



APPLIED MEASUREMENTS LTD.
Transducer Specialists...

+44 (0) 118 981 7339

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<https://appmeas.co.uk>

CCDHA High Accuracy Column/Canister Load Cell

Key Features:

- Capacities 2 tonnes to 1000 tonnes
- $<\pm 0.1\%$ Accuracy
- Sealed to IP65
- Robust Construction
- Submersible Version Available
- Competitively Priced
- 3 Year Warranty

High accuracy column type compression load/force cell



The CCDHA 0.1% accuracy series of column compression load cells are designed for use as reference standards for the calibration of other load cells or in high capacity weighing applications, where precise measurement and high accuracy is of utmost performance. Their simple column design and sealed construction assures excellent resistance in the most arduous conditions.

These high accuracy load cells have the option of submersible versions and models with on-board signal conditioning. The CCDHA high accuracy load cells can be supplied with a BS EN ISO 376 calibration certificate issued by a UKAS laboratory if required.

Options:

- Fully Submersible IP67 or IP68 Rated
- Other Ranges Available on Request
- Equivalents to Other Manufacturers
- Full Range of Mounting Options Inc.: Custom/Standard Loading Caps, Custom Mounting Bases
- Calibration to BS EN ISO376
- 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:

- Reference Standards
- High Capacity Weighing 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



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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, 0-1000 |
| Operating Modes | Compression Only | |
| Sensitivity (RO) | mV/V | 2.0 nominal |
| Zero Balance/Offset | ±%/Rated Output | 2.0 |
| Non-Linearity | ±%/Rated Output | <0.10 |
| Hysteresis | ±%/Rated Output | <0.10 |
| Repeatability | ±%/Rated Output | <0.04 |
| Total Error | ±%/Rated Output | <0.10 |
| Zero Return | ±%/Applied Load | <0.040 |
| Temperature Effect on Zero | ±%/Applied Load / °C | 0.005 |
| Temperature Effect on Output | ±%/Applied Load/ °C | 0.005 |
| Bridge Resistance | Ohms (nominal) | 700 (50te and below), 1400 (100te and above) |
| Insulation Resistance | Megahms @ 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 Capacity | 150 |
| Ultimate Overload | % of Rated Capacity | 250 |
| Deflection @ Rated Capacity | | See dimensions table |
| IP Rating (Environmental Protection) | | IP65 (IP68 available) |
| Weight (exc cable) | | See dimension table |
| Fatigue Life | | 10 ⁸ cycles typical (10 ⁹ cycles on fatigue-rated version) |
| Cable length | metres | 4 |
| Cable type | | 4-core screened, PUR sheath, Ø5 nominal |
| Construction | | Stainless Steel |
| Electrical Connection | | Cable gland (25te and below) |
| | | 6-pin bayonet-lock connector inc. mating cable assembly (50te and above) |
| 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 |



