



Environmental Sensor

ENV-STD-LR-1, version 1.0



INSTALLATION & OPERATION MANUAL

Safety, Compliance and Warranty Information

Rev. 4

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Environmental Sensor

INSTALLATION & OPERATION MANUAL

This document applies to:

ENV-STD-LR-1, version 1.0

And related bundles:

ENV-BND-STD-1

ENV-BND-W-1

ENV-BND-R-1

ENV-BND-RW-1

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Revision 4

NOTICE OF PUBLICATION

The information contained in this manual may be subject to change without notification. For further instructions, more detailed information, product specifications and to download up-to-date manuals, visit our website at www.movesolutions.it

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Regulatory and safety information

For the correct and safe operation of the product, it is recommended to read and follow the instructions in this manual.

The device is designed and intended exclusively for the monitoring of environmental parameters, including particulate matter, environmental noise, and weather-related parameters, within civil, industrial, urban, and environmental monitoring applications. The device is intended to be installed in indoor or outdoor environments, including buildings, infrastructure, industrial sites, urban areas, or environmental monitoring locations, in order to collect data for the assessment of environmental conditions, air quality, noise levels, and local weather-related operating conditions.

The product is supplied exclusively on a business-to-business (B2B) basis and is not intended for sale or use by private consumers. Installation, configuration, operation, and maintenance of the device must be carried out solely by qualified and trained personnel with appropriate technical expertise.

The product must be used in accordance with Move Solutions' technical specifications, within the declared environmental and operational conditions, and in combination with compatible communication systems (e.g. LoRaWAN networks). Any use other than that described above shall be considered non-compliant with the intended use of the device.

Great attention should be paid to the following warnings. Move Solutions shall not be held responsible for inconveniences, damage or malfunctions due to lack of compliance with the prescriptions and suggested use in this manual.

- Outdoor use is intended only when the product is correctly assembled, with the back cover properly screwed in place and each connector of the sensor protected either by a properly connected external cable or by the supplied protective cap when no cable is present.
- Do not remove the windscreen from the microphone unless instructed to do so.
- Do not in any circumstance unscrew or loosen the microphone's cap.
- Do not connect the product to an external power supply that exceeds the limits in this document.
- Before use, make sure that the product conforms to the description in this manual and that no damage is present.
- Do not use batteries other than those specified by Move Solutions without express approval from a Move Solutions representative.

- The product is not intended for use in applications where safety is extremely critical, such as medical-related applications or life-security systems.
- On top of the prescriptions in this manual, the user should operate in compliance with local standards for security and health, and according to the best engineering practices for a safe installation.
- The product must be kept out of reach of children, animals, and any unauthorized personnel.
- Do not disassemble the product except when explicitly instructed in this manual, as this could cause malfunctions and damage the product.
- Do not attempt to repair or modify the product.
- If the product releases smoke or heat during operation, immediately disconnect the batteries.
- Do not expose the product to temperatures outside the specified range or heat sources.
- Do not expose the product to liquids of any kind and do not operate on it with wet hands. The product can only be exposed to water when the conditions required for outdoor use are satisfied.
- Do not operate on the product in extreme weather conditions that may damage the device or the user, such as thunderstorms or snowstorms.
- Do not modify the electrical circuit, wiring, or battery connections. Do not short-circuit the battery terminals or reverse the battery polarity, as this may cause product malfunction and/or potentially hazardous conditions.
- Do not dispose of the product or any of its parts in the environment.
- Correct functioning of the product in environments with high radio activity is not guaranteed.
- The product is compliant with all regulations concerning the fair use of ISM radio bands. However, given the free nature of these bands, occasional conflict with nearby devices operating on the same bands cannot be fully prevented.
- Measurements provided by the device are intended for informational purposes only. Move Solutions shall not be liable for any structural assessment, safety certification, or engineering decisions made by the user based on the data collected.
- The user acknowledges that wireless communication (e.g. LoRaWAN) is subject to environmental interference and network availability. Move Solutions does not guarantee 100% data delivery and is not responsible for any data loss or transmission delays.

NOTE

In case of deterioration or loss of this manual, a compliant copy may be requested by the customer from the manufacturer. For increased security, we suggest that you keep a copy of this manual in a place where it cannot be damaged or lost.

WEEE Compliance

This product contains electronic components and batteries that must be disposed of separately from common household waste, according to local regulations. To ensure correct disposal of the product at the end of its lifecycle, please contact your local authority. Failure to comply with these regulations could lead to penalties.



This product is registered in the Italian WEEE Register under number IT25110000017837, in accordance with Directive 2012/19/EU on Waste Electrical and Electronic Equipment (WEEE).

