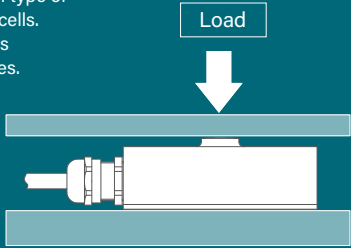




Types of strain gauge load cells

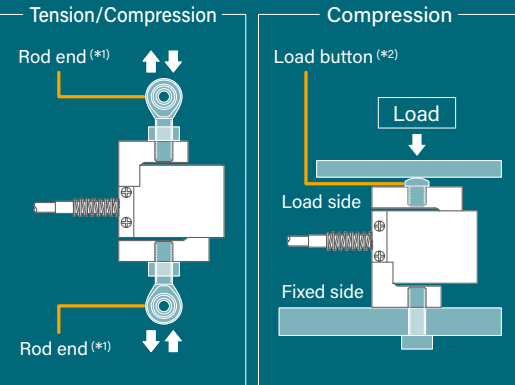
Compression type

The most common type of strain gauge load cells. Available in various capacities and sizes.



Tension and Compression type

Used by connecting rod ends (\*1) or eyebolts at the top and bottom. When used for compression, care must be taken because there are two sides, the fixed side and the load side.

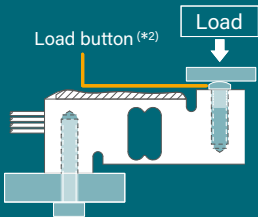


Rod end: A type of bearing consisting of a spherical ball enclosed within a housing. This construction allows for complex movement.

(\*1) Prepared by user  
(\*2) Consult us for more information.

Beam type

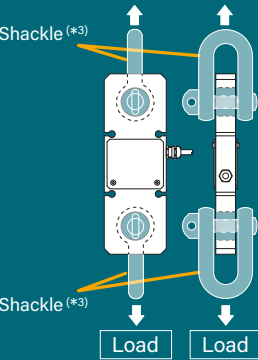
The beam type is used when the strain gauge load cell extends from the frame or housing. Typically, a set of three to four beams is used for weighing or the like.



(\*2) Consult us for more information.

Tension type

Strain gauge load cells for cranes. Used by connecting shackles (\*3) or the like.



Shackle: A metal fitting used to connect a wire rope or a sling with a load.  
(\*3) Prepared by user

Compression

LCC-2R5, 5

Mechanical stopper incorporated

LCC-10...50

Fit in a limited space

LCC-100, 200

Suitable for a variety of weight testing

LCC-300, 500, 1K...200K (\*4)

Wide range

LCC-300K, 500K (\*4)

Customization available

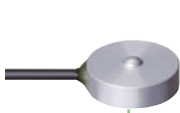


Image: LCC-5K



Image: LCC-500K

Rated capacity (not a converted value)	2.5 N 255 gf	---	5 N 510 gf	10 N 1.02 kgf	20 N 2.04 kgf	50 N 5.1 kgf	100 N 10.2 kgf	200 N 20.4 kgf	300 N 30.6 kgf	500 N 51 kgf	1 kN 102 kgf	2 kN 204 kgf	3 kN 306 kgf	5 kN 510 kgf	10 kN 1020 kgf	20 kN 2039 kgf	30 kN 3059 kgf	50 kN 5099 kgf	100 kN 10.2 tf	200 kN 20.4 tf	300 kN 30.6 tf	500 kN 51 tf
Rated output	0.4 mV/V or more			1 mV/V ±30%			1 mV/V ±10%							2 mV/V ±0.5%								2 mV/V ±5%
Non-linearity	±0.3% R.O.			±1% R.O.			±1% R.O.						±0.2% R.O.					±0.35% R.O.				±0.1% R.O.
Hysteresis	±0.2% R.O.			±1% R.O.			±1% R.O.						±0.2% R.O.					±0.35% R.O.				±0.1% R.O.
Compensated temperature range	0 to 50°C			0 to 50°C			0 to 50°C							-10 to +60°C								-10 to +60°C
Safe overload	150% R.C.			150% R.C.			150% R.C.							150% R.C.								150% R.C.
Input terminal resistance	Approx. 350 Ω			350 Ω ±10 Ω			350 Ω ±10 Ω							420 Ω ±40 Ω								350 to 800 Ω
Output terminal resistance	Approx. 350 Ω			350 Ω ±10 Ω			350 Ω ±10 Ω							350 Ω ±5 Ω								350 to 800 Ω
Body material	Aluminium		Aluminium	Stainless steel			Stainless steel							Stainless steel								Special alloy steel

