

Miniature S-beam Load Cell (LSB200)



Use with DI-8B38-05 or
DI-5B38-05 amplifiers

0.35 Ounces to 100
Lbf (10 Grams to 445
Newtons) capacity

Aluminum or Stainless
Steel Construction

US and Metric Threads



DATAQ Instruments has partnered with sensor manufacturer Futek to offer a variety of load cells at factory-direct prices. These load cells have been specifically chosen for compatibility with our popular line of data loggers and data acquisition systems that support 5B and 8B amplifier modules. We've done the legwork to ensure compatibility, and a complete load cell-to-instrument solution.

The LSB200 series is a miniature S-beam load cell widely used in medical bag weighing applications as well as automated feed back control and in-line processing applications.

Features

Rugged Construction

Available in anodized 2024-T4 Aluminum construction or Stainless Steel 17-4PH construction.

Very Small Size

The LSB200 measures less than three-fourths of an inch square and nearly a quarter of an inch high allowing it to be installed in difficult locations where size is an issue.

US and Metric Threads

The LSB200 is available with either a #4-40 thread or a M3x0.5 thread.

Compatibility

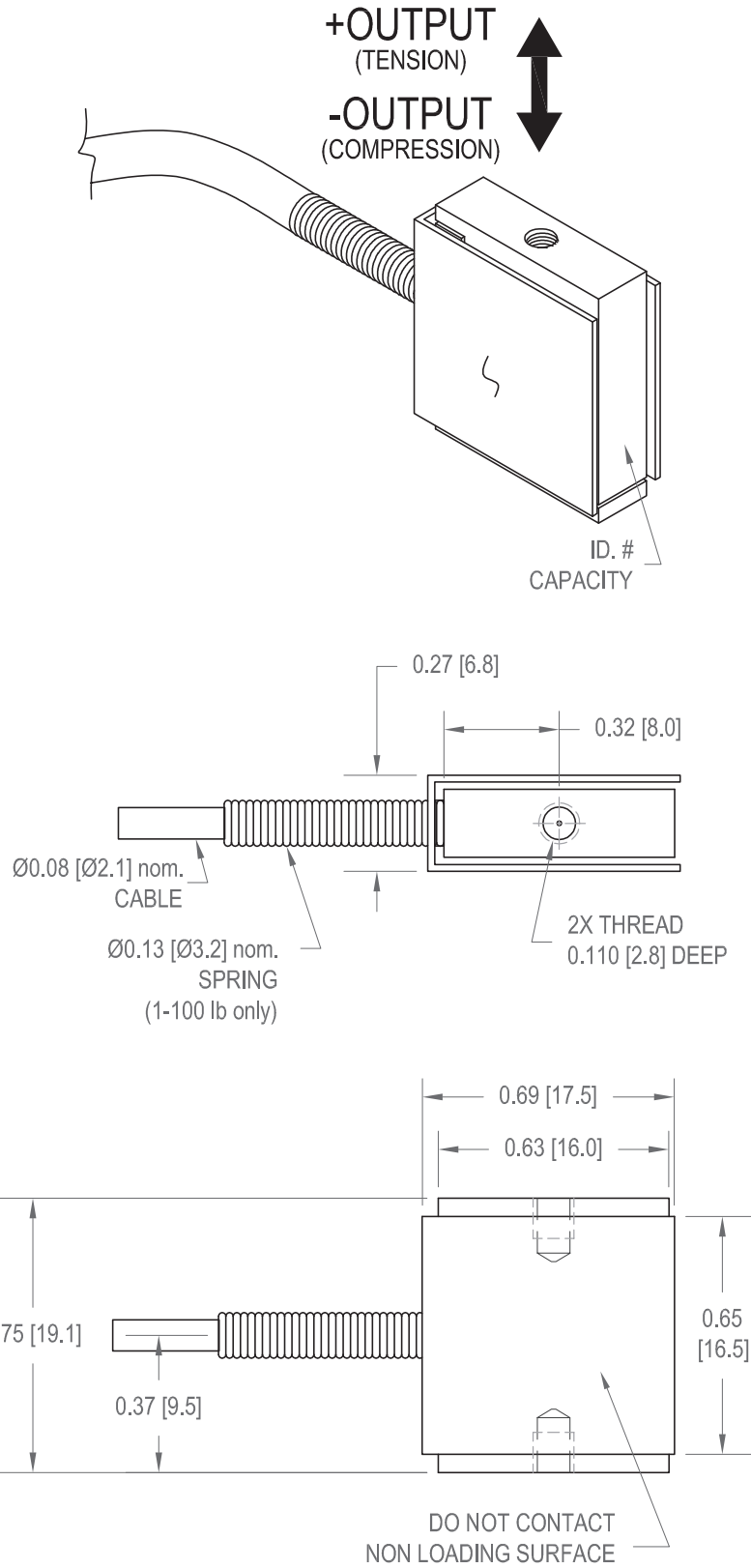
The LSB200 is compatible with strain gage input modules DI-5B38-05 and DI-8B38-05. Install the signal conditioning module into one of our data acquisition or data logger systems for a complete measurement solution. Use the DI-8B38-02 or the DI-5B38-02 for limited dynamic range applications.

