



Sensor Line

Antimicrobial Technology at Work

Ring Sensor Data Sheet

Rotary Membrane Potentiometer

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

Applications

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

Description

The Ring Sensor is Interlink's solution for capturing position in compact applications. The sensor's tough, moisture resistant surface can be used with a finger, stylus, or glove; even in harsh environments.

The Ring Sensor simplifies input design, saves critical room, and helps save battery life. A battery operated demo is available. Call us or visit our website for more information.

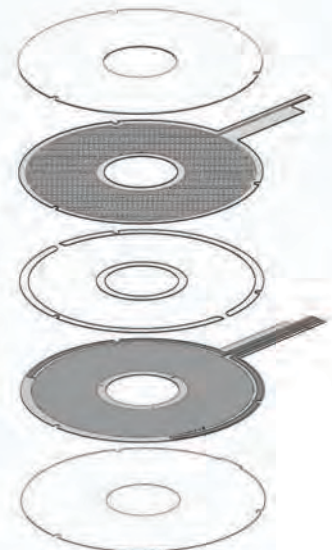
The **AM** Sensor Line from Interlink Electronics provides constant and dependable antimicrobial product protection and an added level of defense against damaging microbes for the useful lifetime of the products. The touchable surfaces of the **AM** Sensor Line inhibit the growth of microbes on contact, 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.

Sensor Construction

Ring Sensor (Rotary Membrane Potentiometer) is conducted of several layers:

- A protective graphic layer with adhesive
- A top conductive mesh sense layer
- A membrane switch spacer layer
- A bottom adhesive layer



P/N: 94-00052 Rev. A

Your Sensor Application with a Competitive Edge

Rotary Membrane Potentiometer

Device Characteristics

Actuation Force	0.2N
Position Resolution	Continuous (analog)
Non-Actuated Resistance	>10MΩ
Long Term Drift	No measureable change
Operating Temperature	Sensor is functional before, during, and after the following conditions"
Cold	-20°C for 48 hours
Hot	50°C for 48 hours
Hot Humid	50°C 85%RH for 48 hours
Hot Extended	70°C 85%RH for 48 hours
Storage Temperature	Sensor is functional before and after the following conditions:
Cold	-35°C for 4 hours
Hot	85°C for 4 hours
Hot Humid	85°C 95%RH for 4 hours
Tap Durability	Functional after 2M taps of 500g
Cycle Test	Functional after 1M strokes at 245g
Standing Load Durability	Functional after 24 hours of 50N loading
Chemical Resistance	Graphic layer surface resistant to most common cleaners and spills for 24 hours. These include: water, soap, bleach, alcohol, ammonia NH ₄ OH based window cleaner, acetic acid, CH ₃ COOH based cleaner, cola, coffee with sugar and creamer.
Linearity	Measureable to +/-3° of touch position
EMI	Generates no EMI
ESD	Not ESD sensitive
UL	All materials UL grade 94 V-1 or better
RoHS	Compliant

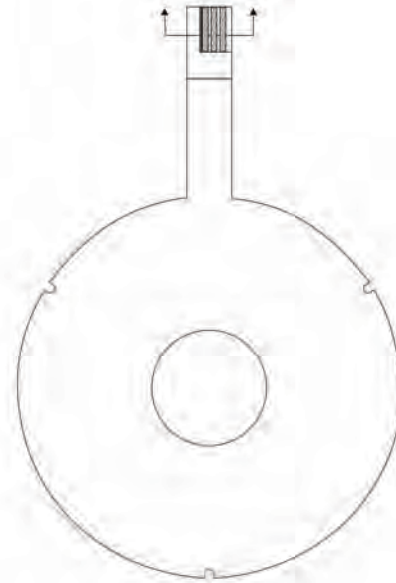
Rotary Membrane Potentiometer

Connector Information

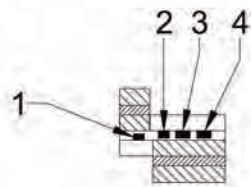
Recommended tail connector:
JST 4-pin SMT connector
(JST PN# 04FM-1.0SP-1.9TF),
or equivalent.