Tension and Compression

LCCT-1...5

Female threaded for easy mounting

LCCT-10, 20

Female threaded for easy mounting

LCCT-50...500, 1K

High accuracy

LCCT-2K, 5K (\*4)

Wide range

LCCT-10K

Double-end male threads

Beam type

LCB-10...100

Ultra compact size

Tension

LCT-20K...200K (\*4)

Most suitable for traction and rope tension measurement

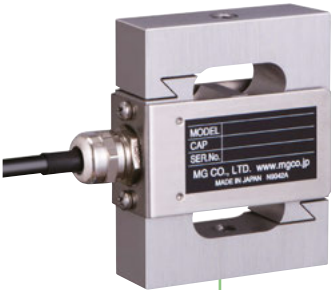


Image: LCCT-2K

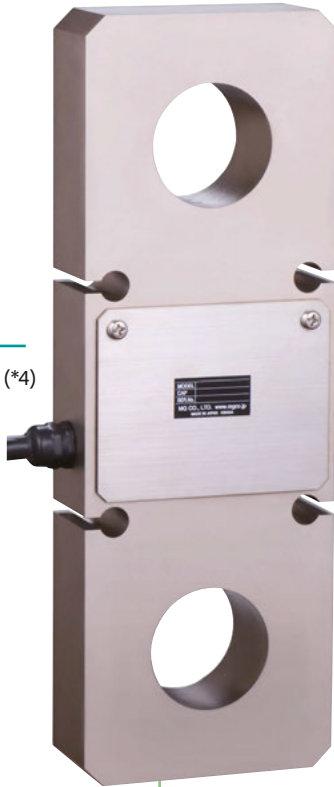


Image: LCT-200K

Rated capacity (not a converted value)	1 N 102 gf	2 N 204 gf	---	5 N 510 gf	10 N 1.02 kgf	20 N 2.04 kgf	50 N 5.1 kgf	100 N 10.2 kgf	200 N 20.4 kgf	---	500 N 51 kgf	1 kN 102 kgf	2 kN 204 kgf	5 kN 510 kgf	10 kN 1.02 tf
Rated output (*5)	0.5 mV/V to 2.5 mV/V			0.7 mV/V	1 mV/V			2 mV/V					2 mV/V		1.5 mV/V ±10%
Non-linearity	±0.2% R.O.			±0.2% R.O.				±0.03% R.O.					±0.5% R.O.	±0.15% R.O.	±0.5% R.O.
Hysteresis	±0.2% R.O.			±0.2% R.O.				±0.03% R.O.					±0.5% R.O.	±0.15% R.O.	±0.5% R.O.
Compensated temperature range	-10 to +50°C			-10 to +60°C				-10 to +60°C					-10 to +60°C		-10 to +60°C
Safe overload	200% R.C.			150% R.C.				150% R.C.					150% R.C.		150% R.C.
Input terminal resistance	Approx. 1000 Ω			Approx. 350 Ω				410 Ω ±10 Ω					Approx. 500 Ω	425 Ω ±50 Ω	Approx. 350 Ω
Output terminal resistance	Approx. 1000 Ω			Approx. 350 Ω				350 Ω ±5 Ω					Approx. 500 Ω	350 Ω ±5 Ω	Approx. 350 Ω
Body material	Beryllium copper		Stainless steel	Aluminium				Aluminium					Stainless steel		Stainless steel

Rated capacity (not a converted value)	10 N 1.02 kgf	20 N 2.04 kgf	---	50 N 5.1 kgf	100 N 10.2 kgf
Rated output	1.5 mV/V ±20%				
Non-linearity	±0.2% R.O.				
Hysteresis	±0.2% R.O.				
Compensated temperature range	-10 to +60°C				
Safe overload	150% R.C.				
Input terminal resistance	Approx. 350 Ω				
Output terminal resistance	Approx. 350 Ω				
Body material	Aluminium				

Rated capacity (not a converted value)	20 kN 2.04 tf	30 kN 3.06 tf	50 kN 5.1 tf	100 kN 10.2 tf	200 kN 20.4 tf
Rated output	1 mV/V ±10%				
Non-linearity	±0.2% R.O.				
Hysteresis	±0.2% R.O.				
Compensated temperature range	-10 to +60°C				
Safe overload	150% R.C.				
Input terminal resistance	380 Ω ±50 Ω				
Output terminal resistance	350 Ω ±10 Ω				
Body material	Special alloy steel				

R.O.: Rated Output

R.C.: Rated Capacity

(\*4) Shape and size may differ depending on model variations. Refer to the specification sheets.

(\*5) Rated output and rated output error may differ depending on model variations. Refer to the specification sheets.