



LOAD CELLS

NEWPORT customers can order a full line of high quality Pressure, Load, Force and Torque transducers made by our affiliate OMEGADYNE directly from NEWPORT.



LCFD Series



Miniature Low Profile Tension/Compression

RANGES

English: 0-50 g thru 0-1 kg / 0-5 thru 0-1,000 lb
Metric: 0-0.5 thru 0-5,000 N

OUTPUT

20.0 mV/V < 1 kg
1.5 mV/V = 1 kg/ 2.0 mV
V greater than or equal to 5 psi

ZERO BALANCE: ±2.0% FSO

ACCURACY

Linearity: 0.15% FSO Linearity and Hysteresis combined
Repeatability: 0.05% FSO

EXCITATION

Recommended: 10 V ac/dc
Maximum: 15 V ac/dc

TEMPERATURE RANGE

Operating Range: -54 to +121°C / -65 to +250°F
Compensated Range: +15 to +71°C / +60 to +160°F

LCGD Series



Miniature Low Profile Compression

RANGES

English: 0-100 thru 0-50,000 lb
Metric: 0-500 thru 0-200,000 N

OUTPUT: 2.0 mV/V

ZERO BALANCE: ±5.0% FSO

ACCURACY

Linearity: 0.25% FSO
Hysteresis: 0.2% FSO
Repeatability: 0.1% FSO

EXCITATION

Recommended: 10 V ac/dc
Maximum: 15 V ac/dc

TEMPERATURE RANGE

Operating Range: -45 to +107°C / -50 to +225°F
Compensated Range: +15 to +71°C / +60 to +160°F

TEMPERATURE EFFECTS

Zero: 0.009% FSO/°C



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TEMPERATURE EFFECTS

Zero: 0.009% FSO/°C
Span: 0.009% Reading/°C

MATERIAL: Stainless Steel
SAFE OVERLOAD: 150% of Capacity
ULTIMATE OVERLOAD: 300% of Capacity
ORDERING EXAMPLE: LC400-1KG
PRICE: \$750 1 kg load cell



Low Profile Tension/Compression

RANGES

English: 0-50 thru 0-750,000 lb
Metric: 0-200 thru 0-3,800,000 N

OUTPUT

3.0 mV/V ± .25%
Models with Built-in Amplifiers Available

ZERO BALANCE: ±1.0% FSO

ACCURACY

Linearity: 0.10% FSO
Linearity: 0.10% FSO
Repeatability: 0.05% FSO

EXCITATION

Recommended: 10 V ac/dc
Maximum: 15 V ac/dc

TEMPERATURE RANGE

Operating Range: -54 to +127°C / -65 to +250°F
Compensated Range: +15 to +71°C / +60 to +160°F

TEMPERATURE EFFECTS

Zero: 0.0045% FSO/°C
Span: 0.0045% Reading/°C

MATERIAL: Stainless Steel

Span: 0.018% Reading/°C

MATERIAL: Stainless Steel
SAFE OVERLOAD: 150% of Capacity
ULTIMATE OVERLOAD: 300% of Capacity
ORDERING EXAMPLE: LCGD-1K
PRICE: \$460 1,000 lb load cell

Metric ranges shown in Newtons. Other metric ranges (i.e. daNewtons, Dynes, Grams and English Pound Ranges also available)

LC100 Series



S-Beam Tension/Compression

RANGES

English: 0-25 thru 0-40,000 lb
Metric: 0-100 thru 0-200,000 N

OUTPUT: 3.0 mV/V ± .25%

ZERO BALANCE: ±1.0% FSO

ACCURACY

Linearity: 0.03% FSO
Linearity: 0.02% FSO
Repeatability: 0.01% FSO

EXCITATION

Recommended: 10 V ac/dc
Maximum: 15 V ac/dc

TEMPERATURE RANGE

Operating Range: -40 to +93°C / -40 to +200°F
Compensated Range: +18 to +66°C / 0 to +150°F