FCC Compliance

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Caution: Changes or modifications 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 or television 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.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Contains FCC ID: 2A3LJ-MAMWLE

ICES-ISED Compliance

This device complies with Innovation, Science and Economic Development Canada's (ISED) licence-exempt RSS standard(s). Operation is subject to the following two conditions:

- (1) this device may not cause interference, and
- (2) this device must accept any interference, including interference that may cause undesired operation of the device.

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:

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This equipment complies with Innovation, Science and Economic Development Canada radiation exposure limits set forth for an uncontrolled environment.

Cet équipement est conforme à l'exposition aux rayonnements Innovation, Sciences et Développement économique Canada limites établies pour un environnement non contrôlé.

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

CAN ICES-003(B)/NMB-003(B)

Contains IC: 28058-MAMWLE

Contient IC: 28058-MAMWLE

Symbols and provisions used in the documentation

The following symbols and conventions are used throughout Move Solutions product documentation. Please follow all warnings and instructions marked on the product.



WARNING

WARNING indicates a potentially hazardous situation which, if not avoided, can result in minor or moderate injury.



Fire Danger icons warn of the possibility of fire.



Electrical Danger icons warn of the risk of electric shock.



IMPORTANT

IMPORTANT indicates a potentially hazardous situation which, if not avoided, can result in property damage or loss of product functionality.



Prohibition icons indicate actions that must not be performed.

NOTE

NOTE specifies the operating environment, installation conditions, or special conditions of use.

Bold

Highlights an important point or keywords for understanding the context.

Underlined

Denotes a reference to another part of the documentation or to an element within MyMove platform.

General description

2

The Environmental Sensor is a wireless sensor that can measure a variety of parameters such as particulate matter, environmental noise, and a wide range of weather-related parameters for an all-round understanding of the environment around it.



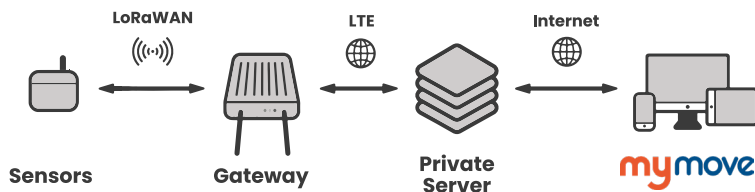
KEY FEATURES

- Affordable 3-in-1 particulate, weather, and noise station
- For indoor and outdoor operation
- Compatible with external 12–24 VDC (nominal) power supplies for extended operation
- Battery operation for fast deployment
- Wireless LoRaWAN connection
- Fully remote configuration and management
- **Low Power** and **Always On** modes for optimal battery life management
- Noise parameters expressed using terminology and definitions consistent with the corresponding parameters described in IEC 61672-1, where applicable
- PM_1 , $PM_{2.5}$, PM_4 and PM_{10} measurements with instantaneous, average, and maximum values and trigger mode
- Wind direction and speed measurement with instantaneous, average, and maximum values and trigger mode (external probes required)

- Rainfall measurement with instant and total values and trigger mode for geohazard applications (external probe required)
- Data management and processing through MyMove

Its wireless design ensures seamless integration with MyMove and other platforms.

The sensor offers a variety of working modes to accommodate different scenarios, all manageable through the MyMove platform. To operate, the sensor requires a Move Solutions Gateway installed nearby.



AGENTS

The Environmental Sensor is made up of three **agents** that behave as three independent sensors.

The **Noise agent** measures environmental noise using a microphone. It provides acoustic output parameters such as L_{eq} over several selectable time windows, as well as L_{max} , L_{pk} , L_{10} , L_{50} and L_{90} . These parameters are expressed with A or C frequency weighting and, where applicable, with F or S time weighting. The terminology and definitions used for these output parameters are consistent with the corresponding parameters described in IEC 61672-1¹, where applicable. Statistical descriptors such as L_{AF10} , L_{AF50} , L_{AF90} , L_{CF10} , L_{CF50} and L_{CF90} are calculated from the corresponding A- or C-weighted, Fast time-weighted sound level values. The power-efficient microphone allows for up to 4 weeks of continuous monitoring on batteries alone, or an external power supply can be connected for long term monitoring.

The **Air agent** outputs data on particulate matter in the air: instantaneous mass concentration of PM_{10} , $PM_{2.5}$, PM_4 and PM_{10} can be measured in **Low Power** mode, while **Always On** mode allows the user to collect data on the maximum and average mass concentration of particulates in the air and set acquisitions to trigger when the instantaneous mass concentration exceeds a threshold. To maximize insight on these parameters the agent collects data on atmospheric pressure, ambient temperature and relative humidity, and an external tipping bucket rain probe

can be connected to measure instantaneous and total rainfall. A threshold can be set to trigger an acquisition when the total rainfall over a specified time exceeds it.

