



**Honeywell Versatilis™ Signal Scout™,
Honeywell Versatilis™ Signal Scout™ - Energy Harvested
Release 110**

Installation and User's Guide

34-VT-25-02

March 2024

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ABOUT THIS GUIDE

This guide provides information to assist you in installation, configuration, maintenance, and troubleshooting scenarios of the Honeywell Versatilis™ Signal Scout™ and Honeywell Versatilis™ Signal Scout™ - Energy Harvested.

Revision history

Revision	Date	Description
A	March 2023	The initial release of the document for R100.
B	September 2023	Initial release of the R101. Under the "Configuration" section, the following information is added: - Gas sensor ON/ OFF scenarios (manual). - Humidity sensor ON/ OFF behavior (automatic).
C	March 2024	Initial release of the R110. Introduced Honeywell Versatilis™ Signal Scout™ - Energy Harvested variant. Introduced Epoxy Mounting option.

Related documents

Document Name	Document Number
Honeywell Versatilis™ Signal Scout™ Technical Specification	34-VT-03-02
Honeywell Versatilis™ Signal Scout™ Quick	34-VT-25-06

Document Name	Document Number
Start Guide	
Honeywell Versatilis™ Connect App User's Guide	34-VT-25-03
Emissions Management Solution Implementation and Operations Guide	EPDOC-X926-en-110A

Terms and abbreviations

Terms	Definitions
ATEX	Appareils destinés à être utilisés en Atmosphères Explosives
BLE	Bluetooth® Low Energy
CCOE	Chief Controller of Explosives
CAPEX	Capital Expenditures
HVSS	Honeywell Versatilis™ Signal Scout™
HVSS - EH	Honeywell Versatilis™ Signal Scout™ - Energy Harvested (Honeywell Versatilis Signal Scout - EH)
iOS	iPhone Operating System
IIoT	Industrial Internet of Things
LoRa	"Long Range" Radio Communication Technique
LPWA	"Low Power, Wide Area" networking protocol
MES	Microelectronic Spectroscopy
OPEX	Operational Expenditure
OTAA	Over The Air Activation
PV	Photovoltaic
SPC	Super Pulse Capacitor

INSTRUCTIONS AND SAFETY MEASURES

Precautions

The following precautions must be exercised to use the Honeywell Versatilis™ Signal Scout™ and Honeywell Versatilis™ Signal Scout™ - Energy Harvested, safely and effectively:

- Honeywell will not provide any guarantee, if the HVSS is disassembled.
- The battery may present a potential electrostatic ignition hazard when dissembled.
- Improper use may lead to battery fluid leakage, excessive heat, ignition, or explosion.
- Honeywell will not be liable for any hazard that might be caused due to negligence in handling the HVSS and HVSS - EH.
- Care should be taken to protect the HVSS from impact or abrasion if located in a Zone 0/Class I Div 1 environment.
- It is the responsibility of the end user to verify that the HVSS has the necessary approvals required for the intended area of use.
- Ensure that the operating environment of the HVSS is consistent with the appropriate hazardous location's certification.

Hazardous locations

Honeywell Versatilis™ Signal Scout™ and Honeywell Versatilis™ Signal Scout™ - Energy Harvested are available with IECEx, ATEX, UKCA Ex, North America Class I Div I and CCoE approvals.

For more information, see [certifications](#) section.

Best practices

Table 2-1: Best Practices - DOs

DOs	
	Ensure there is an adequate space to access the HVSS before selecting an installation position.
	The HVSS must be installed vertically perpendicular to the target structure (like beams, frames, etc) for overall best performance.
	Ensure the target surface of the structure is free from greasy, corrosion, abrasion, and uneven surfaces. So, the magnetic adapter attaches firmly to the target surface, thereby improving the measurement of frequency response.
	Ensure there are no damages, pigments, dents, or Contortion to the surface of the HVSS base. Any such deformations or pigments may affect performance and measurement accuracy.
	Ensure that there is no visible damage to the filter on the face of the sensor, before installation. If the filter is damaged then the sensor will not function as intended.
	Dispose the HVSS and battery according to the local laws and regulations.
	Installation in an explosive environment must be under the appropriate local, national, and international standards, codes, and practices.
	Whenever the maintenance activity is carried out on Honeywell Versatilis™ Signal Scout™ - Energy Harvested, ensure that it is cleaned to maintain the efficiency of the PV cells.

Table 2-2: Best Practices - DON'Ts

DON'Ts	
	Do not remove the HVSS enclosure without written consent from Honeywell. The HVSS is packaged with battery and sensitive electronics, that may be damaged without proper care. Pay attention to don'ts when the HVSS enclosure is removed: • Do not short-circuit. • Do not disassemble or change. • Do not expose to heat or fire.
	Do not use bare hands while installing the magnetic adapter on the target structure as the magnet is powerful and can pinch the skin/fingers if not handled properly.
	Do not mount the adhesive mount adapter on uneven, rough, or curved surfaces as there is a potential risk of falling down of the HVSS due to the lack of sufficient bonding area.

HONEYWELL VERSATILIS SIGNAL SCOUT OVERVIEW

Honeywell Versatilis™ Signal Scout™ (HVSS) and Honeywell Versatilis™ Signal Scout™ - Energy Harvested (HVSS - EH) are smart methane gas leak detectors that use Microelectronic Spectroscopy (MES) technology and a patented design to deliver rapid and accurate methane gas leak detection across a variety of industries from the oil and gas supply chain to safety applications.

The HVSS comes in two variants:

- Honeywell Versatilis™ Signal Scout™ (HVSS):
The variant is an intrinsically safe certified assembly. It has a single source of power, i.e., powered by a non-rechargeable Li/SOCl₂ battery.
- Honeywell Versatilis™ Signal Scout™ - Energy Harvested (HVSS - EH):

The variant introduces the addition of Photovoltaic (PV) panels and Energy Harvester PCB to the already intrinsically safe certified Honeywell Versatilis™ Signal Scout™ assembly. Thus the variant supports dual power sources, i.e. PV cells (solar) and Li/SOCl₂ battery.

The variant is equipped with PV cells mounted on a lid which is specifically designed to efficiently extract the microwatts (μW) to milliwatts (mW) of power, generated from a variety of DC energy harvesting. The energy is harvested from high-impedance sources like photovoltaic (solar) without collapsing the source.

The battery management features of the variant ensure that a secondary rechargeable battery is not overcharged by this extracted power, or with a voltage boost, and not depleted beyond safe limits by a system load. The integrated multiplexer gate drivers autonomously switch the system load to a backup primary non-rechargeable battery if the secondary battery voltage falls below the defined threshold.



Figure 3-1: Left: Honeywell Versatilis™ Signal Scout™; Right: Honeywell Versatilis™ Signal Scout™ - Energy Harvested

Key features

The key features of the Honeywell Versatilis™ Signal Scout™ and Honeywell Versatilis™ Signal Scout™ - Energy Harvested are as follows:

Table 3-1: Key Features

	Based on the latest LoRaWAN® protocol communication technology for large area coverage.
	Compact and patented ¹ aerodynamically optimized design.
	Built-in battery compartment. Dual sources of power, and extended battery life ² .
	Quick and easy installation and commissioning (no cabling).

	Poison resistant, robust, and intrinsically safe. Built-in environmental compensation and self-testing for fail-safe operation.
	Access real time and historical data, with insights visualization supported.
	Configurable sensor parameters, and data update frequency rate.
	Multiple mounting options available.
¹Patent is applied, yet to be granted. ²Applicable only for Honeywell Versatilis™ Signal Scout™ - Energy Harvested. For detailed battery life calculation for Honeywell Versatilis™ Signal Scout™ - Energy Harvested, kindly contact HPS Technical Support.	

Illustrations and dimensions

The physical dimensions of the Honeywell Versatilis™ Signal Scout™ and Honeywell Versatilis™ Signal Scout™ - Energy Harvested are shown below:

