

SUBMINIATURE TENSION OR COMPRESSION HIGH ACCURACY LOAD CELLS

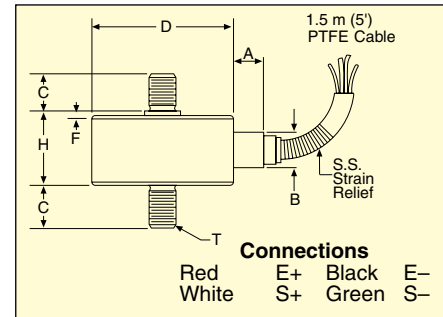
STANDARD AND METRIC MODELS

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

LCFD/LCMFD Series



LCFD-100, shown
actual size.



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)
1 kg to 10 lb	#6 - 32 UNC	1.3 (0.05)	19 (0.75)	12.7 (0.50)	7.9 (0.31)	4.8 (0.19)	6.35 (0.25)	42 (1.48)
10 to 50 N	M5 x 0.8							
25 to 100 lb	#10 - 32 UNF	3 (0.12)	25.4 (1.00)	16.3 (0.64)	12.7 (0.50)	6.35 (0.25)	6.35 (0.25)	56 (1.98)
100 to 500 N	M6 x 1.0							
250 to 1000 lb	¼-28 UNF	0.76 (0.03)	25.4 (1.00)	14.0 (0.55)	12.7 (0.50)	6.35 (0.25)	9.7 (0.38)	68 (2.40)
1 to 5 KN	M6 x 1.00							

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

CAPACITY		MODEL NO.	COMPATIBLE METERS	ACCESSORY ROD ENDS
lb	N			
STANDARD MODELS				
2.2	9.8	LCFD-1KG	DP41-S, DP25B-S	REC-006F
5	22.2	LCFD-5	DP41-S, DP25B-S	REC-006F
10	44.5	LCFD-10	DP41-S, DP25B-S	REC-006F
25	111	LCFD-25	DPiS, DP41-S, DP25B-S	REC-010F
50	222	LCFD-50	DPiS, DP41-S, DP25B-S	REC-010F
100	445	LCFD-100	DPiS, DP41-S, DP25B-S	REC-010F
250	1112	LCFD-250	DPiS, DP41-S, DP25B-S	REC-014F
500	2224	LCFD-500	DPiS, DP41-S, DP25B-S	REC-014F
1000	4448	LCFD-1K	DPiS, DP41-S, DP25B-S	REC-014F
CAPACITY		MODEL NO.	COMPATIBLE METERS	ACCESSORY ROD ENDS
N	lb			
METRIC MODELS				
10	2.2	LCMFD-10N	DP41-S, DP25B-S	MREC-M5F
20	4.5	LCMFD-20N	DP41-S, DP25B-S	MREC-M5F
50	11	LCMFD-50N	DP41-S, DP25B-S	MREC-M5F
100	22	LCMFD-100N	DPiS, DP41-S, DP25B-S	MREC-M6F
200	45	LCMFD-200N	DPiS, DP41-S, DP25B-S	MREC-M6F
500	112	LCMFD-500N	DPiS, DP41-S, DP25B-S	MREC-M6F
1000	225	LCMFD-1KN	DPiS, DP41-S, DP25B-S	MREC-M6F
2000	450	LCMFD-2KN	DPiS, DP41-S, DP25B-S	MREC-M6F
5000	1124	LCMFD-5KN	DPiS, DP41-S, DP25B-S	MREC-M6F

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

DPiS meter suitable for one direction measurement only.

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

LCMFD-20N, 20 N capacity load cell, matching rod end, MREC-M5F.