The **Wind agent** takes measurements from two external **Wind speed** and **Wind direction** probes. The **Low Power** mode consists of programmed reading of instantaneous speed and direction, with cadence ranging between 2 minutes and 24 hours. A more power-hungry **Always On** mode enables the user to also measure average and maximum wind speeds, as well as enabling a trigger mode on instantaneous wind speed.

¹This product is not certified as compliant with the IEC 61672 series. The output parameters are nevertheless expressed using terminology and definitions consistent with the corresponding parameters described in IEC 61672-1, where applicable.



Technical specifications

Noise agent		
Technology	MEMS	
Resolution	0.01 dB _{SPL}	L _{Aeq} , L _{Ceq} , L _{AFmax} , L _{CFmax} , L _{ASmax} , L _{CSmax} , L _{Apk} , L _{Cpk}
	1.0 dB _{SPL}	L _{AF10} , L _{AF50} , L _{AF90} , L _{CF10} , L _{CF50} , L _{CF90}
Accuracy (1 kHz, 94 dB _{SPL})	±0.5 dB _{SPL}	
Sampling frequency	48 kHz	
Output parameters	• L_{Aeq} over the selected evaluation window • L_{Ceq} over the selected evaluation window • L_{AFmax} since last communication • L_{CFmax} since last communication • L_{ASmax} since last communication • L_{CSmax} since last communication • L_{Apk} since last communication • L_{Cpk} since last communication • L_{AF10} since last communication • L_{AF50} since last communication • L_{AF90} since last communication • L_{CF10} since last communication • L_{CF50} since last communication • L_{CF90} since last communication	
Cadence (communication period)	2 minutes, 5 minutes, 10 minutes, 15 minutes, 30 minutes, 1 hour, 2 hours, 4 hours, 6 hours, 8 hours, 10 hours, 12 hours, 14 hours, 16 hours, 18 hours, 24 hours	
Evaluation window	2 minutes, 5 minutes, 10 minutes, 15 minutes, 30 minutes, 1 hour, 2 hours, 4 hours, 6 hours, 8 hours, 10 hours, 12 hours, 14 hours, 16 hours, 18 hours, 24 hours	

Air agent		
Cadence (communication period)	2 minutes, 5 minutes, 10 minutes, 15 minutes, 30 minutes, 1 hour, 2 hours, 4 hours, 6 hours, 8 hours, 10 hours, 12 hours, 14 hours, 16 hours, 18 hours, 24 hours	
Particulate matter		
Technology	Laser scattering	
Range	0–1000 µg/m ³	
Size range	PM ₁	0.3–1.0 µm
	PM _{2.5}	0.3–2.5 µm
	PM ₄	0.3–4.0 µm
	PM ₁₀	0.3–10.0 µm
Accuracy (PM ₁ and PM _{2.5})	Reading < 100 µg/m ³	±(5 µg/m ³ + 5% of reading)
	Reading > 100 µg/m ³	±10% of reading
Accuracy (PM ₄ and PM ₁₀)	Reading < 100 µg/m ³	±25 µg/m ³
	Reading > 100 µg/m ³	±25% of reading
Resolution	0.1 µg/m ³	
Output parameters (Low Power mode)	Instantaneous PM ₁ , PM _{2.5} , PM ₄ and PM ₁₀	
Output parameters (Always On mode)	- Instantaneous PM₁, PM_{2.5}, PM₄ and PM₁₀ - Maximum PM₁, PM_{2.5}, PM₄ and PM₁₀ since last communication - Average PM₁, PM_{2.5}, PM₄ and PM₁₀ over the selected evaluation window	
Threshold resolution (Always On mode only)	10 µg/m ³	
Evaluation window	2 minutes, 5 minutes, 10 minutes, 15 minutes, 30 minutes, 1 hour, 2 hours, 4 hours, 6 hours, 8 hours, 10 hours, 12 hours, 14 hours, 16 hours, 18 hours, 24 hours	

Air agent	
Rain (external probe required)	
Technology	Tipping bucket
Resolution ¹	0.2 mm
Accuracy	±4% (at 2 mm/min)
Output parameters	• Rainfall since last communication • Total rainfall over the selected evaluation window
Evaluation window	2 minutes, 5 minutes, 10 minutes, 15 minutes, 30 minutes, 1 hour, 2 hours, 4 hours, 6 hours, 8 hours, 10 hours, 12 hours, 14 hours, 16 hours, 18 hours, 24 hours
Threshold resolution	Same as Resolution. Threshold is applied to the total rainfall over the selected evaluation window.
Atmospheric pressure	
Resolution	0.01 hPa
Accuracy	±0.5 hPa
Range	0–1250 hPa
Output parameters	Instantaneous atmospheric pressure
Temperature	
Resolution	0.01 °C
Accuracy	±0.7 °C
Output parameters	Instantaneous ambient temperature
Relative humidity	
Resolution	0.01 %RH
Accuracy	±6 %RH (30–70 %RH)
Output parameters	Instantaneous relative humidity

¹ These values are based on the rain probe provided by Move Solutions as an accessory. Other rain probes may differ.

