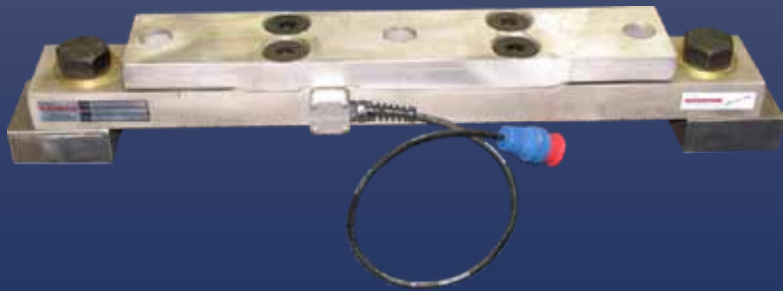


# Loadcell Model 420

## Product Specification



For use in: Platform Scales, Tank/Silo Scales, Explosive Trucks and  
Special Applications

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**Assembly Numbers**

21/BBB0420PB Loadcell only

29/BBB0420PU Loadcell, unitised with bearing plates (shown)

**Structural Configuration**

Double ended, rigid-mount bending beam

Compression loading

**Bare Weight**

16.4kg

**Static Capacity****Unitised Weight**

20kg

13,600kg

**Dynamic Capacity**

5,670kg

**Safe Overload**

100% of Static Capacity

**Ultimate Overload**

Minimum of 200% of Static Capacity

**Loadcell Body Material**

4340 alloy steel, heat treated to 180,000psi yield strength

**Bearing Plate (2)**

21/63-00017, weld ASTM A514 Steel.

**Top Mounting Bolts(3)**

90/981516, 1"-14TPI x 1-1/2" Grade 8

Recommended torque: 945Nm(700ft/lb)

**Tie Down Bolts(2)**

90/982616 1"-14TPI x 2 1/2" Grade 8 - OR - 21/28-00279 Posistop Bolt

Recommended Torque: 945Nm(700ft/lb)

**Connector**

4 pin Military style, injection moulded

**Cable**

Custom 4 core with polyurethane jacket

**Electrical**

Excitation:

15 volts (AC or DC)

5-10 volts recommended

Output:

0.5.mv/v @ 5,670kg

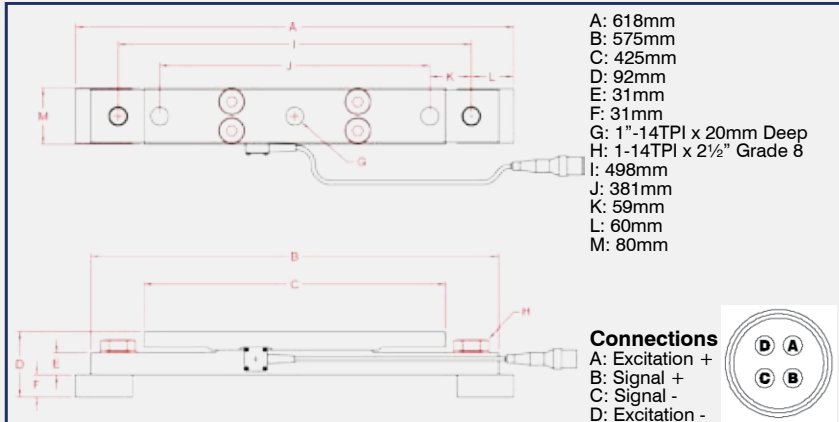
Impedence:

350Ω +/- 1.0Ω

Isolation:

500MΩ at 50 volts





**Mounting Requirements**

Top Plate must be dead stiff and machined flat after welding.  
 Bottom Mounting must be dead stiff.  
 Bearing plate must be welded using 12mm fillet.  
 Across ends and 100mm down each side (Both bearing plates must be parallel).

**Capacity**

Maximum Dynamic Load	5,670kg (12,500 lb)
Maximum Static Load	13,600kg (30,000 lb)
Top bolt thread engagement into loadcell	Min: 16mm Max: 22 mm

**Bolt Tensions**

1" Top mounting bolts = 945Nm(700ft/lb)  
 1" End mounting bolts = 945Nm(700ft/lb)

Coat all bolts with anti-seize

**Precautions**

Do not strike an Arc on the loadcell body with a welder. It is OK to use the loadcell to position the Mounting Bushes for tack welding only. Remove the loadcell to complete the welding procedure.  
 Do not damage the cover plate as this protects delicate strain gauges.  
 Take care to protect the loadcell connector/cable as this can not be replaced in the field.  
 Fit protection for the loadcell connector from stones and foreign objects which may damage it.  
 Do not damage or paint over the Part/Serial Number identification tag.

**IMPORTANT**

Loadcell must be mounted in accordance with Elphinstone instructions. Failure to do so may void warranty. Specifications subject to change without notice. These specifications supercede all previous specifications as of October 2006.

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