

# Higher Capacity S-beam Load Cell (LSB302)



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

25 to 300 Lbf (111.3 to  
1335 Newtons) capacity

Rugged Aluminum  
Construction

Variety of 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 LSB302 series is a general purpose load cell offering a compact design well suited for platforms, silos, or scales.

## Features

### Rugged Construction

All models are constructed of anodized 2024-T4 Aluminum.

### Connection Options

Electrical connection options include a 4-pin LEMO connection or 28 AWG 6 conductor shielded polyurethane cable for easy installation.

### US and Metric Threads

The LSB302 is available with a 1/4-28 thread, a 3/8-24 thread, an M6x1 thread or an M10x1.5 thread.

### Compatibility

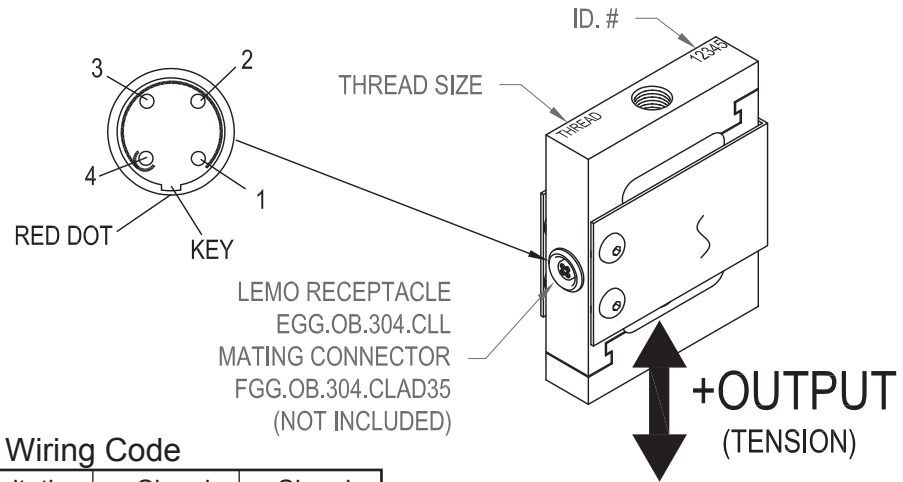
The LSB302 is compatible with strain gage input modules DI-5B38-05 and DI-8B38-05. Install the signal conditioning module into one of our data acquisition or data logger systems for a complete measurement solution. Use the DI-8B38-02 or the DI-5B38-02 for limited dynamic range applications.

## 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.

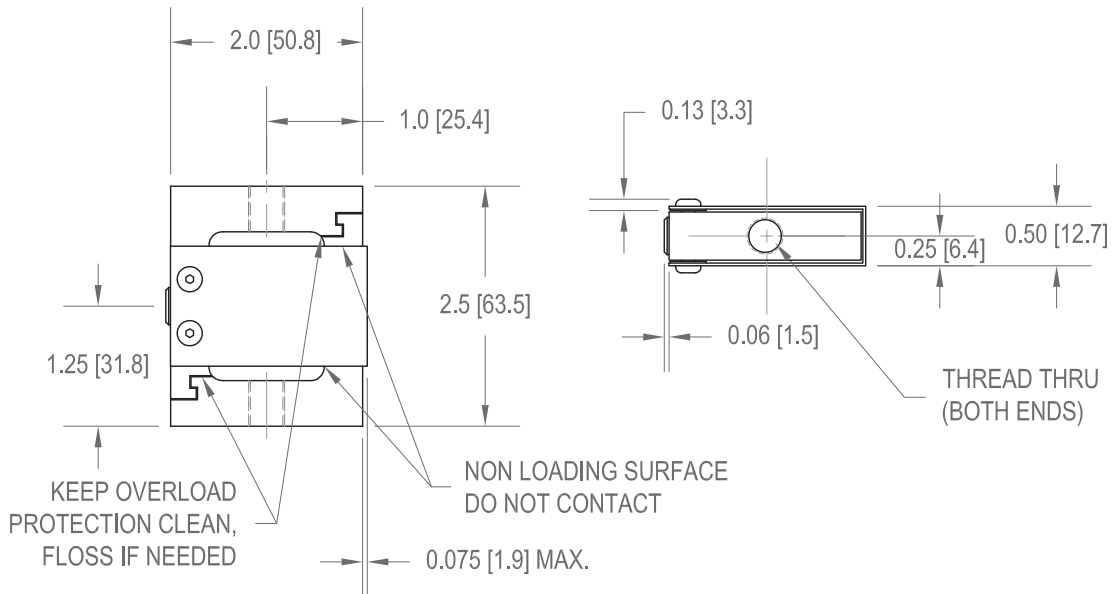
Signal Conditioning Module	Data Logger / Data Acquisition System	Sensor
DI-5B38-05 or DI-5B38-02	DI-75B	LSB302
	DI-715B	
	DI-785	
	DI-195B	
DI-8B38-05 or DI-8B38-02	DI-78B	
	DI-718B	
	DI-718Bx	
	DI-788	