Wind agent (external probes required)	
Technology	External 4–20 mA wind direction and wind speed sensors
External sensor supply voltage	12.3 VDC $\pm 2\%$ (70 mA)
Supported analog interface	4–20 mA (3 wires)
Range	0.4–25 mA
Resolution	0.001 mA
Accuracy of readout	± 0.03 mA
Accuracy of wind speed sensor	± 0.3 m/s
Accuracy of wind direction sensor	$\pm 3^\circ$
Output parameters (Low Power mode)	• Instantaneous wind speed (3 seconds average) • Instantaneous wind direction
Output parameters (Always On mode)	• Instantaneous wind speed (3 seconds average) • Instantaneous wind direction • Average wind speed over the selected cadence time • Maximum wind speed since last communication
Cadence (communication period)	2 minutes, 5 minutes, 10 minutes, 15 minutes, 30 minutes, 1 hour, 2 hours, 4 hours, 6 hours, 8 hours, 10 hours, 12 hours, 14 hours, 16 hours, 18 hours, 24 hours
Threshold resolution (Always On mode only)	0.1 mA

General data	
Wireless connection technology	Sub-GHz LoRaWAN protocol ¹ (Gateway required)
Wireless coverage ²	1 km line of sight from the nearest Gateway
Internal storage	- Up to 10000 Air agent events <i>or</i> - Up to 14000 Noise agent events <i>or</i> - Up to 24000 Wind agent events
Cable connections	- Move Link (Move Solutions 8-pole connector) 4× 4-pole connectors (wind direction, wind speed, rain connectors and external power connector) For compatible accessories visit Move Solutions' website or contact us directly
Internal batteries	2× 19 Ah, 3.6 V replaceable lithium batteries (Suggested: EVE ER34615PHR4)
External power	12–24 VDC (nominal) Minimum voltage: 11 VDC Maximum voltage: 28 VDC
Maximum required power from external power supply	900 mW
Operating range	0–90 %RH (non-condensing) -10 to +50 °C
Storage conditions	0–80 %RH (non-condensing) -40 to +70 °C
Dimensions ³	228 × 207 × 71 mm
Weight ³	1.5 kg
Case material	Polycarbonate
Microphone material	Anodized aluminum
Installation options	Wall or pole mount
Software version	v1

¹ The sensor's LoRaWAN connection operates on a best-effort basis, which means that while most data packets are delivered, there is a slight possibility of occasional packet loss.

² Wireless coverage may vary based on the actual deployment scenario.

³ Refers to the sensor unit itself. External accessories, such as mounting plate, external connectors and probes are not included since they are optional and/or can be replaced with alternative parts to fit specific applications.

3.1 Battery life estimation

This table lists the expected battery durations based on various possible combinations of usage of the three agents of the Environmental Sensor. Parameters not mentioned in the table have little or no effect on overall battery duration.

Noise agent Noise channel	Wind agent Wind speed and direction channels	Air agent Air quality channel	Expected duration ¹
ON Any cadence	OFF	OFF	1 month
OFF	Low Power mode ² Cadence 30 minutes	OFF	2 years and 8 months
OFF	Low Power mode ² Cadence 2 minutes	OFF	10 weeks
OFF	Always On mode ² Any cadence	OFF	8 days
OFF	OFF	Low Power mode Cadence 30 minutes	1 year and 4 months
OFF	OFF	Low Power mode Cadence 10 minutes	5.5 months
OFF	OFF	Always On mode Any cadence	7 days
ON Any cadence	Low Power mode ² Cadence 30 minutes	Low Power mode Cadence 30 minutes	1 month
OFF	Low Power mode ² Cadence 30 minutes	Low Power mode Cadence 30 minutes	1 year
ON Any cadence	OFF	Always On mode Any cadence	6 days
ON Any cadence	Always On mode ² Any cadence	OFF	6 days
ON Any cadence	Always On mode ² Any cadence	Always On mode Any cadence	3 days

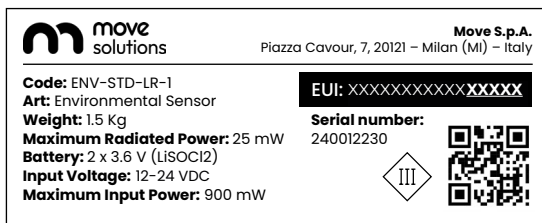
¹ The expected battery life is only an estimate and can vary depending on a variety of environmental factors.

