



**APPLIED MEASUREMENTS LTD.**  
Transducer Specialists...

+44 (0) 118 981 7339

[info@appmeas.co.uk](mailto:info@appmeas.co.uk)

<https://appmeas.co.uk>

## CCDDT Column Type Compression Dome Top Load Cell

### **Key Features:**

- Capacities 2 tonnes to 1000 tonnes
- Sealed to IP67
- Output: 1.5mV/V at Rated Load
- Stainless Steel Robust Construction
- Submersible Version Available
- Can Be Supplied with Loading Cap & Mounting Base
- Optional Amplifier Output & Integral Connector
- Versions Available for use as Calibration Standards
- UKAS Traceable Calibration Certificate Included
- Special Versions Available
- 3 Year Warranty



*Column type compression load/force cell*

The CCDDT series of dome top column compression load cells are designed for general use and are suitable for use in laboratories or in permanent outdoor installations. The standard CCDDT comes with an IP67 protection rating with the option to increase it to IP68 for fully submersible applications ([please speak to sales](#)).

Special options available include: a loading cap, integral carry handles, mounting base, integral connectors and internal/digital signal amplifiers. The CCDDT can be modified to meet customer specific requirements to suit the exact application.

The 0.25% accuracy of the CCDDT accompanied by keen pricing makes it highly competitive for low and high volume users alike. If a higher accuracy is needed, please see our [CCDHA 0.1% higher accuracy version](#), designed for use as Reference Standards or in high capacity weighing applications.

Carry handles are normally supplied for units over 200t.

### **Options:**

- IP68 Submersible Versions
- Other Ranges & Sizes Available on Request
- Full Range of Mounting Options Inc.: Custom/ Standard Loading Caps, Custom Mounting Bases
- High Accuracy Versions Available
- Versions Available with Integral Signal Amplifiers
- Shunt Calibration
- Different Cable Lengths
- Internal Signal Amplifiers
- TEDS (Transducer Electronic Data Sheet)
- TEDS Allows Plug & Play with TEDS Enabled Instrumentation.
- USB Version (via DSC-USB)
- Vacuum Application Version
- Single or Multi-Channel PC-Based Monitoring & Data Logging System
- Wireless Version (via T24 instrumentation)

### **Applications:**

- Silo Weighing
- Pile Force Measurement
- Heavy Duty Jack Levelling Systems
- Press Calibration
- Centre of Gravity (CoG) Measurement Systems
- High Capacity Multi-Point Weighing Systems
- Laboratories
- Permanent Outdoor Installations
- Jack Force Measurement
- Hydraulic Press Calibration



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## Specification:

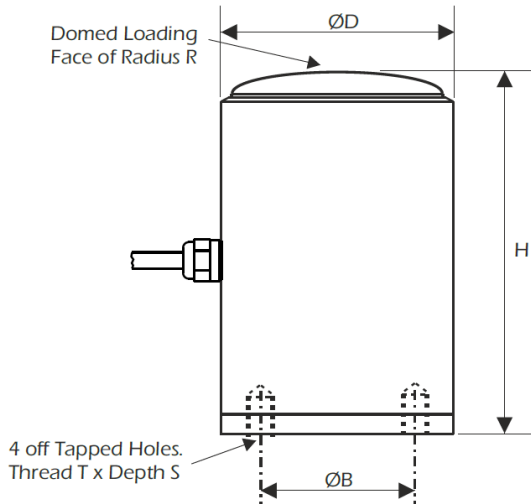
Rated Capacity (RC)	tonnes	0-2, 0-5, 0-10, 0-25, 0-50, 0-100, 0-200, 0-300, 0-500, 0-750, 0-1000	
Operating Modes	Compression Only		
Sensitivity (RO)	mV/V	1.5 nominal	
Zero Balance/Offset	±%/Rated Output	<1 typical	
Non-Linearity	±%/Rated Load	<0.25 typical	
Hysteresis	±%/Rated Output	<0.25 typical	
Non-Repeatability	±%/Rated Load	<0.05	
Temperature Effect on Zero	±%/Rated Load / °C	<0.01	
Temperature Effect on Span	±%/Rated Load/ °C	<0.01	
Bridge Resistance	Ohms	700 (2 - 50te)	1400 (100 - 1000te)
Insulation Resistance	Megohms @ 500Vdc	>500	
Excitation Voltage	Volts AC or DC	10 recommended (2-15 acceptable)	
Operating Temperature Range	°C	-20 to +70	
Compensated Temperature Range	°C	-10 to +50	
Storage Temperature Range	°C	-20 to +70	
Safe Overload	% of Rated Load	150	
Ultimate Overload	% of Rated Load	300	
Deflection @ Rated Capacity	mm	See dimension table	
IP Rating (Environmental Protection)		IP67	
Weight (excluding cable)		See dimension table	
Fatigue Life	Full-range cycles	10 <sup>8</sup> cycles typical (10 <sup>9</sup> cycles on fatigue-rated version)	
Cable Length (as standard)	metres	5	
Cable Type		4-core screen, PUR sheath,	
Construction Material		Stainless Steel	
Resolution		1 part in 250,000 (with appropriate instrumentation)	

