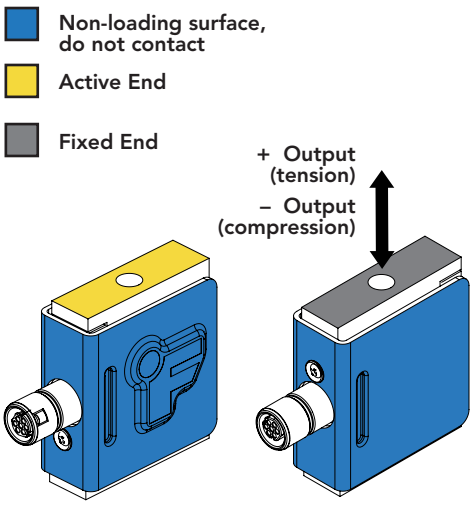
FUTEK
ADVANCED SENSOR TECHNOLOGY, INC.

MODEL LSB205

Miniature S-Beam Jr. Load Cell 2.0

FEATURES

- Detachable 7 Pin FUTEK Receptacle
- Integrated IEEE1451.4 TEDs chip and PT-1000 temperature sensor
- Heat treated stainless-steel flexure design for optimal fatigue life and off center loading capabilities
- High performance tension and compression load cell
- Light weight, miniature size
- Integrated overload protection
- Notable nonrepeatability
- Shock and vibration resistant



SPECIFICATIONS	
PERFORMANCE	
Nonlinearity	±0.1% of RO
Hysteresis	±0.1% of RO
Nonrepeatability	±0.05% of RO
ELECTRICAL	
Rated Output (RO)	1 mV/V nom (250 g) 2 mV/V nom (1 - 100 lb)
Excitation (VDC or VAC)	10 max
Bridge Resistance	350 Ohm nom
Insulation Resistance	≥500 MOhm @ 50 VDC
Connection	FUTEK 7-Pin Receptacle
Connector Code	CC18
MECHANICAL	
Weight (approximate)	0.3 oz [9 g]
Safe Overload	1000% of RO (1-25 lb) 200% tension only (50–100 lb)
Material	17-4 PH stainless-steel body, anodized cover
IP Rating	IP40
Vibration Resistance	20-2000 Hz, 0.01g²/Hz per MIL-STD-810E
Shock Resistance	500 g per IEC60068-2-27
TEMPERATURE	
Operating Temperature	-60 to 200°F [-50 to 93°C]
Compensated Temperature	60 to 160°F [15 to 72°C]
Temperature Shift Zero	±0.005% of RO/°F [0.009% of RO/°C]
Temperature Shift Span	±0.005% of Load/°F [0.009% of Load/°C]
CALIBRATION	
Calibration Test Excitation	5 VDC
Calibration (standard)	5-pt Tension
Calibration (available)	5-pt Tension and Compression
Shunt Calibration Value	100 kOhm (250 g) 60.4 kOhm (1-100 lb)

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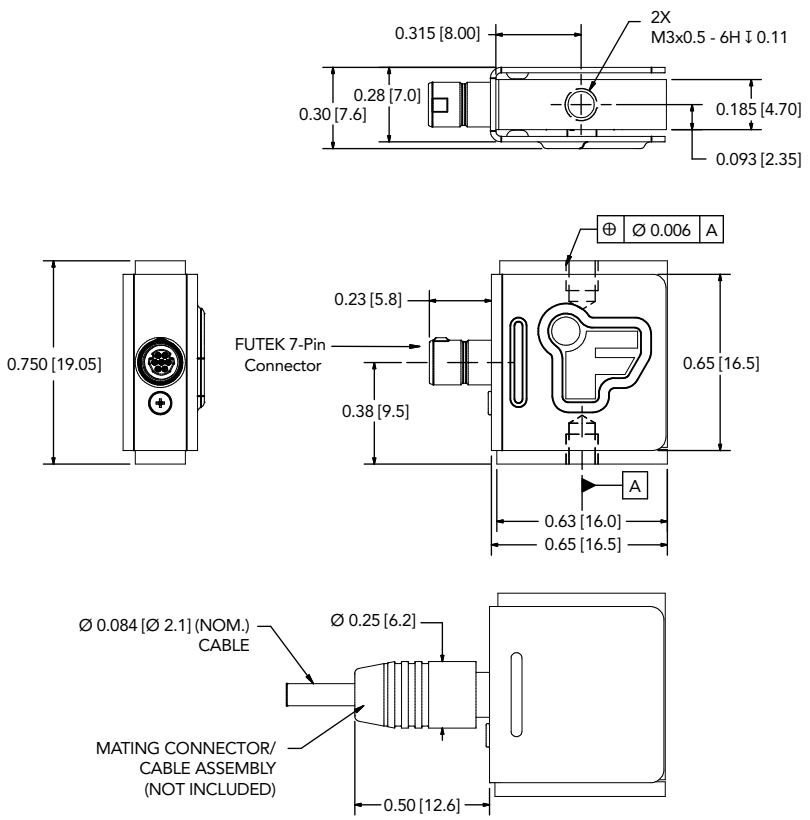
DIMENSIONS inches [mm]

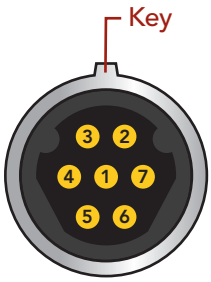


CAPACITIES

ITEM #	lb	N	Deflection (in)	Natural Frequency (Hz)
FSH04401	250 g	2.5	0.003	690
FSH04085	1	4.5	0.005	690
FSH04101	2	8.9	0.004	1180
FSH04100	5	22.2	0.003	2180
FSH04099	10	44.5	0.003	3010
FSH04097	25	111	0.003	5380
FSH04422	50	222	0.003	6620
FSH04416	100	445	0.004	8250

WIRING CODE FUTEK 7-PIN CONNECTOR

PIN	DESCRIPTION	COLOR
1	– Excitation	Black
2	+ Signal	Green
3	+ Excitation	Red
4	– Signal	White
5	Temperature + TEDS Ground	Blue
6	Temperature Data	Brown
7	TEDS Data	Orange



Drawing Number: FI1452-C

FUTEK reserves the right to modify its design and specifications without notice.
Please visit www.futek.com/salesterms for complete terms and conditions.

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