² Power consumption of the Wind agent is directly affected by the output of the wind probes. Estimates in this table are based on an above-average use case with the probes included in the official bundles. In extreme cases, battery duration might be reduced.

What's in the box

Each Environmental Sensor is shipped inside its own cardboard box. On the box, a label is affixed with the **EUI** and **Serial Number** of the product. The EUI uniquely identifies the sensor on the MyMove platform and must be retained for configuration and registration purposes.

An identical label is also affixed on the side of the Environmental Sensor:



WARNING



DO NOT use the Environmental Sensor if any of the components looks broken or tampered with.

The Environmental Sensor is typically sold as part of a bundle, which includes the necessary mounting hardware. Depending on the bundle selected, the mounting kit and included materials will vary.

The available bundles are:

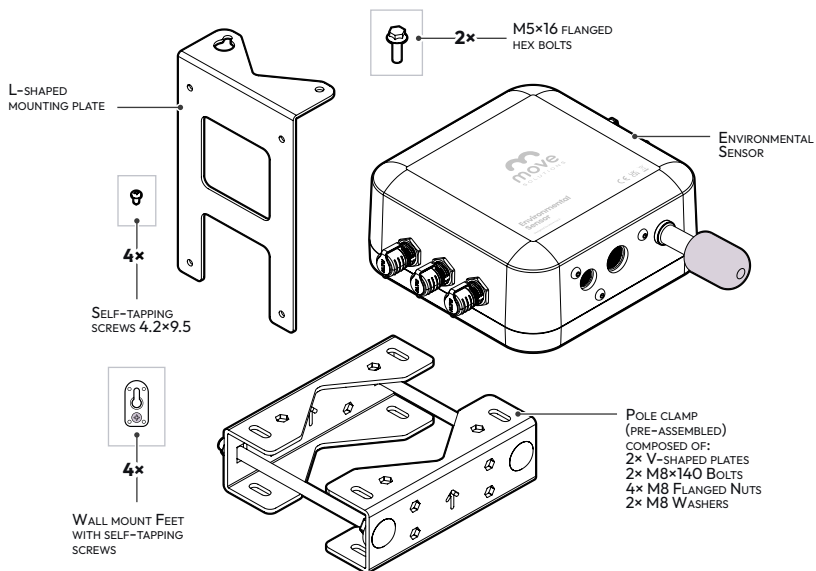
- **ENV-BND-STD-1:** Environmental Sensor + Pole mounting kit
- **ENV-BND-W-1:** Environmental Sensor + Wind probes + Mounting kit
- **ENV-BND-R-1:** Environmental Sensor + Rain probe + Mounting kit
- **ENV-BND-RW-1:** Environmental Sensor + Wind probes + Rain probe + Mounting kit

In each bundle you'll find a Move Solutions flyer with a QR code linking to the most up-to-date documentation. Carefully inspect the contents of the shipment upon receipt and verify that all components are present and in good condition.

BASE SET (ENV-BND-STD-1)

The following table lists the components included in the standard bundle, which provides the essential mounting hardware for the Environmental Sensor.

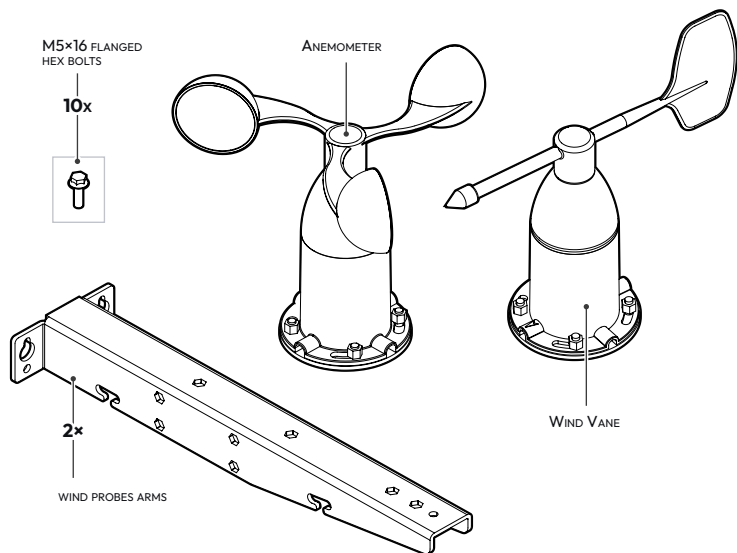
Items	Number of pieces
Environmental Sensor (ENV-STD-LR-1)	1 pc.
Mating connector (for external power source)	1 pc.
Microphone windscreen (already mounted)	1 pc.
Wall mount feet (only for wall mounting)	4 pcs.
Pole mounting kit	
L-shaped mounting plate	1 pc.
Self-tapping screws 4.2×9.5	4 pcs.
Pre-assembled Pole clamp	1 pc.
M5×16 flanged hex bolts	2 pcs.



