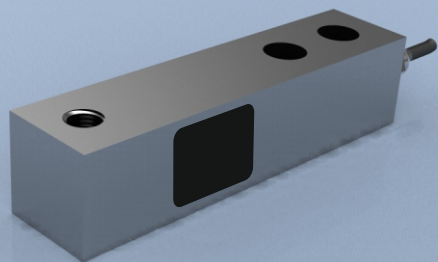




## TYPE: SBL-2



# 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.

## 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

## 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)

## 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



**SCIGATE AUTOMATION (S) PTE LTD**

No 1 Bukit Batok Street 22 #01-01 Singapore 659592  
Tel: (65) 6561 0488 Fax: (65) 6561 0588  
Email: sales@scigate.com.sg Web: https://scigate.com.sg/  
Business Hours: Monday - Friday 8:30AM - 6:15PM

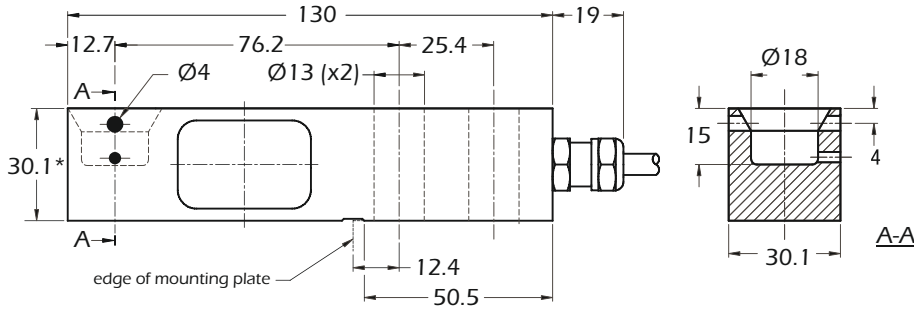
## Typical Applications

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

# SBL-2 Stainless Steel Shear Beam Load Cell

## Dimensions

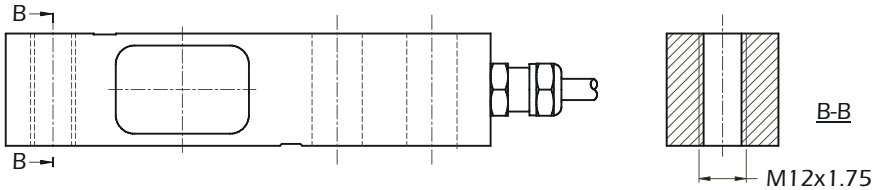
### Blind Hole Attachment



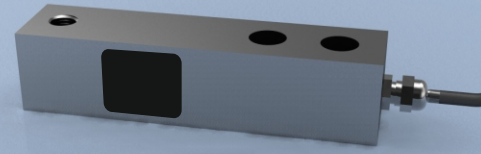
\* 2000kg capacity: height = 36mm

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



www.lcmsystems.com

### LCM Systems Ltd

Unit 15, Newport Business Park, Barry Way  
Newport, Isle of Wight PO30 5GY UK  
Tel: +44 (0)1983 249264  
sales@lcmsystems.com  
www.lcmsystems.com

### LCM Systems (România)

Strada Ștefan Cel Mare 26a,  
Tunari, cod.077180, Ilfov, România  
Tel: +40 (0)77 4641899  
ro@lcmsystems.com  
www.lcmsystems.ro

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

### Issue No. 3

Issue date: 13/06/2017  
APPROVED  
(unapproved if printed)