

CANISTER-STYLE COMPRESSION LOAD CELLS

STANDARD AND METRIC MODELS

Compression

0-500 lb to 0-2 M lb

0-250 to 0-10,000 kgf

LC1011-1K, connector style,
shown actual size, see next
page for dimensions.

LC1001/LCM1001 Series LC1011/LCM1011 Series



- ✓ 0.25% Interchangeability for Multiple Load Cell Applications
- ✓ 5-Point NIST-Traceable Calibration (Standard)
- ✓ Canister Design Ideal for Axial Compression Applications
- ✓ Heavy-Duty, Environmentally Sealed Case for Harsh Environments
- ✓ Dual-Bridge Models Available



LC1011/LCM1011
models with
twist-lock connector.

SPECIFICATIONS

Excitation: 10 Vdc (15 Vdc maximum)

Output: 2 mV/V $\pm 0.25\%$

5-Point Calibration (in Compression):

0%, 50%, 100%, 50%, 0%
calibrated to full scale up to 300,000 lb;
load cells over 300,000 lb calibrated at
300,000 lb. For a full scale calibration
over 300,000 lb, specify option “-FS”
after model number (consult Sales for
price and delivery).

Protection Class: IP67

Linearity: $\pm 0.05\%$ FSO

Hysteresis: $\pm 0.03\%$ FSO

Repeatability: $\pm 0.02\%$ FSO

Zero Balance: $\pm 1\%$ full scale

Operating Temp Range:
-46 to 100°C (-50 to 212°F)

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

Thermal Effects:

Zero: $\pm 0.0018\%$ full scale/°C

Span: $\pm 0.0018\%$ rdg/°C

Safe Overload: 150% of rated capacity

Ultimate Overload:
300% of rated capacity

Input Resistance: $350 \pm 10 \Omega$

Output Resistance: $350 \pm 10 \Omega$

Full Scale Deflection: 0.18 to 0.50 mm
(0.007 to 0.020") typical

Construction:

Metric and Standard Ranges

<500,000 lb: 17-4 PH stainless steel

Ranges $\geq 500,000$ lb: High-alloy steel

Electrical:

LC1001/LCM1001: 4.8 m (15')
4-conductor shielded PVC cable
LC1011/LCM1011: PTIH-10-6P
(or equivalent)

Mating Connector: PT06F10-6S,
(sold separately)

**Cable Assembly with Twist-Lock
Connector:** CA-6PC24-3-015
(sold separately)

HEAVY-DUTY CANISTER STYLE COMPRESSION LOAD CELLS

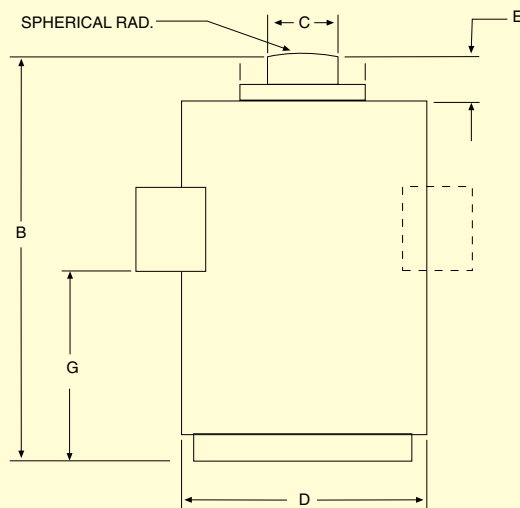
**Models
Available with
Built-In Amplifiers!**

LC1011-10K,
connector
style, shown
smaller than
actual size.

