

LOW-PROFILE PANCAKE STYLE LOAD CELLS

Ω OMEGA®

STANDARD AND METRIC MODELS

*Tension/Compression
Calibrated in Tension
5 to 500,000 lb Capacities
2.5 kgf to 10,000 kgf Capacities*

LCHD/LCMHD Series



Standard

LCHD-5K, shown actual
size. See next page for
dimensions.

LCHD-25

TEDS Option Now Available

- ✓ 0.25% Interchangeability
for Scale Applications
- ✓ All Stainless Steel
Construction
- ✓ Heavy-Duty Design
- ✓ High Accuracy
- ✓ Low Profile for Easy
Installation
- ✓ 5-Point Calibration
- ✓ Mating Connector
Included



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

All models shown
proportionally smaller
than actual size.

SPECIFICATIONS

Excitation: 10 Vdc (15 V max)

Output (FSO):

≤25 lb/10 kgf: 2 mV/V ±0.25%

≥50 lb/20 kgf: 3 mV/V ±0.25%

5-Point Calibration (in Tension):

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

Linearity:

≤25 lb/10 kgf: ±0.20% FSO

≥50 lb/20 kgf: ±0.10% FSO

Hysteresis:

≤25 lb/10 kgf: ±0.10% FSO

≥50 lb/20 kgf: ±0.08% FSO

Repeatability:

≤25 lb/10 kgf: ±0.1% FSO

≥50 lb/20 kgf: ±0.03% FSO

Zero Balance: ±1% of 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:

Zero: 0.0036% FSO/°C

Span: 0.0036% FSO/°C

Safe Overload: 150% of capacity

Ultimate Overload: 300% of capacity

Input Resistance: 350 ±10 Ω

Output Resistance: 350 ±10 Ω

FS Deflection:

0.025 to 0.076 mm

(0.001 to 0.003") typical

Construction: 17-4 PH stainless steel

Electrical:

≤5000 lb/2000 kgf: DT02H-10-6P

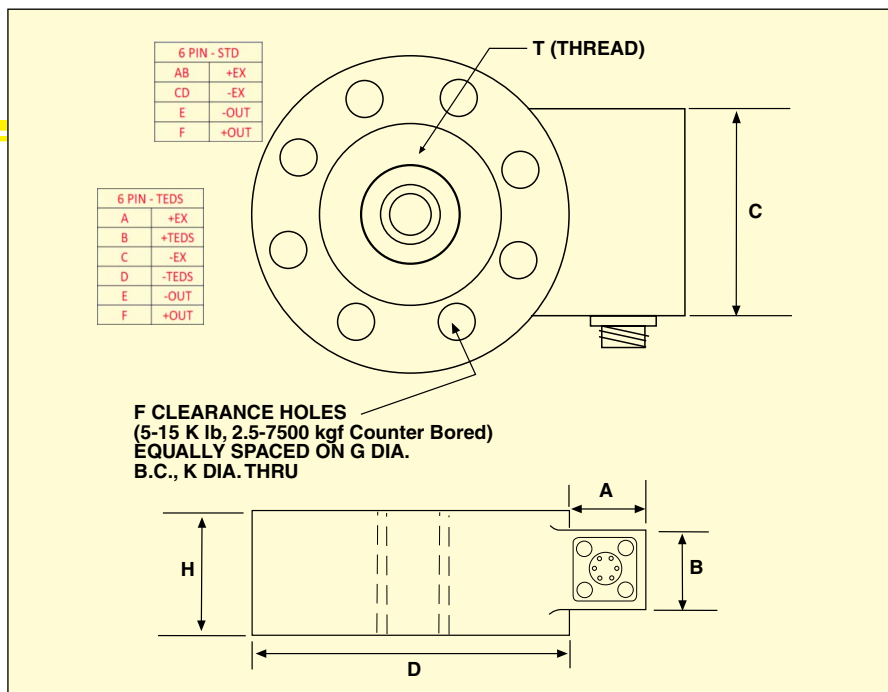
>5000 lb/2500 kgf: MS3102E-14S-6P
(or equiv.)

Mating Connector (Included):

≤5000 lb/2000 kgf: PT06F-10-6S

>5000 lb/2500 kgf: MS3102E-14S-6S
(or equiv.)

LCHD-TP263, optional
tension plate for 2k to 5k
LCHD load cells, shown
smaller than actual size.