# Dimensional Drawings and Wiring Code

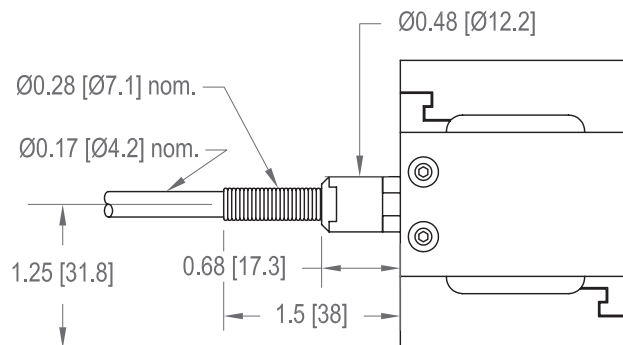


**Wiring Code**

+Excitation	-Excitation	+Signal	-Signal
1	4	2	3



## #28AWG, 6 Conductor Polyurethane Cable Option



**Wiring Code**

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

## Specifications

<b>Rated Output:</b>	2mV/V nom.	<b>Temperature Shift Span:</b>	±0.0008% of Load/°F (±0.0014% of Load/°C)
<b>Safe Overload:</b>	1000% (25-100 lb) 500% (200-300 lb)	<b>Compensated Temperature:</b>	60°F to 160°F (15°C to 72°C)
		<b>Operating Temperature:</b>	-60°F to 200°F (-50°C to 93°C)
<b>Zero Balance:</b>	±1% of R.O.	<b>Deflection:</b>	0.010 (0.25) nom.
<b>Excitation (VDC or VAC):</b>	20 Max	<b>Calibration (STD):</b>	5 pt tension; 150K Ω shunt cal value
<b>Bridge Resistance:</b>	100 Ω nom.	<b>Calibration (Available):</b>	Compression
<b>Nonlinearity:</b>	±0.05% of R.O.	<b>Calibration Test Excitation:</b>	10VDC
<b>Hysteresis:</b>	±0.05% of R.O.	<b>Connections:</b>	4-pin LEMO receptacle or #28 AWG 6 cable.
<b>Nonrepeatability:</b>	±0.05% of R.O.	<b>Weight:</b>	5 oz (142 g)
<b>Temperature Shift Zero:</b>	±0.001% of R.O./°F (±0.0018% of R.O./°C)	<b>Compatible Signal Conditioning Modules:</b>	DI-5B38-05 or DI-5B38-02 DI-8B38-05 or DI-8B38-02

## Ordering Guide

Capacity Lbf (Newtons)	Thread	Electrical Connection	Order Number	Capacity Lbf (Newtons)	Thread	Electrical Connection	Order Number
25 (111.3)	1/4-28	10 foot cable	FSH00993	100 (445)	1/4-28	5 foot cable	FSH02082
	M6x1		FSH00998		M6x1		FSH02087
	1/4-28	LEMO	FSH01019	200 (890)	1/4-28	10 foot cable	FSH00996
	M6x1		FSH01020		M6x1		FSH01000
	3/8-24		FSH01797		M10x1.5	2 foot cable	FSH01014
	1/4-28	5 foot cable	FSH02080		1/4-28	LEMO	FSH01025
M6x1	FSH02085		M10x1.5		FSH01026		
	50 (222.5)	M6x1	2 foot cable		FSH10102		3/8-24
LEMO			FSH01022	1/4-28	FSH02083		
		1/4-28	LEMO	FSH01476	M10x1.5	FSH02088	
3/8-24		FSH01798		10 foot cable	FSH00997		
1/4-28		5 foot cable	FSH02081		M6x1	FSH01001	
M6x1			FSH02086	M10x1.5	FSH01002		
100 (445)	1/4-28	10 foot cable	FSH00995	300 (1335)	1/4-28	2 foot cable	FSH01010
	M6x1		FSH00999			LEMO	FSH1027
		1/4-28	2 foot cable		FSH01013		M10x1.5
	M6x1		LEMO		FSH01023	1/4-28	5 foot cable
		FSH01024			M10x1.5	FSH02089	
	3/8-24	FSH01607					

### Accessories

Description	Order Number	Description	Order Number
LEMO Connector with 15 foot cable	FSH01790	1/4-28 male thread load button	MCP00953
LEMO Connector with 30 foot cable	FSH01785	3/8-24 male thread load button	MCP00954
LEMO Connector with 100 foot cable	FSH02114	M6x1 male thread load button	MCP00963
4-pin LEMO connector	GOD00047	M10x1.5 male thread load button	MCP00964
NIST Calibration Certificates	Contact DATAQ	1/4-28 male thread eye bolt	GOD00748
		3/8-24 male thread eye bolt	GOD00749



DATAQ Instruments, Inc.  
241 Springside Drive  
Akron, Ohio 44333  
Phone: 330-668-1444  
Fax: 330-666-5434

### Data Acquisition Product Links

(click on text to jump to page)

[Data Acquisition](#) | [Data Logger](#) | [Chart Recorder](#) | [Thermocouple](#) | [Oscilloscope](#)