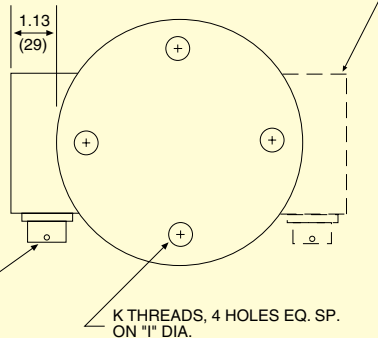


WIRING CODE
WIRE PIN CONNECTION
GN A +OUTPUT
WT B -OUTPUT
BK C&E -INPUT
RED D&F +INPUT
YELLOW SHIELD

PT1H-10-6P
OR EQUAL



BRIDGE NO.2 WHEN SPECIFIED



Dimensions: mm (inch)

CAPACITY kgf (lb)	B	C	D	E	G	I ±.005	K (THREAD)	WEIGHT kg (lb)
250 to 1K (500 to 2.5K)	116 (4.6)	32 (1.25)	89 (3.50)	6 (0.25)	32 (1.25)	60 (2.375)	M10 x 1.5 x 3/8 DP 3/8-24 UNF-2B x 3/8 DP	2.7 (6)
2K to 5K (5K to 10K)	151 (5.9)	32 (1.25)	89 (3.50)	19 (0.75)	46 (1.81)	60 (2.375)	M10 x 1.5 x 3/8 DP 3/8-24 UNF-2B x 3/8 DP	4.5 (10)
10K (20K to 50K)	191 (7.5)	32 (1.25)	114 (4.50)	19 (0.75)	77 (3.44)	60 (2.375)	M10 x 1.5 x 3/8 DP 3/8-24 UNF-2B x 3/8 DP	9 (20)
(100,000)	232 (9.1)	44 (1.75)	141 (5.56)	27 (1.06)	121 (4.75)	102 (4.000)	1/2-20 UNF-2B x 1/2 DP	88 (40)
(200,000)	295 (11.6)	64 (2.50)	168 (6.63)	27 (1.06)	159 (6.25)	140 (5.500)	5/8-18 UNF-2B x 1 DP	43 (95)
(300,000)	356 (14)	76 (3.00)	219 (8.63)	33 (1.31)	194 (7.63)	140 (5.500)	3/4-16 UNF-2B x 1 1/4 DP	48 (105)
(400,000)	356 (14)	89 (3.50)	219 (8.63)	33 (1.31)	194 (7.63)	140 (5.500)	3/4-16 UNF-2B x 1 1/4 DP	64 (140)
(500,000)	356 (14)	89 (3.50)	219 (8.63)	22 (0.88)	194 (7.63)	89 (3.500)	1/2-20 UNF-2B x 3/4 DP	77 (170)
(1,000,000)	356 (14)	140 (5.50)	219 (8.63)	22 (0.88)	140 (5.50)	114 (4.500)	5/8-18 UNF-2B x 1.0 DP	115 (250)
(2,000,000)	406 (16)	178 (7.00)	273 (10.75)	25 (1.00)	152 (6.00)	140 (5.500)	1-14 UNS-2B x 1 1/4 DP	182 (400)

POPULAR OPTIONS (Additional Cost)

0 to 5 Vdc Output: (≥5000 kg) “-5V”

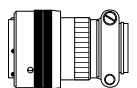
Overload Stops: “-OL”

Dual Bridge: “-DUAL”

Extended Temperature Range:

-45 to 93°C (-50 to 200°F) “-TC1”

-45 to 177°C (-50 to 350°F) “-TC2”



