

## ShockWatch® Impact Indicators for Products

ShockWatch provides a variety of impact indicators for use on products when they are outside their protective packaging. The indicators will determine if mishandling that may have been damaging has occurred.



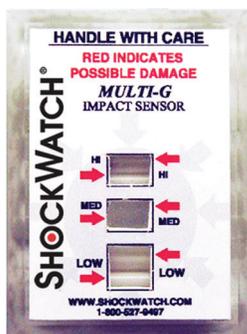
### Impact Indicators for Products

ShockWatch impact indicators are highly visible devices that turn red when an impact occurs. ShockWatch Clips, Mini-clips, and Flex clips can be adhered directly to your product. All of these indicators are available in a variety of sensitivities and are selected based on form factor: mini-clips are the smallest option; flex clips can be mounted on curved or irregular surfaces.

The ShockWatch family of clips are ideal when you need to know if mishandling may have resulted in product damage, misalignment or loss of calibration. They may also be useful in identifying warranty abuse situations.

### Benefits

- Provides indisputable evidence of mishandling
- Acts as a visual deterrent to improper handling
- Promotes chain of accountability for all product handling
- Confirms effectiveness of packaging



### Clips: Single and Double

The single Clip has one tube and will provide nearly 360 degrees of detection. The double Clip has two tubes and gives a full 360 degrees of detection. Mini - Clips are available with smaller foot print.

### Flex: Single and Double

The Flex, a flexible variation of the Clip, can be mounted easily to curved and irregular shapes, ensuring the indicator will remain in place.

### Clips: Multi-G

An impact diagnostic tool for packaging engineers, product designers, and manufacturing engineers. The Multi-G incorporates three sensitivity levels into a single unit to indicate a low, medium, and high impact. It can be used to determine package sensitivity during drop testing.

## Selection

Selection of a Clip, Flex, or Multi-G solution begins with understanding the product to be monitored. To select the proper activation levels, determine if shock specifications exist for the product to be monitored. Most complex electromechanical products have been through extensive testing to establish shock damage boundary data. When this information is available, simply select the corresponding sensitivity. Activation graphs are available to best match the damage boundary of your product to the most suitable indicator. If shock specifications do not exist for the product to be monitored, contact SpotSee for assistance with selecting a solution.

## Specifications

<b>Sensitivity range</b>	10 - 100G
<b>Impact duration</b>	0.5 - 50ms
<b>Tolerance</b>	±15% at 20°C / 68°F, 1 ATM
<b>Operating temperature</b>	-25°C to 80°C / -13°F to 176°F
<b>Adhesive</b>	Acrylic
<b>Product life</b>	2 years when stored at 20°C / 68°F, 1 ATM
<b>Storage recommendations</b>	20°C / 68°F, 1 ATM, 0-99% RH Non-condensing

## Dimensions

Clip	Double Clip	Mini Clip & Double Mini Clip	Flex Single	Flex Double	Multi-G
1.84in x 1.14in 46.7mm x 28.95mm	1.95in x 1.11in 49.5mm x 28.1mm	1.41in x 0.51in 35.8mm x 13mm	1.28in x 0.9in 32.5mm x 22.9mm	1.28in x 1.04in 32.5mm x 26.4mm	1.38in x 1.89in 35mm x 48mm



This product contains Ethylene Glycol a chemical known to the state of California to cause birth defects or other reproductive harm. For more information go to [www.p65warnings.ca.gov/product](http://www.p65warnings.ca.gov/product).

**SHOCKWATCH®**