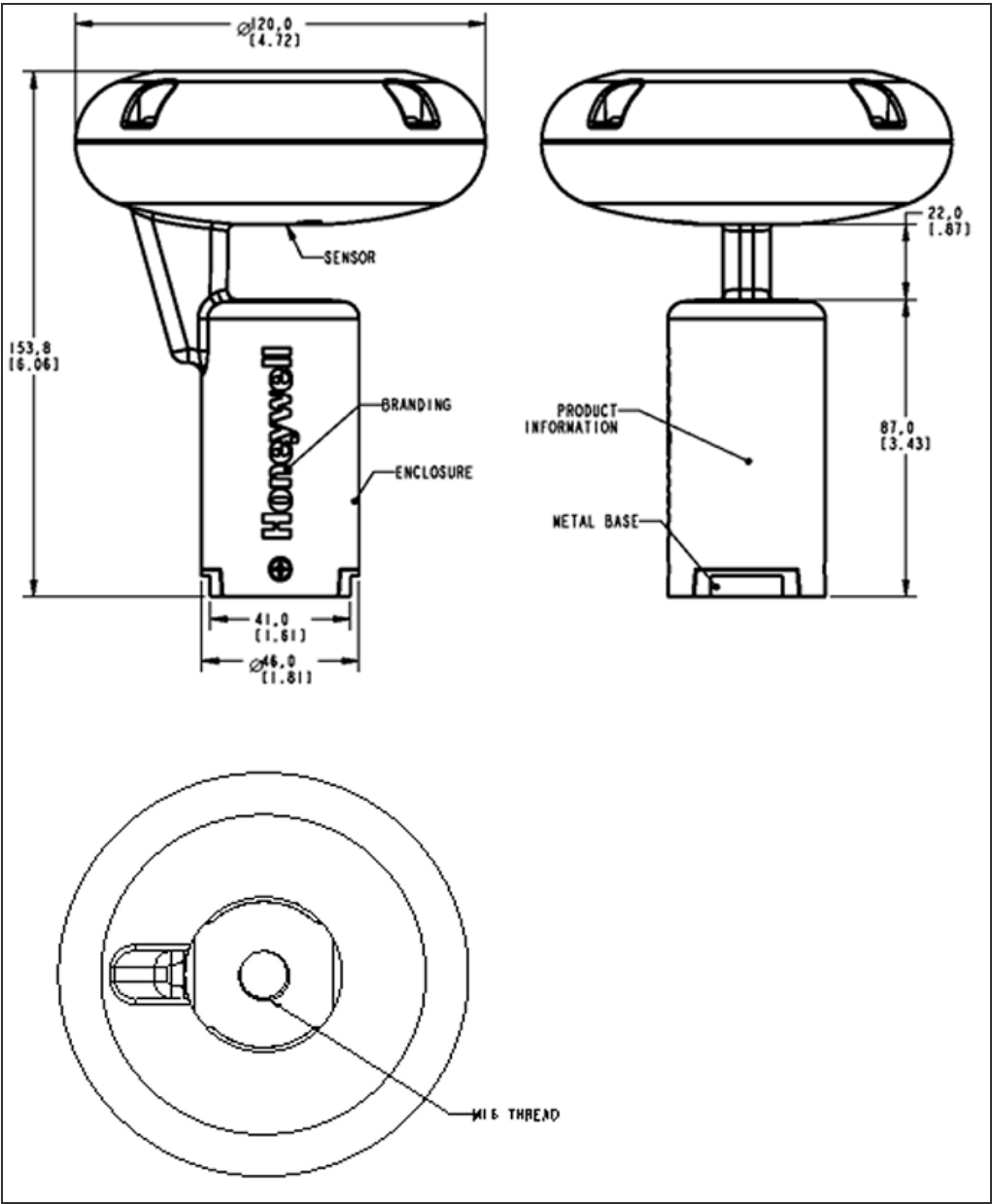


Figure 3-2: Dimensions of Honeywell Versatilis™ Signal Scout™

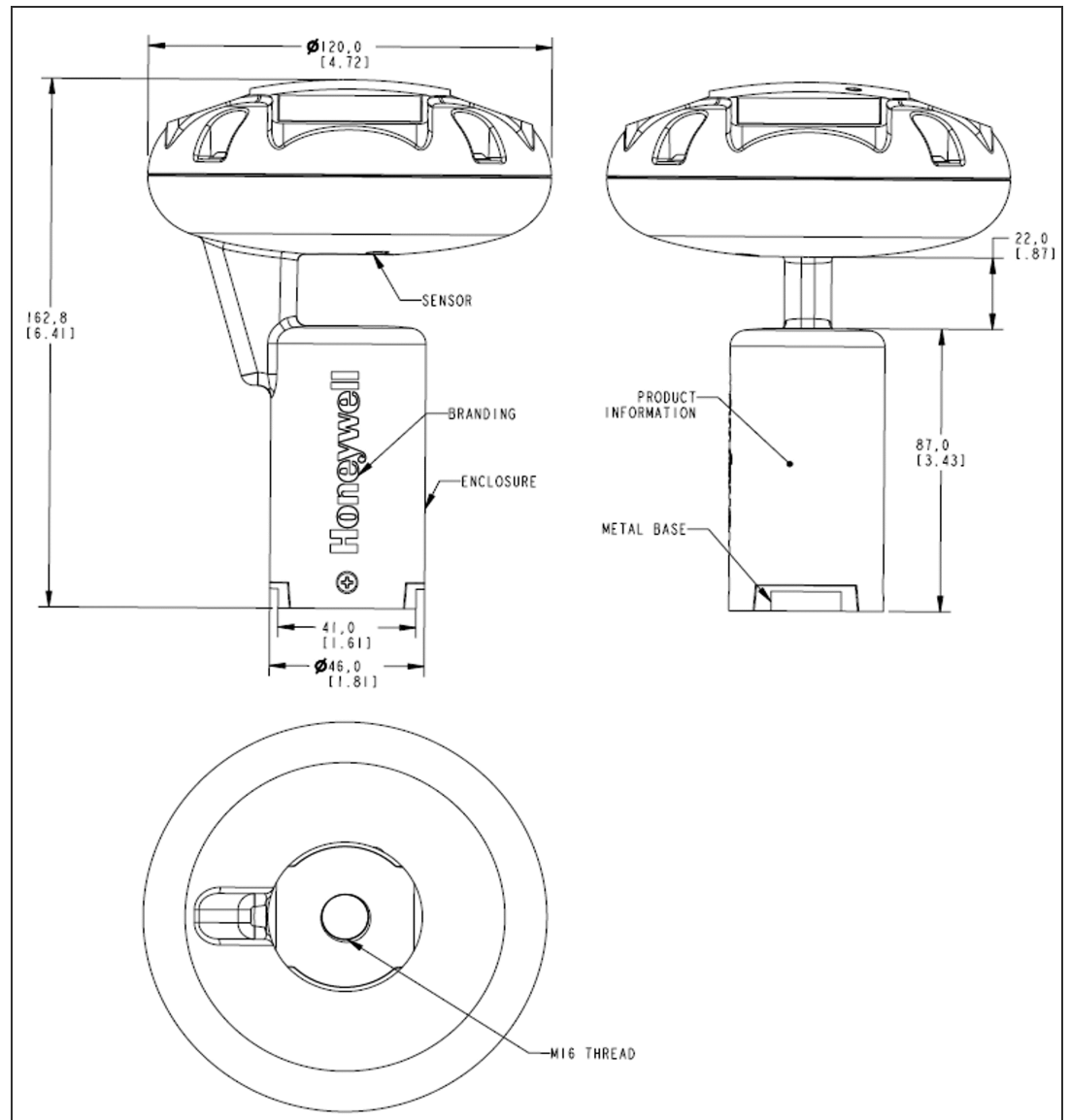


Figure 3-3: Dimensions of Honeywell Versatilis™ Signal Scout™ - Energy Harvested

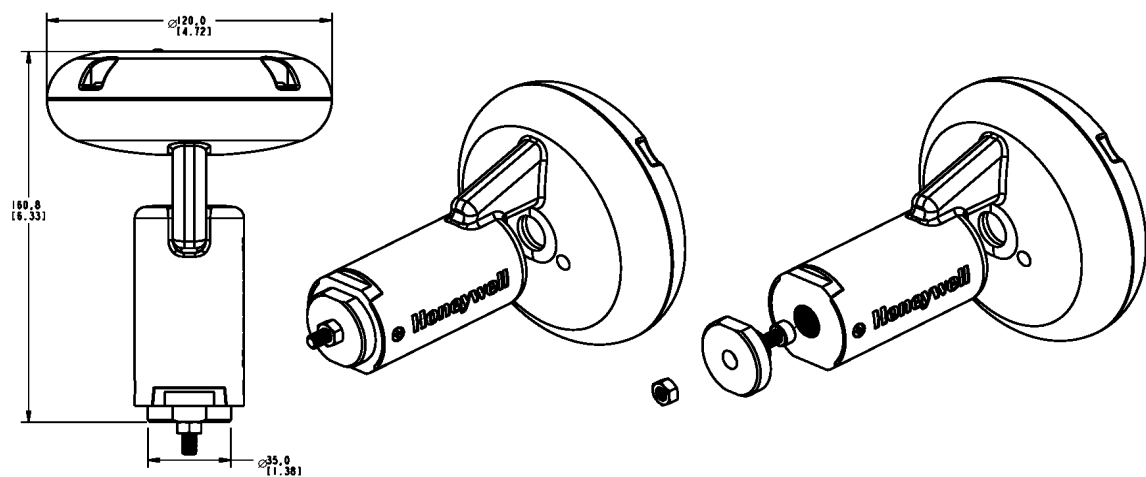


Figure 3-4: Dimensions of HVSS with Screw mount adapter¹

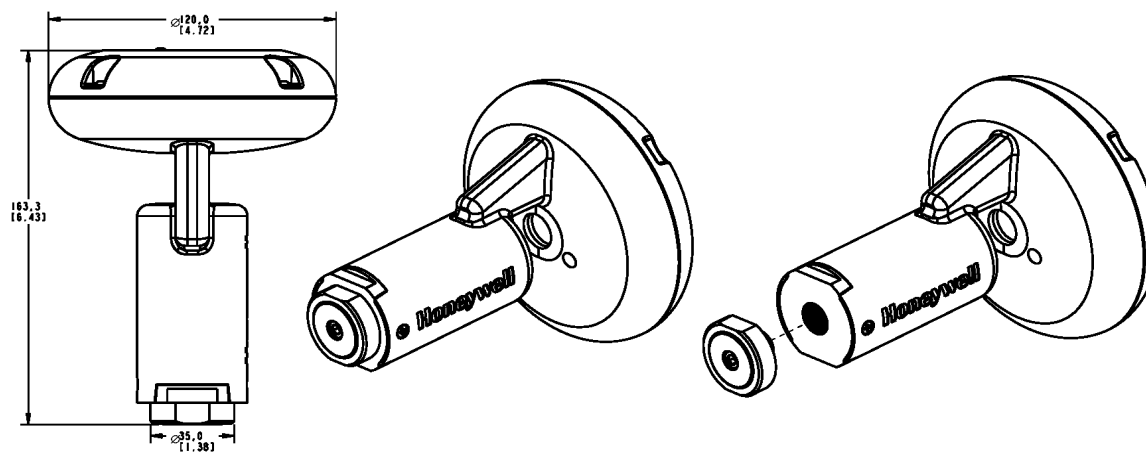


Figure 3-5: Dimensions of HVSS with Magnetic mount adapter¹

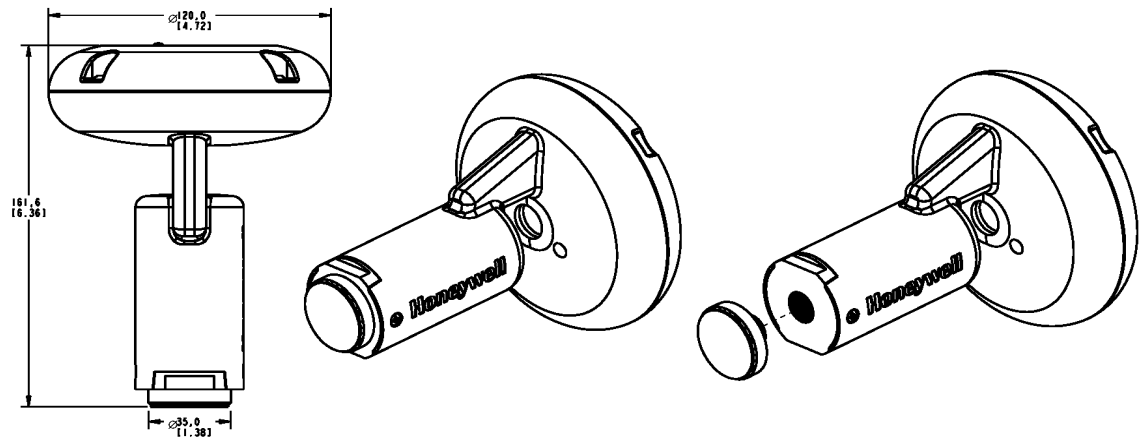


Figure 3-6: Dimensions of HVSS with Adhesive mount adapter¹

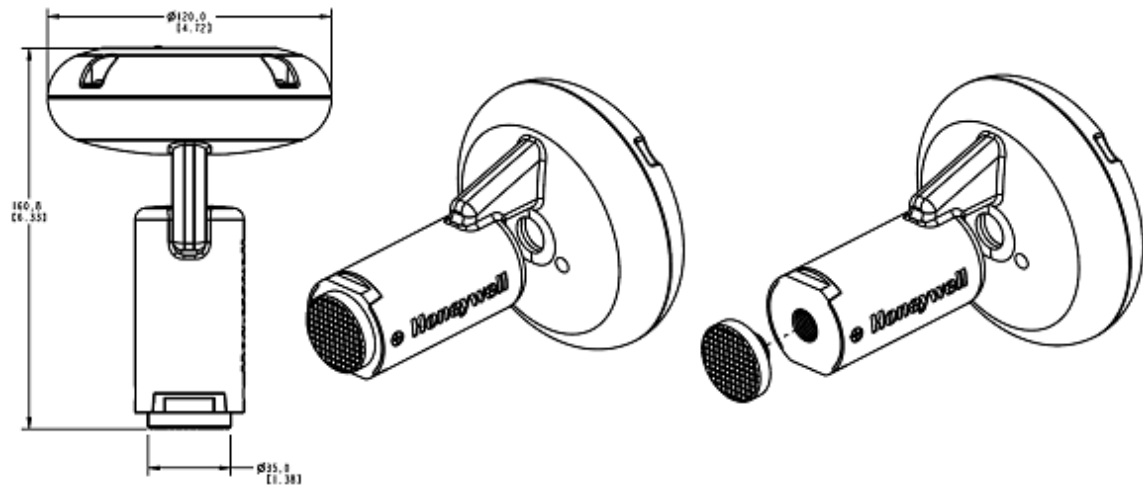


Figure 3-7: Dimensions of HVSS with Adhesive mount adapter (Epoxy compatible)¹

¹Honeywell Versatilis™ Signal Scout™ is shown for reference whereas the base dimension is common for both Honeywell Versatilis™ Signal Scout™ and Honeywell Versatilis™ Signal Scout™ - Energy Harvested variants.

SPECIFICATIONS

Hardware Specifications

The following table provides the hardware specifications common to both Honeywell Versatilis™ Signal Scout™ and Honeywell Versatilis™ Signal Scout™ - Energy Harvested variants:

Table 4-1: Hardware Specifications

Parameters	Description
LoRaWAN® Class-A	Long Range Communication Supporting Regions: EU868, US915, IN865, AS923
LoRaWAN® Data Publish	Real time Sensor parameters sent to the cloud for analytics: Methane gas concentration, Pressure, Humidity, Temperature.
BLE Communication	2.4 GHz, Bluetooth® Low Energy 5.0 Communication for Configuration.
Battery	Honeywell Versatilis™ Signal Scout™ is energized by: Battery: Li/SOCl ₂ ; Power Supply: 3.6 VDC
	Honeywell Versatilis™ Signal Scout™ - Energy Harvested is energized by: • Battery: Li/SOCl₂; Power Supply: 3.6 VDC • Super Pulse Capacitor (SPC) for PV cells: Li/SOCl₂; Power Supply: 3.6 VDC

Parameters	Description
Battery life	Honeywell Versatilis™ Signal Scout™: 18 months ¹
	Honeywell Versatilis™ Signal Scout™ - Energy Harvested: Up to 60 months under standard operating conditions ² .
HVSS status indication	For LED status indication, see LED States .
Gas Sensor	Methane sensor (Microelectronic Spectroscopy): 50ppm to 65535ppm concentration.
