



# Sensor Line

Antimicrobial Technology at Work

## FSLP Sensor Data Sheet

### FSLP Sensor for Position and Force Applications

#### Features and Benefits

- Unique hard coated film with antimicrobial protection
- Durable
- Increased perceived value of the product
- Rugged design - Over 1M touch activations over entire sensor area with no degradation observed.
- Measures position along a circular path
- Easy to integrate
- Low power consumption

#### Description

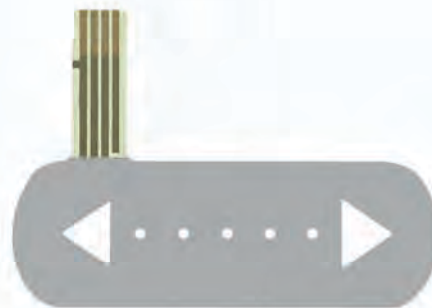
The Force Sensing Linear Potentiometer (FSLP) Sensor is Interlink's solution for capturing position and force simultaneously in compact applications. The sensor's tough, moisture resistant surface can be used with a finger, stylus, or glove; even in harsh environments.

The Force Sensing Linear Potentiometer (FSLP) simplifies input design, saves critical room, and helps save battery life. A battery operated demo is available.

Call us for more information 805-484-8855

The **AM** Sensor Line from Interlink Electronics provides constant and dependable antimicrobial product protection and an added level of defense against damaging microbes for the useful lifetime of the products. The touchable surfaces of the **AM** Sensor Line inhibit the growth of microbes on contact, working continuously to maintain a consistently lower bio-burden than would be expected on a product without antimicrobial protection.

The **AM** Sensor Line gives any application a competitive advantage in a world that focuses on cleanliness. Interlink's **AM** Sensor Line is designed for next generation applications in which preventing the growth of bacteria, mold and mildew is a priority. Antimicrobial protection is not a substitute for proper cleaning practices and does not protect users from disease carrying organisms.



P/N: 94-00051 Rev. A

Your Sensor Application with a Competitive Edge

FSLP Sensor for Position and Force Applications

## Device Characteristics

Actuation Force*	~0.2N min
Force Sensitivity Range*	~0.2N – 20N
Force Resolution	Continuous (analog)
Force Repeatability Single Part	+/- 2%
Force Repeatability Part to Part	+/-6% (Single Batch)
Non-Actuated Resistance	>10 Mohms
Hysteresis**	+10% Average $(R_{F+} - R_{F-})/R_{F+}$
Device Rise Time	<3 microseconds
Long Term Drift** 1 kg load, 35 days	< 5% $\log_{10}(\text{time})$
Operating Temperature Performance** Cold: -40°C after 1 hour Hot: +85°C after 1 hour Hot Humid: +85°C 95RH after 1 hour	-5% average resistance change -15% average resistance change +10% average resistance change
Storage Temperature Performance** Cold: -25°C after 120 hours Hot: +85°C after 120 hours Hot Humid: +85°C 95RH after 240 hours	-10% average resistance change -5% average resistance change +30% average resistance change
Tap Durability 1 Million actuations, 500g, 4Hz Ø 1.2mm Derlin Stylus	Fully functional during and after durability testing
Standing Load Durability** 2.5kg for 24 hours	-5% average resistance change
Linearity	Voltage on sense line is proportional to actuation position to within +/-3% over active area.
EMI	Generates no EMI
ESD	Not ESD sensitive
UL	All materials UL grade 94 V-1 or better
RoHS	Compliant

Specifications are derived from measurements taken at 1000 grams, and are given as (one standard deviation/mean), unless otherwise noted.

\*Typical value. Force dependent on actuation interface, mechanics, and measurement electronics.

\*\*Performance values are for the force sensing portion of the sensor. The position sensing component is minimally affected by environmental and durability factors.

