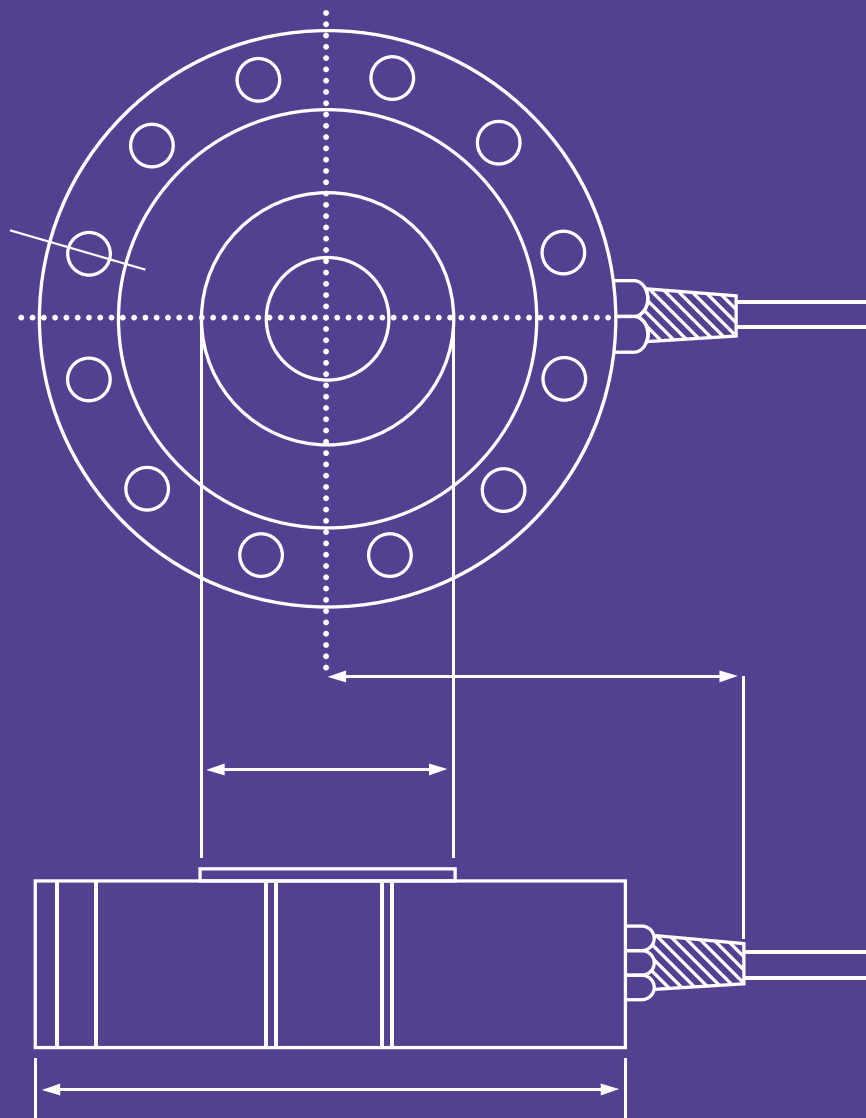


# LOAD CELLS



## ABOUT ADM

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FOR OVER 30 YEARS ADM INSTRUMENT ENGINEERING HAS BUILT A SOLID REPUTATION ACROSS AUSTRALIA AS A RELIABLE SUPPLIER OF PROCESS CONTROL, RECORDING AND AUTOMATION SOLUTIONS, INCLUDING LOAD CELLS AND INDUSTRIAL TRANSDUCERS.

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ADM's primary objective is always customer service, and after three decades of working closely with our suppliers, we know that we achieve this by carrying stock locally, providing application specific advice and offering complete solutions.

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# LOAD CELL BRANDS



THIS KOREAN MANUFACTURER IS BECOMING VERY POPULAR IN AUSTRALIA BECAUSE OF THEIR WIDE SELECTION OF QUALITY LOAD CELLS AND GENERAL WEIGHING SOLUTIONS, WHICH ARE VERY COST-EFFECTIVE.



BURSTER IS A GERMAN MANUFACTURER SPECIALISING IN THE DEVELOPMENT AND MANUFACTURING OF MINIATURE AND PRECISION PRODUCTS.

**Authorized  
Solution Provider**

**Eurotherm**

by **Schneider Electric**

ADM IS AN AUTHORISED SOLUTION PROVIDER FOR EURO THERM. OUR LOCAL STOCKS INCLUDE SIGNAL CONDITIONERS AND PANEL MOUNT DISPLAY CONTROLLERS, AS WELL AS DATALOGGERS.