Pressure Sensor	300 to 1100 hPa
Humidity Sensor	0 to 100 %RH
Temperature Sensor	-40°C to +70°C (-40°F to +158°F)
Physical dimensions (without adapter)	Honeywell Versatilis™ Signal Scout™: H 153.8mm (6.06 Inches) x D 120mm (4.72 Inches)
	Honeywell Versatilis™ Signal Scout™ - Energy Harvested: H 162.8mm (6.41 Inches) x D 120mm (4.72 Inches)
Total Weight (including mounting adapter)	Honeywell Versatilis™ Signal Scout™: 500gm
	Honeywell Versatilis™ Signal Scout™ - Energy Harvested: 530gm
Mounting adapters	Magnetic mount adapter, Screw mount adapter, Adhesive mount adapter, and Adhesive mount adapter (Epoxy compatible). For more information, see "Mounting Honeywell Versatilis Signal Scout " on page 22.

Parameters	Description
¹	Battery life of 18 months with 25% duty cycled operation, and with minimum "5 minutes" of ON duration.
²	Battery life expectancy depends on the Solar Energy available to the unit deployed, ensure that the installation location receives sunlight for 4 to 6 hours a day. For detailed battery life calculation for Honeywell Versatilis™ Signal Scout™ - Energy Harvested, kindly contact HPS Technical Support .

For more information, see *Honeywell Versatilis™ Signal Scout™ Technical Specification, 34-VT-03-02*.

Environmental Conditions

The following table provides the operating conditions common to both Honeywell Versatilis™ Signal Scout™ and Honeywell Versatilis™ Signal Scout™ - Energy Harvested variants:

Table 4-2: Environmental Conditions

Information	Value
Ambient temperature range	-40°C to +70°C (-40°F to +158°F)
Humidity range	0 to 100 %RH
Usage	Indoor and Outdoor

SETTING UP THE HONEYWELL VERSATILIS SIGNAL SCOUT

Unpacking the Contents

NOTE: After unpacking the HVSS, it is recommended to check for any visible damage to the filter on the face of the sensor. If the filter is damaged then the sensor will not function as intended. In such cases of damaged filter, contact HPS Technical Support through your local Customer Contact Center.

The magnetic and adhesive mount adapters are supplied as kits along with HVSS / HVSS - EH, if chosen the same while ordering.

