



APPLIED MEASUREMENTS LTD.
Transducer Specialists...

+44 (0) 118 981 7339

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<https://appmeas.co.uk>

OBBS Bending Beam Load Cell

Key Features:

- Capacities 5kg up to 500kg
- Hermetically Sealed to IP68
- Output 2mV/V
- High Accuracy: $<\pm 0.03\%$ of Rated Capacity
- Optional Vessel and Shock Mounts
- Sense Wire Facility
- Stainless Steel Construction
- Various Certification Options
- OIML R60 Approved
- 3 Year Warranty



Ideal for Low Capacity Highly Accurate Weighing Applications

The OBBS bending beam series of load cells are suitable for use in low capacity weighing applications such as batching hoppers, low profile platforms and conveyor packing and weighing applications, where a highly accurate measurement system is required.

Its IP68 environmental protection rating, polyurethane shielded cable and stainless steel construction makes it ideal for use in weighing applications such as food, pharmaceutical, brewing etc., where the load cell needs to be regularly washed down for hygienic purposes.

Two mounting assemblies are available to suit the OBBS bending beam load cell:

- The Vessel Mount - For static applications
- Shock / Anti-Vibration Mount - For mixer, feed hopper and conveyor applications where vibration or transient loads may occur.

Sense wires feedback the voltage reaching the load cell by compensating for any changes in the lead resistance (due to temperature change and/or cable extension) and transmits this voltage into the appropriate instrumentation (please refer to the Instrumentation datasheets).

Options:

- Alternative Cable Lengths
- Full Range of Mounting Options Available:
Vessel Mounting Assembly, Shock/Anti-Vibration Mounting Assemblies, Ball-In-Cup – Hopper Mounting Assemblies, Load Button, Fold Back Arms
- ATEX Certification: II I GD Ex ia IIC T6
- Can be Supplied as a Complete System With Mounts, a Junction Box and Instrumentation.
- Single or Multi-Channel PC-Based Monitoring & Data Logging System.
- USB Version (via DSC-USB)
- Wireless Version (via T24 Instrumentation)
- TEDS (Transducer Electronic Data Sheet)
- TEDS Allows Plug & Play with TEDS Enabled Instrumentation.

Applications:

- Batching Hopper
- Low Profile Platforms
- Weighing and Packing Machines
- Conversion of Mechanical Scales
- Food Industry
- Pharmaceutical Sectors
- Brewing Applications
- Conveyor Weighing Machines



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Specification:

Rated Capacity (RC)	kgf	0-5, 0-10, 0-20, 0-50, 0-100, 0-200, 0-250, 0-500
Operating Modes	Tension/Compression / Tension & Compression	
Sensitivity (RO)	mV/V	2.0 ±0.1%
Zero Balance/Offset	±%/Rated Output	<2.0
Zero Return After 30 mins	±%/Applied Load	<0.025
Total Error	±%/Rated Output	<0.020
Temperature Effect on Zero	±%/Rated Load/ °C	<0.0010
Temperature Effect on Sensitivity	±%/Applied Load/ °C	<0.0012
Input Resistance	Ohms	380 ± 10
Output Resistance	Ohms	355 ± 5
Insulation Resistance	Megohms	>2000 @ 50Vdc
Excitation Voltage	Volts AC or DC	10 recommended (2-15 acceptable)
Operating Temperature Range	°C	-20 to +70
Compensated Temperature Range	°C	-10 to +40
Storage Temperature Range	°C	-20 to +70
Safe Overload	% of Rated Capacity	150
Ultimate Overload	% of Rated Capacity	300
Deflection @ Rated Capacity	mm	<0.4
IP Rating (Environmental Protection)		IP68
Weight (excluding cable)	kg	0.35
Cable Length (as standard)		3 metres
Cable Type		6-Core Screened, PUR sheath
Construction Material		Stainless Steel

Wiring Diagram:

Wire	Designation
Blue	+ve excitation
Green	+ve sense
White	+ve output
Black	-ve excitation
Grey	-ve sense
Red	-ve output

Ordering Codes:

Core Product	Capacity (inc Engineering Units)	Cable Length (m)	Specials Code	Example Result
OBBS	5kg	003	000	OBBS-5kg-003-000
OBBS	10kg	003	000	OBBS-10kg-003-000
OBBS	20kg	003	000	OBBS-20kg-003-000
OBBS	50kg	003	000	OBBS-50kg-003-000
OBBS	100kg	003	000	OBBS-100kg-003-000
OBBS	200kg	003	000	OBBS-200kg-003-000
OBBS	250kg	003	000	OBBS-250kg-003-000
OBBS	500kg	003	000	OBBS-500kg-003-000



