



KUNAL ENTERPRISES

B-10, Dew Dropt Villa, 673/7/1, Dilvewadi,
Pune - 411037 PH: 8087083815
Mobile No. 9766644935
www.kunal-enterprises.com



Date: 31-12-2021

To
Jivandhara Farmer Producer Company
At post. Padavad, Tal. Shindkheda, Dist., Dhule

Kind Attn: Mr. Nitin Nikam

Subject: Offer for pit-less / pit-type electronic weighbridge of Capacity- 50T, Platform Size- 10m x 3m

Dear Sir,

This is reference to our telephonic discussion regarding electronic weighbridge. Thanks for enquiry given to us. We are pleased to submit our competitive offer for as follows-

Scope of supply/work

1. MS Platform duly painted
2. Load cells with mountings- 6 Nos. Precision Transducer Make
3. Junction box & 4 core shielded cables
4. Intelligent terminal* with 2 lakh memory & Pen drive port for data collection
5. Jumbo display (2'') for vehicle driver
6. Civil drawing of foundation work
7. Transport up to site
8. Supervision of erection & commissioning
9. Govt. stamping

Note: Computer is not required with intelligent terminal as it can give print outs Directly when printer is connected to it.

Customer's scope of supply/work

1. Printer- Rs. 8,000
2. Civil foundation & weigh-cabin with 1-phase electrical supply- Rs. 200,000
3. Separate Earthing for load cells as well as cabin- 10' x 10' cabin Rs. 150,000
4. Platform unloading, hydra, unskilled labor & 1-phase welding for erection- Rs. 10,000
5. Reference weights for calibration, if required- Rs. 15,000
6. Lodging & Boarding of our engineer- Rs. 5,000

Note: As per weights & measure rule, customer should have 1 ton standard weights in his premises. Therefore, you may be required to purchase 1 ton weights at the time of stamping if insisted by the inspector. Rs. 65,000

Warranty: 12 months from the date of commissioning or 15 months from the date of dispatch whichever is earlier against any manufacturing defects.

Contd..2



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Price:

Item	Cost (Rs.)
Basic price	620,000/-
Transport	Included
Installation	Included
Stamping	Included
GST @ 18%	111,600/-
Total	731,600

Delivery: 4-5 weeks from date of purchase order along with advanced.

Payment terms:

1. 50% advance with purchase order
2. 45% plus full GST before dispatch (after inspection at supplier's works)
3. Balance 5% within 30 days of successful commissioning & stamping

Validity: 15 days

Please feel free to contact us if you have any queries.

Thanking You,

Yours faithfully,
For Kunal Enterprises

Nishigandha Chaudhari
Sales Engineer
(8087708301)



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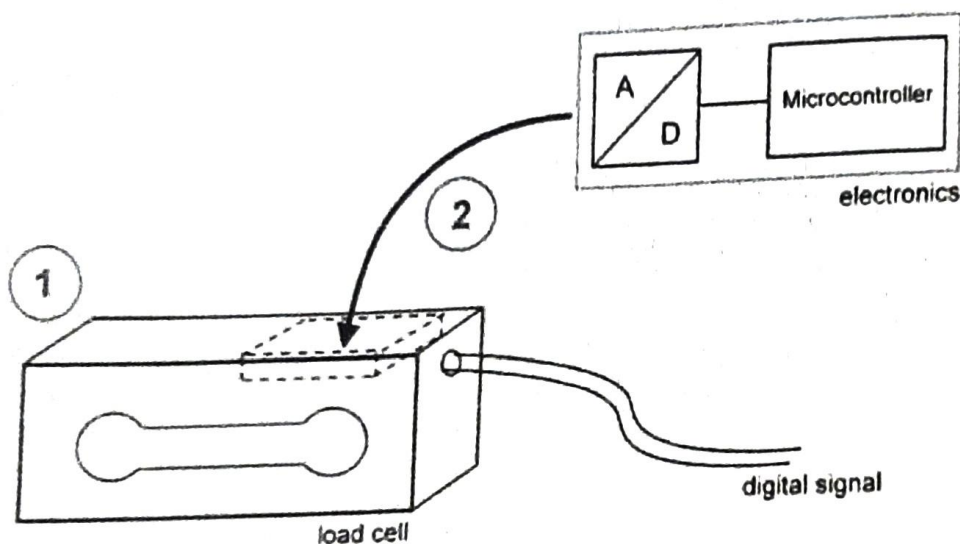
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What is a digital load cell & how does it work?

An analog load cell consists of four strain gauges arranged in a wheat stone bridge configuration. When load cell is given a fixed DC excitation voltage, these strain gauges provide mili volt signal proportional to the load applied.