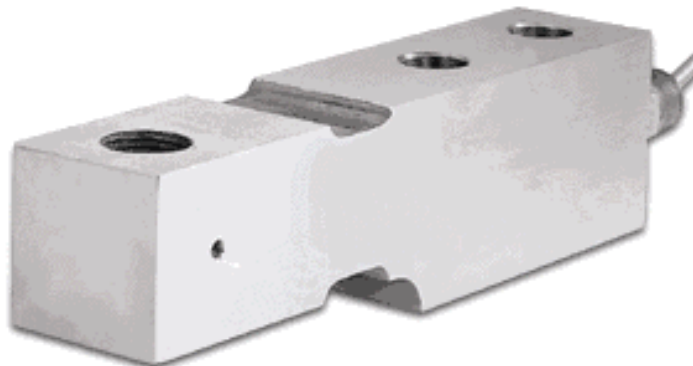
TEMPERATURE EFFECTS

Zero: 0.0023% FSO/°C
Span: 0.0014% Reading/°C

MATERIAL: Stainless Steel
SAFE OVERLOAD: 150% of Capacity
ULTIMATE OVERLOAD: 300% of Capacity

SAFE OVERLOAD: 150% of Capacity
ULTIMATE OVERLOAD: 300% of Capacity
ORDERING EXAMPLE: LC412-5K
PRICE: \$730 5,000 lb load cell

LC500 Series



Cantilever Beam Tension/Compression

RANGES

English: 0-100 thru 0-100,000 lb
Metric: 0-500 thru 0-500,000 N

OUTPUT: 3.0 mV/V ± .25%

ZERO BALANCE: ±1.0% FSO

ACCURACY

Linearity: 0.03% FSO
Linearity: 0.02% FSO
Repeatability: 0.02% FSO

EXCITATION

Recommended: 10 V ac/dc
Maximum: 15 V ac/dc

TEMPERATURE RANGE

Operating Range: -32 to +82°C / -30 to +180°F
Compensated Range: +15 to +71°C / +60 to +160°F

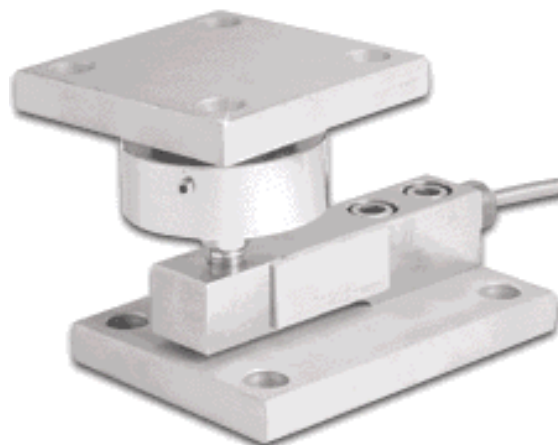
TEMPERATURE EFFECTS

Zero: 0.0027% FSO/°C
Span: 0.0014% Reading/°C

MATERIAL: less than or equal to 20 klb: Stainless Steel /
>20 klb: High Alloy Steel
SAFE OVERLOAD: 150% of Capacity
ULTIMATE OVERLOAD: 300% of Capacity
ORDERING EXAMPLE: LC501-5K
PRICE: \$350 5,000 lb load cell

ORDERING EXAMPLE: LC101-100
PRICE: \$305 100 lb load cell

TWA5, TWA6 Series



**Self Adjusting Weigh Module with LC501 Load Cell
Beam Included**

RANGES

English: 100 thru 20,000 lb Capacity
Metric: 500 thru 100,000 N Capacity

OUTPUT: 3.0 mV/V ± .25%

ZERO BALANCE: ±1.0% FSO

ACCURACY

Linearity: 0.03% FSO
Linearity: 0.02% FSO
Repeatability: 0.02% FSO

EXCITATION

Recommended: 10 V ac/dc
Maximum: 15 V ac/dc

TEMPERATURE RANGE

Operating Range: -32 to +82°C / -30 to +180°F
Compensated Range: +15 to +71°C / +60 to +160°F

TEMPERATURE EFFECTS

Zero: 0.0027% FSO/°C
Span: 0.0014% Reading/°C

MATERIAL: Stainless Steel or Nickel-Plated Steel
SAFE OVERLOAD: 150% of Capacity
ULTIMATE OVERLOAD: 300% of Capacity
ORDERING EXAMPLE: TWA5-1K
PRICE: \$615 self-adjusting assembly with a 1,000 lb
LC501 load cell included