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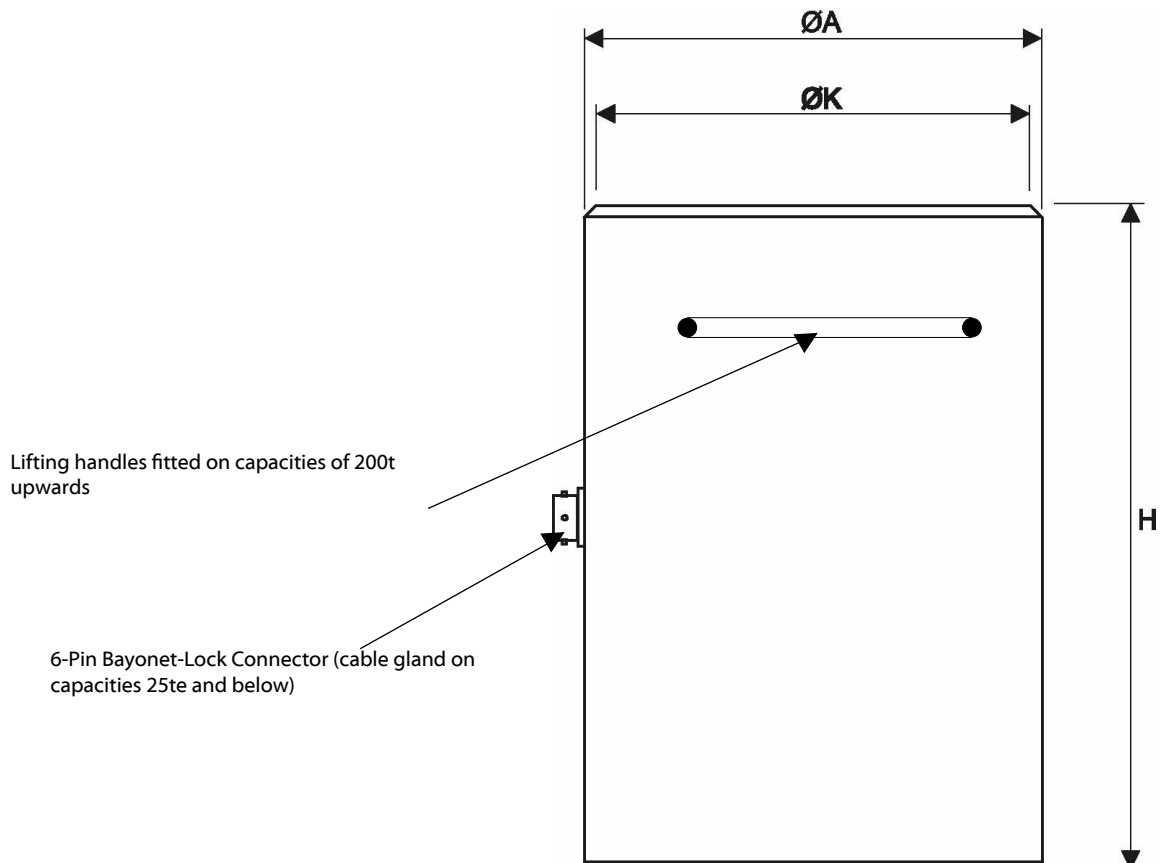
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Dimensions:

| Capacity (t) | H | ØA | ØK | Deflection @ Rated Capacity (nominal) | Weight (kg) |
|--------------|-----|-----|-----|---------------------------------------|-------------|
| 0-2 | 52 | 28 | 19 | 0.1 | 0.3 |
| 0-5 | 52 | 28 | 19 | 0.1 | 0.3 |
| 0-10 | 100 | 45 | 36 | 0.2 | 1.3 |
| 0-25 | 100 | 45 | 36 | 0.2 | 1.3 |
| 0-50 | 185 | 70 | 58 | 0.35 | 6.5 |
| 0-100 | 185 | 100 | 88 | 0.35 | 12 |
| 0-200 | 300 | 127 | 113 | 0.51 | 30 |
| 0-300 | 325 | 145 | 143 | 0.55 | 43 |
| 0-500 | 420 | 178 | 166 | 0.72 | 84 |
| 0-1000 | 595 | 300 | 285 | 1.01 | 330 |





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Ordering Codes:

| Core Product | Capacity (inc Engineering Units) | Cable Length (m) | Specials Code | Example Result |
|--------------|----------------------------------|------------------|---------------|---------------------|
| CCDHA | 2t | 004 | 000 | CCDHA-2t-004-000 |
| CCDHA | 5t | 004 | 000 | CCDHA-5t-004-000 |
| CCDHA | 10t | 004 | 000 | CCDHA-10t-004-000 |
| CCDHA | 25t | 004 | 000 | CCDHA-25t-004-000 |
| CCDHA | 50t | 004 | 000 | CCDHA-50t-004-000 |
| CCDHA | 100t | 004 | 000 | CCDHA-100t-004-000 |
| CCDHA | 200t | 004 | 000 | CCDHA-200t-004-000 |
| CCDHA | 300t | 004 | 000 | CCDHA-300t-004-000 |
| CCDHA | 500t | 004 | 000 | CCDHA-500t-004-000 |
| CCDHA | 1000t | 004 | 000 | CCDHA-1000t-004-000 |

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](#)