NEW ZEALAND MANUFACTURER, WITH STRONG FOCUS ON LOAD CELLS FOR HEAVY LOADS, AS WELL AS INNOVATIVE MOUNTING SOLUTIONS.



RICE LAKE WEIGHING SYSTEMS IS A FAMILY-OWNED, ISO 9001 CERTIFIED CORPORATION, AND HAS BEEN MANUFACTURING AND DISTRIBUTING WEIGHT RELATED PRODUCTS AND SUPPLIES SINCE 1946. THEY OFFER A RANGE OF HIGHLY SPECIALISED WEIGHING SOLUTIONS FOR MANY INDUSTRIES SUCH AS AVIATION, MEDICAL, FOOD AND BEVERAGE, AND ENERGY PRODUCTION.



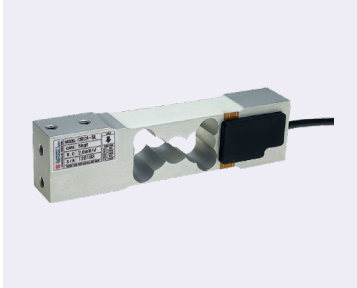
THESE THREE BRANDS NOW FORM PART OF THE VISHAY PRECISION GROUP OF TRANSDUCERS. ADM HAS ACCESS TO THESE BRANDS AND WE WILL OFFER THEM WHEN THEY PRESENT THE BEST FIT SOLUTION TO YOUR WEIGHING APPLICATION.

PLUS  
MANY OTHER  
BRANDS AVAILABLE

# LOAD CELLS

## SINGLE POINT

### CBCA



- 5kg to 100 kg
- Low Cost
- Anodized Aluminum

### CBCL



- 300g to 200kg
- Low Cost
- Anodized Aluminum (SS Option)

## BENDING BEAM

### CHBS



- 10kg to 500kg
- Low Profile
- Stainless Steel IP68

### PT8000



- 5kg to 500kg
- Wide Capacity Range
- Stainless Steel IP68

## SHEAR BEAM

### CBS/CBSA/CBSB



- 150kg to 10T
- Low Profile
- Nickel Plated Steel

### CBSM



- 100kg to 1T
- Slim Style, Low Cost
- Nickel Plated (SS Option)

### CBSS



- 250kg to 2T
- Stainless Steel IP67

### CBSU



- 500g to 2T
- Integral Mounting
- Nickel Plated Steel

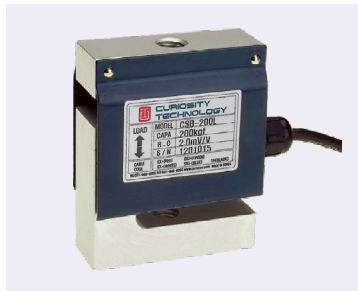
## S-TYPE

### LS300



- 500kg to 5T
- Stainless Steel

### CSB



- 20kg to 500kg
- Aluminium / Nickel Plated Steel

### CSBA



- 10kg to 5T
- Tension or compression
- Suitable for hanging scales
- Aluminium / Nickel Plated Steel

### RL20000



- 11kg to 9T
- Alloy Steel

# LOAD CELLS

## CANISTER

### PT7000



- 100kg to 50T
- Compression
- Stainless Steel IP68

### CLS/CLS-H/SLS



- 1T to 1200T
- Option: St.St; Explosion proof

### CHC



- 20T to 800T
- Robust design

## LOAD CELL APPLICATION: MEASURING LOADS ON BRIDGE SUPPORT JACKS

The rehabilitation and structural repair of bridges often requires the bridge to be jacked. This provides load transfer and bridge support whilst the work is being undertaken.

Of course, it goes without saying that both the safety of the traffic, which continues to use the bridge, and the personnel working on the bridge is of utmost importance.

Therefore, it is important to ensure that all jacks and jacking supports are straight, plumb, and have the capacity to support the section of the bridge being lifted.

ADM Instrument Engineering has recently helped a bridge maintenance, rehabilitation and construction company ensure that they can gather correct and accurate data for their engineering work, which requires bridges to be supported whilst undergoing maintenance.

Compression type load cells are used to monitor the force bearing down through the bridge support jacks, namely the CLS series from Curiotec. This type of load cell is sometimes referred to as a pancake load cell.

The Curiotec CLS load cells have an IP67 ingress protection rating, and a durable painted steel finish. This makes them perfect for use in harsh environment applications, such as bridge support jack monitoring.

