

“PANCAKE” STYLE, HIGH-ACCURACY, LOW-PROFILE LOAD CELLS

STANDARD AND METRIC MODELS

Tension/Compression
50 lb to 750,000 lb, 25 kgf to 10,000 kgf

LC402/LCM402 Series LC412/LCM412 Series



- ✓ Industrial Weighing
- ✓ All Stainless Steel for Harsh Industrial Applications
- ✓ 0.25% Interchangeability for Multiple Load Cell Applications
- ✓ 5 Point NIST Traceable Calibration Included



LC412/LCM412 units with twist-lock connector.

LC412-3K shown actual size.

SPECIFICATIONS

Excitation: 10 Vdc (15 Vdc maximum)

Output: 3 mV/V \pm 0.25%

5-Point Calibration:

0%, 50%, 100%, 50%, 0% in compression.

Units ordered with optional tension plate calibrated in tension.

Linearity: 0.10% FSO

Hysteresis: 0.10% FSO

Repeatability: 0.05% FSO

Zero Balance: \pm 1% FSO

Operating Temperature Range:

LC402/LCM402: -54 to 121°C

(-65 to 250°F)

LC412/LCM412: -54 to 127°C

(-65 to 260°F)

Compensated Temperature Range:

16 to 71°C (60 to 160°F)

Protection Class: IP65

Thermal Effects:

Zero: 0.0045% FSO/°C

Span: 0.0045% FSO/°C

Safe Overload: 150% of capacity

Ultimate Overload: 300% of capacity for ranges \leq 400,000 lb;

200% of capacity for ranges >400,000 lb

Bridge Resistance: 350 \pm 10 Ω

Full Scale Deflection: 0.025 to 0.075 mm (0.001 to 0.003") typical

Construction: 17-4 PH stainless steel

Electrical Connection:

LC402/LCM402: 4.8 m (15')

4-conductor shielded PVC cable

LC412/LCM412: DT02H-10-6P

connector (or equivalent)

POPULAR OPTIONS (Additional Cost)

0 to 5 Vdc Output: (\geq 5000 kg) “-5V”

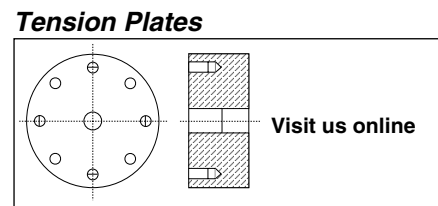
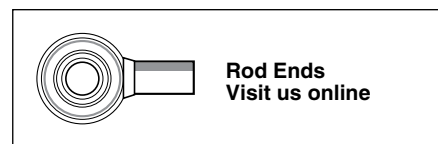
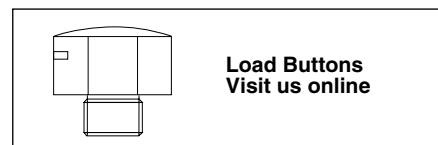
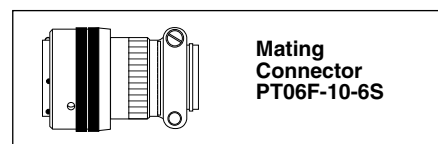
Overload Stops: “-OL”

Dual Bridge: “-DUAL”

