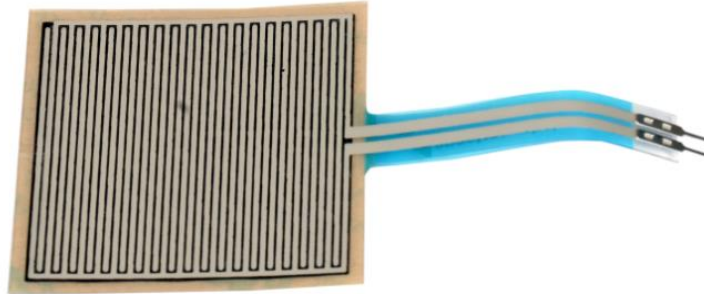


FST 38.1 mm Circle Force Sensor



The Standard FST of 38mm Square actuation area is a good fit for larger hand actuated areas. Custom sizes range up to 500mm square. PN: FST-S-0038-ST

FEATURES:

- Active Area: 38.10mm x 38.10mm
- Detection and Measurement of Force/ Pressure
- Made of flexible substrate
- Possible uses for Sensing human Touch
- Input for Gaming, Medical applications, Navigation controls, Measuring grip
- Simple construction
- Low profile
- Operating Temperature: -30°C to + 70°C
- IP Rating of Active Area: IP60 (Stock) IP65 (Custom Option)

SPECIFICATIONS:

• MECHANICAL SPECIFICATIONS:

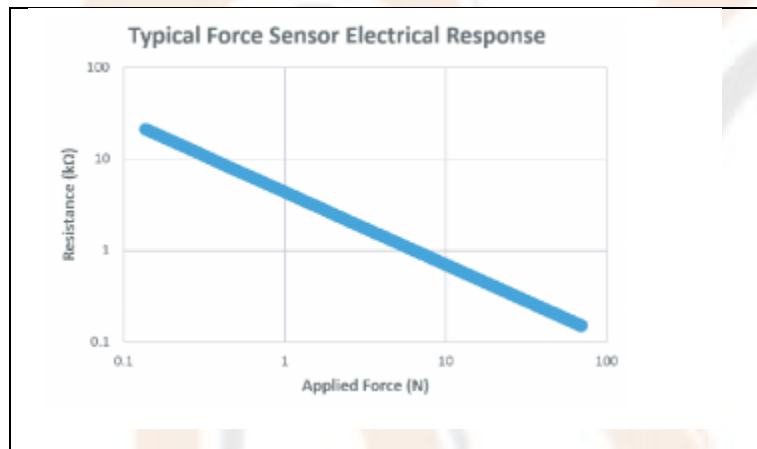
1. Actuation Cycles: >1 million
2. Actuation Force: 0.1 Newtons
3. Force Range: 0.1N to 10N

4. Thickness: <0.02in (0.1mm)
5. Z-axis Travel: 0.006 in

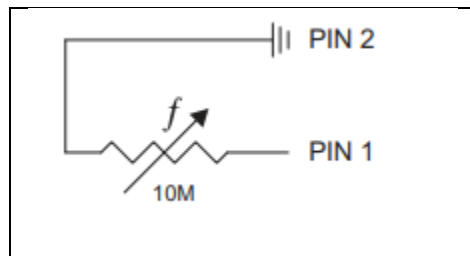
- **ELECTRICAL SPECIFICATIONS:**

1. Resistance Range: 10Mohms to 1Kohms
2. Resolution: continuous
3. Repeatability: $\pm 10\%$
4. Non-Actuated Resistance: >10MOhms

ELECTRICAL CHARACTERISTICS:



SCHEMATIC DIAGRAM:



- In simple terms, the Force Sensor Touch is a layered electrical membrane based on a specialty resistive ink on one layer that varies in resistance value as it is being pushed. The more force, the greater the conductivity of the ink, registering a resistance curve that

shows the amount of force given to the sensor. On another later, is the signal processing that transmits the change in resistance to the electronics.

- By pressing down with an actuator or a finger, requiring no electrical properties of the actuation device, the Force Sensor Touch will give the desired electrical output. The top and bottom circuits are separated by 0.15mm (0.006") spacer adhesive build-up and contact between the circuit occurs by pressure from the non-conductive mechanism.
- The FST is not a precision instrument, like a strain gauge or load cell, but is an accurate measurement of the amount of force applied to a specific location, for wider tolerance objects.

- Description of FST Series Square: FST-S-0038-ST

1. FST: Force Sensor Touch
2. S(Model): Square
3. 0038(Active area): = 38.10mm x 38.10mm
4. ST(Connectors): ST = Solder Tab

MP = Male Pins

RH = Receptacles w/Plain Housing

RL = Receptacles w/Latch Housing

RD = Receptacles w/Detent Housing

SB = FCI/Berg Clincher

OUTER DIMENSION:

