 P=1.75	2# 12S	196	166	74	30	12	16	M12 P=1.75	5.8kN
LTZ-500KA											14.7kN
LTZ-1TA											29.4kN
LTZ-2TA	TU-18C	M18 P=1.5	2# 18S	232	190	94	42	18	23	M18 P=1.5	58.8kN
LTZ-5TA	TU-24C	M24 P=2	3# 24S	346	276	120	70	25	37	M24 P=2	147kN

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

Field to recommend

