

# MINIATURE INDUSTRIAL COMPRESSION LOAD CELL

## STANDARD AND METRIC MODELS



### Compression

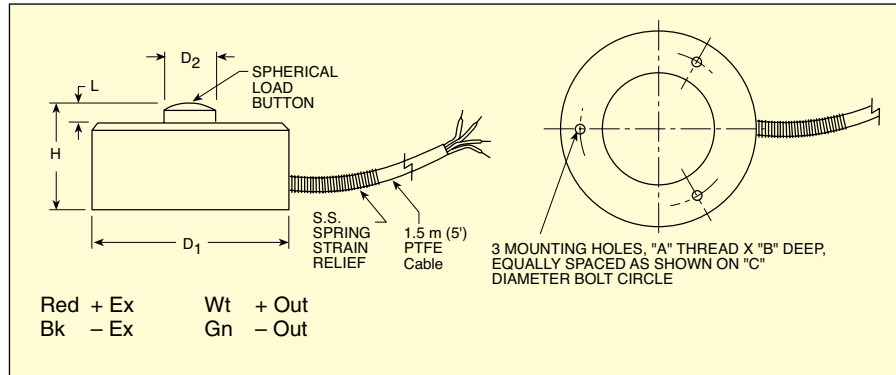
0-25 lb to 0-50,000 lb  
0-100 N to 0-200,000 N

### LCGD/LCMGD Series



Shown actual size.

- ✓ 5-Point NIST Traceable Calibration
- ✓ Stainless Steel
- ✓ High Accuracy
- ✓ Low Profile
- ✓ Miniature Size



The LCGD/LCMGD Series miniature low-profile load cells are compression load cells with excellent long-term stability. An all stainless steel construction ensures reliability in severe industrial environments. These cells are designed to be mounted on a flat surface, and a load button is integral to their basic design.

### SPECIFICATIONS

- Excitation:** 10 Vdc
- Output:** 2 mV/V nominal
- 5-Point Calibration:** 0%, 50% 100%, 50%, 0%
- Linearity:**  $\pm 0.25\%$  FSO
- Hysteresis:**  $\pm 0.20\%$  FSO
- Repeatability:**  $\pm 0.10\%$  FSO
- Zero Balance:**  $\pm 2\%$  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:**  $\pm 0.018\%$  rdg/°C
  - Zero:**  $\pm 0.009\%$  FSO/°C

- Safe Overload:** 150% of capacity
- Ultimate Overload:** 300% of capacity
- Bridge Resistance:** 350  $\Omega$  minimum
- Deflection:** 0.076 mm (0.003")

- Construction:** Stainless steel
- Electrical Connection:** 1.5 m (5') shielded cable
- Protection Class:** IP65

### STANDARD Dimensions: mm (inch)

| CAPACITY            | D1           | D2            | H            | L             | A         | B             | C              |
|---------------------|--------------|---------------|--------------|---------------|-----------|---------------|----------------|
| 25 to 100 lb        | 25<br>(1.00) | 5.3<br>(0.21) | 16<br>(0.62) | 1.3<br>(0.05) | #4-40 UNC | 4.8<br>(0.19) | 19<br>(0.75)   |
| 250 to 2000 lb      | 32<br>(1.25) | 8.1<br>(0.32) | 10<br>(0.39) | 1.8<br>(0.07) | #6-32 UNC | 6.4<br>(0.25) | 25.4<br>(1.00) |
| 5000 to 10,000 lb   | 38<br>(1.50) | 11<br>(0.43)  | 16<br>(0.63) | 2.0<br>(0.08) | #6-32 UNC | 6.4<br>(0.25) | 31.8<br>(1.25) |
| 15,000 to 30,000 lb | 51<br>(2.00) | 15<br>(0.60)  | 25<br>(1.00) | 3.0<br>(0.12) | #6-32 UNC | 6.4<br>(0.25) | 41.3<br>(1.63) |
| 50,000 lb           | 76<br>(3.00) | 20<br>(0.78)  | 38<br>(1.50) | 4.6<br>(0.18) | #6-32 UNC | 6.4<br>(0.25) | 60.3<br>(2.38) |

### METRIC Dimensions: mm (inch)

| CAPACITY (N)      | D1           | D2            | H            | L             | A        | B              | C              |
|-------------------|--------------|---------------|--------------|---------------|----------|----------------|----------------|
| 100 to 500        | 25<br>(1.00) | 5.3<br>(0.21) | 16<br>(0.62) | 1.3<br>(0.05) | M4 x 0.7 | 4.8<br>(0.19)  | 19.1<br>(0.75) |
| 1000 to 10,000    | 32<br>(1.25) | 8.1<br>(0.32) | 10<br>(0.39) | 1.8<br>(0.07) | M4 x 0.7 | 6.4<br>(0.25)  | 25.4<br>(1.00) |
| 20,000 to 50,000  | 38<br>(1.50) | 11<br>(0.43)  | 16<br>(0.63) | 2.0<br>(0.08) | M4 x 0.7 | 6.4<br>(0.25)  | 31.8<br>(1.25) |
| 60,000 to 120,000 | 51<br>(2.00) | 15<br>(0.60)  | 25<br>(1.00) | 3.0<br>(0.12) | M4 x 0.7 | 6.4<br>(0.25)  | 41.3<br>(1.63) |
| 200,000           | 76<br>(3.00) | 20<br>(0.78)  | 38<br>(1.50) | 4.6<br>(0.18) | M4 x 0.7 | 6.35<br>(0.25) | 60.3<br>(2.38) |

Shown actual size.