But it's not just the load cells that ADM supplied. Our full range of load cell displays and transmitters, and power supplies enabled us to provide a complete solution.

The complete solution comprised of:

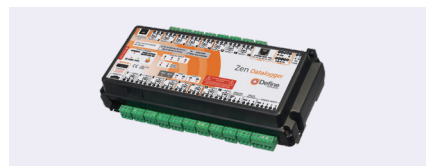
- Curiotec CLS-200T Load Cell



- NCT-IOUT transmitter/signal conditioner



- Define Instruments Zen data logger



- MEAN WELL HLG-60H-24 power supply



This solution is a great synergy of all of the components put together.

The Curiotec CLS-200T load cell needs an excitation voltage, which is provided by the NCT signal conditioner. At the same time this conditioner will convert the output signal from the load cell to the "standard" type of industrial signal of 4-20 mA, which is fed in to the Zen data logger for data storage and evaluation.

The beauty of the Zen data logger is that it is very quick and simple to set up.

The whole system is powered by a MEAN WELL HLG-60H-24 power supply. This power supply is fan-less and also has an IP67 ingress protection rating, which ensures high reliability. In fact, the MEAN WELL HLG series power supplies are backed by a 7-year warranty.

**If you are looking for a complete turnkey load cell solution from one supplier, then contact ADM Instrument Engineering on 1300 236 467.**

**Our team of experts is on hand to answer any questions you may have and put together the best solution for your project.**

# LOAD CELLS

## MINIATURE

### CSMN/ CSMN-MT



- 1kg to 2T
- Compression
- Anodised Aluminium & Stainless Steel

### CLMN



- 1kg to 100kg
- Sub-Miniature (20mm)
- Aluminium or Stainless Steel IP67

### CMNC



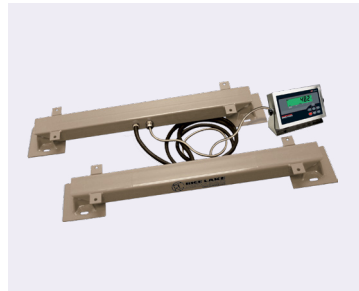
- 50kg to 20T
- Compression
- Stainless Steel

## SPECIAL PURPOSE

### TANK & HOPPER WEIGHING LOAD BARS



- Up to 50,000kgs
- 3 or 4 point combined outputs
- Stainless steel IP68
- Various anchoring options



- Livestock scale systems
- Output 2.5mV/V
- 0.2kgs to 5,000kgs
- Various lengths available

### SHACKLE LOAD CELLS



- Pin and Shackle setup
- 6,500kgs to 55,000kgs
- IP67 Stainless steel load cell
- Galvanised high load shackle

### TORQUE TRANSDUCERS

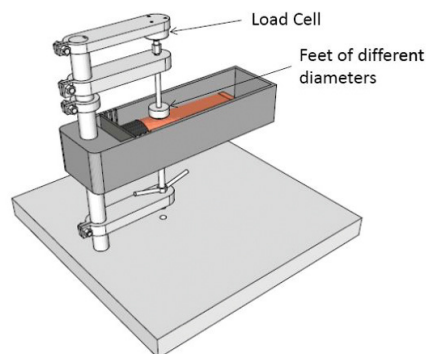


- 0.005nM to 5,000nM
- High linearity 0.1%
- High resolution
- Rotary and non-rotating types

# APPLICATION EXAMPLE – TUBE CRUSH TESTING

ADM Instrument Engineering is asked to provide solutions to a vast array of different test and measurement applications.

A recent example is when we were asked to provide a solution to test the effect that prolonged squeezing would have on the seal at the end of a tube of hand cream.



The customer wanted to exert a known force on the tube for 30 hours and see if the seal held. ADM designed a test rig, which incorporated a Curiosity Technology CSMN-MT load cell and a Eurotherm 32h8i/SG indicator.

Feet of differing diameter can be inserted in the jig to apply different deformations of the tube to determine whether a particular method of squeezing was more prevalent to cause failure. The amount force can be adjusted by means of a long handled wing nut to apply force quickly as well as maintain a set amount of force for extended periods of time.

The load cell measures the force being applied to the tube and provides a readout on the Eurotherm indicator. This can enable the customer to record the force being applied to the tube and determine what the effects are on the tube, with force being applied as an impulse or over several hours or days.