FSLP Sensor for Position and Force Applications

Applications

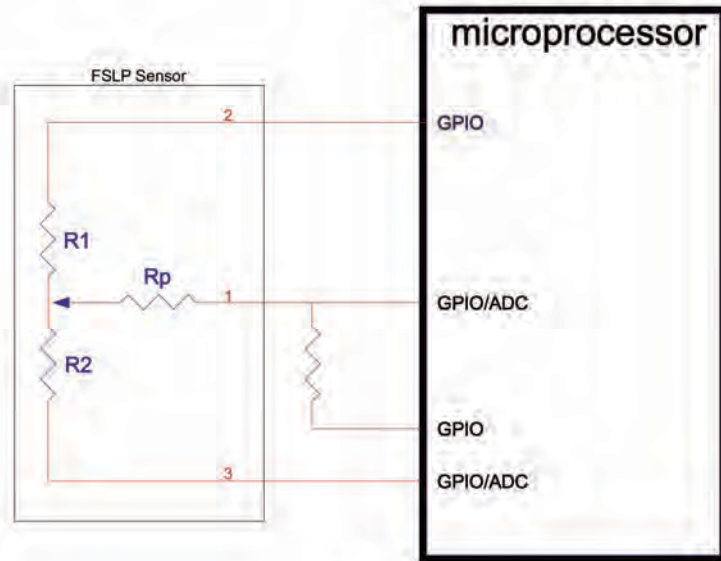
- Health care
- Food industry
- Pharmaceutical
- Mass & Home Improvement
- Consumer Electronics
- Domestic
- Infant & baby

Connector Information

Recommended tail connector:  
JST 4-pin SMT connector (JST PN#  
04-FM-1.0SP-1.9TF) or equivalent  
for FFC option

Application Information

The Interlink Electronics FSLP Sensor can measure position and pressure. The connection to the measuring microprocessor is very simple and requires only one external component. The microprocessor will need two general purpose IO (GPIO) pins and two GPIO/analog-to-digital converter (ADC) pins. The GPIOs should be able to go into high-impedance mode ( $>1M\Omega$ ) and the ADCs should be able to measure from 0 to Vcc.



PINOUT		
STANDARD FSLP	10 cm FSLP	REFERENCE
PIN #	PIN #	
1	3	SENSE LINE (SL)
2	1	DRIVE LINE 1 (D1)
3	2	DRIVE LINE 2 (D2)
4	4	NOT CONNECTED (NC)



FSLP Sensor for Position and Force Applications

Orderable Part Numbers

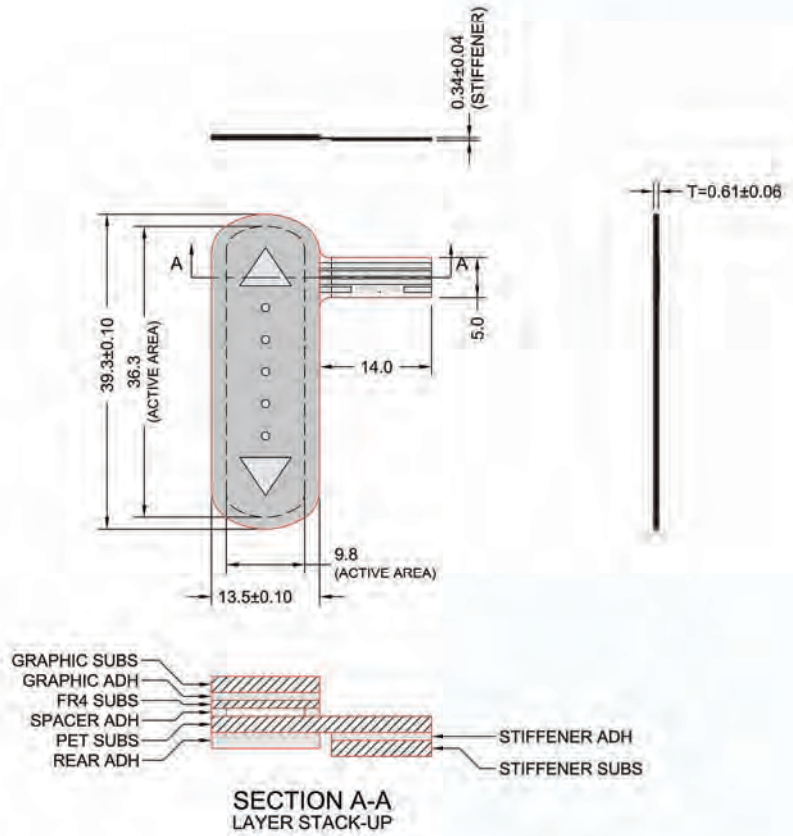
Hardware Development Kit, 54-00070

This Hardware Development Kit includes:

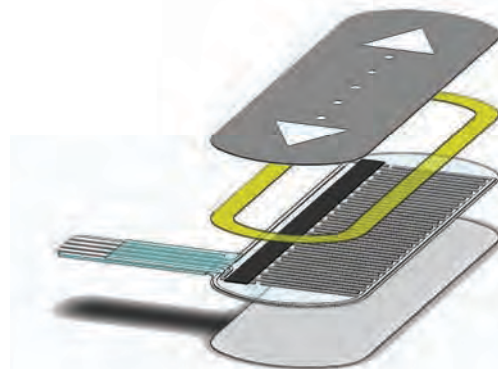
- AM™ FSLP Demo Board (Qty. 1)
- AM™ FSLP Sensor (Qty. 5)
- 4 Pin Connector (Qty. 5)