WIND PROBES BUNDLE (ENV-BND-W-1)

This bundle contains all the components of the standard set **ENV-BND-STD-1**, plus the required mounting hardware for the wind probes:

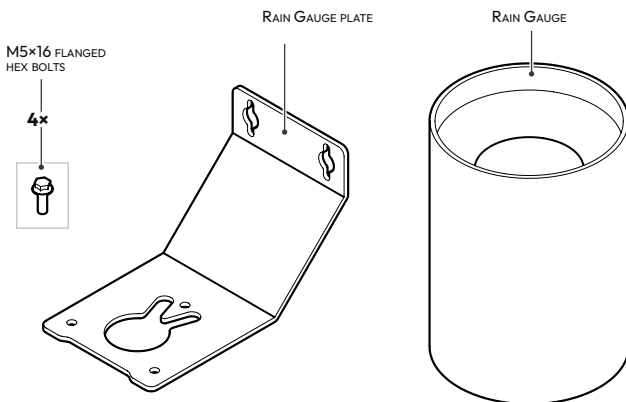
Items	Number of pieces
Anemometer	1 pc.
Wind Vane	1 pc.
Mounting kit	
Wind probes arms	2 pcs.
M5×16 flanged hex bolts	10 pcs.



RAIN PROBE BUNDLE (ENV-BND-R-1)

This bundle contains all the components of the standard set **ENV-BND-STD-1**, plus the required mounting hardware for the rain probe:

Items	Number of pieces
Rain Gauge	1 pc.
Mounting kit	
Rain Gauge plate	1 pc.
M5×16 flanged hex bolts	4 pcs.



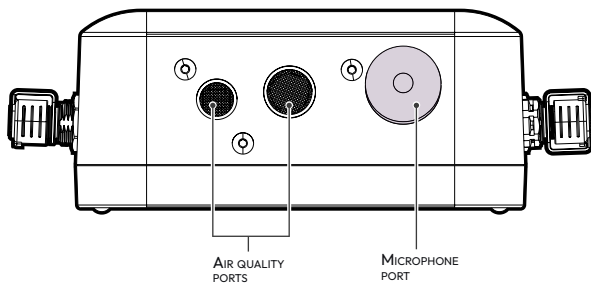
COMPLETE BUNDLE (ENV-BND-RW-1)

This bundle includes all components from the standard, wind probes and rain probe bundles previously listed, providing a full mounting solution for all supported sensors.

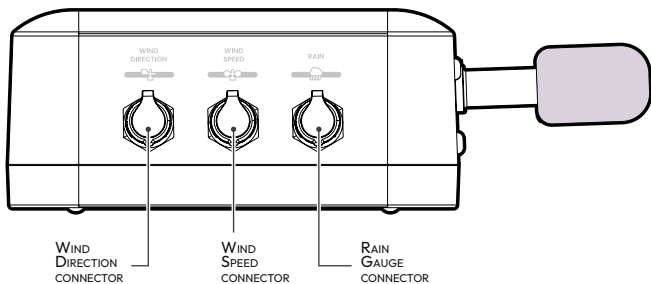
ENVIRONMENTAL SENSOR SCHEMATIC

Looking at the product you'll see:

