

# MINIATURE HIGH-CAPACITY “TOP HAT” LOAD CELL

## STANDARD AND METRIC MODELS

### Compression

**0-250 lb to 0-100,000 lb**

**0-1 to 0-500 kN**

1 Newton = 0.2248 lb

1 daNewton = 10 Newtons

1 lb = 454 g

1 t = 1000 kg = 2204 lb

### LC307/LCM307 Series



Standard

Small in size but not in performance, Series LC307/LCM307 top hat load cells are designed for applications with minimum space and high-capacity loads up to 100,000 lb. Rugged all stainless steel construction and high-performance strain gages ensure superior linearity and stability. Temperature compensation is done by a miniature circuit board in the load cell's cable. These cells are designed to be mounted on a smooth, flat surface.

### SPECIFICATIONS

**Excitation:** 5 Vdc

**Output:** 1.5 mV/V nominal

**Accuracy:** 0.75% FS BFSL (includes linearity, hysteresis and repeatability)

**Zero Balance:** ±2% FSO

**Operating Temp Range:**  
-54 to 121°C (-65 to 250°F)

**Compensated Temp Range:**  
16 to 71°C (60 to 160°F)

**Thermal Effects:**

**Span:** ±0.018% rdg/°C

**Zero:** ±0.018% FSO/°C

**Safe Overload:** 150% of capacity

**Ultimate Overload:** 300% of capacity

**Bridge Resistance:** 350 Ω minimum

**Full Scale Deflection:** 0.001 to 0.003"

**Electrical Connection:**

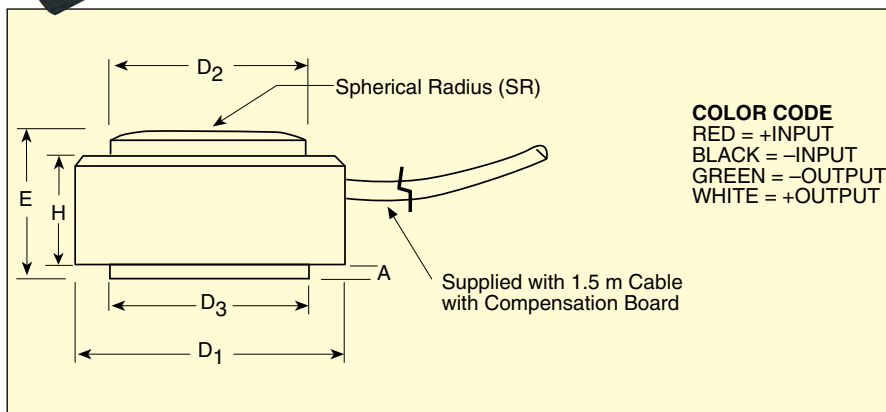
1.5 m (5') 4-conductor cable with compensation board

**Protection Class:** IP54



LCM307-5KN,  
shown larger  
than actual size.

LCM307-5KN, shown  
actual size.



**COLOR CODE**  
RED = +INPUT  
BLACK = -INPUT  
GREEN = -OUTPUT  
WHITE = +OUTPUT

### STANDARD Dimensions: mm (inch)

CAPACITY (lb)	D1	D2	D3	E	H
250	12.7 (0.50)	6.9 (0.27)	10.16 (0.40)	9.7 (0.38)	8.13 (0.320)
500	12.7 (0.50)	7.1 (0.28)	10.16 (0.40)	9.7 (0.38)	8.13 (0.320)
1000	12.7 (0.50)	7.9 (0.31)	10.16 (0.40)	9.7 (0.38)	8.13 (0.320)
2000	12.7 (0.50)	10 (0.41)	10.16 (0.40)	9.7 (0.38)	8.13 (0.320)
3000	12.7 (0.50)	11 (0.45)	10.16 (0.40)	9.7 (0.38)	8.13 (0.320)
5000	16.0 (0.63)	13.5 (0.53)	10.16 (0.40)	15 (0.60)	13.54 (0.533)
7500	22.2 (0.88)	17 (0.67)	10.16 (0.40)	16 (0.63)	13.97 (0.55)
10,000	22.2 (0.88)	19.3 (0.76)	10.16 (0.40)	16 (0.63)	13.97 (0.55)
50,000	44.5 (1.75)	31.8 (1.25)	10.16 (0.40)	35 (1.38)	31.34 (1.234)
100,000	50.8 (2.00)	38.1 (1.50)	10.16 (0.40)	41 (1.63)	37.33 (1.470)

