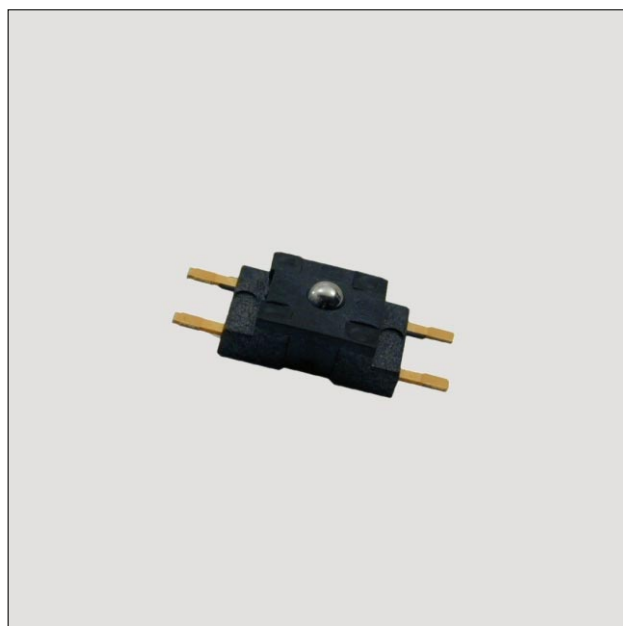




FEATURES

- 0...1500 g range
- High impedance bridge
- Compact, commercial grade package
- Robust performance characteristics
- Ratiometric electrical output
- Extremely low deflection
- High ESD resistance
- Sensortech PRO services

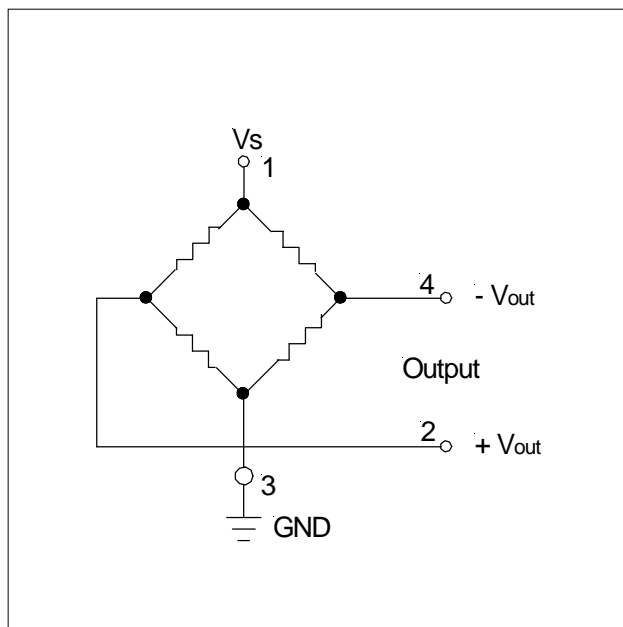


SPECIFICATIONS

Maximum ratings

Supply voltage	3 ... 6 V
Temperature limits	
Storage	-40 ... +100°C
Operating	-40 ... +85°C
Lead temperature (5 sec. soldering)	315 °C
Humidity limits	0 ... 99 %RH
Vibration (0 to 2000 Hz) (qualification tested, 0 to 2 KHz)	20 g sine
Mechanical shock (qualification tested)	150 g
Over force ¹	4500 g

ELECTRICAL CONNECTION





COMMON PERFORMANCE CHARACTERISTICS

$V_s = 5.0 \pm 0.01$ V, $t_{amb} = 25^\circ\text{C}$ (unless otherwise noted)

Characteristics	Min.	Typ.	Max.	Unit
Operating force	0		1500	g
Zero pressure offset	-15		+15	mV
Span ²	150	180	210	
Temperature effects (0 ... 50°C) ⁴	Offset	±0.5		
	Span	-2200		ppm/ °C
Temperature effects on bridge impedance ⁴		+2200		
Linearity (BSL) ³		±0.7	±1.5	% span
Mechanical hysteresis ⁵		±0.5		
Repeatability at 300g ⁵		±1.5		mV
Input impedance	4.0	5.0	6.0	kΩ
Output impedance	4.0	5.0	6.0	
ESD (direct contact, terminals and plunger)	8			kV
MCTF (main cycles to failure at 50°C)		20		million cycles