## Wiring Diagram:

Wire	Designation
Red	+ve excitation
Blue	-ve excitation
Green	+ve signal
Yellow	-ve signal
Screen	To ground - not connected to load cell body

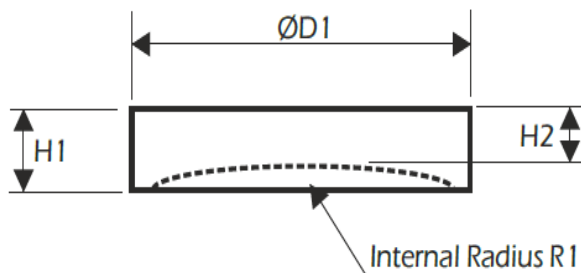


## Dimensions (mm):



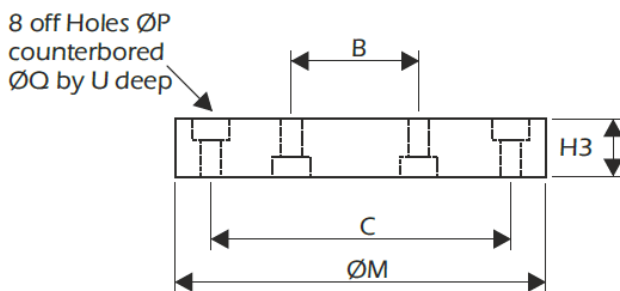
Capacity (t)	H	ØD	T	S	ØB	Weight (kg)	Resolution	Deflection at RC (mm, nominal)
0-2	41	31	M3	5	20	1	0.002	0.05
0-5	41	31	M3	5	20	1	0.005	0.05
0-10	75	50	M4	8	34	2.5	0.01	0.10
0-25	75	50	M4	8	34	2.5	0.02	0.10
0-50	103	88	M4	10	50	6.5	0.05	0.12
0-100	153	100	M5	12	70	11	0.1	0.18
0-200	180	125	M6	n/a	78	19	0.2	0.21
0-300	185	138	n/a	n/a	n/a	21	0.5	0.21
0-500	250	165	n/a	n/a	n/a	42	0.5	0.30
0-750	350	198	n/a	n/a	n/a	85	1	0.41
1000	400	276	n/a	n/a	n/a	220	1	0.46

## Spherical Load Cap (optional):



Capacity (t)	H1	H2	ØD1	R
0-2	10	8	31	30
0-5	10	8	31	30
0-10	15	13	60	76
0-25	15	13	60	76
0-50	20	16	88	159
0-100	30	28	101	151
0-200	40	29	125	102
0-300	45	38	165	182
0-500	50	40	165	260
0-750	80	70	198	360
0-1000	80	70	276	410

## Mounting Base (optional):



Capacity (t)	ØB	ØC	H3	ØM	ØP	ØQ	U
0-2	20	40	10	50	3.2	6	4
0-5	20	40	10	50	3.2	6	4
0-10	34	64	10	80	4.5	10	6
0-25	34	64	10	80	1.5	10	6
0-50	50	100	10	120	4.5	10	6
0-100	70	120	10	140	5.5	11	7



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## Ordering Codes:

Core Product	Capacity (inc Engineering Units)	Cable Length (m)	Specials Code	Example Result
CCDDT	2t	005	000	CCDDT-2t-005-000
CCDDT	5t	005	000	CCDDT-5t-005-000
CCDDT	10t	005	000	CCDDT-10t-005-000
CCDDT	25t	005	000	CCDDT-25t-005-000
CCDDT	50t	005	000	CCDDT-50t-005-000
CCDDT	100t	005	000	CCDDT-100t-005-000
CCDDT	200t	005	000	CCDDT-200t-005-000
CCDDT	300t	005	000	CCDDT-300t-005-000
CCDDT	500t	005	000	CCDDT-500t-005-000
CCDDT	1000t	005	000	CCDDT-1000t-005-000

## Associated Products:



[TR150 Handheld Indicator](#)



[T24 Wireless Telemetry Range](#)



[Intuitive4-L Panel-Mount Indicator](#)



[DSC-USB USB Signal Digitiser](#)



[ICA Miniature Strain Gauge Amplifier](#)



[SGA Signal Conditioner/Amplifier](#)