

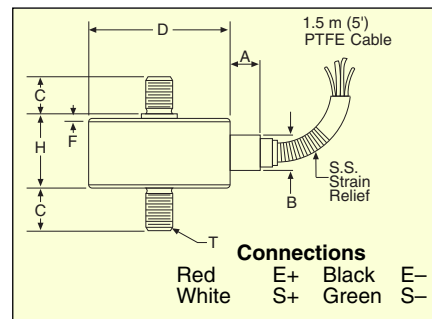
# SUBMINIATURE TENSION OR COMPRESSION HIGH ACCURACY LOAD CELLS

## STANDARD AND METRIC MODELS

### LCFD/LCMFD Series

Tension/Compression  
2.2 lb to 1000 lb  
10 to 5000 N

LCFD-100, \$750,  
shown actual size.



Standard

All Models  
**\$750**

Small and capable of highly accurate readings, the LCFD/LCMFD subminiature load cells are designed for precision industrial applications. They are all stainless steel, measure both tension and compression loads, and have male thread studs for load attachment. The exclusive internal design provides superior long-term stability and minimizes the effects of small off-axis loads.

### SPECIFICATIONS

#### Excitation:

- ≤10 lb/50 N: 5 Vdc
- ≥25 lb/100 N: 10 Vdc

#### Output:

- 2.2 lb/10 N: 1.5 mV/V (nom)
- ≥5 lb/20 N: 2 mV/V (nom)

#### Accuracy (Linearity and Hysteresis Combined):

- ≤100 lb/500 N: ±0.15% FSO
- ≥250 lb/1000 N: ±0.20% FSO

#### Repeatability:

- ≤2.2 lb: ± 0.15% FSO
- ≥5 lb/10 N: 0.20% FSO

#### 5-Point Calibration (in Tension):

0%, 50%, 100%, 50%, 0%

#### 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: ±0.009% FSO/°C
- Zero: ±0.009% FSO/°C

#### Safe Overload: 150% of capacity

#### Ultimate Overload: 300% of capacity

#### Bridge Resistance: 350 Ω minimum

#### Construction: Stainless steel

#### Electrical Connection: 1.5 m (5')

4-conductor, shielded cable

≤10 lb/50 N: SS overbraided PTFE

with temperature compensation board

#### Protection Class: IP65

### Dimensions: mm (in)

CAPACITY	T, THREAD	F	D DIA.	H	A	B DIA.	C	WEIGHT g (oz)
2.2 kg to 10 lb	#6-32 UNC	2.5 (0.10)	19 (0.75)	14.7 (0.58)	7.8 (0.31)	4.8 (0.19)	6.35 (0.25)	42 (1.48)
25, 50, 100 lb	#10-32 UNF	4.6 (0.18)	25.4 (1.00)	18.5 (0.73)	12.7 (0.5)	6.35 (0.25)	6.35 (0.25)	56 (1.98)
10 to 50 N	M5 x 0.8							
250 to 1000 lb	¼-28 UNF	2.3 (0.09)	25.4 (1.00)	13.5 (0.53)	12.7 (0.5)	6.35 (0.25)	9.7 (0.38)	68 (2.40)
100 to 1000 N	M6 x 1.00							

MOST POPULAR MODELS HIGHLIGHTED!

### To Order (Specify Model Number)

CAPACITY		MODEL NO.	PRICE	COMPATIBLE METERS*	ACCESSORY ROD ENDS	PRICE
lb	N					
<b>STANDARD MODELS</b>						
2.2	9.8	LCFD-1KG	\$750	DPiS, DP41-S, DP25B-S	REC-006F	\$10
5	22.2	LCFD-5	750	DPiS, DP41-S, DP25B-S	REC-006F	10
10	44.5	LCFD-10	750	DPiS, DP41-S, DP25B-S	REC-006F	10
25	111	LCFD-25	750	DPiS, DP41-S, DP25B-S	REC-010F	10
50	222	LCFD-50	750	DPiS, DP41-S, DP25B-S	REC-010F	10
100	334	LCFD-100	750	DPiS, DP41-S, DP25B-S	REC-010F	10
250	412	LCFD-250	750	DPiS, DP41-S, DP25B-S	REC-014F	10
500	2224	LCFD-500	750	DPiS, DP41-S, DP25B-S	REC-014F	10
1000	4448	LCFD-1K	750	DPiS, DP41-S, DP25B-S	REC-014F	10
CAPACITY		MODEL NO.	PRICE	COMPATIBLE METERS*	ACCESSORY ROD ENDS	PRICE
N	lb					
<b>METRIC MODELS</b>						
10	2.2	LCMFD-10N	\$750	DP41-S, DP25B-S	MREC-M5F	\$25
20	4.5	LCMFD-20N	750	DP41-S, DP25B-S	MREC-M5F	25
50	11	LCMFD-50N	750	DP41-S, DP25B-S	MREC-M5F	25
100	22	LCMFD-100N	750	iSeries, DP41-S, DP25B-S	MREC-M6F	25
200	45	LCMFD-200N	750	iSeries, DP41-S, DP25B-S	MREC-M6F	25
500	112	LCMFD-500N	750	iSeries, DP41-S, DP25B-S	MREC-M6F	25
1000	225	LCMFD-1KN	750	iSeries, DP41-S, DP25B-S	MREC-M6F	25
2000	450	LCMFD-2KN	750	iSeries, DP41-S, DP25B-S	MREC-M6F	25
5000	1124	LCMFD-5KN	750	iSeries, DP41-S, DP25B-S	MREC-M6F	25

