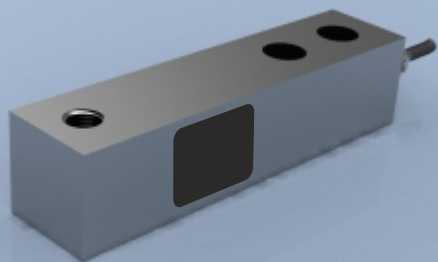




## TYPE: SBL-2



# SBL-2 Stainless Steel Shear Beam Load Cell

## Description

The SBL-2 series of shear beam load cells have been specifically designed for use in a wide range of weighing applications, including vessel weighing, floor scales and pallet trucks. There are a number of mounting accessories available to make installation easier and to ensure that the best system accuracy is maintained. Please consult with LCM Systems engineers for further details, based on your application requirements.

The SBL-2 offers high accuracy and superior immunity to shock or side loading. Manufactured from stainless steel with high performance potting for superior environmental protection, the load cell provides long term reliability. There are two versions available; one with a full metric thread and another with a blind hole for load attachment.

The SBL-2 series can be supplied on its own or combined with our extensive range of instrumentation to provide a complete system.

## Features

- Ranges: 250, 500, 1000, 2000kg
- Stainless steel construction
- Environmentally sealed to IP67
- Low profile design
- Can be supplied with vessel mounting assembly, shock mounts or platform foot mounting assembly

## Specification

Rated load (kg)	250, 500, 1000, 2000
Accuracy class	C3
Maximum number of verification intervals	3000
Minimum number of verification intervals	$E_{max}/10,000$
Temperature effect on minimum dead load output	$\leq \pm 0.0014\%$ of rated load/°C
Temperature effect on sensitivity	$\leq \pm 0.001\%$ of rated load/°C
Safe load limit	200% of rated load
Ultimate load	300% of rated load
Safe side load	100% of rated load
Output	2mV/V ( $\pm 0.1\%$ ) at rated load
Zero balance	$\leq \pm 5\%$ of rated load
Combined error	$\leq \pm 0.02\%$ of rated load
Non-linearity	$\leq \pm 0.0166\%$ of rated load
Hysteresis	$\leq \pm 0.0166\%$ of rated load
Creep error (30 minutes)	$\leq \pm 0.0166\%$ of rated load
Excitation voltage	5 to 15V
Input resistance	$380\Omega \pm 10$
Output resistance	$350\Omega \pm 3$
Insulation resistance	$>5000M\Omega @ 100vdc$
Operating temperature range	-40 to +65°C
Compensated temperature range	-10 to +40°C
Sealing	Potted
Environmental protection level	IP67
Connection type	3 metres PUR screened cable, via cable gland
Wiring connections	+ve supply: Red    -ve supply: Black +ve sense: Blue    -ve sense: Brown +ve signal : Green    -ve signal: White Shield: Yellow

## Typical Applications

- Vessel weighing
- Floor scales
- Rolling roads
- MOT brake testers
- Pallet truck weighing
- Tank & silo weighing

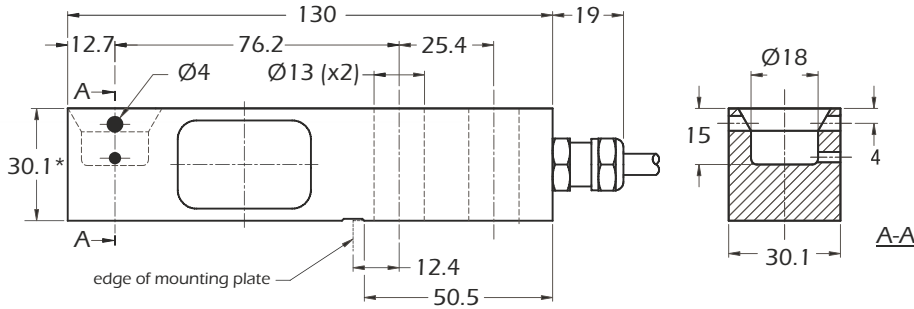
## Available Options

- Vessel mounting assembly (using blind hole version of SBL-2)
- Shock mounting assembly
- Platform foot mounting assembly (using blind hole version of SBL-2)

# SBL-2 Stainless Steel Shear Beam Load Cell

## Dimensions

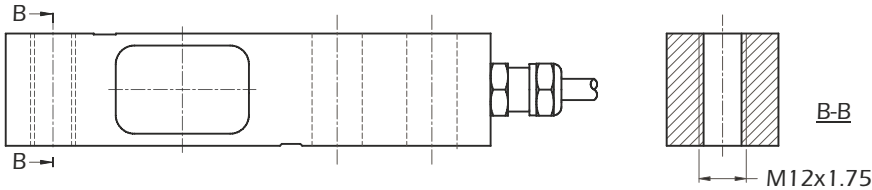
### Blind Hole Attachment



\* 2000kg capacity: height = 36mm

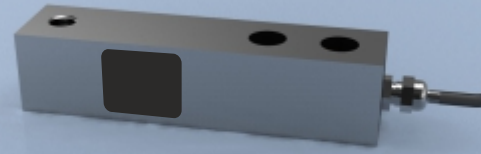
All dimensions are in mm

### Threaded (Metric) Attachment



Rating (kg)	Part Number Blind Hole	Part Number Threaded Metric	Mounting Bolts	Torque (oiled thread)	Weight (kg)	Resolution (kg)
250	SBL-2-250-BH	SBL-2-250-TM	M12 8.8	90Nm	1.2	0.02
500	SBL-2-500-BH	SBL-2-500-TM	M12 8.8	90Nm	1.2	0.05
1000	SBL-2-1000-BH	SBL-2-1000-TM	M12 8.8	90Nm	1.2	0.1
2000	SBL-2-2000-BH	SBL-2-2000-TM	M12 10.9	12Nm	1.2	0.2

Note: When paired with instrumentation, accuracy figures may become subject to system inaccuracies. Please refer to calibration certificate for actual performance.



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Due to continual product development, LCM Systems Ltd reserves the right to alter product specifications without prior notice.

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