The following table provides the contents of the HVSS / HVSS - EH package, while ordering it with each adapter type:

Table 5-1: Contents in the Package

For HVSS Ordered with Adapter Type	Contents in the Package	Accessories/ Tools (To be handy with users)
Screw Mount	HVSS / HVSS - EH fitted with Screw Mount Adapter (Default Option).	- M6 socket head cap screw and M6 Nut (based on the target structure requirements). - Allen key (for M6 socket head cap screw) size: 5mm; and its respective spanner size: 10mm - The spanner recommended for the HVSS base is 41mm, and for the Adapter is 32mm.
Magnetic	HVSS / HVSS - EH,	The spanner

For HVSS Ordered with Adapter Type	Contents in the Package	Accessories/ Tools (To be handy with users)
Mount	Magnetic Mount Adapter	recommended for the HVSS base is 41mm, and for the Adapter is 32mm.
Adhesive Mount	HVSS / HVSS - EH, Adhesive Mount Adapter	Recommended cleaning solution for the surface of the target structure is Isopropyl alcohol. The spanner recommended for the HVSS base is 41mm, and for the Adapter is 32mm.
Adhesive Mount (Epoxy compatible)	HVSS / HVSS - EH, Adhesive Mount Adapter (Epoxy compatible). Additionally, the following items are supplied as separate kits: • 3M™ Scotch-Weld™ DP810 duo-pak cartridge • 3M™ Epoxy Applicator	

ATTENTION: For disposing off the recyclable HVSS and its packaging materials, it is recommended to first remove the battery from the HVSS. Then dispose it separately as per the manufacturer's recommendations, and in compliance with the concerned regulations.

Mounting Honeywell Versatilis Signal Scout

Honeywell Versatilis™ Signal Scout™ and Honeywell Versatilis™ Signal Scout™ - Energy Harvested offers multiple mounting options such as Magnetic Mount, Screw Mount, Adhesive Mount, and Adhesive Mount (Epoxy compatible) to suit the mounting surface of the target structure, and to ensure good bonding and accurate measurement for the HVSS / HVSS - EH.

NOTE: User needs to select the suitable mounting adapter while placing an order by referring Model Selection Guide (MSG).

The following table includes the list of recommended tools that are required for installation/ replacement scenarios:

Table 5-2: Recommended Tools

Tool	Size
Spanner (for firmly holding the base of HVSS while tightening the mounting adapter to it).	41mm
Spanner (for tightening the mounting adapter to the base of the HVSS)	32mm
Allen Key and Spanner (for firmly holding the M6 socket head cap screw while tightening with M6 nut respectively)	Allen key size: 5mm; and its respective spanner size: 10mm

Pre-installation Considerations

- A. Follow the below procedure when planning to install the HVSS for the first time in an identified location or when you are planning to move the installed HVSS from an existing location to a new different location.

NOTE: This procedure is not applicable while replacing the HVSS in the same location.

- i. Uninstall the HVSS from the existing location (in the case of moving to a new location). For more information on how to uninstall, see [Replacement of HVSS](#) (steps 1 and 2).
 - ii. On the new location, mount the HVSS with the required adapter on the target structure using recommended mounting bracket (see the mounting instructions below).
 - iii. Calculate/Capture the GPS coordinates for the new location.
 - iv. Pair the HVSS using Honeywell Versatilis™ Connect App, and map the new set of GPS coordinates to the HVSS.
- B. Applying anti-seize lubricant on the threads of the adapter before fitting it to the HVSS base helps to ensure the safe and easy disassembling of the adapter with the HVSS base. Follow the below guidelines while using anti-seize lubricant:
 - i. Before applying anti-seize, ensure that the threads are clean and free from dirt, rust, or old lubricants. You can use a wire brush, rag, or appropriate solvent to clean the threads thoroughly. Make sure the threads are dry before applying the anti-seize.
 - ii. Using a brush, applicator stick, or your fingers (if wearing gloves), apply a thin, even coat of anti-seize to the threads. Be careful not to over-apply, as excessive anti-seize can lead to messy application and waste. The goal is to cover the threads evenly without excess buildup.
 - iii. If necessary, use a brush or applicator to ensure the anti-seize is evenly distributed across all the threads. This helps maximize its effectiveness in preventing corrosion and seizing.
 - iv. Once the anti-seize is applied, proceed to assemble the HVSS / HVSS - EH as usual. Be cautious not to cross-thread or damage the threads during assembly.
 - v. After assembly, wipe away any excess anti-seize that may have squeezed out during tightening. This helps maintain a clean appearance and prevents the accumulation of dirt or debris.

Magnetic Mounting

Perform the below instructions for magnetic mounting on the target structure:

ATTENTION: Do not use bare hands while installation as the magnet is powerful and can pinch the skin/ fingers if not handled properly.

1. Screw-in the magnetic mount adapter into the threaded hole provided on the base of the HVSS.
2. Firmly hold the base of the HVSS using a spanner (of size 41mm), and tighten the adapter to the base using another spanner (of size 32mm).
Ensure a Torque of 3.5 to 4 Nm is applied for tightening.
3. Attach the HVSS fitted with a magnetic mount adapter onto the target structure (like beams, structure, frames, and etc) with the help of magnetic pull force.

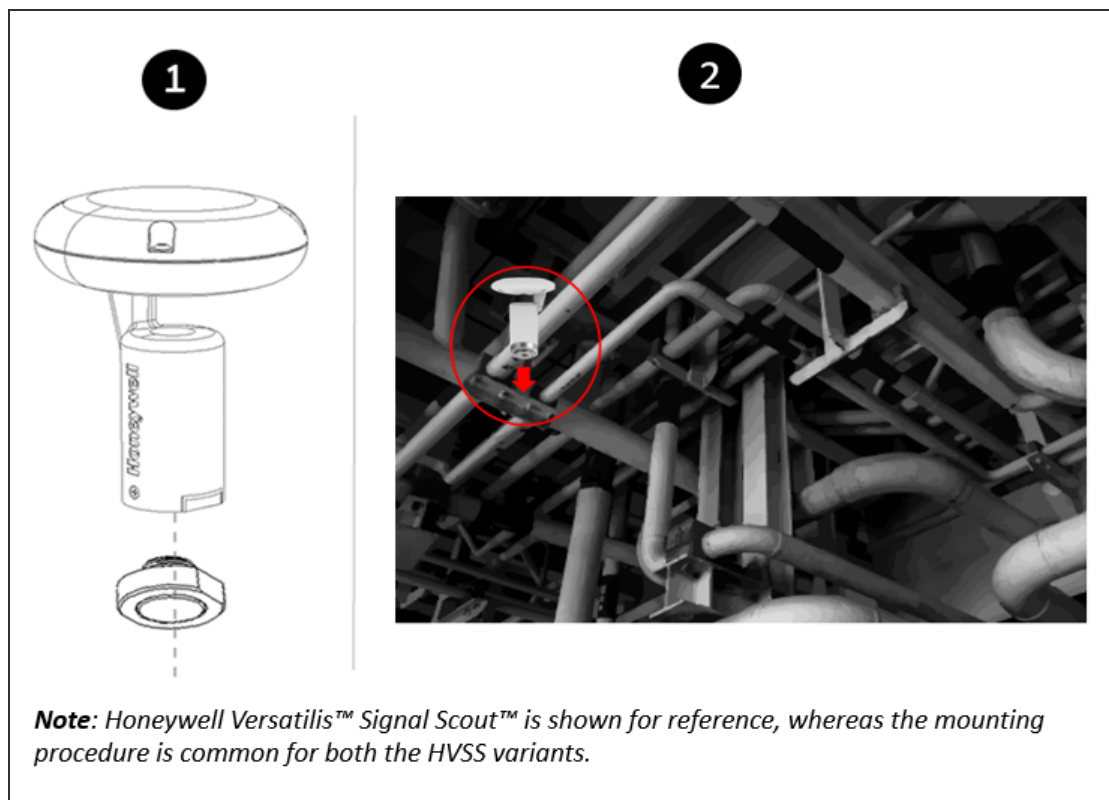


Figure 5-1: Magnetic Adapter Mounting

Adhesive Mounting

Perform the below instructions for adhesive mounting on the target structure:

Prerequisite: Remove oil, moisture, and dirt from the intended mounting surface of the target structure on which the HVSS will be mounted. If the dirt is strong, remove it with Isopropyl alcohol.

ATTENTION: Use the adhesive mount adapter preferably on a flat surface. As there is a potential risk of falling down of the HVSS if it is mounted on uneven, rough, or curved surfaces, due to lack of sufficient bonding area.

1. Screw-in the adhesive mount adapter into the threaded hole provided on the base of the HVSS.
2. Firmly hold the base of the HVSS using a spanner (of size 41mm), and tighten the adapter to the base using another spanner (of size 32mm).
Ensure a Torque of 3.5 to 4 Nm is applied for tightening.
3. Remove the protective film from adhesive face of the adapter.
4. Stick the HVSS fitted with an adhesive adapter onto the target structure (like beams, structure, frames, and etc). Apply an adequate pressure on the HVSS after it is mounted, to ensure proper bonding of the pressure-sensitive adhesive with the target structure.