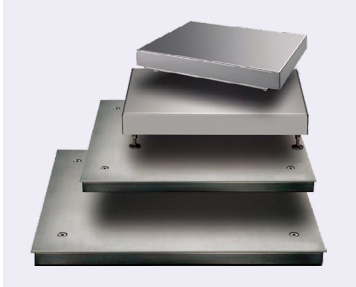
**If you have a specific test, or measurement requirement call ADM Instrument Engineering on 1300 236 467.**



# LOAD CELLS

## SCALES

### MOUNTING & BENCH



- Up to 600kgs
- Washdown versions
- Displays and poles available
- All applications

### MEDICAL SCALES



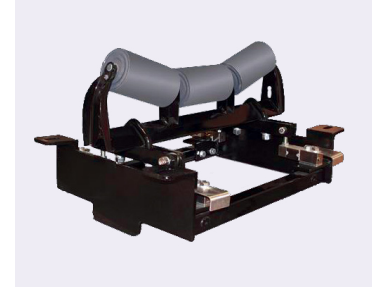
- Seat scales
- Wireless pad scales for beds & wheelchairs
- Baby weighers

### CRANE SCALES



- Up to 250,000kgs
- IP66 marine grade housing
- Easy to read display
- 200% safe overload

### BELT SCALES

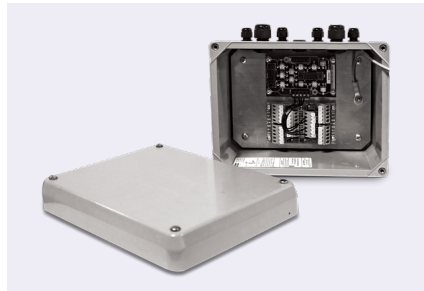


- For data analysis or dosing
- Measure up to 10,000 tons/hr
- Analogue outputs optional
- Alarm outputs

## SIGNAL CONDITIONERS AND SUMMING BOXES



- DIN Rail mount
- G448



- Junction Boxes
- Multi channel Summing



- Surface mount
- Transmitter



### DID YOU KNOW?

## ADM CAN SUPPLY MANY LOAD CELL OPTIONS AND ACCESSORIES

From load attachments, pivots and connections to alternative materials, accuracies and terminations. If you have a special requirement, let us know.

Load cells always have a safe overload rating. To ensure your measured results are accurate, it's important to know the maximum allowable load and not exceed it. Overload damage to a load cell is irreversible and difficult to detect.

# LOAD CELL DISPLAYS

## DISPLAYS



- Indicator/transmitter/controllers



- Datalogging display



- Remote mount displays



- DIN Mount display controller/re-transmitters



- Explosion proof display enclosure



- Large 200mm digit displays
- High contrast, sunlight readable

## PORTABLE INSTRUMENTS



- Handheld display
- Connection of any 4 wire loadcell



- Handheld load display with wireless transmission



- Lutron Torque Meter
- 15kg-cm



# APPLICATION EXAMPLE: MINIATURE LOAD CELLS

## HOW LOAD CELLS ENSURE THE PERFECT CUP OF COFFEE

One of the key factors that determines a good up of coffee is how well it has been tamped.

Tamping is the compacting of the ground coffee in the porta filter prior to brewing. How the barista tamps will determine the quality of the espresso. The coffee needs to be compacted firmly and uniformly, allowing the water to flow through and extract the best of the flavours.

Tamping is an acquired skill and it is very difficult to tamp the coffee with exactly the same force each time. Coffee making is becoming more like a science: customers are demanding consistency and delicious espresso every time, and voting with their feet.

Fortunately, technology has come to the rescue in the way of the new electronic intelligent coffee tamper- the Eazy V3 Press!

This revolutionary new tamper allows the barista to set the pressure used to tamp the coffee. The flavour of the coffee will vary depending on which pressure has been selected.

The Eazy V3 Press determines the pressure via a touch screen that is being applied by monitoring the current that is drawn by the motor. To ensure accuracy is maintained, a Curiotec CSMN miniature load cell is used to check the actual pressure applied to the coffee.

The Eazy V3 Press ensures that exactly the same pressure is applied each time, allowing the barista to maintain a consistent flavour across many cups of coffee brewed, with the help of Curiotec products.

This is just one of a wide variety of force measurement solutions that ADM has been able to offer.

**If you would like help in finding a solution to a force measurement problem, then call ADM on 1300 236 467. A member of our expert team will gladly answer any questions you may have.**

**Use the address below if you would prefer to send us an email: [sales@admtech.com.au](mailto:sales@admtech.com.au)**



**DID YOU KNOW?  
COMBINING OUR EXPERIENCE WITH AN EXTENSIVE PRODUCT RANGE, WE CAN BUILD CUSTOMISED 'PLUG & PLAY' TEST AND MEASUREMENT SYSTEMS.**

The complexity is dictated by your needs, from a simple sensor and display setup to logging and downloading data from numerous devices.

