

ICPA STAINLESS STEEL COMPRESSION LOAD CELL (U.S. & METRIC)

The Interface range of model ICPA 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. The standard product is constructed from stainless steel. The ICPA 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 ICPA range can be supplied on its own or combined with our extensive range of instrumentation to provide a complete load monitoring system.

FEATURES & BENEFITS

- Capacities from 2 to 1000 MT (4.4K to 2,204K lbf)
- Stainless steel construction
- Environmentally sealed to IP67
- Many special versions available

TYPICAL APPLICATIONS

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

STANDARD CONFIGURATION



ICPA (Shown)

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
- Handles for lifting and carrying
- TEDS (Transducer Electronic Data Sheet)

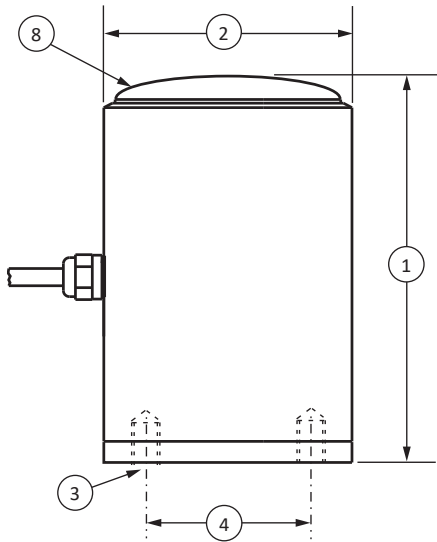
SPECIFICATIONS

Capacity	MT	2	5	10	25	50	100	200	300	500	750	1K
	lbf	4.4K	11K	22K	55K	110K	220K	440K	661K	1,102K	1,653K	2,204K
Proof load – %		150 of rated load										
Ultimate breaking load – %		> 300 of rated load										
Output – mV		1.5 at rated load (nominal)										
Nonlinearity – %		< ±0.25 of rated load (typically)										
Nonrepeatability – %		< ±0.05 of rated load										
Excitation voltage – VDC		10 recommended, 15 maximum										
Bridge resistance – Ω (MT)		700 (2-200), 1400 (300-1K)										
Insulation resistance – MΩ @ VDC		> 500 @ 500										
Operating temperature range – °C		-20 to +70										
Compensated temperature range – °C		-10 to +50										
Zero temperature coefficient – % / °C		< ±0.01 of rated load										
Span temperature coefficient – % / °C		< ±0.01 of rated load										
Environmental protection level		IP67										
Connection type - m		5, 4-conductor shielded cable										
Weight	kgs	1	1	2.5	2.5	6.5	11	19	21	42	85	220
	lbs	2.2	2.2	5.5	5.5	14.3	24.2	41.9	46.3	92.6	187.4	485.0
Resolution – MT		0.002	0.005	0.01	0.02	0.05	0.1	0.2	0.5	0.5	1	1
Wiring connections		+ve supply: Red, -ve supply: Blue, +ve signal: Green, -ve signal: Yellow										

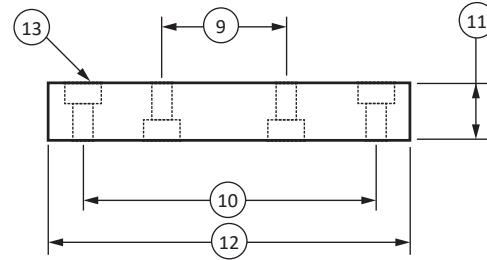
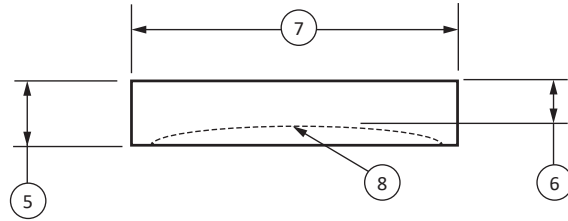
U.S. dimensions and capacities are provided for conversion only. Standard products have International System of Units (SI) capacities and dimensions.

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FRONT VIEW



SPHERICAL LOAD CAP (OPTIONAL)



MOUNTING BASE (OPTIONAL)

DIMENSIONS

See Drawing	CAPACITY							
	Metric (MT)	U.S. (lbf)	Metric (MT)	U.S. (lbf)	Metric (MT)	U.S. (lbf)	Metric (MT)	U.S. (lbf)
	mm	in	mm	in	mm	in	mm	in
(1)	41	1.61	75	2.95	103	4.05	153	6.02
(2)	Ø31	Ø1.22	Ø50	Ø1.97	Ø88	Ø3.46	Ø100	Ø3.94
(3)	4 x M3-5		4 x M4-8		4 x M4-10		4 x M5-12	
(4)	Ø20	Ø0.79	Ø34	Ø1.33	Ø50	Ø1.97	Ø70	Ø2.75
(5)	10	0.39	15	0.59	20	0.79	30	1.18
(6)	8	0.31	13	0.51	16	0.63	24	0.94
(7)	Ø31	Ø1.22	60	2.36	88	3.46	101	3.98
(8)	30	1.18	76	2.99	159	6.26	151	5.94
(9)	Ø20	Ø0.79	Ø34	Ø1.33	Ø50	Ø1.97	Ø70	Ø2.75
(10)	Ø40	Ø1.57	Ø64	Ø2.52	Ø100	Ø3.94	Ø120	Ø4.72
(11)	10	0.39	10	0.39	10	0.39	10	0.39
(12)	Ø50	Ø1.97	Ø80	Ø3.15	Ø120	Ø4.72	Ø140	Ø5.51
(13)	8 x Ø3.2 □ Ø6 ↓ 4	8 x Ø0.13 □ Ø0.24 ↓ 0.16	8 x Ø4.5 □ Ø10 ↓ 6	8 x Ø0.18 □ Ø0.39 ↓ 0.24	8 x Ø4.5 □ Ø10 ↓ 6	8 x Ø0.18 □ Ø0.39 ↓ 0.24	8 x Ø5.5 □ Ø11 ↓ 7	8 x Ø0.22 □ Ø0.43 ↓ 0.28

See Drawing	Metric (MT)	U.S. (lbf)	Metric (MT)	U.S. (lbf)	Metric (MT)	U.S. (lbf)	Metric (MT)	U.S. (lbf)	Metric (MT)	U.S. (lbf)
	200	440K	300	661K	500	1,102K	750	1,653K	1K	2,204K
	mm	in	mm	in	mm	in	mm	in	mm	in
(1)	180	7.09	185	7.28	250	9.84	350	13.78	400	15.75
(2)	Ø125	Ø4.92	Ø138	Ø5.43	Ø165	Ø6.50	Ø198	Ø7.80	Ø276	Ø10.87
(3)	4 x M6-12		n/a		n/a		n/a		n/a	
(4)	Ø78	Ø3.07	n/a		n/a		n/a		n/a	
(5)	40	1.57	45	1.77	50	1.97	80	3.15	80	3.15
(6)	29	1.14	38	1.50	40	1.57	70	2.75	70	2.75
(7)	125	4.92	165	6.50	165	6.50	198	7.80	276	10.87
(8)	100	3.94	182	7.17	260	10.24	360	14.17	410	16.14

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