A digital load cell basically consists of an analog load cell itself combined with the electronics which is a converter and a microcontroller.



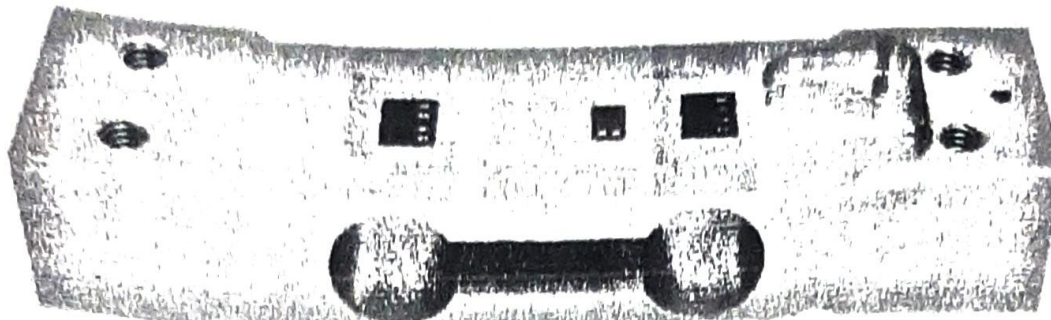
The signal generated by the strain gages on the load cell is given to the electronics. Here an A/D converter digitizes the analog signal and feeds the microcontroller or DSP (digital signal processor) with the A/D raw count. The controller processes then the raw values, corrects them in terms of linearization, filtering, hysteresis, etc. and finally puts out the digital signal.

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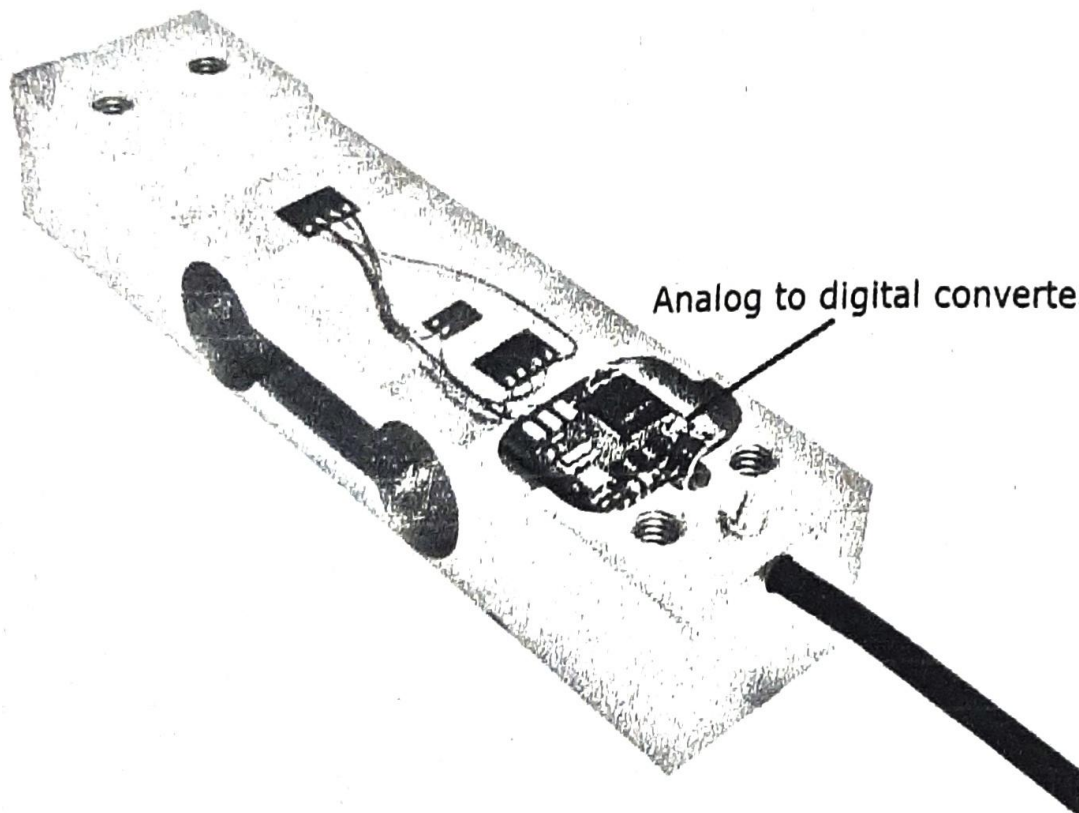
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Regular analog load cell without wiring

CRISOL



Analog to digital converter

Complete Digital Loadcell

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ADVANTAGES OF DIGITAL LOADCELLS

Main problems with the weighbridge using analog loadcells are

1. Variation in weight at different points on the platform
2. Difference in weight as vehicle is moved from left to right & right to left
3. Poor linearity & large quantity of weights required for calibration
4. Noise interference

All the above problems have been significantly reduced in digital loadcells.