A Complete Measurement Solution

Install the Signal Conditioning Module (DI-8B or DI-5B module) into your compatible data acquisition/data logger system. Both excitation and calibrated gain is provided for the sensor.

Signal Conditioning Module	Data Logger / Data Acquisition System	Sensor
DI-5B38-05 or DI-5B38-02	DI-75B	LSB200
	DI-715B	
	DI-785	
	DI-195B	
DI-8B38-05 or DI-8B38-02	DI-78B	
	DI-718B	
	DI-718Bx	
	DI-788	

Dimensional Drawings and Wiring Code



Wiring Code

+Excitation	-Excitation	+Signal	-Signal	Shield
RED	BLACK	GREEN	WHITE	FLOATING

Specifications

Rated Output:	See Ordering Guide	Compensated Temperature:	60°F to 160°F (15°C to 72°C)
Safe Overload:	1000% R.O.; 200% or R.O. (tension only)*	Operating Temperature:	-60°F to 200°F (-50°C to 93°C)
Zero Balance:	±3% of R.O.; ±5% of R.O.**	Deflection:	0.003 to 0.005 (0.07 to 0.13)
Excitation (VDC or VAC):	5 Max	Calibration (STD):	5 pt tension; see Ordering Guide for Shunt Cal Value.
Bridge Resistance:	See Ordering Guide	Calibration (Available):	Compression
Nonlinearity:	±0.1% of R.O.	Calibration Test Excitation:	5VDC
Hysteresis:	±0.1% of R.O.	Cable:	#29 AWG 4 conductor shielded silicone cable
Nonrepeatability:	±0.05% of R.O.	Weight:	Aluminum: 0.3 oz (9 g)
Temperature Shift Zero:	±0.01% of R.O./°F (±0.018% of R.O./°C)	Compatible Signal Conditioning Modules:	DI-5B38-05 or DI-5B38-02 DI-8B38-05 or DI-8B38-02
Temperature Shift Span:	±0.02% of Load/°F (±0.036% of Load/°C)		

* Sensor structure can handle high overloads but threads may limit overload at higher capacity.

** Zero balance is based on laying sensor on its side (threads horizontal).

Ordering Guide

Capacity	R.O. (nom.)	Bridge Res	Shunt Cal Val	Material	Thread	Cable (ft)	Order #			
0.35 oz (10 g)	0.5mV/V	1000 Ω nom.	301K Ω	2024-T4 Aluminum	M3x0.5	5	FSH02319			
0.7 oz (20 g)	1 mV/V		150K Ω		150K Ω		4-40	FSH02666		
1.8 oz (50 g)	2 mV/V						350 Ω nom.	60.4K Ω	M3x0.5	FSH02667
3.5 oz (100 g)									4-40	FSH02535
8.8 oz (250 g)									M3x0.5	FSH02663
1 Lbf (4.5 Newtons)									4-40	FSH02536
2 Lbf (8.9 Newtons)									M3x0.5	FSH02664
5 Lbf (22.3 Newtons)									4-40	FSH02602
10 Lbf (44.5 Newtons)									M3x0.5	FSH02665
25 Lbf (111.3 Newtons)									4-40	FSH00091
50 Lbf (222.5 Newtons)		M3x0.5		FSH00101						
100 Lbf (445 Newtons)		4-40	FSH01559							
						10	FSH00092			
						5	FSH00102			
						10	FSH01748			
						5	FSH00093			
						10	FSH01887			
						5	FSH02235			
						10	FSH00095			
						5	FSH00104			
						10	FSH01888			
						5	FSH00096			
						10	FSH00105			
						5	FSH02224			
						10	FSH00097			
						5	FSH00106			
						10	FSH02494			
						5	FSH00098			
						5	FSH00107			

Accessories

Description	Order Number	Description	Order Number
Load button with 4-40 male thread	MCP01164	NSIT Calibration Certificates	Contact DATAQ
Load button with M3x0.5 male thread	MCP01165		



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