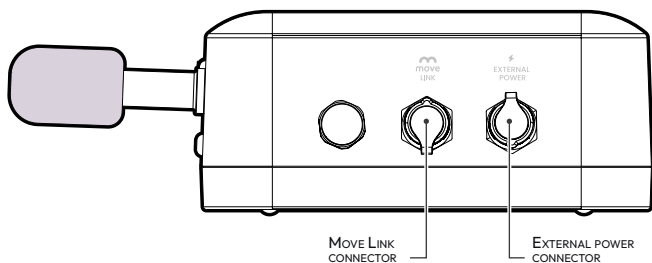
FRONT VIEW

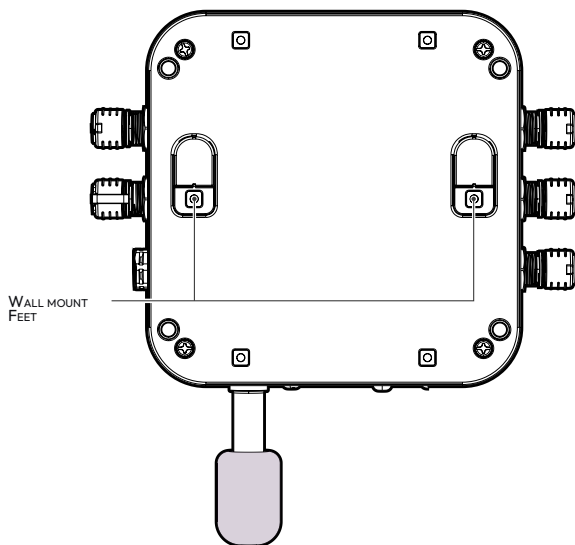


LEFT VIEW



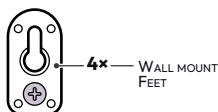
RIGHT VIEW





WALL MOUNT FEET

Additionally, four plastic wall mount feet, made of the same material as the Environmental Sensor's enclosure, are included exclusively for wall mounting.



IMPORTANT

- **DO NOT** unbox or expose the Environmental Sensor in dusty and/or humid environments. Outdoor use is intended only when the product is correctly assembled, with the back cover properly screwed in place and each connector of the sensor protected either by a properly connected external cable or by the supplied protective cap when no cable is present.



Installation



IMPORTANT

- Installation must be performed by qualified personnel.
- The mounting hardware provided and the instructions in this manual are for guidance only.
- The choice of installation materials and the proper execution of the installation are the sole responsibility of the installer. Move Solutions is not responsible for any damages of any kind, including personal injury, resulting from the installation of the device.

Before the installation check that you have the right tools for the operation:

- A 13 mm wrench
- An 8 mm wrench
- A Phillips screwdriver
- A magnetic compass (for wind probes and complete bundles only)
- A drill of suitable size (for wall mounting only)



WARNING



DO NOT use an electric screwdriver during installation to avoid damage to the device, especially when screwing in the self-tapping screws.

NOTE

Anchors and screws for wall mounting are not provided. Please choose appropriate hardware based on the type of wall or surface.

5.1 Positioning of the system

Follow these rules to make sure the system works to the best of its performance:

1. When mounting the Wind Vane probe, make sure the arrow on the base of the sensor points north.

2. To optimize the noise monitoring performance, place the Environmental Sensor higher than the environment to be monitored. Keep the area surrounding the microphone clear from hanging cables and other obstacles to minimize reflections.
3. To optimize the air monitoring performance, avoid exposure to direct sunlight as much as possible. When a solar panel is mounted on the same pole, it is advised to place the Environmental Sensor under the shade of the panel.
4. To optimize the air monitoring performance, avoid restricting the airflow to the air ports of the Environmental Sensor by placing it in a niche, or by placing obstacles around it.
5. To optimize the wind monitoring performance, place the wind probes free from any obstacle.
6. When mounting the Rain Gauge to a pole, make sure it's not directly over the Environmental Sensor to avoid channeling water on the unit. Avoid placing the Rain Gauge directly under the wind probes to avoid "shadow effect" from the wind probes. See picture for optimal installation of the sensors.

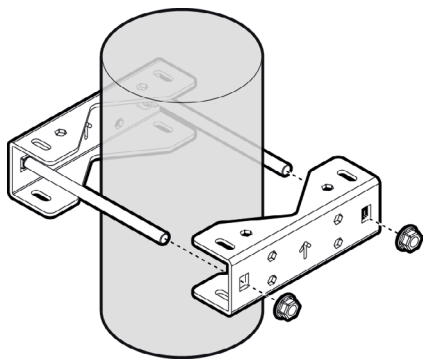
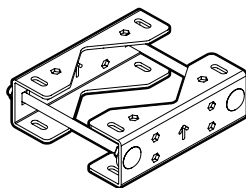
5.2 Pole mounting

If possible, Pole mounting is always to be preferred to Wall mounting. Check chapter **5.3 Wall mounting** for more details about the potential disadvantages of Wall installation.

Depending on the Bundles acquired, the installation of the Environmental Sensor and the probes will be slightly different. Some preparation can be done on ground to facilitate the next phases.

STEP A. MOUNT THE CLAMP ON THE POLE

Unscrew the M8 flanged nuts and wrap the clamp around the pole as shown in the picture, ensuring that the two laser-cut arrows point upwards. When screwing the two nuts back, check that the two V-shaped plates are parallel to each other.