Corner problems

The procedure for making weight uniform at all the loadcells is called cornering.

1. In analog loadcells, we keep 1 or 2 ton standard weight on a loadcell, note the reading & correct with trim pot if any deviation from the actual weight.
2. Then the standard weight is removed & we check for zero on display.
3. Repeat step 1 unless accurate weight is achieved. It takes normally 2-3 attempts & approx one hour to set accurate weight.

In digital loadcell, we keep standard weight on a loadcell & can save its value in the loadcell calibration data. This saves a lot of time. Also, better accuracy is achieved in digital loadcells.

Calibration weights

Digital loadcells are factory calibrated. Therefore, weights for calibration are not required at site.

Linearity

If required, it can be calibrated with even 1 ton weight. Linearity is excellent because it is calibrated in counts. Total 200,000 counts are available for full capacity of 20,000 kg. This means we can have resolution of $20,000,000/200,000$ g i.e. 100 g.

Since output counts are more, better approximation & thereby better linearity is achieved.

Fault diagnosis: If one loadcell becomes faulty, it can be instantly diagnosed.

Effect of noise: Since signal is in digital form, effect of noise interference is less.



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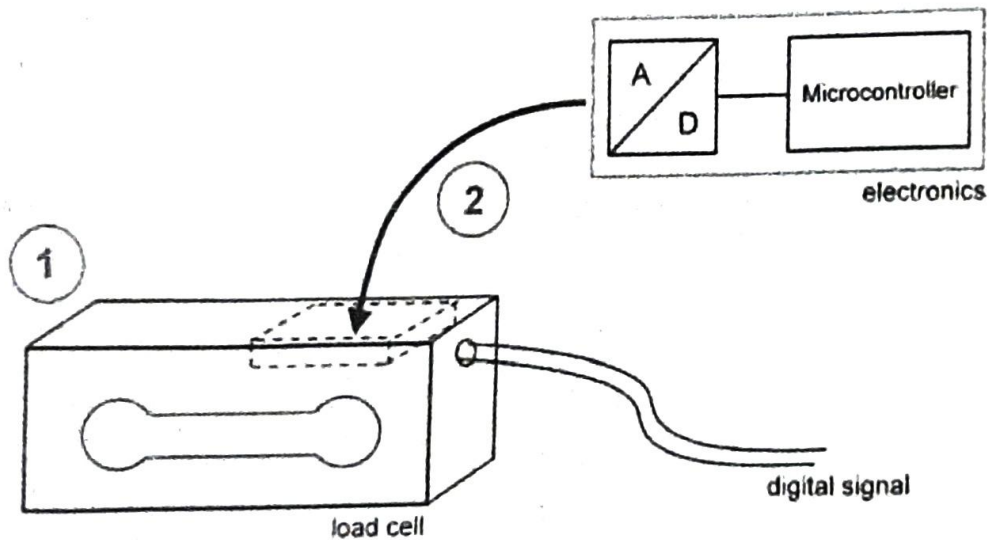
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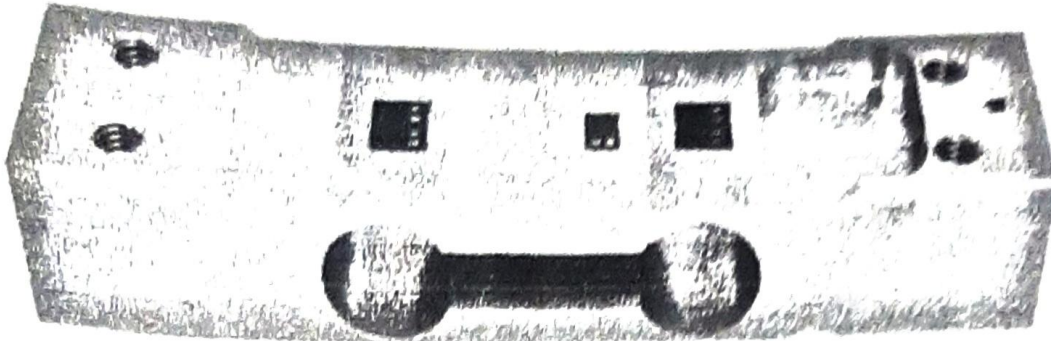


