

# FSR UX<sup>III</sup>

Force Sensing Resistors®



Global human machine interface (HMI) leader, Interlink Electronics—the originator of the Force Sensing Resistor\* (FSR)—expands its signature line of sensors with the FSR UX.

The improved design of the FSR UX offers a greatly expanded dynamic sensing range that extends from 0.5N to 150N, providing enhanced precision and broadening the scope of the FSR UX's potential applications.

The FSR UX 400 series comprises a full range of models in various sizes, shapes, and configurations, all of which can be utilized for custom sensing solutions.

## FEATURES

- Improved sensing range extends from 0.5N to 150N
- Ultrathin form factor
- Able to withstand extreme temperatures and conditions
- Tested to 10 million actuations
- Simple and easy to integrate
- Customizable to a wide range of applications
- Cost effective

## APPLICATIONS

- Industrial
- Robotics
- Medical
- Automotive
- Computing
- IoT
- Wearable Technology

\*Force Sensing Resistors are robust polymer thick film (PTF) devices that exhibit a decrease in resistance when increased force is applied to the surface of the sensor.

# FSR UX<sup>TM</sup> Force Sensing Resistors<sup>®</sup>

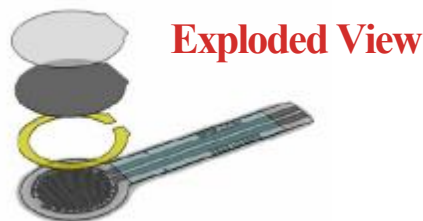
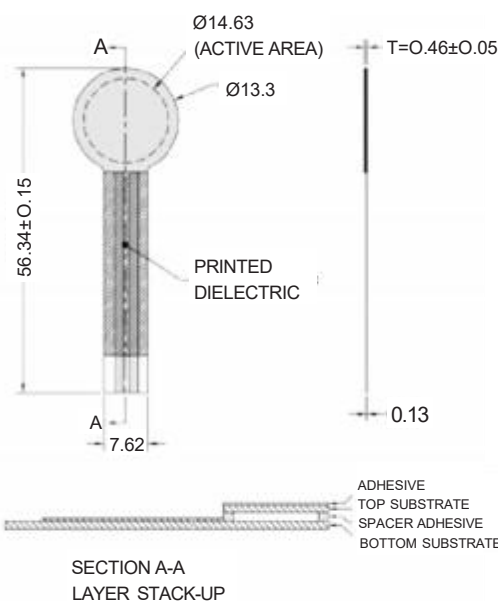


## Device Characteristics

Sensor Resistance Output .....	Analog
Actuation Force .....	0.5N (min)
Force Sensing Range ....	0.5N – 150N
Force Repeatability Single Part .....	+/-2%
Force Repeatability Part to Part .....	+/-5% (Single Batch)
No-Load Resistance.....	>10 MΩ
Hysteresis .....	+5% (RF+ – RF-)/RF+
Long Term Drift @ 5kg, 10 days .....	< 4% log <sub>10</sub> (time)
Operating Temperature Performance	
Cold: -25°C after 1 hour .....	+1% resistance change
Hot: +85°C after 1 hour.....	+3% resistance change
Storage Temperature Performance	
Cold: -40°C after 120 hours.....	+1% resistance change
Hot: +85°C after 120 hours .....	+3% resistance change
Tap Durability	
Tested to 10 Million actuations @1kg, 4Hz.....	-10% resistance change
Thermal Shock @85°C to -40°C, 20 Cycles.....	+2% resistance change
Standing Load Durability	
2.5kg for 24 hours .....	-3% resistance change
UL .....	All materials UL grade 94 V-1 or better
RoHS.....	Compliant

## Sensor Mechanical Data:

Active Area: Ø14.68mm  
 Nominal Thickness: 0.46mm  
 Switch Travel: 0.15mm



## Contact Us

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### NOTES

- Specifications are derived from average measurements taken at 5,000 grams and are given as (one standard deviation/mean), unless otherwise noted. Measurement is dependent on actuation interface, mechanics, and measurement electronics.
- The test was performed using FSR UX 402 design.
- Additional information is available upon request.