

Data Sheet Type: RP -C5ST-0.1G Rev A

Thin film pressure sensor

Product Description

The RP-C5ST-0.1G is a thin film pressure sensor with extremely low resistance. In the absence of external pressure, the sensor is in an open state, the resistance is infinite, more than 2M ohMs; When the pressure is 0.1-0.5g, the sensor enters the trigger state, and the resistance value is less than 200 K Ω ; When the pressure increases further, the resistance decreases correspondingly. When the pressure reaches 500g, the resistance drops below 3K Ω . The output resistance of the pressure sensing terminal changes with the change of external pressure.

The pressure sensor is composed of polyester film, highly conductive material, graphene pressure sensing material and bonding material with excellent mechanical properties and environmental protection. The output interface adopts metal terminals, which can be directly solder connected.

- Excellent force sensing
- Fast response time
- Long durability
- Long service life
- The circuit principle is simple and the application is convenient
- customizable

Typical application

- Pressure keying
- Counter
- Anti-touch switch
- Force inductor

Technical Data And Physical Properties

Thickness	0.30mm with Rear ADH
Shape	flexible
Actuation force	0.1-0.5g
Sensitivity range	0.5g~500g
Trigger time	<200ΚΩ
Trigger force at 500g	<5ΚΩ
Pressure mode of action Resistance when not	Contact press
triggered	>2M Ω
Activation time	<0.01S
Operating temperature	-40℃~+85℃
Durability	More than a million times (200g force flexible press)
Resistance range	1Κ~200ΚΩ
Response time	<1ms
Waterproof	No
Dustproof	No
EMI	No
EDS	not ESD sensitive



Product pressure resistance characteristics

The following plot shows an example response resistance curve, when the sensor actuated by a force curve tester.



The following plot shows an near-linear curve which is 1/R @F.



Note:

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.

Application circuit description

It is recommended to obtain sensor output information by connecting a fixed resistor about 5K ohm in series and capturing the voltage at both ends of the fixed resistor R0.



Structural dimensions are shown below

Mechanical data of FS-C5ST-0.1G