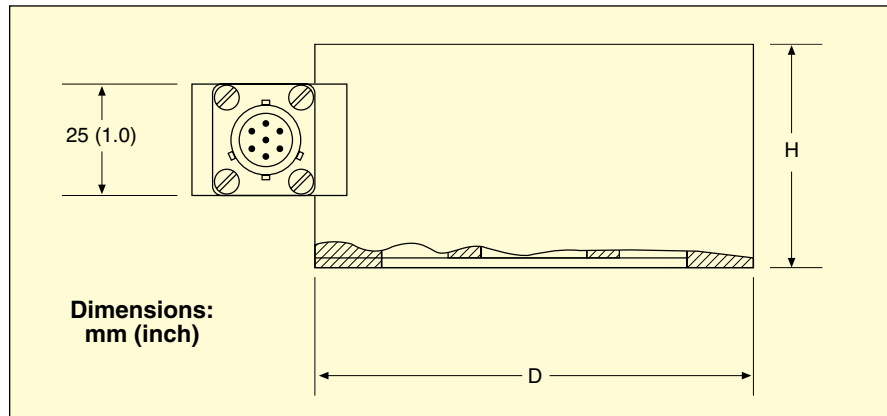
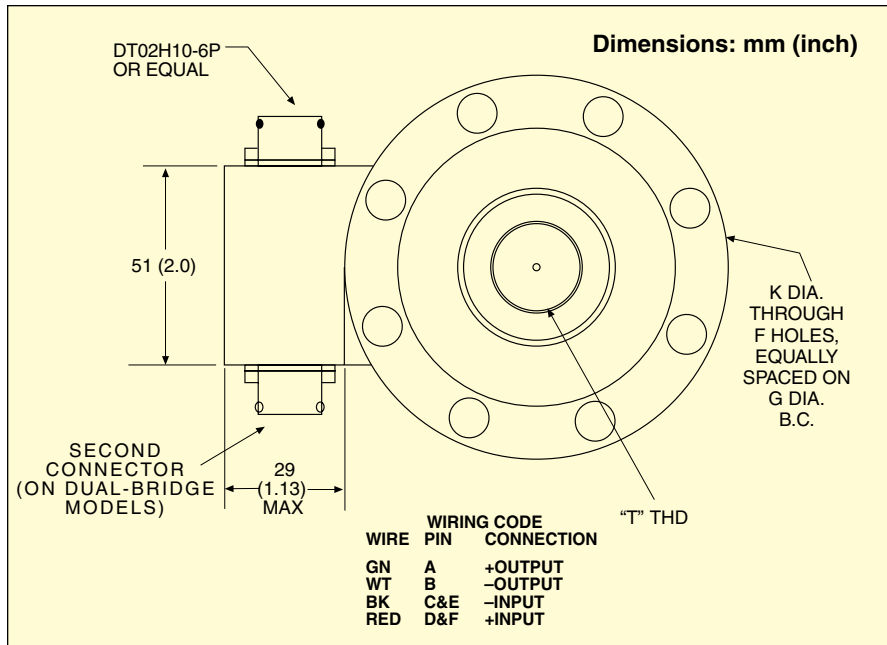
Extended Temperature Range:

-45 to 93°C (-50 to 200°F) “-TC1”

-45 to 163°C (-50 to 325°F) “-TC2”



"PANCAKE" STYLE, HIGH-ACCURACY, LOW-PROFILE LOAD CELLS STANDARD AND METRIC MODELS



Dimensions: mm (inch)

CAPACITY	D DIA.	H HEIGHT	F	G	K	T	WEIGHT kg (lb)
STANDARD MODELS							
50 to 300 lb	76 (3.00)	38 (1.50)	8	57 (2.25)	6.7 (0.266)	3/8-24	1.1 (2.5)
500 to 3K lb	89 (3.50)	38 (1.50)	8	73 (2.875)	6.7 (0.266)	1/2-20	1.4 (3)
5000 to 10K lb	95 (3.75)	38 (1.50)	8	83 (3.25)	6.7 (0.266)	3/4-16	2.3 (5)
15K to 25K lb	102 (4.00)	51 (2.00)	8	89 (3.50)	10.3 (0.406)	1-14	3.4 (7.5)
30K to 50K lb	178 (7.00)	76 (3.00)	8	143 (5.625)	13.5 (0.531)	1 1/2-12	15 (33)
75K lb	203 (8.00)	89 (3.50)	8	171 (6.750)	16.7 (0.656)	1 3/4-12	23 (50)
100K lb	241 (9.50)	102 (4.00)	8	203 (8.00)	19.8 (0.781)	2-12	37 (81)
150K to 200K lb	279 (11.0)	102 (4.00)	12	235 (9.25)	26 (1.030)	2 1/2-12	46 (102)
300K to 400K lb	279 (11.0)	102 (4.00)	12	235 (9.25)	26 (1.030)	3-12	46 (102)
500K lb	305 (12.0)	102 (4.00)	12	280 (10.25)	29 (1.156)	3 1/2-8	52 (115)
750K lb	330 (13.0)	114 (4.50)	12	279 (11.00)	33 (1.281)	4-8	61 (135)
METRIC MODELS							
25 to 100 kgf	76 (3.00)	38 (1.50)	8	57 (2.25)	6.7 (0.266)	M10 x 1.5	1.1 (2.5)
250 to 1500 kgf	89 (3.50)	38 (1.50)	8	73 (2.875)	6.7 (0.266)	M12 x 1.75	1.4 (3)
2.5K to 5K kgf	95 (3.75)	38 (1.50)	8	83 (3.25)	6.7 (0.266)	M20 x 1.5	2.3 (5)
7.5K to 10K kgf	102 (4.00)	51 (2.00)	8	89 (3.50)	10.3 (0.406)	M24 x 2.0	3.4 (7.5)