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

\* See section D for compatible meters. DPiS meter suitable for one direction measurement only.

Ordering Examples: LCFD-1KG, 1000 gram load cell, \$750, matching rod end, REC-006F, \$10 ea. LCFD-500, 500 lb capacity load cell, \$750, matching rod end, REC-014F, \$10 ea.

LCMFD-20N, 20 N capacity load cell, \$750, matching rod end, MREC-M5F, \$25 ea.



#### UNITED STATES

[www.omega.com](http://www.omega.com)  
1-800-TC-OMEGA  
Stamford, CT.

#### CANADA

[www.omega.ca](http://www.omega.ca)  
Laval(Quebec)  
1-800-TC-OMEGA

#### GERMANY

[www.omega.de](http://www.omega.de)  
Deckenpfronn, Germany  
0800-8266342

#### UNITED KINGDOM

[www.omega.co.uk](http://www.omega.co.uk)  
Manchester, England  
0800-488-488

#### FRANCE

[www.omega.fr](http://www.omega.fr)  
Guyancourt, France  
088-466-342

#### CZECH REPUBLIC

[www.omegaeng.cz](http://www.omegaeng.cz)  
Karviná, Czech Republic  
596-311-899

#### BENELUX

[www.omega.nl](http://www.omega.nl)  
Amstelveen, NL  
0800-099-33-44



## More than 100,000 Products Available!

### • Temperature

Calibrators, Connectors, General Test and Measurement Instruments, Glass Bulb Thermometers, Handheld Instruments for Temperature Measurement, Ice Point References, Indicating Labels, Crayons, Cements and Lacquers, Infrared Temperature Measurement Instruments, Recorders Relative Humidity Measurement Instruments, RTD Probes, Elements and Assemblies, Temperature & Process Meters, Timers and Counters, Temperature and Process Controllers and Power Switching Devices, Thermistor Elements, Probes and Assemblies, Thermocouples Thermowells and Head and Well Assemblies, Transmitters, Wire

### • Flow and Level

Air Velocity Indicators, Doppler Flowmeters, Level Measurement, Magnetic Flowmeters, Mass Flowmeters, Pitot Tubes, Pumps, Rotameters, Turbine and Paddle Wheel Flowmeters, Ultrasonic Flowmeters, Valves, Variable Area Flowmeters, Vortex Shedding Flowmeters

### • pH and Conductivity

Conductivity Instrumentation, Dissolved Oxygen Instrumentation, Environmental Instrumentation, pH Electrodes and Instruments, Water and Soil Analysis Instrumentation

### • Data Acquisition

Auto-Dialers and Alarm Monitoring Systems, Communication Products and Converters, Data Acquisition and Analysis Software, Data Loggers Plug-in Cards, Signal Conditioners, USB, RS232, RS485 and Parallel Port Data Acquisition Systems, Wireless Transmitters and Receivers

### • Pressure, Strain and Force

Displacement Transducers, Dynamic Measurement Force Sensors, Instrumentation for Pressure and Strain Measurements, Load Cells, Pressure Gauges, Pressure Reference Section, Pressure Switches, Pressure Transducers, Proximity Transducers, Regulators, Strain Gages, Torque Transducers, Valves

### • Heaters

Band Heaters, Cartridge Heaters, Circulation Heaters, Comfort Heaters, Controllers, Meters and Switching Devices, Flexible Heaters, General Test and Measurement Instruments, Heater Hook-up Wire, Heating Cable Systems, Immersion Heaters, Process Air and Duct, Heaters, Radiant Heaters, Strip Heaters, Tubular Heaters