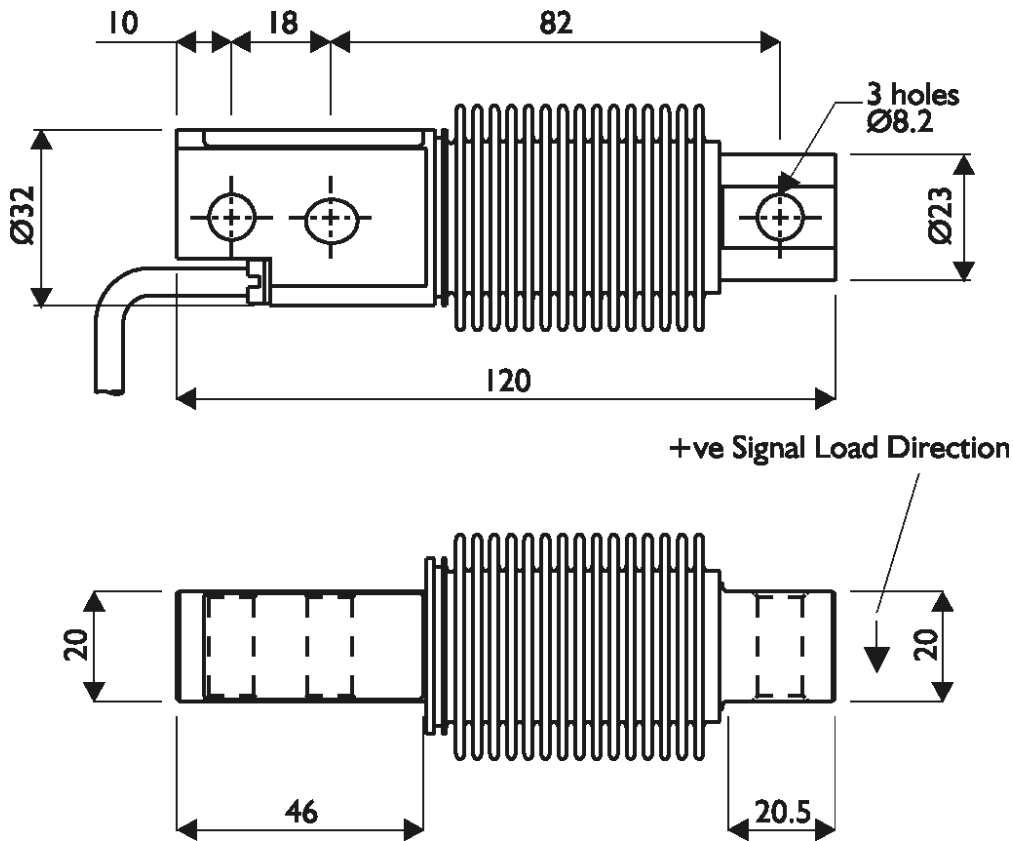
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Dimensions (mm):



Associated Products:



[AMLJBNA Passive Load Cell Junction Box](#)



[T24 Wireless Telemetry Range](#)



[Intuitive4-L Panel-Mount Indicator](#)



[AMLJBA Active Load Cell Junction Box](#)



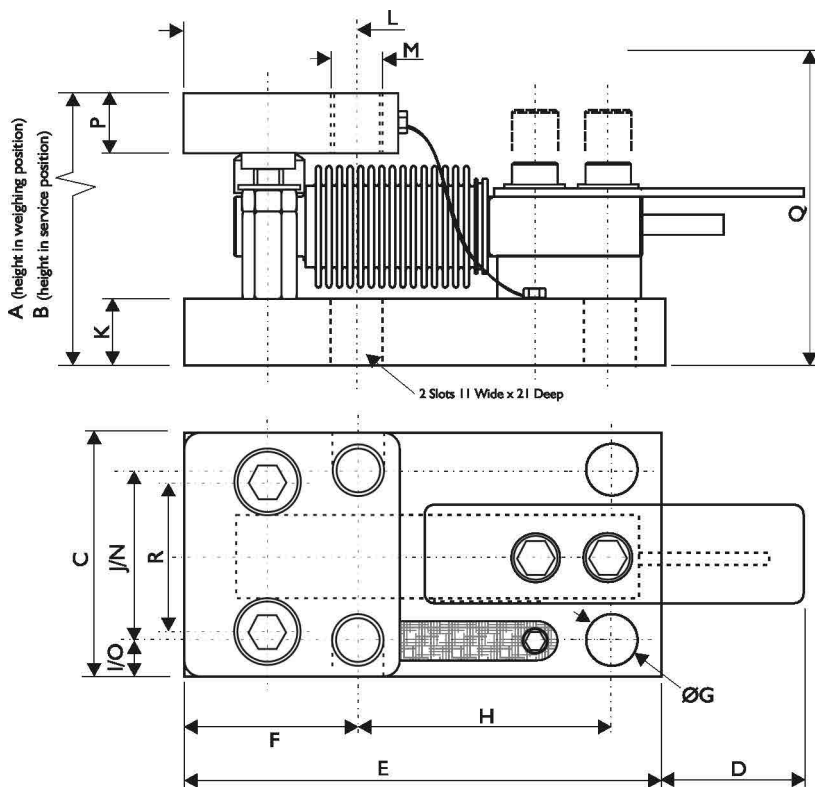
[SGA Signal Conditioner/Amplifier](#)