STANDARD LOAD BUTTONS

MODEL	THREAD
LBC-038	3/8-24
LBC-012	1/2-20
LBC-034	3/4-16
LBC-100	1-14
LBC-112	1 1/2-12
LBC-200-12	2-12

* Consult Engineering.

METRIC LOAD BUTTONS

MODEL NO.	THREAD
MLBC-M10	M10 x 1.5
MLBC-M12	M12 x 1.75
MLBC-M20	M20 x 1.5
MLBC-M24	M24 x 2.0

STANDARD MALE ROD ENDS

MODEL NO.	THREAD UNF-3A
REC-038M	3/8-24
REC-012M	1/2-20
REC-034M	3/4-16
REC-100M	1-14
REC-112M	1 1/2-12

METRIC MALE ROD ENDS

MODEL NO.	THREAD
MREC-M10M	M10 x 1.5
MREC-M12M	M12 x 1.75
MREC-M20M	M20 x 1.5
MREC-M24M	M24 x 2.0

Visit us online for load button and rod end dimensions

HIGH-ACCURACY, LOW-PROFILE LOAD CELLS

STANDARD MODELS

To Order				TENSION BASE PLATE	
CAPACITY		MODEL NO.		COMPATIBLE METERS*	MODEL NO.
lb	kgf	CABLE	CONNECTOR		
50	23	LC402-50	LC412-50	DPiS, DP41-S, DP25B-S	LC412-TP225
100	45	LC402-100	LC412-100	DPiS, DP41-S, DP25B-S	LC412-TP225
250	114	LC402-250	LC412-250	DPiS, DP41-S, DP25B-S	LC412-TP225
500	227	LC402-500	LC412-500	DPiS, DP41-S, DP25B-S	LC412-TP288
1000	455	LC402-1K	LC412-1K	DPiS, DP41-S, DP25B-S	LC412-TP288
2000	909	LC402-2K	LC412-2K	DPiS, DP41-S, DP25B-S	LC412-TP288
3000	1361	LC402-3K	LC412-3K	DPiS, DP41-S, DP25B-S	LC412-TP288
5000	2269	LC402-5K	LC412-5K	DPiS, DP41-S, DP25B-S	LC412-TP325
10,000	4537	LC402-10K	LC412-10K	DPiS, DP41-S, DP25B-S	LC412-TP325
15,000	6806	LC402-15K	LC412-15K	DPiS, DP41-S, DP25B-S**	LC412-TP350
20,000	9074	LC402-20K	LC412-20K	DPiS, DP41-S, DP25B-S**	LC412-TP350
25,000	11,343	LC402-25K	LC412-25K	DPiS, DP41-S, DP25B-S**	LC412-TP350
50,000	22,686	LC402-50K	LC412-50K	DPiS, DP41-S, DP25B-S**	LC412-TP563
75,000	34,029	LC402-75K	LC412-75K	DPiS, DP41-S, DP25B-S**	LC412-TP675
100,000	45,372	LC402-100K	LC412-100K	DPiS, DP41-S, DP25B-S**	LC412-TP800
200,000	90,744	LC402-200K	LC412-200K	DPiS, DP41-S, DP25B-S**	LC412-TP925
300,000	136,116	LC402-300K	LC412-300K	DPiS, DP41-S, DP25B-S**	LC412-TP925-3
400,000	181,488	LC402-400K	LC412-400K	DPiS, DP41-S, DP25B-S**	LC412-TP925-3
500,000	226,860	LC402-500K	LC412-500K	DPiS, DP41-S, DP25B-S**	LC412-TP1025
750,000	340,290	LC402-750K	LC412-750K	DPiS, DP41-S, DP25B-S**	LC412-TP1100