Specification notes:

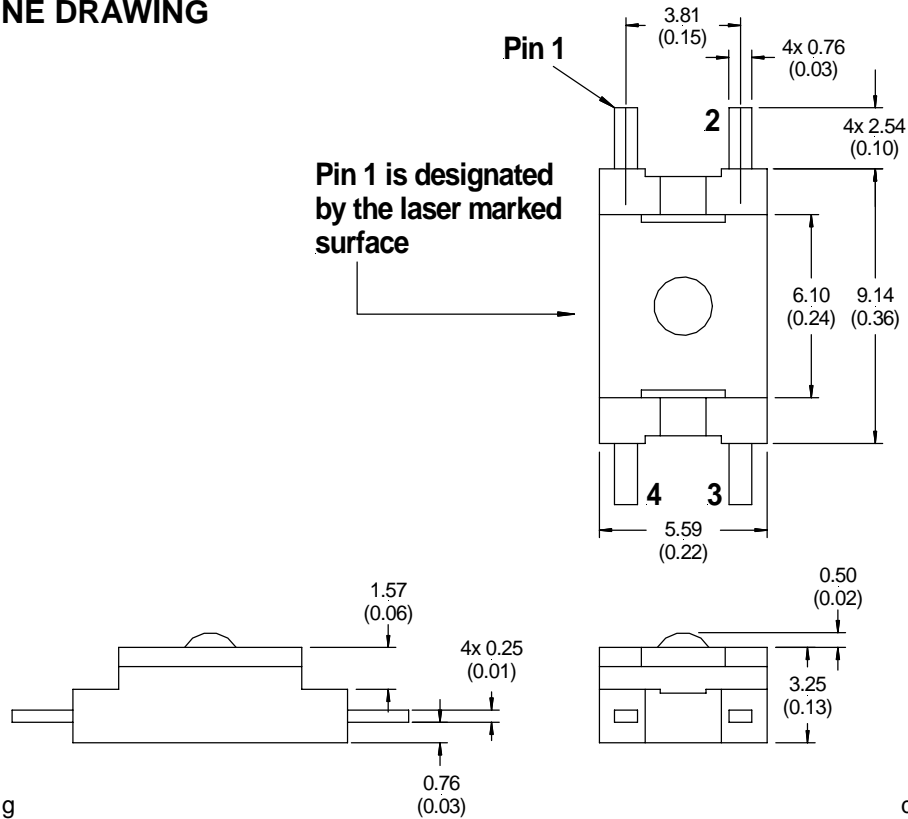
1. The maximum specified force which may be applied to the sensor without causing a permanent change in the output characteristics.
2. Span is the algebraic difference between the output voltage at full-scale force and the output at zero force. Span is ratiometric to the supply voltage.
3. Linearity (BSL), the deviation of measured output at constant temperature (25°C) from "Best Straight Line" determined by three points, offset pressure, full-scale pressure and half full-scale pressure.
4. Error band of the offset voltage, span or bridge impedance in the specified temperature range, relative to the 25°C reading.
5. Repeatability, the deviation in output readings for successive application of any given input force (all other conditions remaining constant). Hysteresis, the error defined by the deviation in output signal obtained when a specific force point is approached first with increasing force, then with decreasing force or vice versa (all other conditions remaining constant).



RFU Series

Low profile force sensor

OUTLINE DRAWING



mass: 2 g

dimensions in mm (inches)

ORDERING INFORMATION

Options	Series	Pressure range		Lead style		Packaging	
	RFU	1500	0...1500 g		1	Straight	P
Example:	RFU	1500		1		P	

Sensortech PRO services:

- Extended guarantee period of 2 years
- Improved performance characteristics
- Custom product modifications and adaptations even for small quantities
- Advanced logistics models for supply inventory and short delivery times
- Technical support through application engineers on the phone or at your site
- Fastest possible technical response for design and QA engineers
- ... plus other services on request

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