Gedge Systems

Checkweighers
Counters
Indicators
Instrument protection
Load cells <
Onboard weighing
Process weighing
Recipe system
Scales
Silo weighing
Software
Test masses
Weighbridges

GK Titan Load Cell

> 4 directional side force resistance
> Precision industrial weighing applications
> Overload protection capacity
> NMI trade approved

IP68

NMI Trade Approved

Australian Standards

Ideal uses

Weighbridges | Rail weighing
Hoppers/tanks | Heavy duty weighing systems
Silos | Weighbridge & Silo conversions

STRONG NAME.
STRONG NATURE.

Top features of the GK Titan load cell

- **Strong & durable** - industrial strength design
- Tested in harsh conditions: works indoor or outdoor
- Industrial precision weighing applications
- Simple to install
- IP68 water proof seal option available
- Ideal load cell for conversions: extra low profile fits into any existing application
- Ideal for application requiring protection from 4 directional side forces
- Legal-for-trade in new & retrofit installations
- Incredible 10 year guarantee with a maintenance agreement

Gedge Systems

Phone: (+61 3) 9791 8944 Web: www.gedgesystems.com.au Email: sales@gedgesystems.com.au

GK Titan load cell in use

Major industries rely on the GK Titan load cell.

Ideal uses

- Large capacity bins
- Rail weighbridges
- Silos
- Weighbridges
- Hostile environments
- Large capacity filling & level control
- Used where industrial construction is essential: e.g. hopper, tank & silo weighing in hostile environments
- Conversions

GK Titan used on a silo

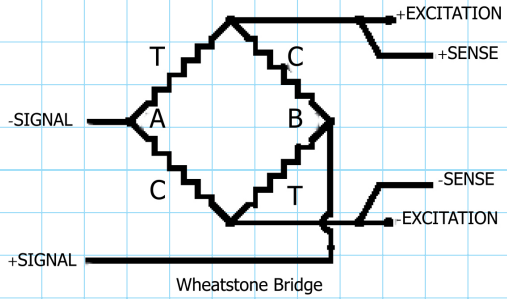
GK Titan used on Freight-Weigh weighbridge

Gedge Systems

Phone: (+61 3) 9791 8944 Web: www.gedgesystems.com.au Email: sales@gedgesystems.com.au

How a load cell works

GK Titan



A load cell is a force sensor which receives a voltage (excitation) from a regulated power source (usually a digital indicator or signal conditioner) and sends back a low voltage signal (signal) when force is applied. The load cell signal is converted to a visual or numeric value by a "digital indicator". When there is no load on the cell the two signal lines are at equal voltage. As a load is applied to the cell, the voltage on one signal line increases very slightly and the voltage on the other signal line decreases very slightly. The difference in voltage between the two signals is read by the indicator in mV.

The load cell core is usually made of good quality steel or aluminium. The circuit consists of precision foil resistors called strain gauges connected in a configuration called a Wheatstone bridge. The gauges are bonded very securely to the metal where they sense very small deflections in the metal caused by the load being applied to the cell. Because the signal levels are very small, the circuit must be protected from all outside influences such as moisture, physical damage or electrical interference.

What makes our load cells the best

Load cells may be damaged by (shock) overloading, lightning strikes or heavy surges in current, chemical or moisture ingress, mishandling (dropping, lifting on cable, etc.), vibration, seismic events or internal component malfunction. Our load cells are 100% tested to guarantee load & thermal specifications met or exceeded. To protect load cells from being damaged by these events, we include the following measures during the manufacturing process.

