

# 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**

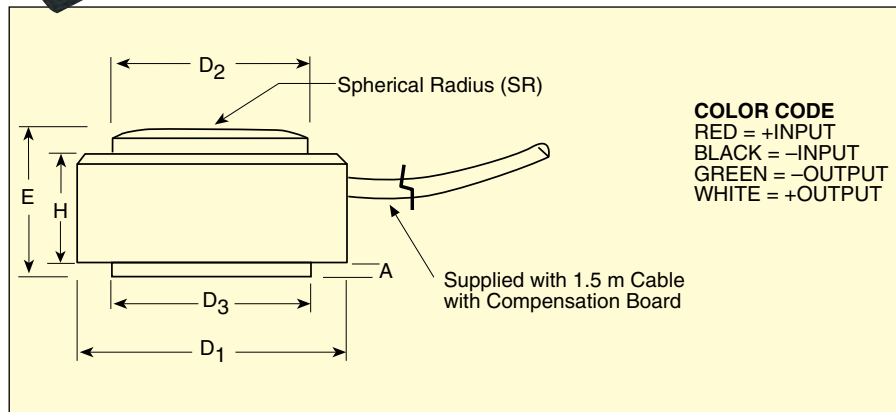
1 Newton = 0.2248 lb  
1 daNewton = 10 Newtons  
1 lb = 454 g  
1 t = 1000 kg = 2204 lb



### LC307/LCM307 Series



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

### 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**

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

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

# MAKE IT WIRELESS!

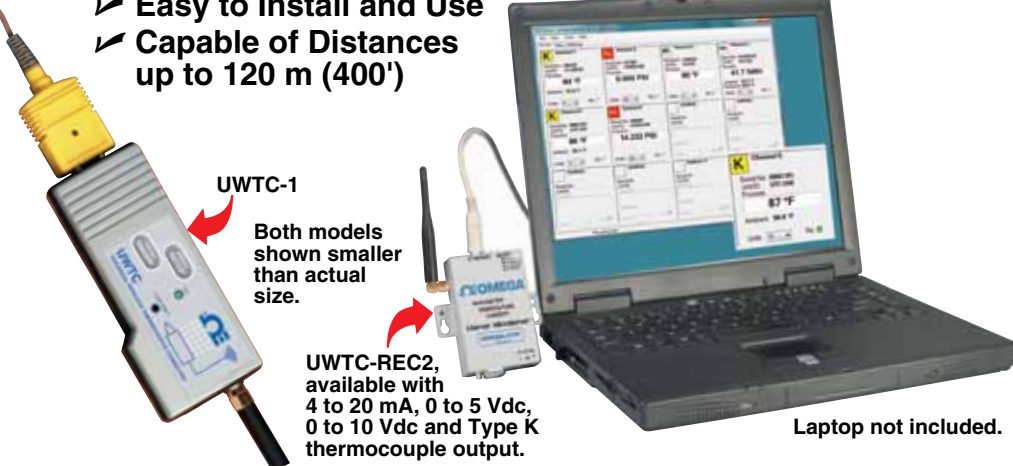
## ADD WIRELESS CAPABILITY TO YOUR PROCESS MEASUREMENT SYSTEM!



WRS232-USB wireless transmitter, shown close to actual size.

**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')



UWTC-1  
Both models shown smaller than actual size.

UWTC-REC2, available with 4 to 20 mA, 0 to 5 Vdc, 0 to 10 Vdc and Type K thermocouple output.

Laptop not included.

**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')