Mating
Connector
PT06F10-6S

To Order Visit newportUS.com/lc1001 for Pricing and Details

Canister-Style Compression Load Cells					Accessories	
CAPACITY		CABLE STYLE	CONNECTOR STYLE	COMPATABLE METERS	BASE PLATE** MODEL NO.	TOP PLATE** MODEL NO.
kgf	lb					
STANDARD MODELS						
227	500	LC1001-500	LC1011-500	DP41-W, DP41-S	LC1000-BP4	LC1000-TP4
455	1000	LC1001-1K	LC1011-1K	DP41-W, DP41-S	LC1000-BP4	LC1000-TP4
1134	2500	LC1001-2.5K	LC1011-2.5K	DP41-W, DP41-S	LC1000-BP4	LC1000-TP4
2269	5000	LC1001-5K	LC1011-5K	DP41-W, DP41-S	LC1000-BP4	LC1000-TP4
4537	10 K	LC1001-10K	LC1011-10K	DP41-W, DP41-S	LC1000-BP4	LC1000-TP4
9074	20 K	LC1001-20K	LC1011-20K	DP41-W, DP41-S	LC1000-BP4	LC1000-TP4
22,686	50 K	LC1001-50K	LC1011-50K	DP41-W, DP41-S	LC1000-BP4	LC1000-TP4
45,372	100 K	LC1001-100K	LC1011-100K	DP41-W, DP41-S	LC1000-BP6	LC1000-TP6
90,744	200 K	LC1001-200K	LC1011-200K	DP41-W, DP41-S	LC1000-BP8	LC1000-TP8
136,116	300 K	LC1001-300K	LC1011-300K	DP41-W, DP41-S	LC1000-BP9	LC1000-TP9
226,860	500 K	LC1001-500K	LC1011-500K	DP41-W, DP41-S	n/a	n/a
453,721	1 M	LC1001-1M	LC1011-1M	DP41-W, DP41-S	n/a	n/a
746,483	2 M	LC1001-2M	LC1011-2M	DP41-W, DP41-S	n/a	n/a
METRIC MODELS						
250	551	LCM1001-250	LCM1011-250	DP41-B, DP41-S	LCM1000-BP4	LCM1000-TP4
500	1102	LCM1001-500	LCM1011-500	DP41-B, DP41-S	LCM1000-BP4	LCM1000-TP4
1000	2205	LCM1001-1K	LCM1011-1K	DP41-B, DP41-S	LCM1000-BP4	LCM1000-TP4
2000	4409	LCM1001-2K	LCM1011-2K	DP41-B, DP41-S	LCM1000-BP4	LCM1000-TP4
5000	11,023	LCM1001-5K	LCM1011-5K	DP41-B, DP41-S	LCM1000-BP4	LCM1000-TP4
10,000	22,046	LCM1001-10K	LCM1011-10K	DP41-B, DP41-S	LCM1000-BP4	LCM1000-TP4

ACCESSORY

MODEL NO.	DESCRIPTION
PT06F10-6S	Mating connector for LC1011/LCM1011 series load cells
CA-6PC24-3-015	Cable assembly with twist-lock connector for LC1011/LCM1011 series load cells

Visit newportUS.com/lc1000-tp for top mounting plates. Visit newportUS.com/lc1000-bp for base plates.

Visit newportUS.com for compatible meters.

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

** Base plates and top plates referenced are carbon steel.

To order CSA-approved Intrinsically Safe version, add suffix “-CSA” to model number (no extra charge).

To order dual-bridge load cell, add suffix “-DUAL” to model number.

Ordering Examples: LC1001-100K, 100,000 lb capacity cable-style load cell.

LC1000-BP6, accompanying base plate. LC1000-TP6, accompanying top plate.

LCM1001-10K, 10 ton capacity cable-style load cell, LCM1000-BP4, accompanying base plate.

LCM1000-TP4, accompanying top plate.

LCM1011-500-Dual, dual-bridge 500 kgf capacity connector-style load cell.

PT06F10-6S, mating connector (not included).

LC1000-BP4,
base plates shown smaller
than actual size.



LC1000-TP4,
top plates
shown smaller
than actual size.



BRIDGE/STRAIN GAGE INPUT SIGNAL CONDITIONER

DRG-SC models are available for a wide variety of process signals shown smaller than actual size.

- ✓ Five Field Configurable
Output Ranges: 0 to 5 V,
0 to 10 V, 0 to 1 mA,
0 to 20 mA, and 4 to 20 mA
- ✓ Slim Housing Mounts on
DIN Rail for High Density
Installations
- ✓ 1800 V Isolation
Between Input, Output
and Power Supply