Dimensions: mm (inch)

CAPACITY	D	H	F	G	K	T	A	B	C
STANDARD MODELS									
5 to 25 lb	64 (2.5)	20 (0.80)	6	51 (2.0)	4.6 (0.18)	¼-28 UNF	24 (0.94)	19 (0.75)	32 (1.25)
50 to 1K lb	76 (3.0)	25 (1.0)	6	57 (2.25)	7.1 (0.28)	¾-24 UNF	24 (0.94)	19 (0.75)	32 (1.25)
2K to 5K lb	89 (3.5)	25 (1.0)	6	67 (2.63)	8.6 (0.34)	½-20 UNF	24 (0.94)	19 (0.75)	32 (1.25)
7.5K to 15K lb	140 (5.5)	46 (1.8)	8	114 (4.5)	10 (0.40)	1-14 UNS	32 (1.25)	38 (1.5)	51 (2.0)
20K to 50K lb	152 (6.0)	46 (1.8)	8	124 (4.88)	13 (0.53)	1½-12 UNF	32 (1.25)	38 (1.5)	51 (2.0)
75K to 100K lb	229 (9.0)	64 (2.5)	12	197 (7.75)	17 (0.66)	2-12 UN	32 (1.25)	38 (1.5)	51 (2.0)
150K to 200K lb	279 (11)	76 (3.0)	12	241 (9.5)	20 (0.78)	2½-12 UN	32 (1.25)	38 (1.5)	51 (2.0)
300K to 500K lb	356 (14)	108 (4.25)	12	298 (11.75)	25 (1.0)	3½-8 UN	32 (1.25)	38 (1.5)	51 (2.0)
METRIC MODELS									
2.5 to 10 kgf	64 (2.5)	20 (0.80)	6	51 (2.0)	4.6 (0.18)	M6 x 1.00	24 (0.94)	19 (0.75)	32 (1.25)
25 to 500 kgf	76 (3.0)	25 (1.0)	6	57 (2.25)	7.1 (0.28)	M10 x 1.5	24 (0.94)	19 (0.75)	32 (1.25)
1000 to 2500 kgf	89 (3.5)	25 (1.0)	6	67 (2.63)	8.6 (0.34)	M12 x 1.75	24 (0.94)	19 (0.75)	32 (1.25)
5000 to 7500 kgf	140 (5.5)	46 (1.8)	8	114 (4.5)	10 (0.40)	M24 x 2.0	32 (1.25)	38 (1.5)	51 (2.0)
10000 kgf	152 (6.0)	46 (1.8)	8	124 (4.88)	13 (0.53)	M36 x 2.0	32 (1.25)	38 (1.5)	51 (2.0)

To Order

TENSION PLATES

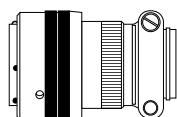
MODEL NO.	DESCRIPTION
LCHD-TP225	Tension plate, 50 to 1000 lb ranges
LCHD-TP263	Tension plate, 2000 to 5000 lb ranges
LCHD-TP450	Tension plate, 7500 to 15,000 lb ranges
LCHD-TP488	Tension plate, 20,000 to 50,000 lb ranges
LCHD-TP775	Tension plate, 75,000 to 100,000 lb ranges

LOW-PROFILE PANCAKE STYLE LOAD CELLS



POPULAR OPTIONS

DESCRIPTION	SUFFIX
5V Output Calibrated 0 to 5 Vdc in tension. (Output is bi-directional ± 5 Vdc)	“-5E”
Overload Stops	“-OL”
Dual Bridge ≤ 5000 lb/2500 kgf > 5000 lb/2500 kgf	“-DUAL” “-DUAL”
Extended Temperature Range between: -45 to 93°C (-50 to 200°F) and to 163°C (325°F)	“-TC1” “-TC2”
TEDS IEEE 1451.4 module (Other Custom Pinout Avail)	“-TEDS”



