

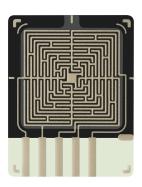
4-Zone FSR® and USB Microcontroller

Features and Benefits

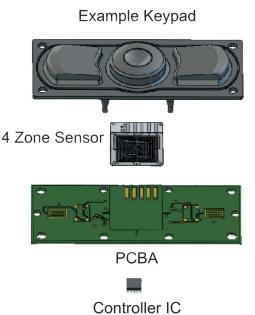
- Low current use
- Fully configurable user control
- Ultra-thin mounting profile

Description

The 4-Zone Force Sensing Resistor® (FSR®) paired with a suitable actuator can be implemented as a finger-actuated "mouse" pointing module. This pointing module provides accurate 360-degree mouse control. Users control direction by applying pressure in the direction of the desired movement and adjust speed by altering the amount of pressure on the device.









4-Zone FSR® and USB Microcontroller

Device Characteristics

Mass

Sensor 1.0 grams or less

Sensor and Controller IC 15 grams or less

Operating Temperature Performance Functional before, during, and after exposure to the below conditions

Cold Dry $-25^{\circ}\text{C} <=5\%\text{RH for 96 hours}$ Cold Humid $10^{\circ}\text{C 95\%RH for 96 hours}$ Hot Dry $70^{\circ}\text{C} <=10\%\text{RH for 96 hours}$ Hot Humid $70^{\circ}\text{C 95\% RH for 96 hours}$

Storage Temperature Performance Functional after 96 hours of exposure to the below conditions

Cold Dry $-40^{\circ}\text{C} <=5\%\text{RH}$ Hot Dry $85^{\circ}\text{C} <=10\%\text{RH}$ Hot Humid $85^{\circ}\text{C} 95\%\text{RH}$

Thermal Shock Functional after 20 cycles of -40°C to 85°C with a 30 minute dwell time and

5 minute transitions

Sensor Lifetime Durability, when actuated with a >3.5 million actuations with 500g at 4Hz

MicroModule Keypad

Mechanical Stock Comparable to MIL-STD-202, 80G accelerated in 11 msec

Mechanical Vibration Comparable to MIL-STD-202, Method 204, Condition A

EMI - Sensor Generates no EMI

ESD - Sensor Not ESD sensitive

EMC - Controller IC Passes IEC61000-4-4 test at 4KV

UL All materials UL grade 94 V-1 or better

RoHS Compliant



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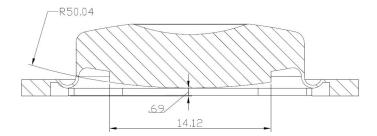
Recommended Adhesives

- 3M 9403/9705 Adhesive Transfer Tape
- 3M 7303 Head-Bondable Adhesive Tape

Application Information

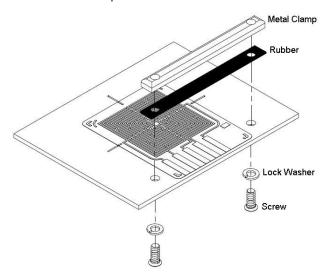
Actuator

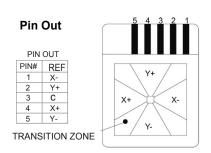
The actuator is vital to the correct operation of the 4-Zone sensor. For a CAD model of a recommended actuator visit our website at www.interlinkelectronics.com/Support



Mounting Recommendations

A constant mechanical clamp force is recommended.





For more information consult the Integration Guide found on our website: http://www.interlinkelectronics.com/FSRMouseSensor.php



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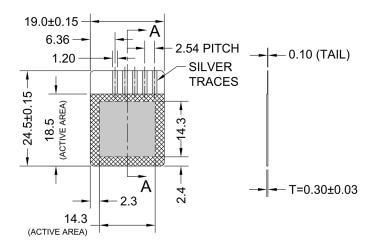
Orderable Part Numbers

Hardware Development Kit, 54-00016

This Hardware Development Kit includes:

- MicroModule Demo with USB Cable (Qty. 1)
- Programmed Microchip PIC18F14K50 Microcontroller (Qty. 5)
- 4-Zone Mouse Sensor, Square (Qty. 5)
- 4-Zone Mouse Sensor, Square with conductive adhesive (Qty. 5)
- 4-Zone Mouse Sensor, Square with tail and solder tabs (Qty. 5)
- USB Flash drive with product literature (Qty. 1)
- **4-Zone USB Microcontroller, PIC18F14K50**, PN 54-00005
- **4-Zone Mouse Sensor, Square**, PN 34-00002
- 4-Zone Mouse Sensor, Square with conductive adhesive, PN 30-79069 4-Zone USB Microcontroller, PIC18F14K50 High Temperature, PN

24-00178







Contact Us

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