TYPE: CPA



CPA Stainless Steel Compression Load Cell

Features

- Ranges: 2 tonne to 1000 tonne
- Stainless steel construction
- Environmentally sealed to IP67
- Many special versions available
- Can be supplied with domed top and spherical loading cap
- Versions available for use as calibration standards
- Can be supplied with amplifier output
- Can be supplied with integral connector

Typical Applications

- Hydraulic press calibration
- Pile force measurement
- Structural proof testing
- Centre of gravity (module) weighing
- Jack force measurement

Description

The LCM range of compression load cells are designed for general use and are suitable for use in laboratories or in permanent outdoor installations. They are built to exacting standards with versions available that are suitable for full immersion in water.

There are many special options, including domed top (supplied with or without a loading cap), integral carry handles, mounting base, integral connectors and internal analogue/digital signal amplifiers. The standard product is constructed from stainless steel.

The CPA series can be supplied as shown in this datasheet or can be modified to meet a particular application requirement. We are always pleased to discuss any special requirements that can be accommodated. The CPA range can be supplied on its own or combined with our extensive range of instrumentation to provide a complete load monitoring system.

Specification

Rated load (tonne)	2, 5, 10, 25, 50, 100, 200, 300, 500, 750, 1000
Proof load	150% of rated load
Ultimate braking load	>300% of rated load
Output	1.5 mV/V at rated load (nominal)
Non-linearity	<±0.25% of rated load (typically)
Non-repeatability	<±0.05% of rated load
Excitation voltage	10vdc recommended, 15vdc maximum
Bridge resistance	700Ω (2 - 200 tonne), 1400Ω (300 - 1000 tonne)
Insulation resistance	>500MΩ @ 500vdc
Operating temperature range	-20 to +70°C
Compensated temperature range	-10 to +50°C
Zero temperature coefficient	<±0.01% of rated load/°C
Span temperature coefficient	<±0.01% of rated load/°C
Environmental protection level	IP67
Connection type	5 metres 4-core screened PUR cable
Wiring connections	+ve supply: Red -ve supply: Blue +ve signal: Green -ve signal: Yellow

Available Options

- Special ranges and sizes available
- Special electrical connections
- Integral signal conditioning
- Submersible versions available
- Domed top/loading cap option
- Verification Standard versions available
- Mounting base
- TEDS option (when used with TR150 handheld display)

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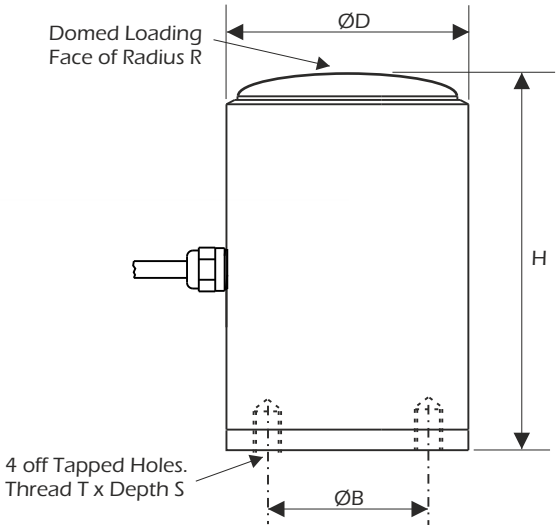
LCM SYSTEMS
Solutions in Load Cell Technology

TYPE: CPA

CPA Stainless Steel Compression Load Cell

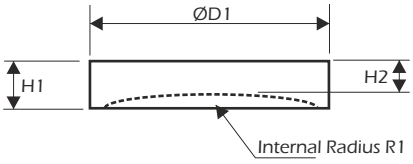


Dimensions



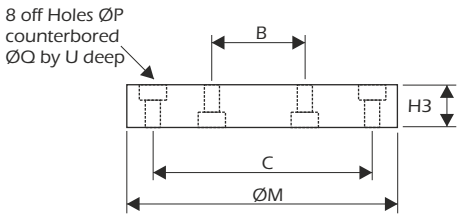
Rating (tonnes)	Part Number	H	ØD	T	S	ØB	Weight (kgs)	Resolution (tonnes)
2	CPA-2-D	41	31	M3	5	20	1	0.002
5	CPA-5-D	41	31	M3	5	20	1	0.005
10	CPA-10-D	75	50	M4	8	34	2.5	0.01
25	CPA-25-D	75	50	M4	8	34	2.5	0.02
50	CPA-50-D	103	88	M4	10	50	6.5	0.05
100	CPA-100-D	153	100	M5	12	70	11	0.1
200	CPA-200-D	180	125	M6	12	78	19	0.2
300	CPA-300-D	185	138	n/a	n/a	n/a	21	0.5
500	CPA-500-D	250	165	n/a	n/a	n/a	42	0.5
750	CPA-750-D	350	198	n/a	n/a	n/a	85	1
1000	CPA-1000-D	400	276	n/a	n/a	n/a	220	1

Spherical Load Cap (optional)



Rating (tonnes)	H1	H2	ØD1	R
2	10	8	31	30
5	10	8	31	30
10	15	13	60	76
25	15	13	60	76
50	20	16	88	159
100	30	28	101	151
200	40	29	125	102
300	45	38	165	182
500	50	40	165	260
750	80	70	198	360
1000	80	70	276	410

Mounting Base (optional)



Rating (tonnes)	ØB	ØC	H3	ØM	ØP	ØQ	U
2	20	40	10	50	3.2	6	4
5	20	40	10	50	3.2	6	4
10	34	64	10	80	4.5	10	6
25	34	64	10	80	4.5	10	6
50	50	100	10	120	4.5	10	6
100	70	120	10	140	5.5	11	7

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Due to continual product development, LCM Systems Ltd reserves the right to alter product specifications without prior notice.

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