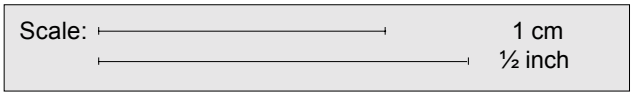
FEATURES

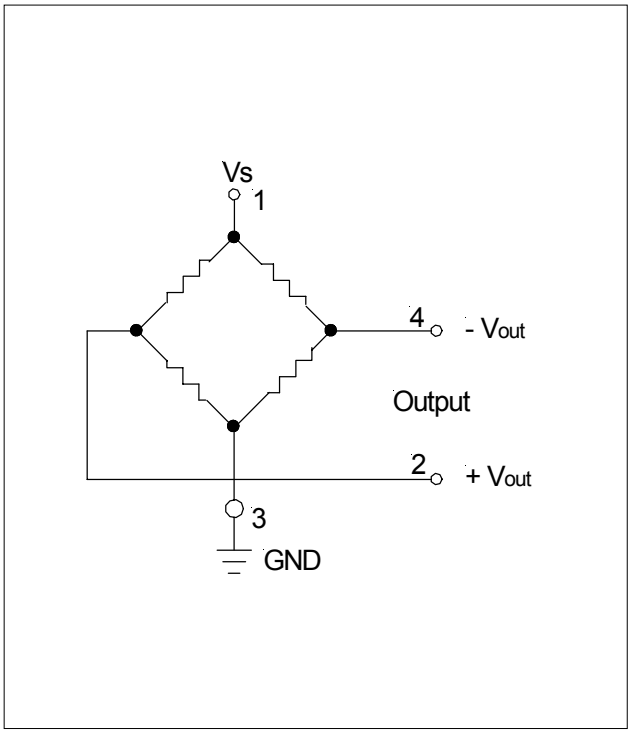
- 0...1500 g range
- High impedance bridge
- Compact, commercial grade package
- Robust performance characteristics
- Ratiometric electrical output
- Extremely low deflection
- High ESD resistance



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

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 force[1]	4500 g

COMMON PERFORMANCE CHARACTERISTICS

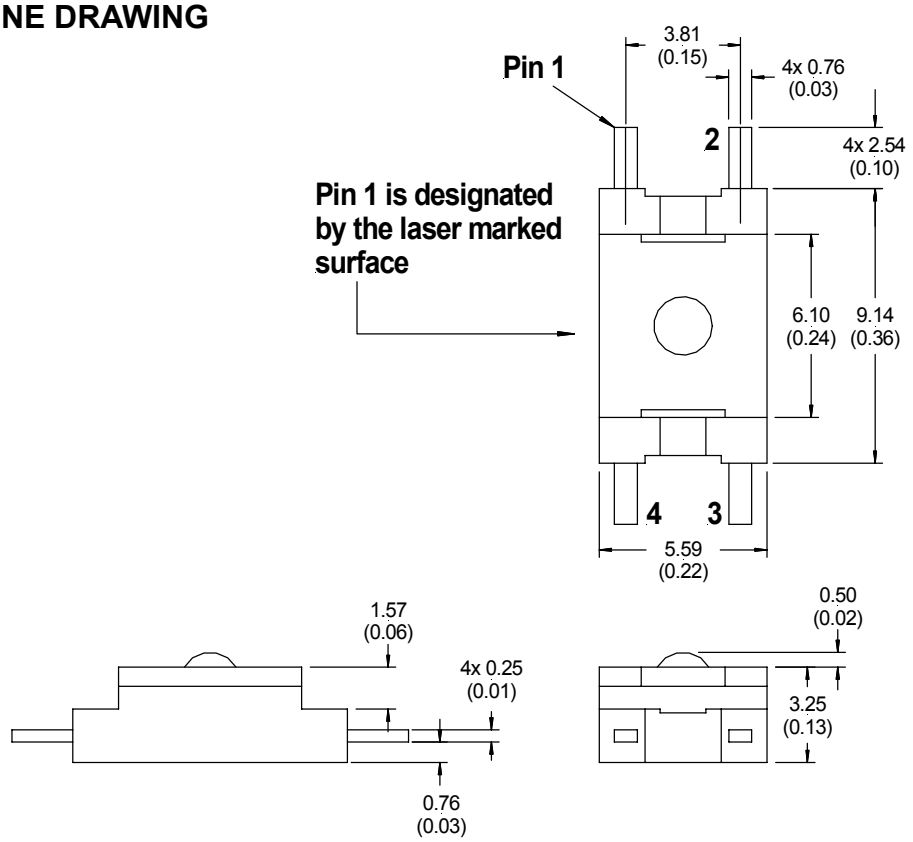
V_s = 5.0 ± 0.01 V, t_{amb} = 25°C (unless otherwise noted)

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).

OUTLINE DRAWING



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)