Mounting Accessories:

Vessel Mount for OBBS Load Cells

- For easy lifting and removal of load cell.
- Reduces Installation Time
- Integral Vessel Jacking Facility
- Anti-Lift Mechanism for Greater Vessel Stability
- Stainless Steel Construction
- Rugged Construction



RANGE	5-500kg
A	80
B	86
C	100
D	50
E	132
F	42
G	11.0
H	76
I	100
K	15
L	42
M	M12
N	70
P	15
Q	78
R	60

The Vessel Mount assembly for both the OBBS Series of load cells is simple to install and easy design into new or existing installations. The mounts can be installed with or without the load cells in position. Plant down time is reduced to an absolute minimum and the risk of damage to the load cell is eliminated during installation.

The mount provides a permanent Integral Safety Jacking System for your vessel.

Vessel Movement due to thermal effects is accommodated with no loss of performance or accuracy by means of it's built-in Free Motion load adaptor.

A substantial protection plate is positioned above the cable outlet to prevent damage by falling objects or misuse.

Maximum Safety Protection from the effects of wind or accidental collision are built-in. When vessels being weighed are in hazardous areas, heavy duty earth straps ensure that no potential difference between the upper and lower plates occurs. This low resistance path also assists in removing strong welding currents.

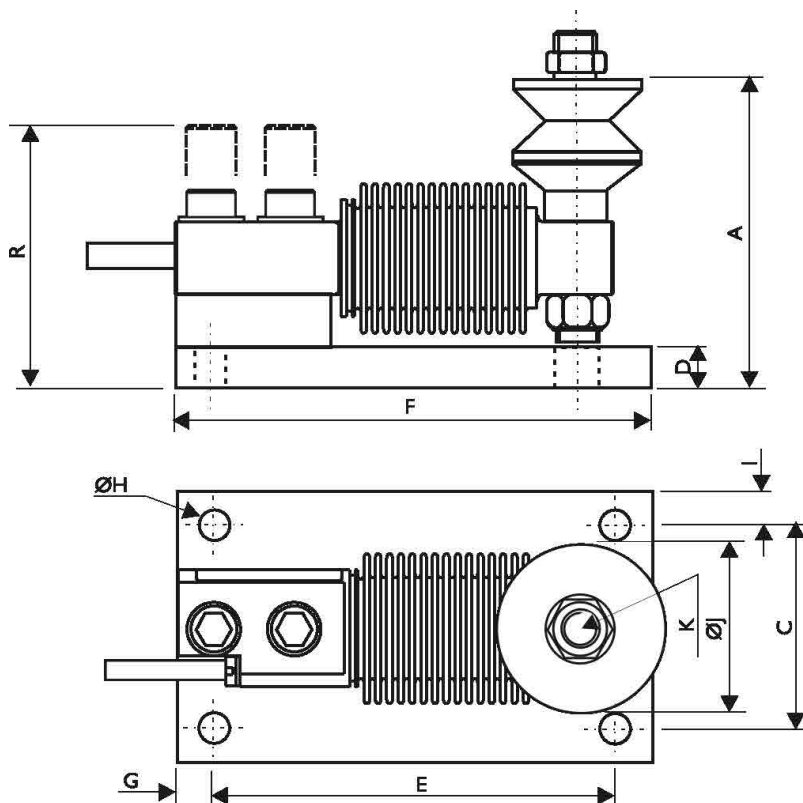


Mounting Accessories:

Shock Mount for OBBS Load Cells

- For easy lifting and removal of load cell.
- Reduces Installation Time
- Integral Vessel Jacking Facility
- Anti-Lift Mechanism for Greater Vessel Stability
- Stainless Steel Construction
- Rugged Construction

The shock mount assembly is designed to enable successful weighing when a vessel or hopper is subjected to external forces, such as vibration. The complete assembly is supplied enabling the client to source all the items from a single source, reducing the need for in depth research and endless sourcing problems.



RANGE	5-250kg
A	96
C	50
D	12
E	100
F	120
G	10
H	8.5
I	7
ØJ	72 max
K	M10
R	110