- Our load cells are properly sealed against the environment.
- We use quality materials such as glands, steel, cabling and strain gauges.
- All load cells are assembled and tested by expert technicians.
- They are built in sterile laboratory conditions to ensure highest quality standards are achieved

Gedge Systems

Phone: (+61 3) 9791 8944 Web: www.gedgesystems.com.au Email: sales@gedgesystems.com.au

Full Specifications

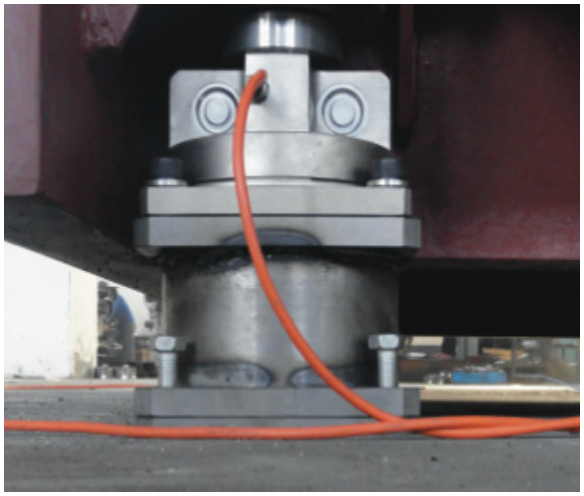
Rated capacity	30,000kg, 50,000kg (Other standard sizes available)
Certification	NMI trade approved - NMI S563
Minimum dead load	250kg, 500kg
Output	2 mV/V
Nonlinearity	< ± 0.02% of full scale
Hysteresis	< ± 0.02% of full scale
Repeatability	< ± 0.01% of full scale
Creep (1 hour)	< ± 0.02% of full scale
Zero balance	< 1.00% of full scale
Temperature effect on zero	< 20 PPM/ºC of applied load
Temperature effect on output	< 20 PPM/ºC of applied load
Input resistance (Ω)	760 ± 10 Ohms
Output resistance (Ω)	700 ± 5 Ohms
Insulation resistance	≥ 5000 MOhms
Compensated temperature range	- 10 ºC to +50 ºC
Operating temperature range	- 20 ºC to +60 ºC
Safe overload	120% of capacity
Recommended excitation	10 VDC/AC
Maximum excitation	20 VDC/AC
Cable	Ø5.4mm x 15m

Order codes

Code	Capacity
GKTITAN 30000	30,000kg
GKTITAN 50000	50,000kg

Cable color codes

Input / Excitation	Red (+)	Black (-)
Output / Signal	Green (+)	White (-)
Screen / Shield	Yellow	

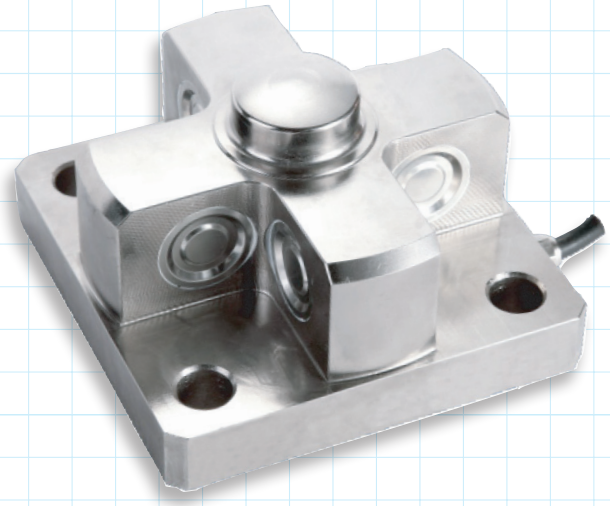


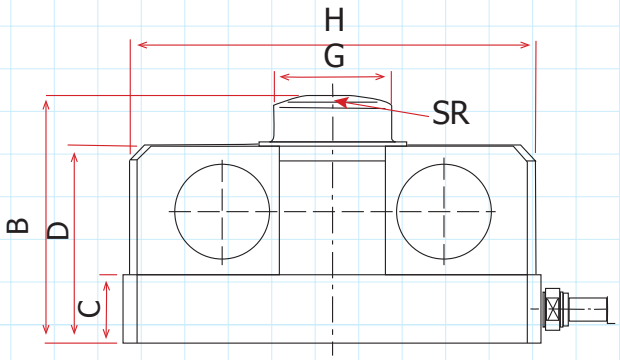
Shown with conversion kit to retro-fit other brand load cell

