

Product Introduction

FS-INS-16Z are flexible film pressure sensor with 16 independent sensing zone. The resistance value of each sensing point decreases with the increase of the pressure applied to it.

Our orderly sensing zone layout design consists of 20 connector wires, 2 public wires, 16 individual sensing zone wires and 2 backup vacant wires. The connector is a 1mm pitch 10Pin port in 0.3mm thickness.

This pelma pressure sensor 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.


Excellent waterproof design in IP67 level.

- Excellent Force Sensation
- Quick Response
- Durable long life
- Adaptive Foot Mechanics Design
- Excellent Waterproof Performance
- Low Power Consumption
- Customized Design

General Application (Smart Insole)

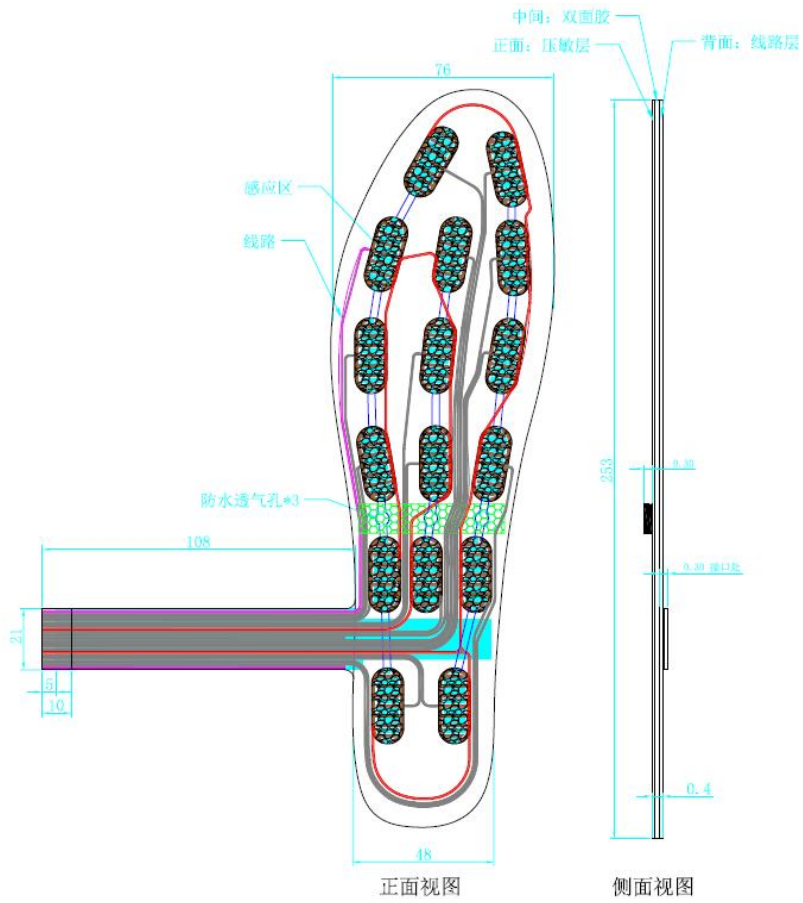
- Pedometer
- Foot correction analysis
- Gait analysis

Technical Data and Physical Properties

Thickness	0.4mm	
Type	Flexible	
Actuation Force	500g	
Sensitivity Range	0.5Kg~10kg	soft impressor
Reaction Mode	Soft touch pressurize	
None-actuated resistance	> 10M Ω	
Operating temperature	< 10mS	
Sensitivity Range	-20°C~+65°C	
Life time Resistance Range	Working	Over 1 million times of walking (Daily walking in normal situation) About 50K~150K Ω
Response Time	<10ms	
Waterproof	IP67	
Dustproof	IP67	
EMI	Generates no EMI	
EDS	Not ESD sensitive	
RoHS		

Brief Introduction

1. Structural Dimensions:

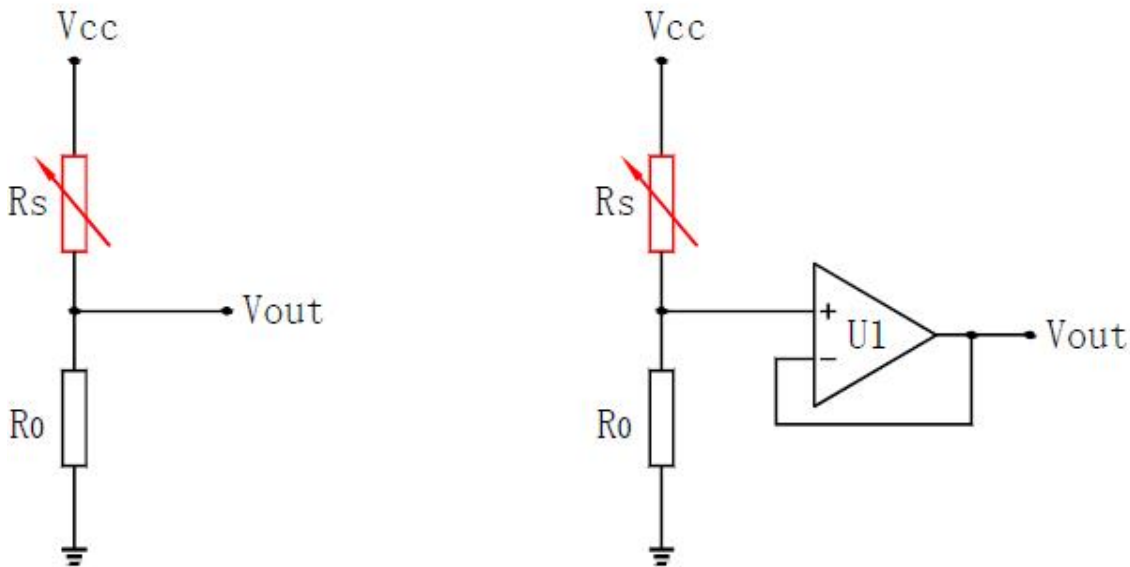


2. Resistance Features when Pressurized



3. Circuit Schematic Illustration

By series connect fix resistors in around 3K~5K ohm and capture the voltage variation of the two sides of the fixed resistor to output information.



Notes:

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.