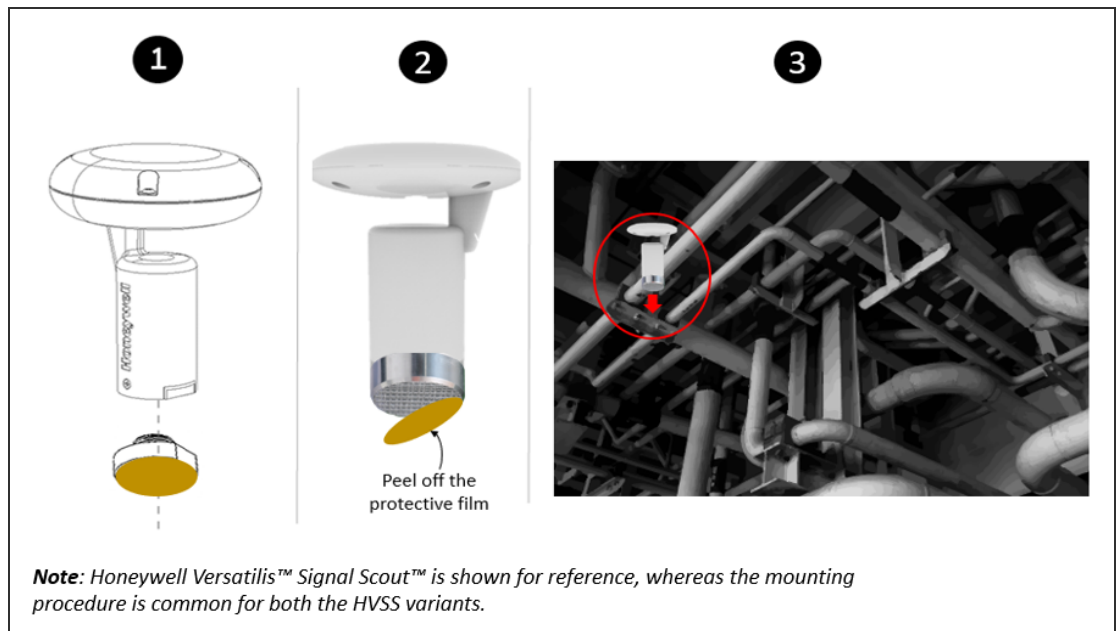


Figure 5-2: Adhesive Adapter Mounting

Screw Mounting

Perform the below instruction for screw mounting on the target structure:

1. Insert the M6 socket head cap screw into the hole provided on the screw-mount adapter (where the head of the screw sits inside the adapter and the shank protrudes outwards).
2. Insert the protruding M6 socket head cap screw (with adapter) into the hole provided on the target structure/bracket, and then secure the adapter with M6 nut (on the other side of structure/bracket) using Allen key (of size 5mm) and spanner (of size 10mm). Ensure a Torque of 16 N-m or 140 in-lbs is applied for tightening.
Or, If there is an existing M6 tapped hole on the target structure, then you just need to insert the protruding M6 socket head cap screw (with adapter) into that hole provided on the target structure/bracket, and tighten with Allen key (of size 5mm).
3. Fit the HVSS onto the secured adapter. Ensure that the orientation of the HVSS is vertical.
Firmly hold the secured adapter using a spanner (of size 32mm), and tighten the base of the HVSS to the adapter using another spanner (of size 41mm). Ensure a Torque of 3.5 to 4 Nm is applied for tightening.

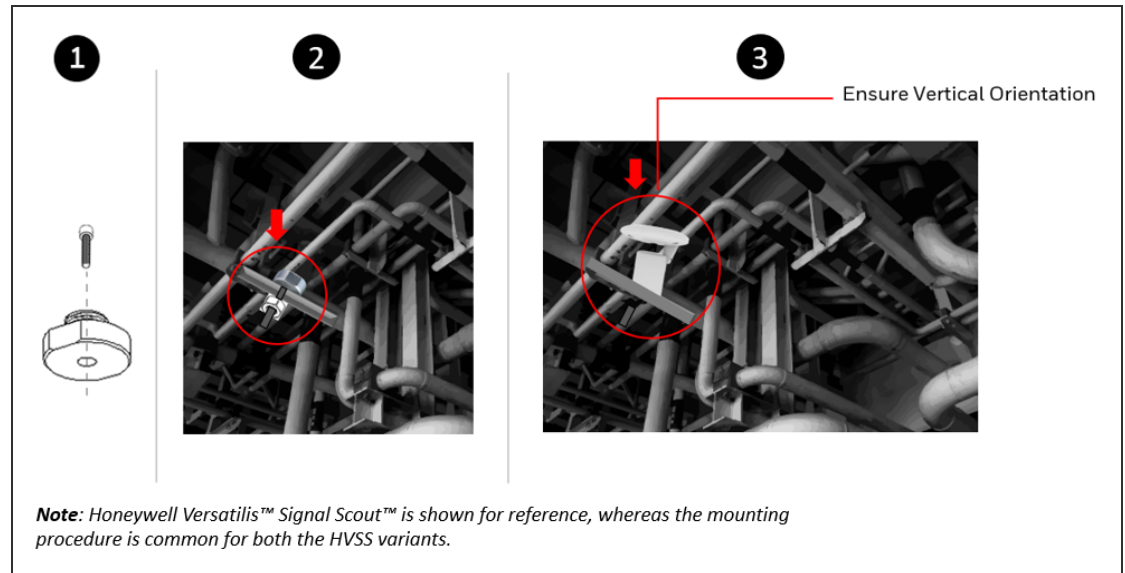


Figure 5-3: Screw-mount Adapter Mounting

Epoxy Mounting

Perform the below instructions for epoxy mounting on the target structure:

Precaution: Do not handle until all safety precautions have been read and understood. For more information, refer to the Safety Data Sheet of the 3M™ Scotch-Weld™ DP810 duo-pak cartridge.

Prerequisite:

- Ensure all the substrates are clean, dry, and free of paint, oxide films, dust, mold release agents, and all other surface contaminants.
 - The amount of surface preparation directly depends on the bond strength and environmental resistance desired by the user.
 - Ensure a mix ratio of 1:1 by volume or 1:1 by weight using the 1:1 Shared Plunger in the Epoxy Applicator.
1. Insert the epoxy-based adhesive (3M™ Scotch-Weld™ DP810 duo-pak cartridge) in the Epoxy Applicator (3M™ Scotch-Weld™ EPX Manual Applicator).



Figure 5-4: Epoxy Applicator loaded with Epoxy-Based Adhesive

2. Remove the cap from the epoxy-based adhesive cartridge.
3. Dispense and discard a small amount of epoxy-based adhesive to ensure an even ratio and free flow.

4. Apply the epoxy-based adhesive on the flat face of the adhesive mount adapter (epoxy compatible).

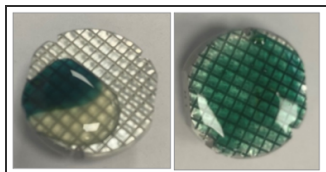


Figure 5-5: Applying adhesive on the flat face of the Adhesive Mount Adapter (Epoxy compatible)

5. Stick the flat face of the adapter on which epoxy-based adhesive is applied, to the target structure, and secure it until the adhesive sets.

NOTE: Once you are done using the epoxy-based adhesive, remove the cartridge from the Epoxy Applicator, screw on the cap, and store the cartridge in an upright position.

6. Remove the excessive epoxy-based adhesive around the adapter to clean-up the surrounding surface.

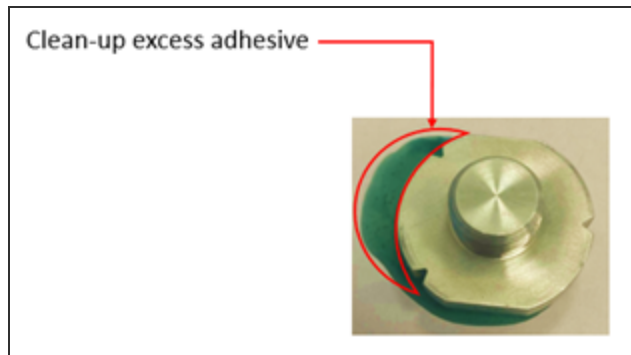


Figure 5-6: Clean-up excess adhesive

7. Follow the below recommendation for proper curing of the epoxy-based adhesive:
 - a. Ensure 10-minute work life and 20-minute set time @ 23°C.
 - b. Ensure 8 to 24-hours @ 23°C for full curing. In the case of heat cure, the full cure can be attained by raising the bond line temperature to 49°C for 30 minutes or to 66°C for 10 minutes.

8. Assemble the HVSS over the adapter, i.e. the base of the HVSS is to be fitted to the adapter that is bonded to the target structure.
9. Firmly hold the adapter using a spanner (of size 32mm), and tighten the base of the HVSS using a spanner (of size 41mm), Ensure a Torque of 3.5 to 4 Nm is applied for tightening.

CONFIGURATION

Overview of Emissions Management Solution

The following figure and table are based on an example of a Honeywell Emissions Management Solution architecture including the various solution components.

