

Eowave Sensor Datasheet: Pressure Sensors



FEATURES

Force Sensing Resistor
18mm/46mm/60 cm ribbon
Resistive
Continuous controller

APPLICATIONS

Industry
Servomotors
Amusement equipment
Music Live control

Eowave Pressure Sensor

Eowave pressure sensors are force sensing resistors. Force Sensing Resistors (FSRs) are robust, polymer thick film (PTF) devices that exhibit a decrease in resistance when increased pressure is applied to the surface of the sensor. This force sensitivity is optimized for use in human touch control of electronic devices such as automotive electronics, medical systems and industrial PCs. They are more appropriate for qualitative rather than precision measurements. These sensors will easily make continuous buttons dimmer-like on any control surface. The 60cm pressure ribbon can be placed under a position ribbon to make a pressure and position sensitive ribbon.

Technical specifications

FSR

Passive sensor

Size Range: 18mm, 46mm, 60cm ribbon

Device thickness: 0.20 to 1.25 mm

Force Sensitivity Range: < 100 g to > 10 kg

Pressure Sensitivity Range: < 1.5 psi to > 150 psi (< 0.1 kg/cm² to > 10 kg/cm²)

Part-to-Part Force Repeatability: +-15% to +- 25% of established nominal resistance

Single Part Force Repeatability: +- 2% to +- 5% of established nominal resistance

Force Resolution: Better than 0.5% full scale

Break Force (Turn-on Force): 20 g to 100 g

Stand-Off Resistance: > 1M

Switch Characteristic: Essentially zero travel

Device Rise Time: 1-2 msec (mechanical)

Lifetime: > 10 million actuations

Maximum Current: 1 mA/cm² of applied force

Temperature Range: -30°C to +70°C

Sensitivity to Noise/Vibration: Not significantly affected

Compatible Eobody1 & 2: Wiring: 1 x 6.35 mm TRS jack, 2 m-long cable

Compatible Eobody2 Wireless System: Wiring: 3 pins

Output format: Continuous 0 to 127 (7 bit), 4095 (12 bit)

Size: 46mm square ; 18mm round ; 60cm ribbon

Weight: 5 g

Power: Built-in phantom 5V DC



Basic Settings

step 1

Connecting a pressure sensor to your Eobody2

Plug your sensor and Eobody2 USB8 SensorBox as shown in First Steps Tutorial T 0.1.

step 2

What do I need to remember about this sensor?



Except the pressure ribbon sensors, pressure sensors cannot be cut. Non sensitive surface can be taped on a plane surface. Sensitive face can be covered with tape.

Pressure sensors are very easy to configure as their range goes continuously from 0-127. It means that in most cases, using the Eobody2 internal process is not necessary. In the Editor routing window, you will be able to choose the destination (pitch bend or others).