LCMGD-100

LCMGD-2K

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

\* Compatible meters available online.

\*\* 4-digit meter.

Ordering Examples: LCGD-5K, 5000 lb capacity load cell.

LCGD-25, 25 lb capacity load cell.

LCMGD-10KN, 10,000 Newton capacity load cell.

LCMGD-500N, 500 Newton capacity load cell.

## STANDARD MODELS

| To Order |         |           |                           |
|----------|---------|-----------|---------------------------|
| CAPACITY |         | MODEL NO. | COMPATIBLE METERS*        |
| lb       | N       |           |                           |
| 25       | 111     | LCGD-25   | DPiS, DP41-S, DP25B-S     |
| 50       | 222     | LCGD-50   | DPiS, DP41-S, DP25B-S     |
| 100      | 445     | LCGD-100  | DPiS, DP41-S, DP25B-S     |
| 250      | 1112    | LCGD-250  | DPiS, DP41-S, DP25B-S     |
| 500      | 2224    | LCGD-500  | DPiS, DP41-S, DP25B-S     |
| 1000     | 4448    | LCGD-1K   | DPiS, DP41-S, DP25B-S     |
| 2000     | 8897    | LCGD-2K   | DPiS, DP41-S, DP25B-S     |
| 5000     | 22,242  | LCGD-5K   | DPiS, DP41-S, DP25B-S     |
| 10,000   | 44,484  | LCGD-10K  | DPiS, DP41-S, DP25B-S     |
| 15,000   | 66,726  | LCGD-15K  | DPiS**, DP41-S, DP25B-S** |
| 20,000   | 88,968  | LCGD-20K  | DPiS**, DP41-S, DP25B-S** |
| 30,000   | 133,452 | LCGD-30K  | DPiS**, DP41-S, DP25B-S** |
| 50,000   | 222,420 | LCGD-50K  | DPiS**, DP41-S, DP25B-S** |

## METRIC MODELS

| CAPACITY |        | MODEL NO.   | COMPATIBLE METERS*        |
|----------|--------|-------------|---------------------------|
| N        | lb     |             |                           |
| 100      | 22.5   | LCMGD-100N  | DPiS, DP41-S, DP25B-S     |
| 200      | 45     | LCMGD-200N  | DPiS, DP41-S, DP25B-S     |
| 500      | 112    | LCMGD-500N  | DPiS, DP41-S, DP25B-S     |
| 1000     | 225    | LCMGD-1KN   | DPiS, DP41-S, DP25B-S     |
| 2000     | 450    | LCMGD-2KN   | DPiS, DP41-S, DP25B-S     |
| 5000     | 1124   | LCMGD-5KN   | DPiS, DP41-S, DP25B-S     |
| 10,000   | 2248   | LCMGD-10KN  | DPiS**, DP41-S, DP25B-S** |
| 20,000   | 4496   | LCMGD-20KN  | DPiS**, DP41-S, DP25B-S** |
| 50,000   | 11,240 | LCMGD-50KN  | DPiS**, DP41-S, DP25B-S** |
| 60,000   | 13,488 | LCMGD-60KN  | DPiS**, DP41-S, DP25B-S** |
| 80,000   | 17,984 | LCMGD-80KN  | DPiS**, DP41-S, DP25B-S** |
| 120,000  | 26,976 | LCMGD-120KN | DPiS**, DP41-S, DP25B-S** |
| 200,000  | 44,960 | LCMGD-200KN | DPiS**, DP41-S, DP25B-S** |

## COMPATIBLE METERS

### DP25B/DP41-B



- ✓ mV, V, mA, Strain Gage Thermocouple, RTD Inputs
- ✓ Full Process Unit Scaling
- ✓ Built-In Transducer Power



DP41-B, shown smaller than actual size, see [omega.com/dp41b](http://omega.com/dp41b)

## MONOGRAM SERIES

PATENTED



DP25B-E, shown smaller than actual size, see [omega.com/dp25b](http://omega.com/dp25b)

## To Order

| MODEL NO. | DESCRIPTION   |
|-----------|---|
| DP25B-E   | 4-digit voltage/current input meter with excitation   |
| DP25B-S   | 4-digit mV input meter with excitation                |
| DP41-B    | 6-digit 1/8 DIN universal input meter with excitation |

Comes complete with operator's manual.

Ordering Examples: DP25B-E, voltage/current input meter for use with 0 to 5 V, 0 to 10 V, 4 to 20 mA output transducers.

DP25B-S, mV input meter for use with mV/V output transducers, DP41-B, universal input meter for use with all standard transducer outputs.