

HIP-100™ Hail & Ice Pellet Sensor



HIP -100 Hail and Ice Pellet Sensor is an acoustic sensor developed as an add-on option to OSI's OWI-430 series Weather Sensor, giving an even greater range of weather data collection.

HIPS FAQs

1. Q. What does HIPS stand for?

A. HIPS stands for Hail and Ice Pellet Sensor. HIPS is an add-on option for the WIVIS which allows for improved hail and ice pellet discrimination. If the proper identification of hail and ice pellets is important in your application the HIPS adds valuable capability to the WIVIS.

2. Q. What are the power requirements for the HIPS?

A. The HIPS requires both AC power and +12 VDC. The optional WIVIS-DSP junction box provides the most convenient means of adding the HIPS to a WIVIS-DSP.

3. Q. Can I add the HIPS to a fielded WIVIS-DSP?

A. If AC power is available then Yes you can add the HIPS to a fielded sensor. Contact our sales department for advice in your particular application.

4. Q. What makes the HIPS work?

A. It is extremely difficult if not impossible to reliably discriminate a solid ice particle from a water droplet using optical techniques alone. However, it is common experience that when an ice particle hits a metal surface (as in hail on a car roof), the noise caused by the impact is clearly distinguishable from the impact of a water droplet. Based on this effect, OSI developed and patented an acoustic technology to detect the ice pellets and hail stones with the addition of HIPS. However, using only an acoustic signal will potentially result in false identifications caused by blowing sand and other error mechanisms. By combining both the optical signal and the acoustic signal, reliable detection and discrimination of ice particles can be achieved. No other present weather sensor can distinguish hail and ice pellets as well as the WIVIS-DSP with the optional HIPS.

5. Q. Can the HIPS be used with sensors other than the WIVIS-DSP?

A. Yes, the HIPS is also compatible with the WIVIS and ORG.

Contact the OSi Sales Department for additional information.

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Item # HIP-100, HIPS Hail and Ice Pellet Add-On Sensors



HIPS Hail and Ice Pellet Add-On Sensors

HIP-100 is an acoustic sensor developed as an add-on option to the OWI-series Weather Sensors, giving an even greater range of weather data collection. It is difficult to discriminate a solid ice particle from a water droplet using optical techniques alone. When an ice particle hits a metal surface, the noise caused by the impact is clearly distinguishable from the impact of a water droplet. Based on this effect, We have developed and patented an acoustic technology to detect the ice pellets and hail stones: **HIP-100**. Combining the optical and acoustic signal, reliable detection and discrimination of ice particles can be achieved. No other present weather sensor can distinguish hail and ice pellets as well as the OWI sensor with the HIP-100

Advantages

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- An add-on option to OSI's OWI series Weather Sensors
- Compatible with LPAWOS an MAWOS systems
- Patented Acoustic Technology
- Easy to install
- Low - maintenance
- Rugged all-weather construction
- Interior heater prevents snow/ice accumulation

Specifications

Measurement Technique	Acoustic
Transient Protection	All power & signal lines fully protected
Signal Output	RS-232 ASCII, simple polled protocol (output integrated into OWI output data)
Temperature	-40 to 60 °C -40 to 160 °F
Condensing Humidity	0 to 100 %

Power Requirements

Power Requirements (Electronics)	12V (Power for electronics is supplied by the OWI sensor)
Heater Alternating Current (AC) Supply Voltage¹	110 V 220 V
Heater Current²	100 V·A

Environmental Specifications

Precipitation/Dust	NEMA 4 Type Protection
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¹ Separate AC line required.

² Separate AC line required.

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