AM™ FSLP Sensor, 34-00028

Sensor Mechanical Data

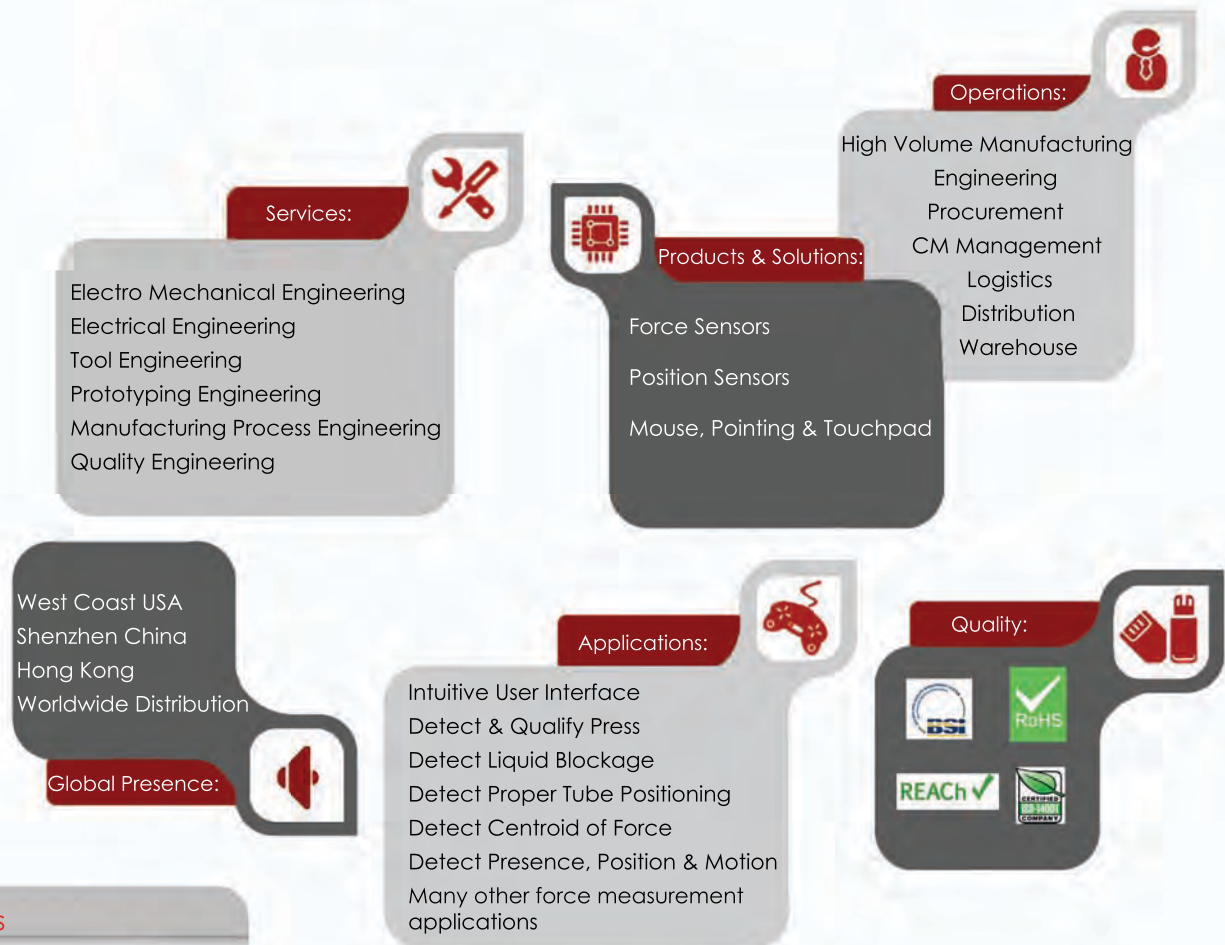


Exploded View



## FSLP Sensor for Position and Force Applications

Interlink Electronics Inc. (OTC: LINK) is a global leader in design of Force-Sensing Resistor® (FSR®) technology and a pioneer in printed electronics. For over 28 years, our solutions have focused on handheld user input, menu navigation, cursor control, & other intuitive interface technology for the world's top electronics manufacturers. We enhance and strengthen our customer's user interface and data capture solutions with our robust array of sensor technologies and expertise. Interlink Electronics is your **trusted advisor** and technology partner in the advancing world of sensor technologies.



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