Whatever your needs, call and discuss them with our Technical Support team.

# LUTRON HAND HELD FORCE GAUGES

## FG-5020



- Handheld display, for tension & compression measurement up to 20kg

## FG-5100



- Force gauge with 100kg with eye-hooks

## FG-5005



- Handheld display, for tension & compression measurement up to 5kg

## FG TEST STAND



- Force Gauge Test Stand
- Laboratory Test Apparatus

## CAN I TRUST A LUTRON TEST & MEASUREMENT INSTRUMENT?

### THE SIMPLE ANSWER TO THIS QUESTION IS YES.

Test Measurement Australia specialises in offering accurate and reliable test and measurement equipment at very affordable prices. You will see that Lutron is a Taiwanese brand that we consistently feature across all our product ranges and there is a very good reason for this.

### COMPANY HISTORY

Lutron Electronic Enterprise Co., Ltd. was established in 1976 and has been manufacturing Test & Measurement Instruments in Taiwan for more than 40 years. Lutron employs about 120 staff, and their factory building covers an area of approximately 6,410 square metres. Exporting to over 80 countries around the world, Lutron has established a global reputation for producing highly accurate and reliable test & measurement instrumentation at a low cost. Lutron is an ISO9001 certified manufacturer and takes pride in its R&D capability. Lutron also holds patents on various innovations and technologies, which the company has developed.

### WHY ARE LUTRON PRODUCTS SO AFFORDABLE?

It's no fluke that Lutron's test and measurement instruments are much more affordable than other well-known brands for a couple of reasons. First, most Lutron test and measurement devices will only have the functions that you need. For example, we had a customer who was using a \$10,000 device for carrying out voltage and current calibrations on industrial equipment. The device he was using was highly specified and had a whole host of functions built in that the customer never used. The customer was always afraid of dropping this device and breaking it. So, he thought he would try the Lutron CC-421 calibrator and hasn't looked back since. He loves it! It cost him less than \$200 and can do all the calibration tasks he needs. What's more, because it only has the functions he needs he is not spending so much time scrolling through multiple menus to select the required function. He now just flicks a switch on the device and starts. Of course, if he does accidentally damage the unit he knows a replacement is not going to make a dent in his budget. He can now relax when he is out on site, knowing he is not likely to write off a \$10,000 device at any moment. Secondly, Lutron has invested heavily in the latest automated production methods and selects the latest electronic components available. This keeps the number of components in the instrument to a minimum and keeps production costs low, yet you still enjoy a high level of accuracy and reliability. The savings are passed on to you as the consumer.

Of course, the only real test is trying it for yourself.



## APPLICATION EXAMPLE: HAND HELD FORCE GAUGES

In Australia regulations exist which stipulate the maximum force required to open a door. This is particularly important for improving accessibility for wheel chair users, older persons and anyone with an injury.

When the standard was drafted in 2009 it stated the maximum forces required to open as below:

For doors other than fire doors and smoke doors where a door closer is fitted, the force required to operate the door shall not exceed the following:

- (i) To initially open the door.....20 N.
- (ii) To swing the door .....20 N.
- (iii) To hold the door open between 60° & 90° ...20 N.



### The Lutron FG-5020 force gauge is used in Australia to test the force required to open a door.

The FG-5020 has a measuring range of up to 10 N, which is ideal for this application, as ideally you wouldn't want the door to require the maximum force to open it. It also has a 15 N overload capacity, so it will give readings of up to 30 N, so it will give readings to show if a door requires more force than is permissible to open it.

The peak hold function freezes the highest reading on the display until you are ready to move on. The LCD display also has a 'reverse' view function, so it can be easily read regardless of which way round the device is being held or used. Data logging software and a USB cable are available as optional extras, to give you this additional functionality if required. Lutron Electronic Enterprise Co., Ltd. was established in 1976 and has been manufacturing Test & Measurement Instruments for more than 40 years and they are remarkably affordable.

This is because most Lutron test and measurement devices will only have the functions that you need. Other devices will very like have many features that you may never use, but you still pay for.

## OUR SUPPLIERS

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MEAN WELL



POWER SOURCE



EUROTHERM



THERMO FISHER  
SCIENTIFIC



PCA ENCODERS



HYTRONIK



ESI



UNIMEASURE



MIDORI



ASHLAND



BURSTER



EYC



LUTRON



MONITRAN



PT GLOBAL



RDP



RICE LAKE



SARAD



SEIKA



CURIOTEC

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