

# LOW-PROFILE PANCAKE STYLE LOAD CELLS

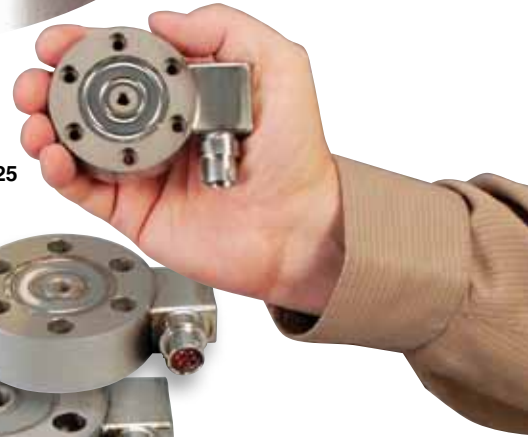
## STANDARD AND METRIC MODELS

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

### LCHD/LCMHD Series



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



LCHD-25

LCHD-100

LCHD-2K

LCHD-7.5K

LCHD-30K

LCHD-75K

LCHD-150K

- ✓ 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

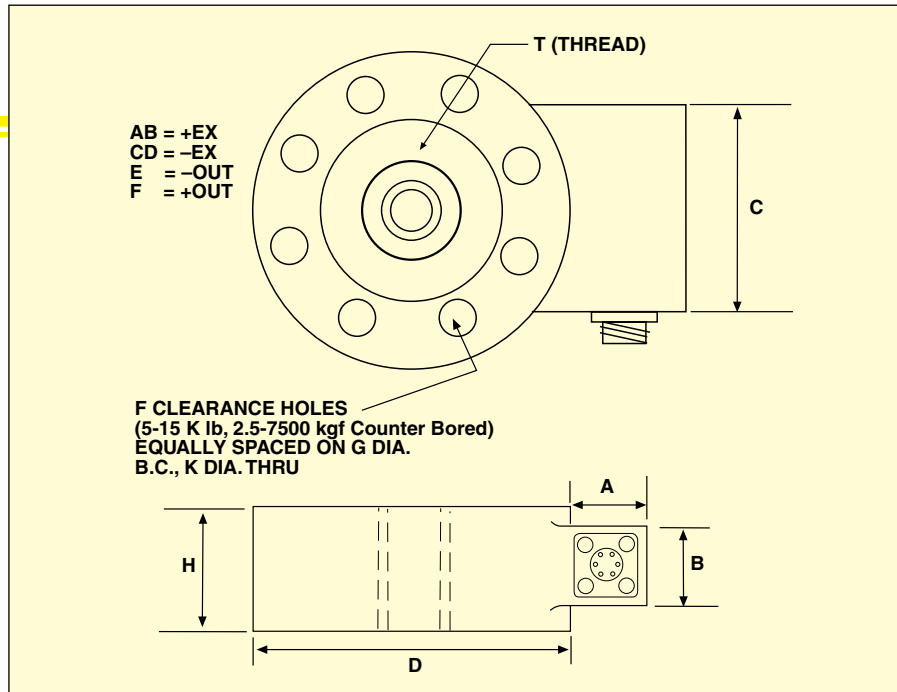
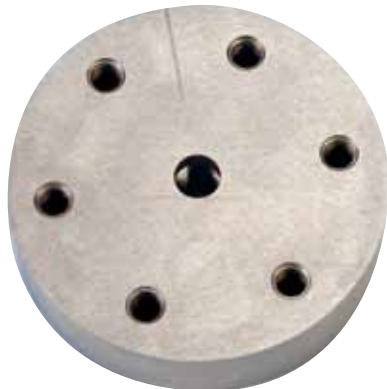
>5000 lb/2500 kgf: MS3102E-14S-6P  
(or equiv.)

**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
<b>STANDARD MODELS</b>									
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)
<b>METRIC MODELS</b>									
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

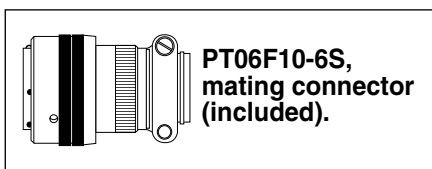
MODEL NO.	DESCRIPTION
LCHD-TP200	Tension plate, 5 to 25 lb ranges
LCHD-TP225	Tension plate, 50 to 1000 lb ranges
LCHD-TP263	Tension plate, 2000 to 5000 lb ranges
LCHD-TP450	Tension plate, 7500 to 15,000 lb ranges
LCHD-TP488	Tension plate, 20,000 to 50,000 lb ranges
LCHD-TP775	Tension plate, 75,000 to 100,000 lb ranges

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## POPULAR OPTIONS

DESCRIPTION	SUFFIX
<b>5V Output</b> Calibrated 0 to 5 Vdc in tension. (Output is bi-directional $\pm 5$ Vdc)	“-5T”
<b>Overload Stops</b>	“-OL”
<b>Dual Bridge</b> $\leq 5000$ lb/2500 kgf $> 5000$ lb/2500 kgf	“-DUAL” “-DUAL”
<b>Extended Temperature Range</b> between: -45 to 93°C (-50 to 200°F) and to 163°C (325°F)	“-TC1” “-TC2”



## To Order

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

Comes complete with 5-point NIST-traceable calibration, mating connector, and 59 k $\Omega$  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
<b>MS3106E-14S-6S</b>	Spare mating connector for units above 5000 lb capacity
<b>PT06F10-6S</b>	Spare mating connector for units below 7500 lb capacity