

# FSR® Model 402 Short Tail

Force Sensing Resistors®

## Model 402 Short Tail:

Active Area:  $\varnothing 12.70\text{mm}$

Nominal Thickness: 0.46mm

Switch Travel: 0.15mm

## Available Part Numbers:

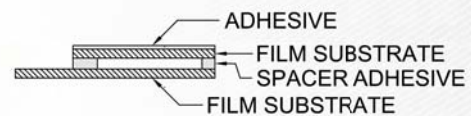
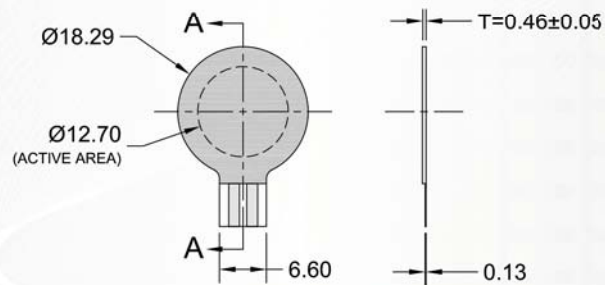
PN: 34-00016 Model 402 Short Tail  
- no contacts or solder tabs

PN: 34-00017 Model 402 Short Tail  
- with female contacts

PN: 34-00018 Model 402 Short Tail  
- with female contacts and housing

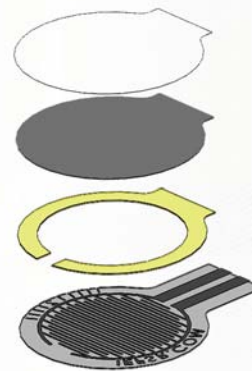
PN: 34-00015 Model 402 Short Tail  
- with solder tabs

## Sensor Mechanical Data



SECTION A-A  
LAYER STACK-UP

## Exploded View



Sensor mechanical 3D CAD data can be found on our website at [www.interlinkelectronics.com/Support](http://www.interlinkelectronics.com/Support)

## Applications

### Detect & qualify press

Sense whether a touch is accidental or intended by reading force

### Use force for UI feedback

Detect more or less user force to make a more intuitive interface

### Enhance tool safety

Differentiate a grip from a touch as a safety lock

### Find centroid of force

Use multiple sensors to determine centroid of force

### Detect presence, position, or motion

of a person or patient in a bed chair, or medical device

### Many other force change detection 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 1kg load, 35 days	< 5% $\log_{10}(\text{time})$
Operating Temperature Performance	
Cold: -40°C after 1 hour	-5% average resistance change
Hot: +85°C after 1 hour	-15% average resistance change
Hot Humid: +85°C 95RH after 1 hour	+10% average resistance change
Storage Temperature Performance	
Cold: -25°C after 120 hours	-10% average resistance change
Hot: +85°C after 120 hours	-5% average resistance change
Hot Humid: +85°C 95RH after 240 hours	+30% average resistance change
Tap Durability Tested to 10 Million actuations, 1kg, 4Hz	-10% average resistance change
Standing Load Durability 2.5kg for 24 hours	-5% average resistance change
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