

TYPE: ACP



ACP ATEX Stainless Steel Compression Load Cell

Description

The LCM range of ATEX/IECEX compression load cells are designed for general use and meet the requirements for use in Zone 1 and 2 hazardous areas. This allows them to be used in the hazardous area without the need for any additional certified interfaces, such as Zener Barriers.

There are many special options, including integral carry handles, mounting base, integral connectors and internal analogue/digital signal amplifiers. The standard product is constructed from stainless steel.

The ACP 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 ACP range can be supplied on its own or combined with our extensive range of instrumentation to provide a complete load monitoring system.

Features

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

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 - 50 tonne), 1400Ω (100 - 1000 tonne)
Insulation resistance	>500MΩ @ 500vdc
Operating temperature range	-20 to +55°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	10 metres 4-core screened PUR cable with heavy duty reinforced braid
Wiring connections	+ve supply - Red -ve supply - Blue +ve signal - Green -ve signal - Yellow
Certification	II 2 G EX d IIC T6 Gb IP6X Tamb -20°C to +55°C II 2 D Ex tb IIIC T85°C Db IP6X Tamb -20°C to +55°C
Certificate numbers	IECEX TRC 14.0011x, TRAC14ATEX0023x

Typical Applications

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

Available Options

- Special ranges and sizes available
- Displays and specially packaged electronics available on request
- Special electrical connections
- Integral signal conditioning
- Verification Standard versions available
- Mounting base
- External termination box (see AEN data sheet)



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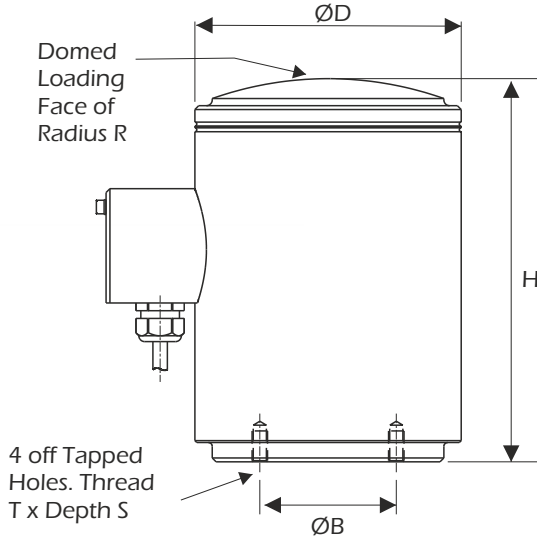
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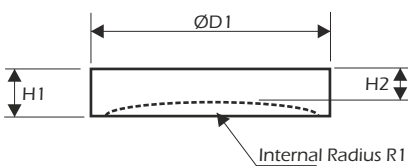


Dimensions



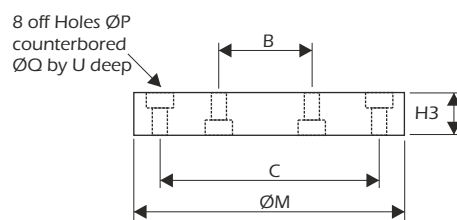
Rating (tonnes)	Part Number	H	ØD	T	S	ØB	Weight (kgs)	Resolution (tonnes)
2	ACP-2	41	31	M3	5	20	1	0.002
5	ACP-5	41	31	M3	5	20	1	0.005
10	ACP-10	75	50	M4	8	34	2.5	0.01
25	ACP-25	75	50	M4	8	34	2.5	0.02
50	ACP-50	103	88	M4	10	50	6.5	0.05
100	ACP-100	153	100	M5	12	70	11	0.1
200	ACP-200	180	125	M6	n/a	78	19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

(unapproved if printed)