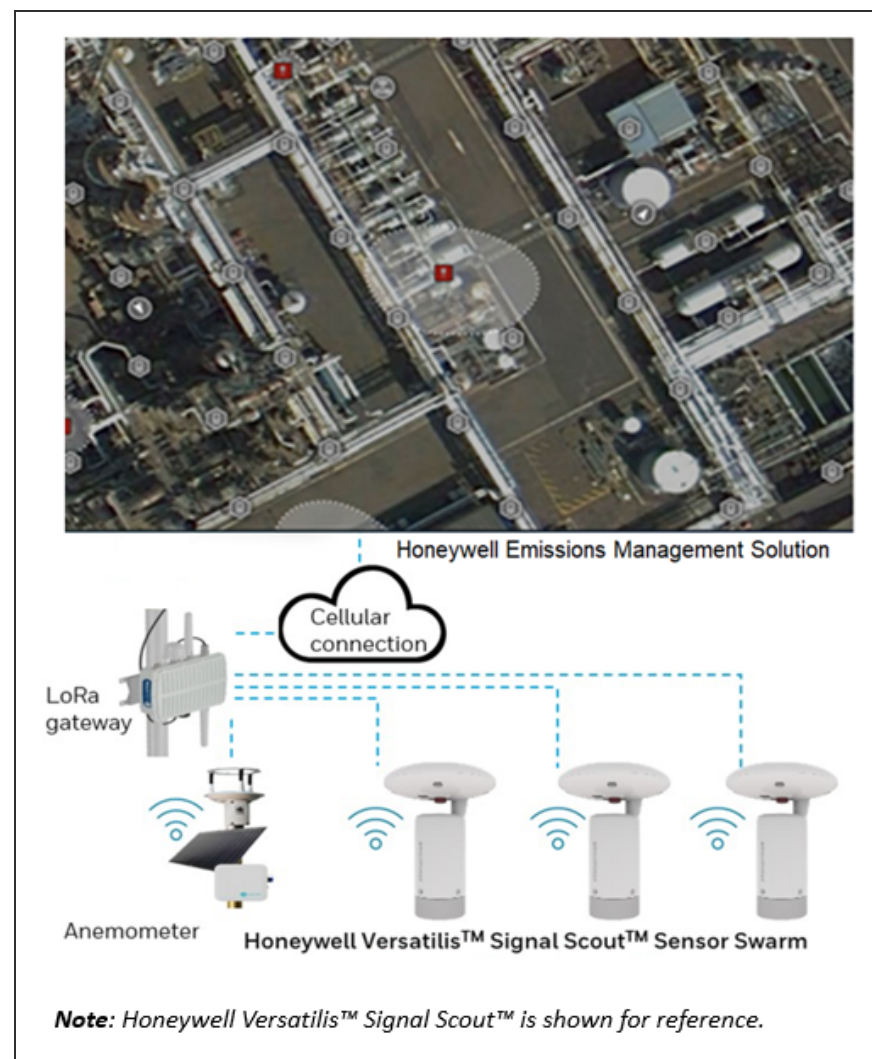


Figure 6-1: Architecture of a Honeywell Emissions Management Solution

Table 6-1: Description of Solution Components

Solution Components	Description
Honeywell Versatilis™ Signal Scout™ / Honeywell Versatilis™ Signal Scout™ - Energy Harvested	The HVSS / HVSS - EH variants measures the following four parameters: • Gas Sensor¹ • Ambient Temperature • Ambient Pressure • Ambient Humidity²
Honeywell Versatilis™ Connect App	The Honeywell Versatilis™ Connect App enables user to connect to the HVSS through bluetooth using a tablet, or smartphone. It helps user to configure the HVSS sensor parameters, view live data, update firmware, etc.
LoRa Based Gateway (third-party)	The third-party LoRa based gateways acts as a medium to push the sensor data from the HVSS to the LoRaWAN infrastructure in a secured way.
Honeywell Emissions Management Solution	Honeywell Emissions Management Solution is hosted on Experion's Elevate platform and uses patented data analytics and plume modeling to find methane leaks faster and more efficiently based on data collected from HVSS / HVSS - EH gas detectors and anemometers. Emissions Management Solution helps reduce methane emissions and product losses by providing early leak detection and enabling early leak repair via automated monitoring, identification, quantification and reporting of fugitive and process emissions.
¹The manual turning ON/ OFF of the Gas sensor based on the requirement, optimizes the battery usage and thus increases the battery life over the period. ²The humidity sensor is automatically turned OFF for two hours whenever the humidity level reaches 100%. Then after two hours (in the OFF state), it turns ON automatically. The same activity repeats i.e. turns OFF again for two hours if it detects a 100%	

Solution Components	Description
	humidity level and then turns ON after two hours.

Honeywell Versatilis Connect App

Installation of Honeywell Versatilis Connect App

The Honeywell Versatilis™ Connect app provides flexibility to install it on your Smartphone or Tablet, supporting either Windows or Android-based platforms. You can also make use of your existing Tablet (if any) provided with Honeywell Versatilis™ Configurator App to install and run the Honeywell Versatilis™ Connect app on it with ease.

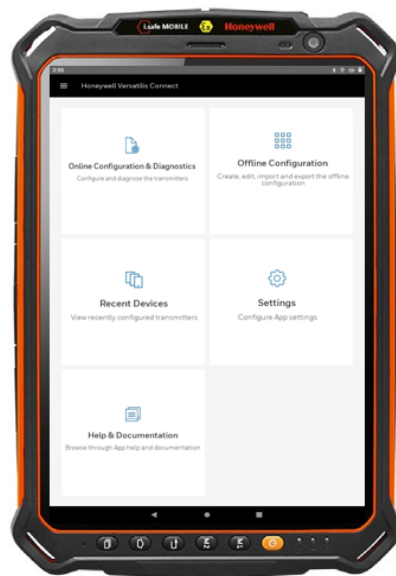


Figure 6-2: "Honeywell Versatilis™ Connect app" installed on the "Tablet provided with Honeywell Versatilis™ Configurator App".

Prerequisites:*Table 6-2: Prerequisites for Honeywell Versatilis™ Connect app:*

Tablet / Smartphone Specifications	Windows	Android	iOS
Operating System	Windows 10 Enterprise 22H2.	Android 10, 11, 12 and 13.	iOS 15 and 16.
Process and Speed	64-bit, 1.6GHz or faster	ARM V7 or V8, 1.6GHz or faster	-
RAM	Minimum: 8GB	Minimum: 4GB Recommended: 8GB	-
Storage space	Higher than 64GB is recommended	Higher than 64GB is recommended	Higher than 64GB is recommended

To download and install the Honeywell Versatilis™ Connect app in your Smartphone, Tablet, or PC, follow the procedure described below:

Table 6-3: Installation Procedure for Honeywell Versatilis™ Connect app

For Windows Platform	For Android Platform	For iOS Platform
1. Open the Microsoft Store app, and search for Honeywell Versatilis Connect. Or Click the link: Honeywell Versatilis Connect Windows app.	1. Open the Google Play Store app, and search for Honeywell Versatilis Connect. Or Click the link: Honeywell Versatilis Connect Android app. 2. Tap Install. 3. After successful	1. Open the App store app, and search for Versatilis-Connect. 2. Tap Get. 3. After successful installation, tap Open.

For Windows Platform	For Android Platform	For iOS Platform
2. Tap Get . 3. After successful installation, tap Open .	installation, tap Open . 4. A permissions dialog to access the device's camera appears, tap While using the app .	4. A message stating Honeywell Versatilis Connect would like to access the camera appears, tap OK .

When the user launches the Honeywell Versatilis™ Connect app for the first time, the app gives a tour of its overall features.

Configuring Honeywell Versatilis Connect App

For more information on how to configure sensor parameters in HVSS using Honeywell Versatilis™ Connect app, see the "Device Configuration" section in *Honeywell Versatilis™ Connect App User's Guide*.

Resetting Passcode for HVSS Using Honeywell Versatilis Connect app

In case you forgot your current passcode (that is different than the default passcode) required to login to the Honeywell Versatilis™ Connect App. You still have an option to reset your current passcode to the default passcode, using the reed switch provided on the HVSS / HVSS - EH, and thereby able to login to the Honeywell Versatilis™ Connect App, once again.

Perform the below instructions to reset your current passcode to the default passcode:

1. Bring the magnet closer to the reed switch location. The LED blinks red light whenever you bring the magnet closer to the reed switch.
2. Repeat the above activity (step 1) within a time period of 15 seconds.

3. The LED blinks green light twice after the predefined time period of 15 seconds, returning to the normal state, and thereby indicating a successful reset of the current passcode to the default one.

The following figure illustrates the reed switch and LED location on the HVSS:

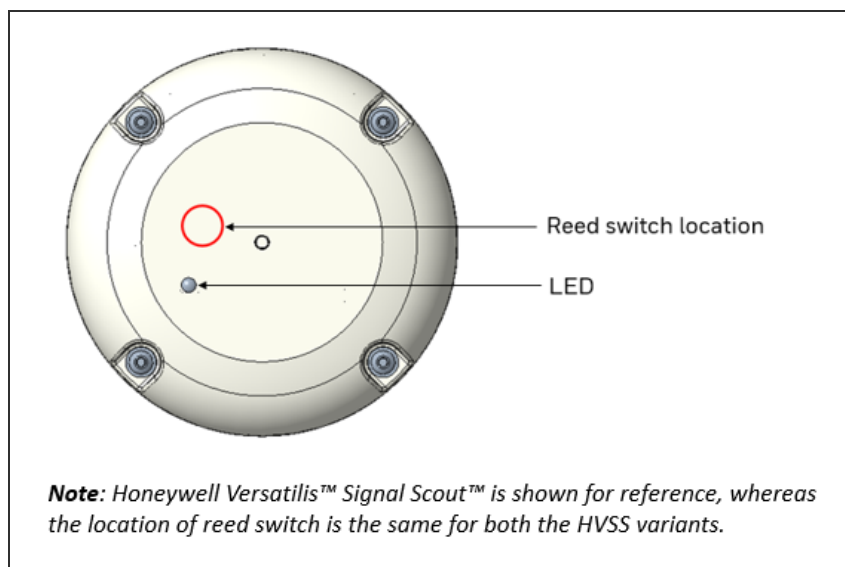


Figure 6-3: HVSS Reed Switch Location

Honeywell Emissions Management Solution

Honeywell Emissions Management Solution is hosted on Experion's Elevate platform and uses patented data analytics and plume modeling to find methane leaks faster and more efficiently based on data collected from HVSS / HVSS - EH gas detectors and anemometers. Emissions Management Solution helps reduce methane emissions and product losses by providing early leak detection and enabling early leak repair via automated monitoring, identification, quantification and reporting of fugitive and process emissions.