Application Information

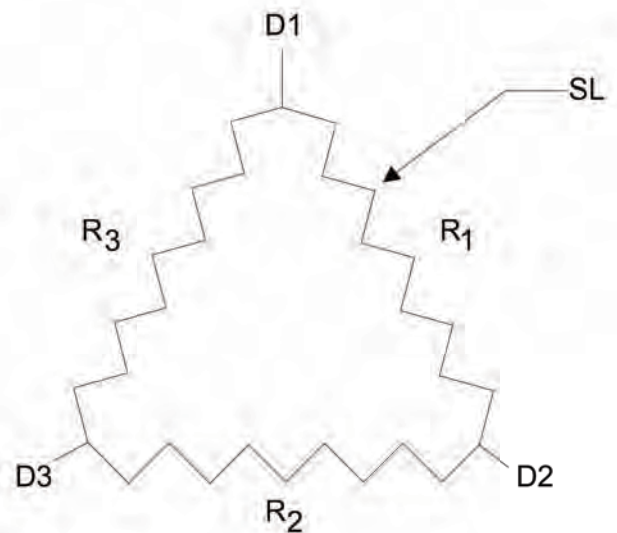
The Interlink Electronics Ring Sensor can measure position along the circular sensor path. The connection to the measuring microprocessor is very simple and requires only a few external components. For a detailed explanation on how to connect and program the Ring Sensor, see the Ring Sensor Integration Guide.



PINOUT	
PIN #	REF
1	SENSE LINE (SL)
2	DRIVE LINE 1 (D1)
3	DRIVE LINE 2 (D2)
4	DRIVE LINE 3 (D3)



PIN-OUT



Rotary Membrane Potentiometer

Orderable Part Numbers

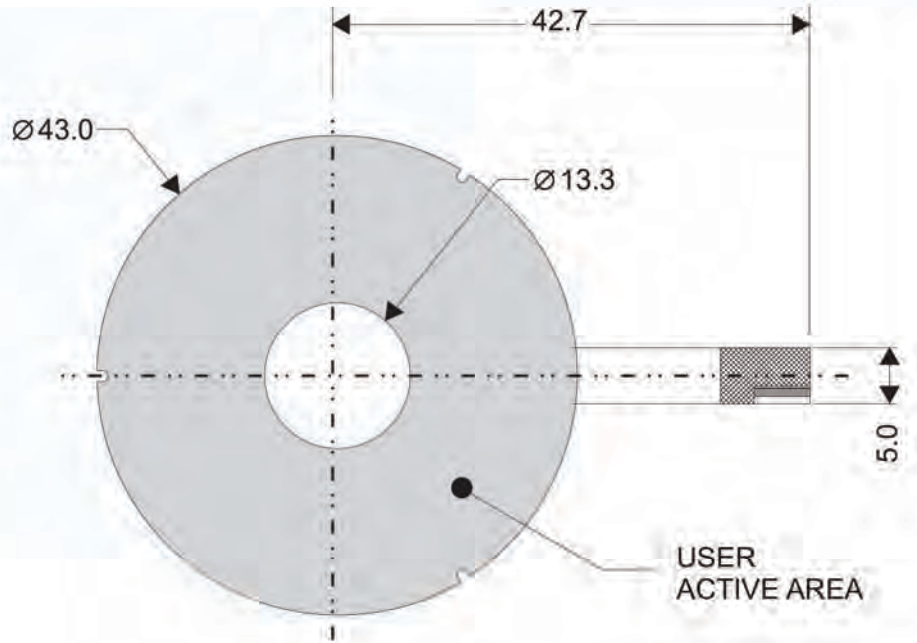
Hardware Development Kit, 54-00081

This Hardware Development Kit includes:

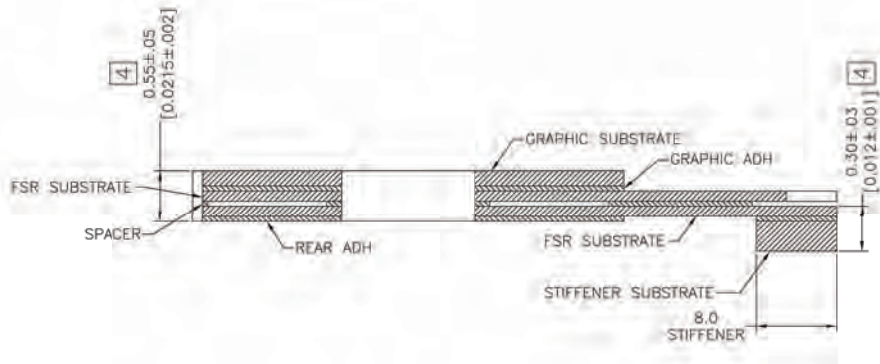
- AM™ Ring Sensor Demo Board (Qty. 1)
- AM™ Ring Sensor (Qty. 5)
- 4-Pin Connector (Qty. 5)

