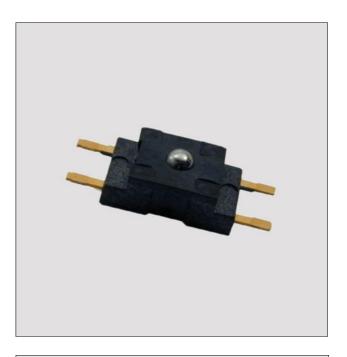
FEATURES

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

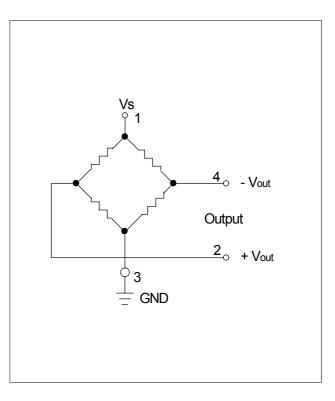
APPLICATIONS

- · Medical infusion pumps
- Ambulatory noninvasive pump pressure
- Occlusion detection
- Kidney dialysis machines
- Load and compression sensing
- Variable tensions control
- · Robotic end-effectors
- · Wire bonding equipment



Scale:	·	1 cm
		½ inch

ELECTRICAL CONNECTION



SPECIFICATIONS

Maximum ratings

Supply voltage 3..6 V

Temperature limits

Storage -40 to +100°C Operating -40 to +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 force¹ 4500 g

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COMMON PERFORMANCE CHARACTERISTICS

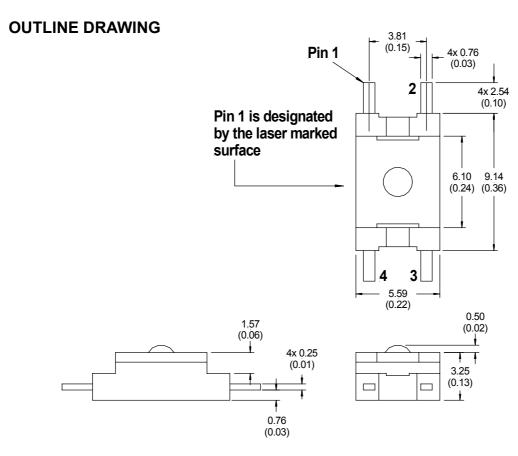
 $V_s = 5.0 \pm 0.01 \text{ V}, t_{amb} = 25^{\circ}\text{C} \text{ (unless otherwise noted)}$

Characteristics	Min.	Тур.	Max.	Unit	
Operating force		0		1500	g
Zero pressure offset		-15		+15	
Span ²		150	180	210	mV
Temperature effects (0 - 50°C) ⁴	Offset		±0.5		
	Span		-2200		190
Temperature effects on bridge impedance⁴			+2200		ppm/°C
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).

SENSOR IECHNICS



mass: 2 g dimensions in mm (inches)

ORDERING INFORMATION

PART NO.	PACKAGING STYLE		
FSS1500NST	tube (multiples of 100)		
FSS1500NSB	blister pack		
FSS1500NSR	tape and reel (multiples of 1500)		

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