For more information about Honeywell Emissions Management Solution, see the *Emissions Management Solution Implementation and Operations Guide (EPDOC-X926-en-110A)*.

SECURITY

The security mechanisms implementation rely on the well tested and cryptographic algorithms, which are analyzed by the cryptographic community, NIST approved, and widely adopted as a best security for constrained nodes and networks.

To report a potential security vulnerability against any Honeywell product, please follow the instructions as mentioned in the [Notices](#).

Security features

The secure features of the Honeywell Versatilis™ Signal Scout™ and Honeywell Versatilis™ Signal Scout™ - Energy Harvested are:

- Secure firmware update.
- Secure end-to-end Bluetooth and LoRa (i.e., secure data communication by application payload and pairing).
- Data protection, Data integrity, and Confidentiality protection.
- Authentication on the BLE security using passcode.
- Communication encryption as per BLE 5.0 version.
- Supports LoRaWAN® Class-A security using OTAA/ABP activation mode.

Physical security

Keys are persistently stored in the HVSS / HVSS - EH. It is your responsibility to securely handle the keys and ensure the Honeywell Versatilis™ Signal Scout™ physical security.

MAINTENANCE

In this section:

<i>Replacement of Honeywell Versatilis Signal Scout</i>	<i>39</i>
<i>Firmware update</i>	<i>40</i>
<i>Device logs</i>	<i>40</i>

Replacement of Honeywell Versatilis Signal Scout

The modularized design of both variants, i.e., HVSS / HVSS - EH allows you to disassemble the HVSS / HVSS - EH from the current target structure and to mount it on some other target structure with ease, or to replace the currently fitted mounting adapter with some other adapter to suit the change in mounting surface.

Perform the below instructions to replace the HVSS / HVSS - EH:

1. Detach the HVSS / HVSS - EH from the target structure:
 - In case of screw-mount: Remove the M6 nut securing the HVSS / HVSS - EH onto the target structure.
 - In case of magnetic mount: Remove the HVSS / HVSS - EH from the target structure manually.
 - In case of adhesive mount: Cut through the adhesive layer (sticking the adapter to the target structure) using a blade.
 - In the case of adhesive mount (epoxy compatible): It is not recommended to remove the adapter from the target structure as the epoxy-based adhesive has very strong bonding to the surface and any practice to separate it from the surface could potentially result in damage to the respective surface.
2. In the case of screw-mount/magnetic mount/adhesive mount: Firmly hold the base of the HVSS / HVSS - EH using a spanner (of size 41mm), and unscrew the adapter from the base of the HVSS / HVSS - EH using another spanner (of size 32mm) till it's completely disassembled.

In the case of adhesive mount (epoxy compatible): Firmly hold the adapter using spanner (of size 32mm), and unscrew the base of the HVSS / HVSS - EH using another spanner (of size 41mm) till it's completely disassembled.

3. Install the HVSS / HVSS - EH with the required mounting adapter. For information on mounting procedure for HVSS / HVSS - EH with various adapter types, see "Mounting Honeywell Versatilis Signal Scout " on page 22.

Firmware update

The Honeywell Versatilis™ Connect app has provision to update to the latest firmware available for the Honeywell Versatilis™ Signal Scout™ and Honeywell Versatilis™ Signal Scout™ - Energy Harvested. For more information on how to update firmware, see the *Honeywell Versatilis™ Connect App User's Guide, 34-VT-25-03*.

Device logs

User has the provision to download the particular HVSS log files and save it to the local drive using Honeywell Versatilis™ Connect App.

LED STATES

The following table provides various states of HVSS LEDs and their associated status based on different scenarios.

Table 9-1: LEDs States

Scenarios	Honeywell Versatilis™ Signal Scout™ Status	LED
Honeywell Versatilis™ Signal Scout™ starting up.	Power ON	 (1. Blinks once.)  (2. Blinks twice.) After 19 seconds:  (3. Blinks thrice.)
	Power ON failure.	No visual indication on LED.
Connecting to the HVSS using Bluetooth scan in Honeywell Versatilis™ Connect App.	Successful pairing.	 (Blinks once.)

Scenarios	Honeywell Versatilis™ Signal Scout™ Status	LED
User selects the HVSS from the list of "Available Devices" displayed on the Honeywell Versatilis™ Connect App.	Unsuccessful pairing.	 (Blinks once.)
	Not recognizing.	No visual indication on LED.
Connecting to the HVSS using QR code scan in the Honeywell Versatilis™ Connect App.	Successful pairing.	 (Blinks once.)
Scanning QR code imprinted on the HVSS, flashes its summary in the Honeywell Versatilis™ Connect App	Unsuccessful pairing.	 (Blinks once.)
	Not recognizing.	No visual indication on LED.
User activates the HVSS to start measuring parameters, or pushing configurations to the HVSS as required from the Honeywell Versatilis™ Connect App.	During configuration	
On successful configuration of the HVSS.	Configuration successful.	 (Blinks thrice.)

Scenarios	Honeywell Versatilis™ Signal Scout™ Status	LED
Configuring the HVSS using "Offline Template".	Configuration failure.	 (Blinks thrice.)
Activate/Deactivate through Connect App.	On activation.	 (Blinks thrice.)
	Deactivate	No visual indication on LED.
Passcode reset using reed switch.	Successful	 (Blinks twice.)
	Unsuccessful	No visual indication on LED.
Firmware update	While downloading/ updating.	 (Blinks for every 10 seconds.)
	Successful updating, and restarting.	 (1. Blinks once.) 

Scenarios	Honeywell Versatilis™ Signal Scout™ Status	LED
		(2. Blinks twice.) After 19 seconds:  (3. Blinks thrice.)
	Unsuccessful	

TROUBLESHOOTING

The following table provides various troubleshooting scenarios in the case of error or unexpected behavior, and their corresponding troubleshooting tips:

Table 10-1: Troubleshooting Information

Probable Scenarios	Honeywell Versatilis™ Signal Scout™ / Honeywell Versatilis™ Signal Scout™ - Energy Harvested Status	LED	On Screen	Troubleshooting Tips
User selects the HVSS from the list displayed on the Honeywell Versatilis™ Connect App.	Unsuccessful pairing.	 (Blinks once.)	A pop-up window prompts to try again.	• Retry pairing. • Verify the passcode specified for Honeywell Versatilis™ Connect App authentication.
	Not recognizing.	No visual indication on LED.		Ensure that the device is in within the BLE range.
Scanning QR code imprinted on the HVSS, flashes its summary on the	Unsuccessful pairing.	 (Blinks once.)	A pop-up window prompts to try again.	• Re-scan the QR code. • Connect manually through BLE app.

Probable Scenarios	Honeywell Versatilis™ Signal Scout™ / Honeywell Versatilis™ Signal Scout™ - Energy Harvested Status	LED	On Screen	Troubleshooting Tips
Honeywell Versatilis™ Connect App.	Not recognizing.	No visual indication on LED.	NA	
Firmware update	Unsuccessful		A pop-up window with error message appears.	• Check the BLE signal strength. • Ensure that the device is connected to the Honeywell Versatilis™ Connect App. • Retry firmware update. • Ensure the required firmware file is downloaded from the authenticated location. • Contact the Honeywell TAC team.
Diagnostic fault indication.	Battery low.	No visual indication on LED.	Low Battery indication on the Honeywell Emissions	HVSS replacement.

Probable Scenarios	Honeywell Versatilis™ Signal Scout™ / Honeywell Versatilis™ Signal Scout™ - Energy Harvested Status	LED	On Screen	Troubleshooting Tips
			Management Solution.	
	Sensor interface failure.		Status indicator at sensor level as well as on the Diagnostic page of Honeywell Versatilis™ Connect App and Honeywell Emissions Management Solution.	• Restart HVSS. • Replace HVSS.
	LoRa communication status.		Communication fault indication on the Diagnostic page of Honeywell Versatilis™ Connect App and Honeywell Emissions Management Solution.	• Install the Gateway within the reachable range of the device as per the LoRaWAN standard. • Ensure the device is configured in the LoRaWAN server with valid keys (for ABP/OTAA method).