### METRIC Dimensions: mm (inch)

CAPACITY (kN)	D1	D2	D3	E	H	A
1 to 10	12.7 (0.500)	10.16 (0.400)	7.62 (0.300)	9.53 (0.375)	8.13 (0.320)	0.254 (0.010)
20	16.00 (0.630)	13.46 (0.530)	13.54 (0.533)	15.24 (0.600)	13.54 (0.533)	0.381 (0.015)
50	22.22 (0.875)	19.30 (0.760)	13.97 (0.550)	16.00 (0.630)	13.97 (0.550)	0.381 (0.015)
200	44.45 (1.750)	31.75 (1.250)	25.40 (1.000)	35.05 (1.380)	31.34 (1.234)	0.381 (0.015)
500	50.8 (2.000)	38.10 (1.500)	30.48 (1.200)	41.40 (1.630)	37.33 (1.470)	0.762 (0.030)

## STANDARD MODELS

### To Order

CAPACITY		MODEL NO.	COMPATIBLE METERS**
lb	kN		
250	1.11	LC307-250	DPiS, DP41-S, DP25B-S
500	2.22	LC307-500	DPiS, DP41-S, DP25B-S
1000	4.45	LC307-1K	DPiS, DP41-S, DP25B-S
2000	8.90	LC307-2K	DPiS, DP41-S, DP25B-S
3000	13.3	LC307-3K	DPiS, DP41-S, DP25B-S
5000	22.2	LC307-5K	DPiS, DP41-S, DP25B-S
7500	33.4	LC307-7.5K	DPiS, DP41-S, DP25B-S
10,000	44.5	LC307-10K	DPiS, DP41-S, DP25B-S
50,000	222	LC307-50K	DPiS, DP41-S, DP25B-S*
100,000	445	LC307-100K	DPiS, DP41-S, DP25B-S*

LCM307-500,  
shown larger  
than actual size.



Comes complete with 5-point  
NIST-traceable calibration and 59 kΩ shunt data.

\* 4-digit meter.

**Ordering Examples:** LC307-5K,  
5000 lb capacity top hat load cell.

LC307-500, 500 lb capacity top hat  
load cell.

LCM307-50KN, 50 kN capacity top hat  
load cell.

LCM307-10KN, 10 kN capacity top hat  
load cell.

## METRIC MODELS

CAPACITY		MODEL NO.	COMPATIBLE METERS
kN	lb		
1	225	LCM307-1KN	DPiS, DP41-S, DP25B-S
2	450	LCM307-2KN	DPiS, DP41-S, DP25B-S
5	1124	LCM307-5KN	DPiS, DP41-S, DP25B-S
10	2248	LCM307-10KN	DPiS, DP41-S, DP25B-S
20	4496	LCM307-20KN	DPiS, DP41-S, DP25B-S
50	11,240	LCM307-50KN	DPiS, DP41-S, DP25B-S
200	44,960	LCM307-200KN	DPiS, DP41-S, DP25B-S
500	112,400	LCM307-500KN	DPiS, DP41-S, DP25B-S

# MAKE IT WIRELESS! ADD WIRELESS CAPABILITY TO YOUR PROCESS MEASUREMENT SYSTEM!

## Wireless Connections From Your Sensor to Your Instrumentation:

- ✓ Thermocouple, RTD,  
Infrared Temperature,  
Humidity, pH, as well as  
Process Voltage/Current
- ✓ Easy to Install and Use
- ✓ Capable of Distances  
up to 120 m (400')

## Wireless Communications From Your Instrument to a PC:

- ✓ Convert the RS232  
Signal on Your Meter,  
Controller or PLC
- ✓ Works with any PC  
with a USB Port
- ✓ Easy to Install with  
Seamless Operation
- ✓ Capable of Distances  
up to 120 m (400')