AM™ Ring Sensor, 34-00027

Sensor Mechanical Data

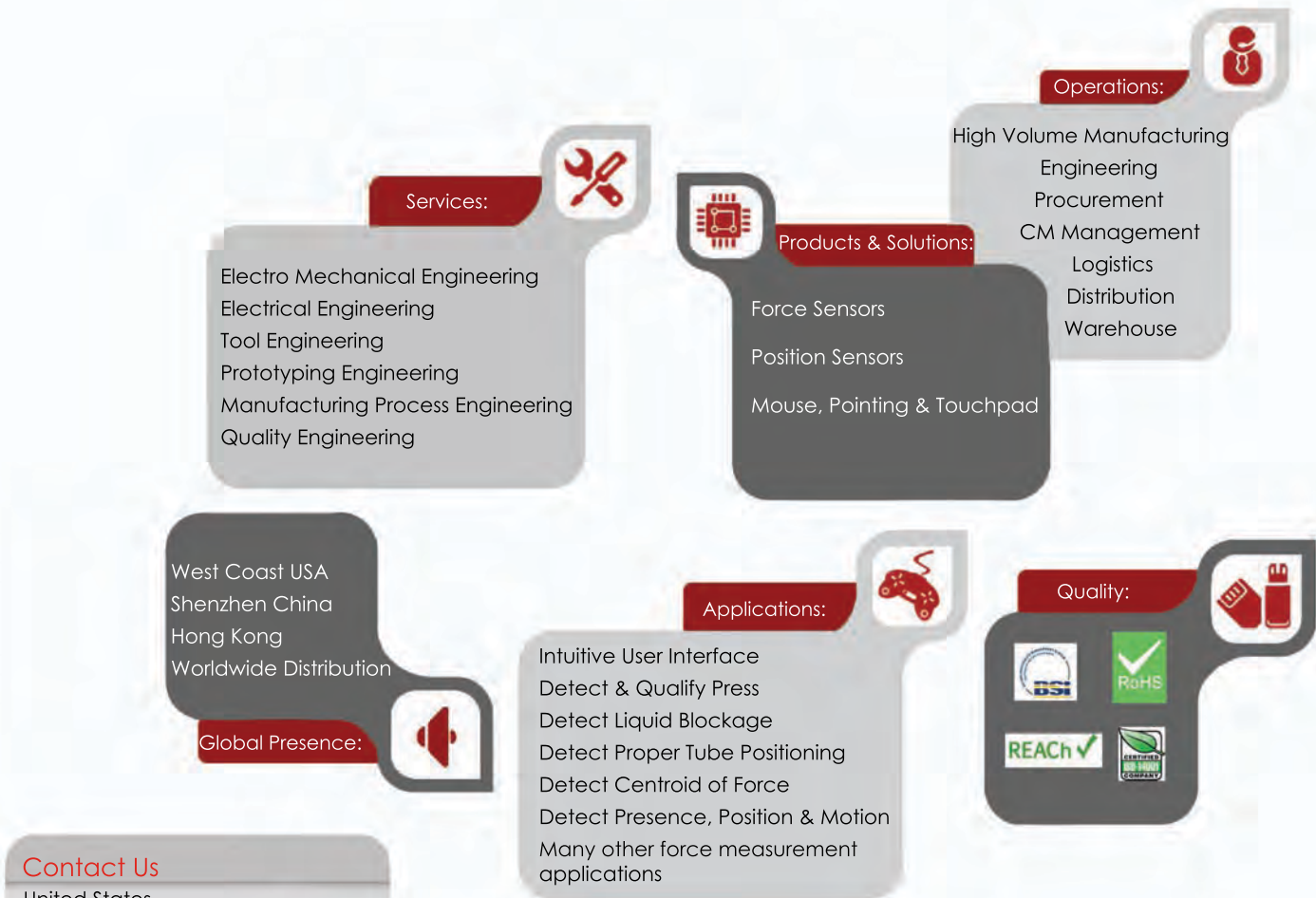


Sensor Mechanical Data



Rotary Membrane Potentiometer

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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