LEGACT 力 感 科 技

Technical Data File TDS# RP-4D-V1
3 Zones Pelma Pressure Sensitive Resistor

Product Description

RP-4D-V1 are resistance type flexible film pressure sensor with four independent sensing zone which is capable of detect forces from up, down, left, and right four directions. The resistance output value in sensing zone varies with the force applied to it and its direction to sense the location and movement of forces.

This sensor is compiled with robust polyester film, high conductive materials and nano-sized force-sensing materials which have excellent comprehensive mechanical properties. The bottom layer is the sensing layer of the flexible circuit board and the top layer of the sensor consists of the area of force sensitive layer on a flexible film. Two layers are stick together by a spacer adhesive and active area is without adhesive. When the sensing zone is applied force, force sensitive layer on the top layer shunts the circuit traces on the bottom, varying the resistance output value of the port according to the location of force applied to the sensor.

Product Features:

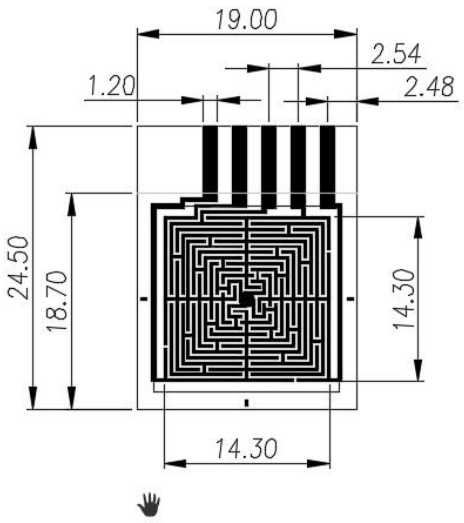
- Excellent Force Sensation
- Quick Response
- Durable long life
- Light and Soft
- Customized Design
- Location and magnitude of the force
- Control panel buttons of the machine tool
- Game controller buttons
- Dementia/Alzheimer rehabilitation training
- Trace tracking

Technical Data and Physical Properties

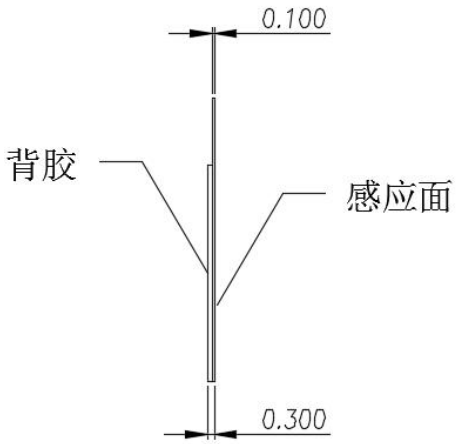
Thickness	0.30mm
Shape	Flexible
Actuation Force	10g
Sensitivity Range	10g~1kg
Reaction Mode	Soft touch pressurize
None-actuated resistance	>10M Ω
Activation Time	< 1mS
Operating temperature	-40℃~+85℃
Life time	Over 20 million times of walking (in normal situation)
Resistance Working Range	1K~100K Ω
Response Time	<1ms
Waterproof	None
Dustproof	None
EMI	Generates no EMI
EDS	Not ESD sensitive
RoHS	RoHS

Brief Introduction

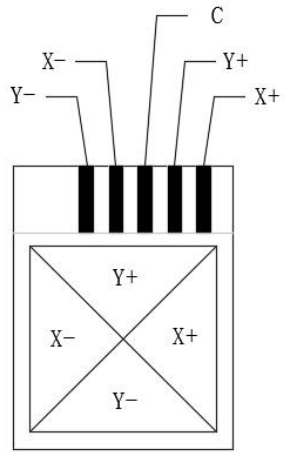
1. Structural Dimensions:



正面视图



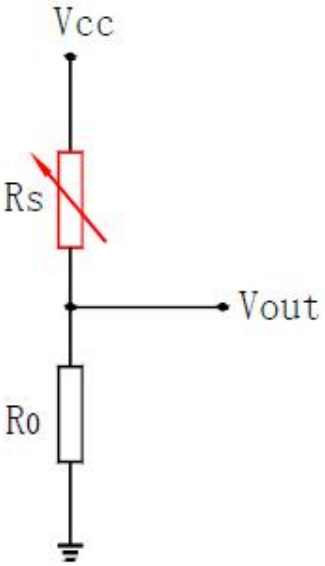
侧面视图

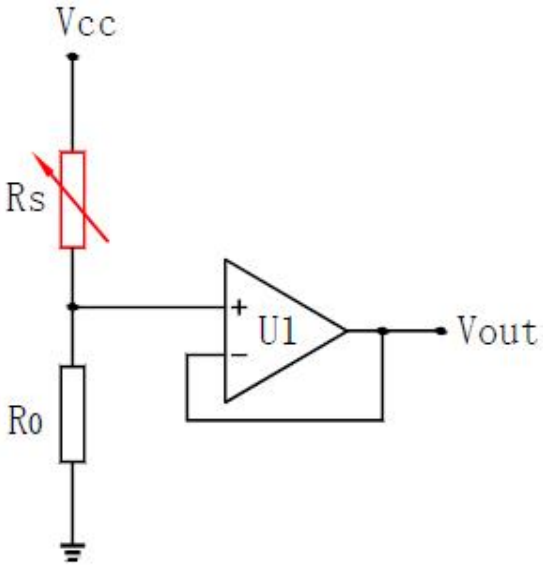


线路示意图

2. Circuit Schematic Illustration

By series connect fix resistors in around 10K ohm and capture the voltage variation of the two sides of the fixed resistor to output information.





Warnings:

The above information is considered correct and is prepared for professional, competent users who are able to properly evaluate and use these data.
Film sensor Technology Co., Ltd does not guarantee the accuracy of these data, the use of the damage occurred in the process of no responsibility.