Gedge Systems

Phone: (+61 3) 9791 8944 Web: www.gedgesystems.com.au Email: sales@gedgesystems.com.au

Dimensions | GK Titan load cell

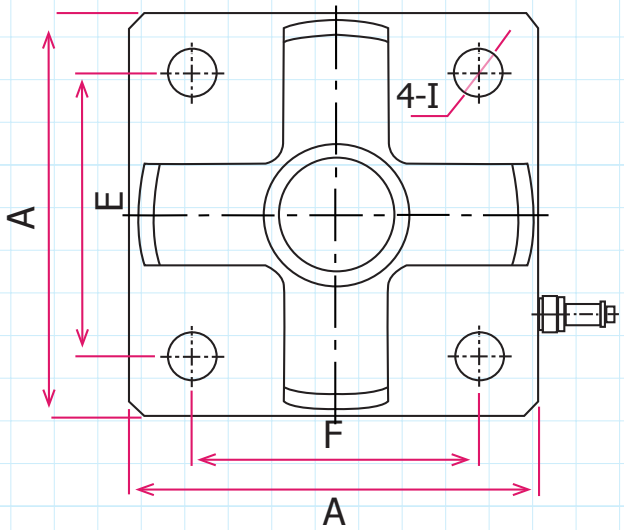




Side dimensions

TABLE FOR DIMENSIONS & CAPACITY

	10-40t	50t	100t	200t
DIMN	mm	mm	mm	mm
A	140	156	200	230
B	84	93	105	140
C	23	23	27	30
D	67	70	80	115
E	100	130	160	180
F	100	130	160	180
G	40	50	63	80
H	138	154	196	226
I	13	13	17	22
SR	76	100	300	500



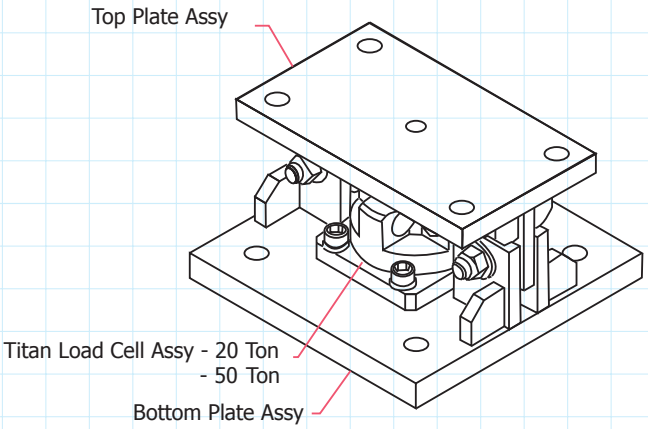
Top & bottom dimensions

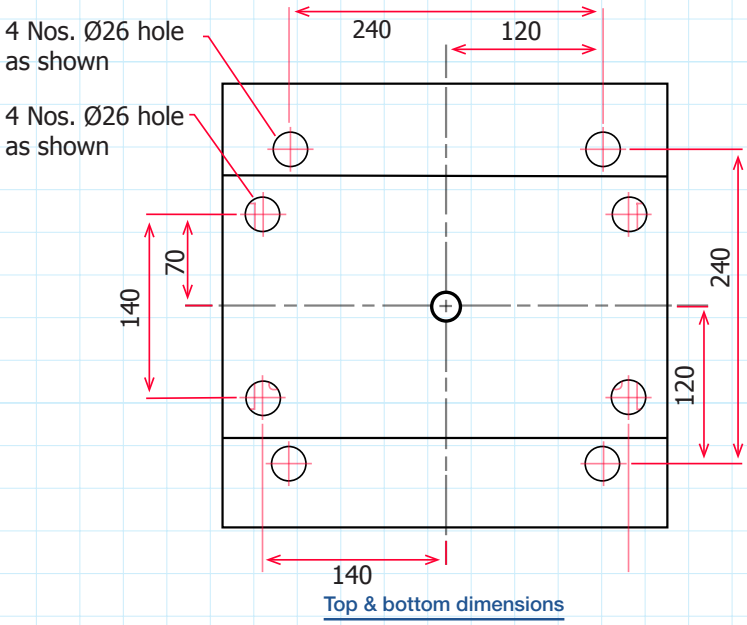
Gedge Systems

Phone: (+61 3) 9791 8944 Web: www.gedgesystems.com.au Email: sales@gedgesystems.com.au

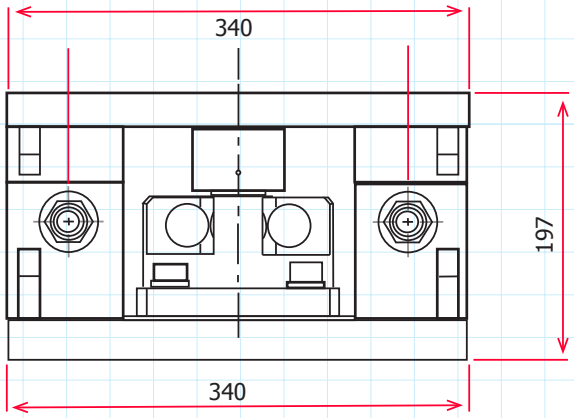
Dimensions | Silo Constraint System for GK Titan Load Cell

25T/50T Assemblies

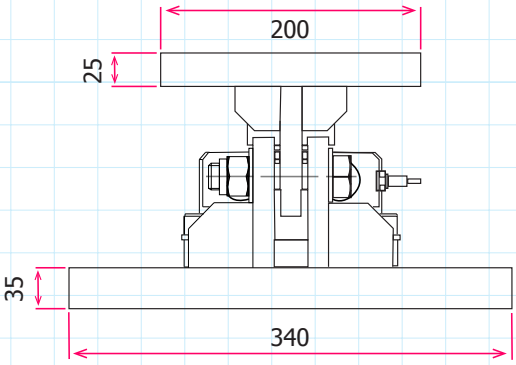




Top & bottom dimensions



Side dimensions

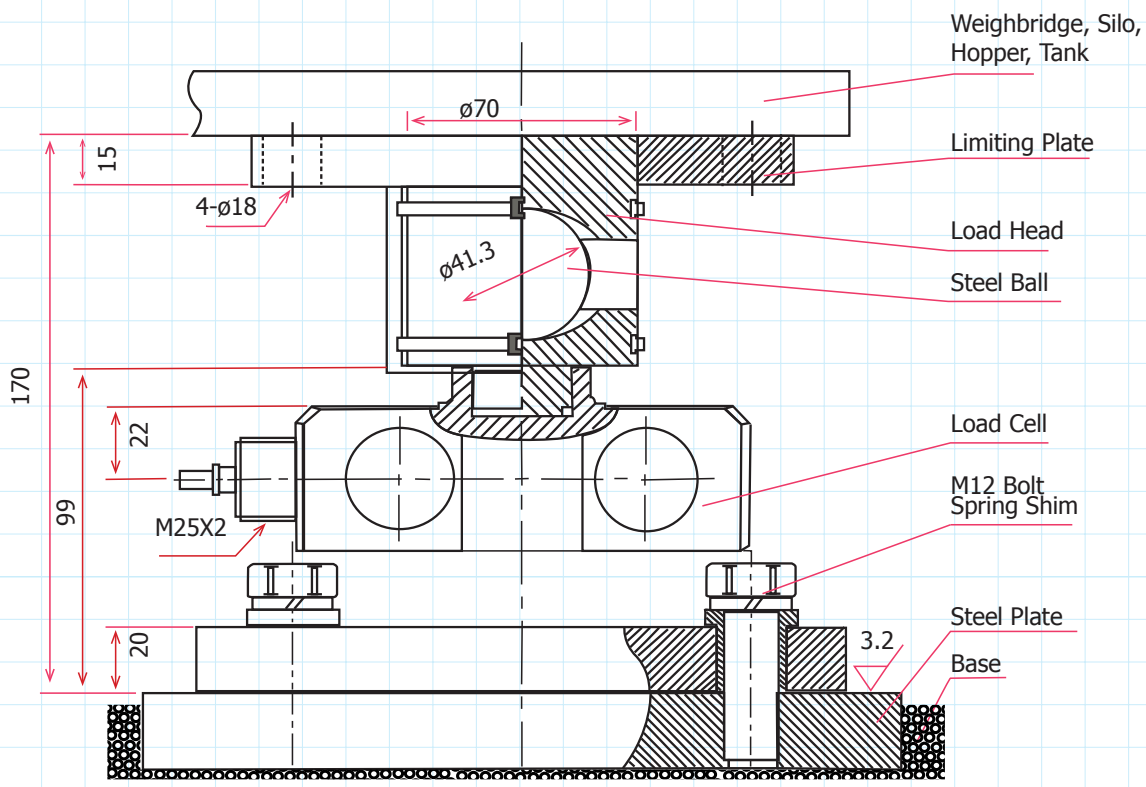


End dimensions

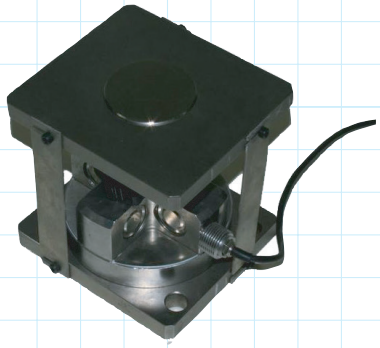
Gedge Systems

Phone: (+61 3) 9791 8944 Web: www.gedgesystems.com.au Email: sales@gedgesystems.com.au

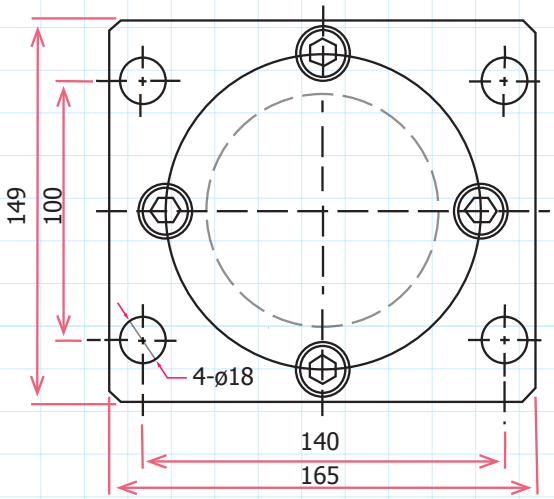
Dimensions | Alternate W'bridge Constraint System for GK Titan



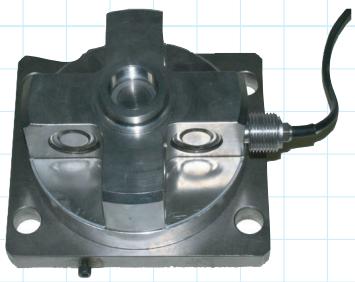
Side View



Titan load cell with travel bracket



Top View



Titan load cell without top plate

Gedge Systems

Phone: (+61 3) 9791 8944 Web: www.gedgesystems.com.au Email: sales@gedgesystems.com.au

For greater weighing accuracy, go Gedge

Gedge: GS600 Digital Advanced Indicator

For single deck systems through to multi-deck and axle applications.

- Drives up to 8 load cells
- Easy-to-read large 6-digit LCD display, 30mm height supported with auto-backlight
- Selectable weight unit: Kg, g, lb, pcs, %
- Auto-zero tracking and digit intensity filtering in compliance with various operating conditions
- One-touch and three-point linear calibration functions to maintain accuracy
- Auto-weighing calibration in different applicable settings
- Tare and pre-tare functions
- Options: dual way RS232, 2-relay interfaces, connecting computer, compact printer, thermal printer

Gedge Systems

Phone: (+61 3) 9791 8944 Web: www.gedgesystems.com.au Email: sales@gedgesystems.com.au

Gedge Systems are lightning protected

No weighing systems can withstand direct hits from lightning. But to help, *Gedge Systems* use special blow out fuses to protect your investment:

- If the voltage exceeds an upper limit, the circuit opens.
- This strong voltage goes into the ground instead of through your weighing system.
- Your weighing system is by-passed, preventing it from being damaged.