Probable Scenarios	Honeywell Versatilis™ Signal Scout™ / Honeywell Versatilis™ Signal Scout™ - Energy Harvested Status	LED	On Screen	Troubleshooting Tips
				• Ensure the device is configured in Honeywell Versatilis™ Connect App with valid keys (for ABP/OTAA method). • Ensure the keys specified in Honeywell Versatilis™ Connect App and LoRaWAN server are the same. • Ensure valid LoRa reporting interval is set in Honeywell Versatilis™ Connect App. • Restart HVSS

CERTIFICATIONS

Hazardous Location Certifications

Honeywell Versatilis™ Signal Scout™ is certified for various hazardous location standards and requirements.

The below table gives the summary on the same:

Table 11-1: Hazardous Location Certifications Information

Certification	Standards	Approval/ Rating
IECEX	IEC 60079-0/COR1: 2020; Edition 7.0; 2017-12 IEC 60079-11: Edition 6.0; 2011-06	Ex ia IIB T4 Ga Tamb: -40°C to +70°C
CE - ATEX (2014/34/EU)	EN 60079-0: 2018 EN 60079-11: 2012	II 1 G - Ex ia IIB T4 Ga Tamb: -40°C to +70°C
UKCA Ex	EN 60079-0: 2018 EN 60079-11: 2012	II 1 G - Ex ia IIB T4 Ga Tamb: -40°C to +70°C
North America	CAN/CSA C22.2 No. 61010-1-12 + UPD1: 2015, UPD2: 2016, AMD 1-18 CAN/CSA C22.2 No. 60079-0: 19 CAN/CSA-C22.2 No. 60079-11: 14 (R2018) ANSI/UL 61010-1-2018 Third Edition ANSI/UL 913-2019	Class I Division 1, Group C, D Ex ia IIB T4 Ga Class I Zone 0, AEx ia IIB T4 Ga Tamb: -40°C to +70°C

Certification	Standards	Approval/ Rating
	Eighth Edition ANSI/UL 60079-0-2020 Seventh Edition ANSI/UL 60079-11-2018 Sixth Edition	
FM Approvals™ (USA)	FM 3600: 2022; ANSI/ UL 60079-0: 2020 FM 3610: 2021; ANSI/ UL 60079-11: 2018 ANSI/UL 61010-1: 2012	Intrinsically Safe, for Class I, Division 1, Groups C and D, T4 Ta = -40°C to +70°C Zone 0, AEx/Ex ia IIB T4 Ga Ta = -40°C to +70°C FM Canada Certificate number FM23CA0071X FM US Certificate number FM23US0107X
CCoE	IS/IEC 60079-0: 2017 IS/IEC 60079-11: 2011	Ex ia IIB T4 Ga Tamb: -40°C to +70°C

Specific Conditions of Use:

- The nonmetallic enclosure parts of this equipment may become a spark ignition hazard in the presence of static electricity. The enclosure shall be cleaned only with a damp cloth, and the equipment shall be mounted to avoid building static electric charge from non-conductive process flow, strong air currents, or other potential charging through friction.
- Honeywell Versatilis™ Signal Scout™ (ED) - Model 50187700-100, detects flammable gas, however, is not intended to provide an indication, alarm, or other output function; purpose of which is to indicate potential hazard and initiate automatic or manual protective action(s).
- The aluminum enclosure may be capable of producing incendive sparks when impacted. This equipment must be mounted and/or

physically guarded such that it is not subjected to impact or friction.

WARNING: DO NOT REPLACE BATTERY WHEN AN EXPLOSIVE ENVIRONMENT IS PRESENT. USE ONLY REPLACEABLE BATTERY PACK; HONEYWELL PART NUMBER: 50187697; VOLTAGE: 3.6V DC.

CE (Conformance to Europe)

Honeywell Versatilis™ Signal Scout™ is compliant with all the Directives that are applicable as per CE certification requirements.

The below table gives the summary on the same:

Table 11-2: CE (Conformance to Europe) Information

Certification	Standards	Directive/ Regulation
CE	EN 61326-1: 2013 EN 61326-2-3: 2013 EN55011: 2009 + A1: 2010 EN 61000-4-2: 2009 EN 61000-4-3: 2006+A1+A2 EN 61000-4-8: 2010	Electro Magnetic Compatibility (EMC) Directive; 2014/30/EU
CE	ETSI EN 300 328 ETSI EN 300 220-1 V3.1.1 (2017-02) ETSI EN 300 220-2 V3.1.1 (2017-02) ETSI EN 301 489-1: 2019 ETSI EN 301 489-3: 2021 ETSI EN 301 489-17: 2020	Radio Equipment Directive (RED); 2014/53/EU
CE	EN 61010-1: 2010/A1: 2019	Low Voltage Directive (LVD); 2014/35/EU
CE	EN 50581: 2012	Restriction of use of Hazardous Substances (RoHS) in Electrical and Electronic equipment;

Certification	Standards	Directive/ Regulation
		2011/65/EU; 2017/2102 amendment
CE	EN 50385: 2017	Minimum health and safety requirements regarding the exposure of workers to the risks arising from physical agents (Electromagnetic fields); 2013/35/EU

United Kingdom Conformity Assessed (UKCA)

Honeywell Versatilis™ Signal Scout™ is compliant with all the regulations that are applicable as per UKCA certification requirements.

The below table gives the summary on the same:

Table 11-3: United Kingdom Conformity Assessed (UKCA) Information

Certification	Standards	Directive/ Regulation
UKCA	EN 61326-1: 2013 EN 61326-2-3: 2013 EN55011: 2009 + A1: 2010 EN 61000-4-2: 2009 EN 61000-4-3: 2006+A1+A2 EN 61000-4-8: 2010	Electro Magnetic Compatibility (EMC) Regulations 2016

Certification	Standards	Directive/ Regulation
UKCA	ETSI EN 300 328 ETSI EN 300 220-1 V3.1.1 (2017-02) ETSI EN 300 220-2 V3.1.1 (2017-02) ETSI EN 301 489-1: 2019 ETSI EN 301 489-3: 2021 ETSI EN 301 489-17: 2020	Radio Equipment Regulations 2017
UKCA	EN 61010-1: 2010/A1: 2019	Electrical Equipment (Safety) Regulations 2016
UKCA	EN 50581: 2012	Restriction of the Use of Certain Hazardous Substances (RoHS) in Electrical and Electronic Equipment Regulations 2012
UKCA	EN 50385: 2017	The Control of Electromagnetic Fields at work Regulations 2016

FCC and IC Certifications

Honeywell Versatilis™ Signal Scout™ is complaint with all the requirements that are applicable as per FCC & IC certification specifications.

The below table gives the summary on the same:

Table 11-4: FCC and IC Certifications Information

Certification	Standard	Approval/ Rating
FCC	47 CFR Part 15 [10-01-20 Edition] ANSI C63.4: 2014	Compliance as per Subpart B & Subpart C FCC ID: S5751490045 BLE FCC ID: 2APD9-RSL10SIP
IC	ICES-003 Issue 7: 2020 ICES-Gen Issue 1: 2018+A1: 2021 RSS-247 Issue 2 Equipment Certification	Compliant for Wireless requirements IC ID: 573W-51490045 BLE IC ID: 23763-RSL10SIP

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

WARNING: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio reception, which can be determined by turning the equipment OFF and ON, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Consult the dealer or an experienced radio technician for help.

NOTE:

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

- * This device may not cause interference.
- * This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

- * L'appareil ne doit pas produire de brouillage;
- * L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

CAUTION: To maintain compliance with the FCC's RF exposure guidelines, place the unit at least 20cm from nearby persons.

Wireless Certifications and Approvals

Honeywell Versatilis™ Signal Scout™ has LoRaWAN & BLE Wireless communication technologies. Required certifications and approvals have been attained for this product.

The below table gives the summary on the same:

Table 11-5: Wireless Certifications and Approvals Information

Certification	Standard/ Specification	Approval
LoRaWAN	LoRaWAN 1.0.4	End device certification requirements for all regions: Version 1.4
Bluetooth Low Energy (BLE)	Bluetooth Specifications	Bluetooth SIG Listed

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Documentation feedback

You can find the most up-to-date documents in the Support section of the Honeywell Process Solutions website at:

<https://process.honeywell.com>

If you have comments about Honeywell Process Solutions documentation, send your feedback to: hpsdocs@honeywell.com

Use this email address to provide feedback, or to report errors and omissions in the documentation. For immediate help with a technical problem, contact HPS Technical Support through your local Customer Contact Center, or by raising a support request on the Honeywell Process Solutions Support website.

How to report a security vulnerability

For the purpose of submission, a security vulnerability is defined as a software defect or weakness that can be exploited to reduce the operational or security capabilities of the software.

Honeywell investigates all reports of security vulnerabilities affecting Honeywell products and services.

To report a potential security vulnerability against any Honeywell product, please follow the instructions at:

<https://honeywell.com/pages/vulnerabilityreporting.aspx>.

Submit the requested information to Honeywell using one of the following methods:

- Send an email to security@honeywell.com.
- Contact your local Honeywell Technical Assistance Center (TAC) listed in the “Support” section of this document.

Support

For support, contact your local Honeywell Process Solutions Customer Contact Center (CCC). To find your local CCC visit the website, <https://process.honeywell.com/us/en/contact-us>.

Training classes

Honeywell holds technical training classes that are taught by process control systems experts. For more information about these classes, contact your Honeywell representative, or see <http://www.automationcollege.com>.

Factory information

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