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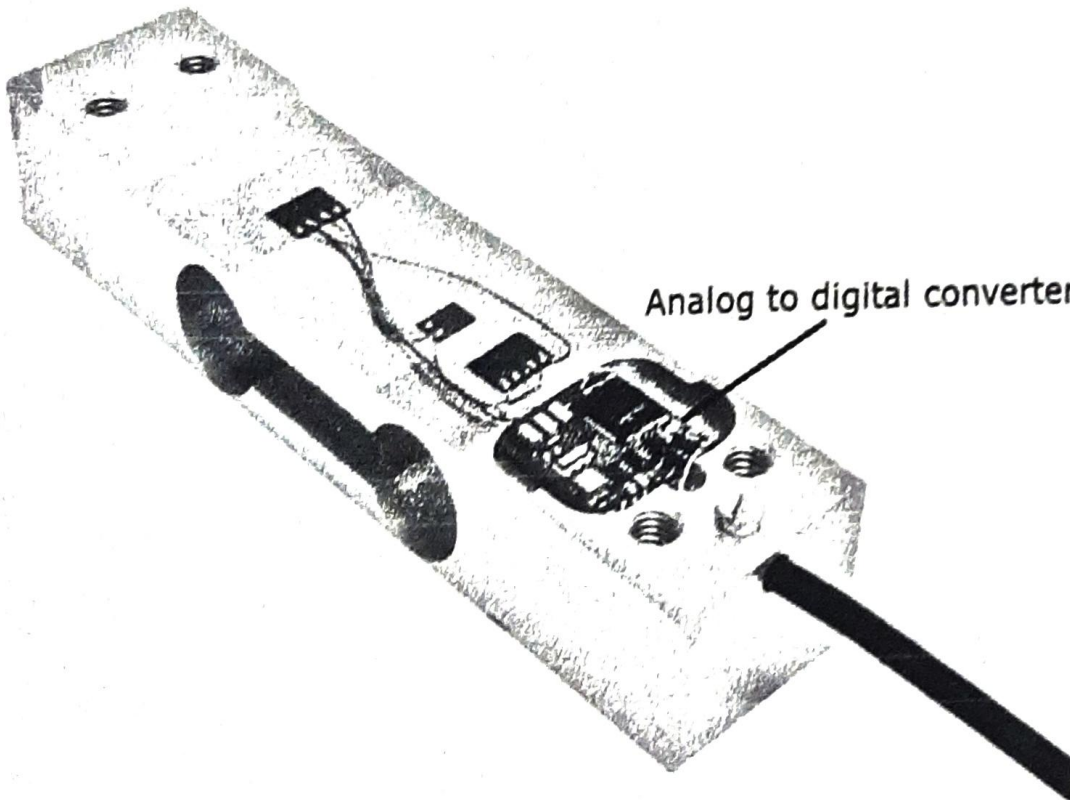
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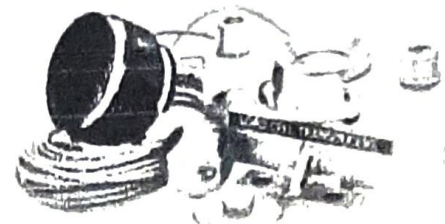
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TECHNICAL SPECIFICATIONS

Loadcell

- Make- Precision Transducers
- Type- Digital, double ended shear beam withball & cup assembly
- Capacity- 30 t each
- No. of loadcells- 6/8
- **Inbuilt surge voltage protection**
- Shock proof. Safe overload- 150 %
- Ultimate over load- 300 %
- **Hermetically sealed, IP 68 protection**
- No constrainers/check rods required
- Excellent self-restoration of load point
- Lifetime repairable



Intelligent Terminal

- ✓ Advanced micro- controller based technology
- ✓ Inbuilt line filter
- ✓ Auto zero maintenance
- ✓ 13 mm red LED main display, 50 mm parallel display
- ✓ **2 line 20-character LCD display with back light**
- ✓ Memory of 2 lakh transactions
- ✓ Pen drive port for data collection
- ✓ Rs.232-C port for computer interface
- ✓ Operating voltage: 230 V, 50 Hz, 1-Ø AC



Junction Box

- Environmental Protection- IP65
- Material of construction- ABS plastic
- Double compression glands
- Inbuilt surge voltage protection

Steel Platform

- Material of construction- mild steel as per IS:2062, Grade E250
- Make- Mahamaya/Vandana Ispat/CG/Monnet
- Material test certificate available
- Painting- structure shall be painted with 1 coat of primer & 2 coats of enamel paint