Package contents

1x KISTERS HailSens IoT with pole mount bracket

1x Power cable M12 4-pin connector, 10 m (32.8 ft)

1x Allen key

1x FAT document

1x Open-end wrench, opening width 10 mm

Specifications summary

The technical specifications listed below are only binding if no other agreements have been made. All nuts and bolts metric.

Measured Parameters:

Kinetic energy [J], derived equivalent diameter [mm]

Range: 0.005 J ... 28 J

Accuracy: ±10 %

Dimensions:

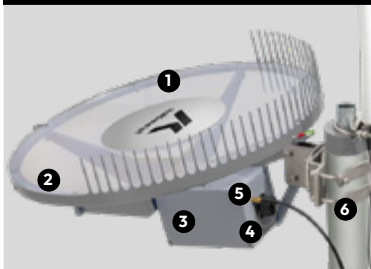– Ø 500 mm (19.685 in), height: 300 mm (11.811 in)

– weight: 6 kg net (13.23 lb)

Operating voltage:

10 ... 18 V DC

Power consumption @ 12V:

Measuring: < 60 mA

Wireless comms engaged: 120 mA

Operating temperature range: -40 °C ... +70 °C (-40 °F ... 158 °F)

Medium temperature: 0 °C ... +70 °C (32 °F ... 158 °F) for best performance

Signal Outputs: Ethernet RJ45 or wireless IP modem

Rating: IP66

Main parts

1	Transducer Plate with integrated Piezo
2	Bird Guard
3	Electronics Box
4	Ethernet Connector IP66
5	SMA Antenna Connector
6	Pole Mount Bracket

Configuration

Requires connection of a computer with a browser through the µUSB interface of the electronics board.

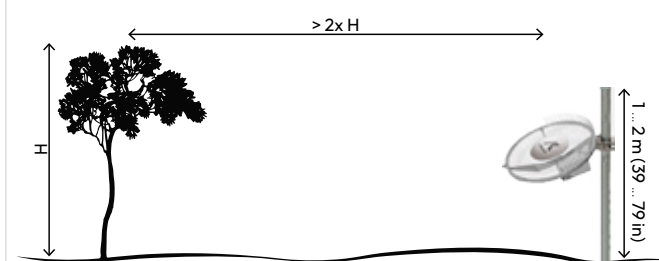Install the Sierra Wireless Windows USB driver GenericDriverSetup.exe on the PC/laptop.

The KISTERS HailSens IoT is user-configurable. Start the browser and enter the following **URL: http://192.168.2.2**

The configuration dialogue will open in your browser.

Refer to the **KISTERS HailSens IoT user manual** on our product website for further information on settings.

Cable and connector pinout

❶	❷	❸	❹
12 V DC	not connected	not connected	GND

44 mm (1,7 in)

Ø 11 mm (0,4 in)

M 12

Ø 14,8 mm (0,6 in)

⚠ **Caution:** Incorrect or faulty connection can damage the device. All interface and power connectors are protected against reverse polarity, but incorrect connection of power cables to interface cables can damage the device.

Mounting instructions

> 2x H

H

1 ... 2 m (39 ... 79 in)

The pole mount bracket is designed for poles with diameters ranging from 3.81 cm ... 10.16 cm (1.5 in ... 4 in).

Mandatory ground/earth connection: ⚠
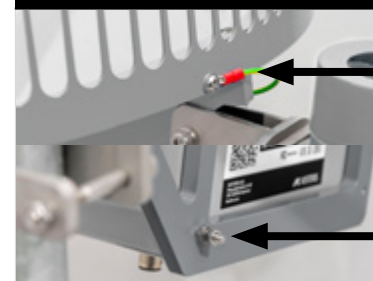
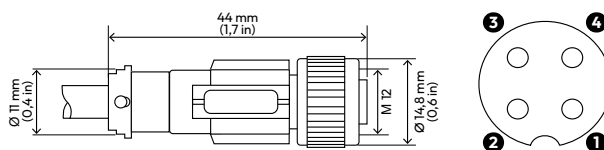Equipotential bonding (precabled)

M6 Earth stud/ grounding

– Ground cable min specs: Ø 2.5 mm²/AWG 14

– Recommended color code: green-yellow or bare green

Consider the following when installing Hail Sens:

– Ensure that there are no obstacles to the sensor plate. Select open areas without nearby trees, tall buildings, or other potential obstructions.

– Avoid power line and communication towers that could attract lightning and surges.

– Avoid areas with high wind.

⚠ Safety instructions

1. **Installation Guide:** Read the installation guide before installing HailSens IoT. For qualified personnel only. Keep for reference.

2. **Support:** Contact the manufacturer or reseller if you have trouble understanding the IG.

3. **Intended Use:** HailSens IoT is for measuring hail impacts only.

4. **Safety:** Do not install in hazardous or explosive areas.

5. **Specifications:** Follow all electrical, technical, and climatic specifications.

6. **Warranty:** Modifications void the warranty.

7. **Standards:** Follow electrical safety standards.

8. **Regulations:** Comply with health, safety and environment regulations.

9. **Handling:** Avoid touching electronic components; discharge static before handling.

10. **Grounding requirement:** HailSens IoT must be grounded to safely conduct static charges to the ground, preventing electronics damage and false positives.

11. **Electrical safety warning:** Ungrounded devices can discharge electrical charges through human contact, posing a safety risk.

12. **Bird-guard safety:** The bird-guard has metal spikes. Wear gloves and protective glasses during installation.

13. **Pinch point caution:** Avoid inserting fingers between the pole mount bracket and the pole during installation to prevent injury.

For detailed safety instructions, please refer to the user manual available for download from the product website:

## Connecting the Ethernet cable

Use the round closing cap when no cable is fitted. This cap ensures the CAT6 RJ45 jack is dustproof and weatherproof (IP 65).

Use the conical cap with a cable. This cap provides a waterproof and dustproof seal for CAT6 RJ45 jacks. Use CAT6 cables with a 7 … 9 mm/0.28 … 0.35 in OD or optimal sealing. To install, slide the conical cap onto the CAT6 cable, crimp an RJ45 connector, connect the plug to the RJ45 jack, and screw the cap onto the jack.

SMA Antenna Connector
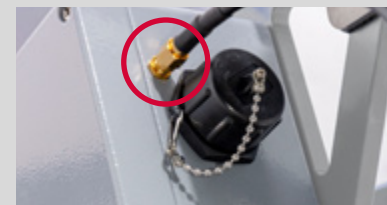
The antenna is required for mobile/cellular communications.

Only use antennas that operate in the 4G/5G frequency range of LTE and LTE-M network technology.

An extension cable can be used to facilitate the positioning of the antenna. Be sure to use a suitable coaxial quality cable of length <= 5 m with male and female SMA connectors.

If your sensor is wired using the RJ45 connector, the unused SMA connector must be protected. A protective cap is supplied with the HailSens.