**PT06F10-6S,
mating connector
(included).**

To Order

CAPACITY		MODEL NO.	COMPATIBLE METERS
STANDARD MODELS			
5 lb	2.3 kgf	LCHD-5	DPiS, DP41-S, DP25B-S
10 lb	4.5 kgf	LCHD-10	DPiS, DP41-S, DP25B-S
25 lb	11 kgf	LCHD-25	DPiS, DP41-S, DP25B-S
50 lb	23 kgf	LCHD-50	DPiS, DP41-S, DP25B-S
100 lb	45 kgf	LCHD-100	DPiS, DP41-S, DP25B-S
250 lb	114 kgf	LCHD-250	DPiS, DP41-S, DP25B-S
500 lb	227 kgf	LCHD-500	DPiS, DP41-S, DP25B-S
1K lb	455 kgf	LCHD-1K	DPiS, DP41-S, DP25B-S
2K lb	909 kgf	LCHD-2K	DPiS, DP41-S, DP25B-S
3K lb	1361 kgf	LCHD-3K	DPiS, DP41-S, DP25B-S
4K lb	1815 kgf	LCHD-4K	DPiS, DP41-S, DP25B-S
5K lb	2269 kgf	LCHD-5K	DPiS, DP41-S, DP25B-S
7.5K lb	3403 kgf	LCHD-7.5K	DPiS, DP41-S, DP25B-S
10K lb	4537 kgf	LCHD-10K	DPiS, DP41-S, DP25B-S
15K lb	6806 kgf	LCHD-15K	DPiS, DP41-S, DP25B-S*
20K lb	9074 kgf	LCHD-20K	DPiS, DP41-S, DP25B-S*
30K lb	13,612 kgf	LCHD-30K	DPiS, DP41-S, DP25B-S*
50K lb	22,686 kgf	LCHD-50K	DPiS, DP41-S, DP25B-S*
75K lb	34,029 kgf	LCHD-75K	DPiS, DP41-S, DP25B-S*
100K lb	45,372 kgf	LCHD-100K	DPiS, DP41-S, DP25B-S*
150K lb	68,058 kgf	LCHD-150K	DPiS, DP41-S, DP25B-S*
200K lb	90,744 kgf	LCHD-200K	DPiS, DP41-S, DP25B-S*
300K lb	136,116 kgf	LCHD-300K	DPiS, DP41-S, DP25B-S*
400K lb	181,488 kgf	LCHD-400K	DPiS, DP41-S, DP25B-S*
500K lb	226,860 kgf	LCHD-500K	DPiS, DP41-S, DP25B-S*
METRIC MODELS			
5.5 lb	2.5 kgf	LCMHD-2.5	DPiS, DP41-S, DP25B-S
11 lb	5 kgf	LCMHD-5	DPiS, DP41-S, DP25B-S
22 lb	10 kgf	LCMHD-10	DPiS, DP41-S, DP25B-S
55 lb	25 kgf	LCMHD-25	DPiS, DP41-S, DP25B-S
110 lb	50 kgf	LCMHD-50	DPiS, DP41-S, DP25B-S
220 lb	100 kgf	LCMHD-100	DPiS, DP41-S, DP25B-S
551 lb	250 kgf	LCMHD-250	DPiS, DP41-S, DP25B-S
1102 lb	500 kgf	LCMHD-500	DPiS, DP41-S, DP25B-S
2205 lb	1000 kgf	LCMHD-1K	DPiS, DP41-S, DP25B-S
3307 lb	1500 kgf	LCMHD-1.5K	DPiS, DP41-S, DP25B-S
4409 lb	2000 kgf	LCMHD-2K	DPiS, DP41-S, DP25B-S
5512 lb	2500 kgf	LCMHD-2.5K	DPiS, DP41-S, DP25B-S
11,023 lb	5000 kgf	LCMHD-5K	DPiS, DP41-S, DP25B-S
16,535 lb	7500 kgf	LCMHD-7.5K	DPiS, DP41-S, DP25B-S
22,046 lb	10,000 kgf	LCMHD-10K	DPiS, DP41-S, DP25B-S

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

* 4-digit meter.

** DPiS meter suitable for one direction measurement only.

Note: Models $> 300,000$ lb are calibrated at 300,000 lb—see Specifications.

Ordering Examples: **LCHD-500**, 500 lb capacity load cell.

LCMHD-500, 500 kgf capacity load cell.

PT06F10-6S, mating connector (included). **LCMHD-10K**, 10,000 kgf capacity load cell.

MS3106E-14S-6S, mating connector (included).

ACCESSORIES

MODEL NO.	DESCRIPTION
MS3106E-14S-6S	Spare mating connector for units above 5000 lb capacity
PT06F10-6S	Spare mating connector for units below 7500 lb capacity