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

DPiS suitable for one direction measurement only. * Visit us online for compatible meters. ** 4-digit meter.

To order dual-bridge models, add suffix “-DUAL” to the model number. Consult sales for price and availability.

Note: Models >300,000 lb are calibrated at 300,000 lb. Full scale calibration above 300,000 lb within ±1% available; add suffix “-FS” to the model number and consult Sales for price and delivery.

Ordering Examples: LC412-10K-DUAL, dual-bridge 10,000 lb capacity connector-style load cell.

PT06F10-6S, mating connector, 2 required (sold separately), LC412-TP325, optional tension plate.

LC412-20K-5V, 20,000 lb capacity connector-style load cell with optional 0 to 5 Vdc output, PT06F10-6S, mating connector (sold separately), LC412-TP350, optional tension plate.

METRIC MODELS

CAPACITY		MODEL NO.		COMPATIBLE METERS*	TENSION BASE PLATE MODEL NO.
kgf	lb	CABLE	CONNECTOR		
25	55	LCM402-25	LCM412-25	DP41-B, DP41-S, DP25B-S	LCM412-TP225
50	110	LCM402-50	LCM412-50	DP41-B, DP41-S, DP25B-S	LCM412-TP225
100	220	LCM402-100	LCM412-100	DP41-B, DP41-S, DP25B-S	LCM412-TP225
250	551	LCM402-250	LCM412-250	DP41-B, DP41-S, DP25B-S	LCM412-TP288
500	1102	LCM402-500	LCM412-500	DP41-B, DP41-S, DP25B-S	LCM412-TP288
1000	2205	LCM402-1K	LCM412-1K	DP41-B, DP41-S, DP25B-S	LCM412-TP288
1500	3307	LCM402-1.5K	LCM412-1.5K	DP41-B, DP41-S, DP25B-S	LCM412-TP288
2500	5512	LCM402-2.5K	LCM412-2.5K	DP41-B, DP41-S, DP25B-S	LCM412-TP325
5000	11,023	LCM402-5K	LCM412-5K	DP41-B, DP41-S, DP25B-S	LCM412-TP325
7500	16,535	LCM402-7.5K	LCM412-7.5K	DP41-B, DP41-S, DP25B-S	LCM412-TP350
10,000	22,046	LCM402-10K	LCM412-10K	DP41-B, DP41-S, DP25B-S**	LCM412-TP350

ACCESSORIES

MODEL NO.	DESCRIPTION
PT06F10-6S	Mating connector for LC412/LCM412 load cells
CA-6PC24-3-015	Cable assembly with twist-lock connector for LC412/LCM412 series load cells

Comes complete with 5-point NIST-traceable calibration and 59 kΩ shunt data. * Visit us online for compatible meters. ** 4-digit meter.

To order dual-bridge models, add suffix “-DUAL” to model number. Consult sales for price and availability.

Ordering Examples: LCM412-10K-DUAL, dual-bridge 10,000 kgf capacity connector-style load cell.

PT06F10-6S, mating connector, 2 required (sold separately). LCM412-TP350, optional tension plate, LCM402-100, 100 kgf capacity cable-style load cell, LCM412-TP225, optional tension plate.