Our system has over 25 years of success and our weighing systems are used all over the world, in a wide range of environments.

Gedge Systems

Phone: (+61 3) 9791 8944 Web: www.gedgesystems.com.au Email: sales@gedgesystems.com.au

The Gedge Story

The *Gedge Systems* head office is situated in Melbourne Australia, near the bustling area of Dandenong. *Gedge* was established when founder **Brian Gedge** discovered there was a large hole in the local and global market place for quality instrumentation and weighing componentry. Brian's background was strongly rooted in the fundamental technology on which all weighing is based - applied stress analysis and the application of bonded resistive strain gauge technology, both in experimental stress analysis and the manufacture of force and weight transducers – otherwise known as load cells.

With this technology in hand and partnering with a team of electronic, electrical and mechanical engineers in 1978, the company was trading with a newly developed load cell and instrumentation product line. Over the years with new models and continued research & development, the *Gedge* brand has grown to be a company recognised internationally.

> *Gedge Systems* is Australia's longest established manufacturer of high quality, high accuracy & high reliability industrial weighing electronics.

Gedge Systems has been producing weighing equipment from the Melbourne plant since 1978, making it Australia's longest established manufacturer of high quality, high accuracy and high reliability industrial weighing electronics. We have shipped tens of thousands of our digital weight indicators, batch controllers and general industrial weighing equipment throughout Australia and overseas. Many of the products you see and use on a daily basis will have been made using our weighing and

batching equipment. Our products are present in the majority of Australia's manufacturing plants to meter and weigh materials. They may be on an industrial weighing scale, connected to silos, mixers or hoppers, connected to weighbridges, controlling a bottle or bag filler, or in any one of the countless situations that need process materials by weight.

If yours is a plant that processes material by weight, then it is almost certain you already have one of our distinct 'blue boxes' in your factory – it may have been serving you for 20 years or more, as our products have an enviable reputation for reliability. We don't believe in "planned obsolescence", so we can service and support that product today.

Notable milestones for *Gedge Systems* are that we were the first manufacturer in Australia to obtain Weights & Measures Approval for the use of our digital weight indicator in 'trade weighing'. Our model GK1400 was approved by the National Standards Commission (NSC now NMI) in 1985 for use to 5,000 divisions. Since then we have obtain successive updates of approvals on our GK1650 Series of digital weight indicators which today set the accuracy and stability benchmark, being Approved for Trade Weighing to 8,500 divisions. Weights and Measures Approved equipment must be used wherever goods are sold by weight - this applies as much at the retail level in shops and supermarkets as it does at the industrial level in factories and on weighbridges.

Gedge System's successful history is continuing with numerous new developments, and many new products and applications being launched into the market. The technological know-how which has been continuously acquired and enhanced gives us the leading edge over our competitors, with majority of the product being designed and manufactured locally in Australia.

Gedge Systems

Phone: (+61 3) 9791 8944 Web: www.gedgesystems.com.au Email: sales@gedgesystems.com.au

Call us NOW!

Call the *Gedge Systems* technical sales or engineering team for the right solution for your business. *Gedge Systems* prides itself on providing plain english proposals and there are hidden surprises. You will know what you are getting up front.

Gedge Systems manufactures indicators, load cells, & industrial weighing solutions. For any questions about industrial weighing solutions, talk to us. We listen. Find out how our sales team and project engineers provide you with the best weighing solutions for your needs. Call us now or send an email.

Your solution lies with us. Act now!

Other Gedge products

GS100P indicator

GK Hercules load cell

GK Titan load cell

GS100R indicator

GS120 large display

GK-AGX-1 Shear Beam load cell

27 Rhur Street,
Dandenong South VIC 3175
Australia

Phone: +61 3 9791 8944
Web: www.gedgesystems.com.au
Email: Sales@gedgesystems.com.au

For more details:
You can use your smartphone to scan this QR code.

Gedge Systems