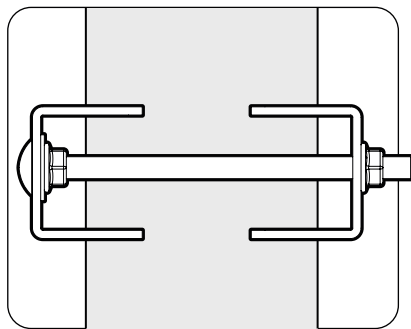
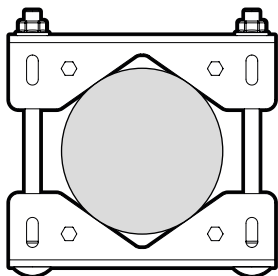


IMPORTANT

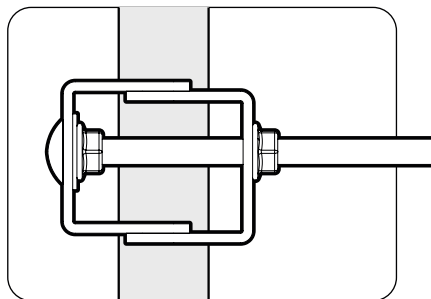
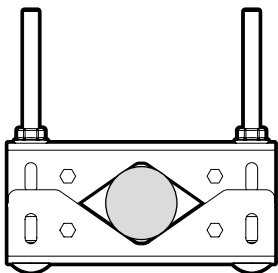
DO NOT unscrew the nuts that secure the bolts to the Pole clamp.

Pole diameter from 90 mm to 50 mm

The Pole mounting kit can be used for poles of diameters less than 90 mm and more than 50 mm.

**Pole diameter from 50 mm to 40 mm**

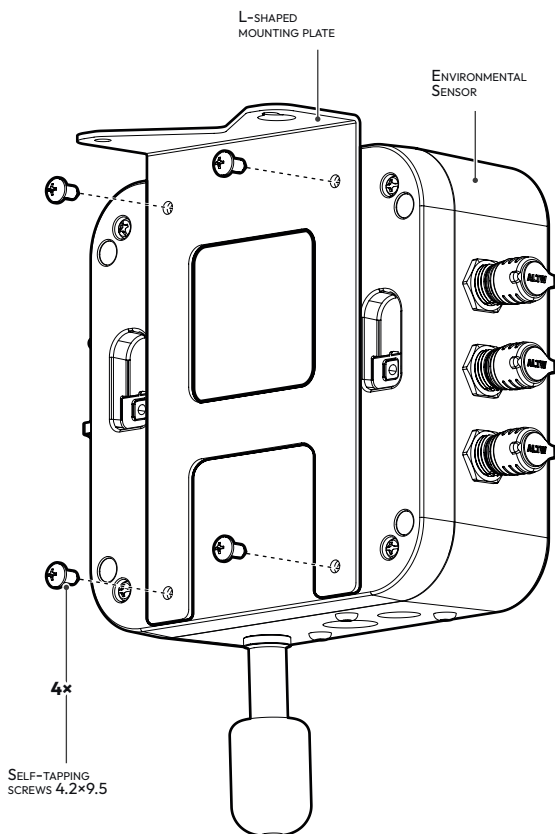
In case of poles with diameter between 50 mm and 40 mm, the two V-shaped plates need to be stacked like the picture below.



STEP B. MOUNT THE L-SHAPED PLATE ON THE ENVIRONMENTAL SENSOR

Use the four self-tapping 4.2×9.5 screws in the kit to mount the L-shaped plate on the Environmental Sensor using the Phillips screwdriver, as shown in the figure below:

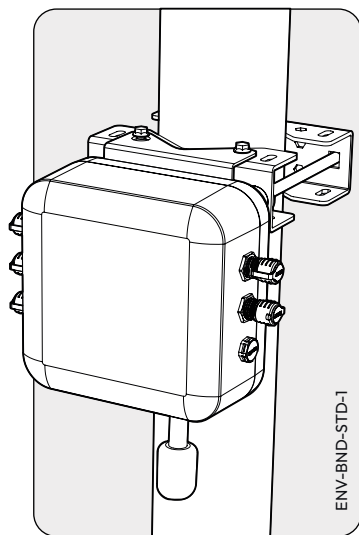
The bent side of the plate must face outward and be positioned on the opposite side of the Environmental Sensor's microphone.



5.2.1 Pole mounting Base Set (ENV-BND-STD-1)

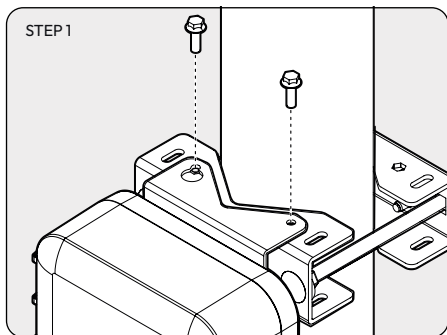
Pole mounting configuration with the Environmental Sensor and no other probes will appear as shown in the adjacent figure.

Follow **STEP A** and **STEP B** from chapter **5.2 Pole mounting** before continuing.



STEP 1. MOUNT THE ENVIRONMENTAL SENSOR ON THE CLAMP

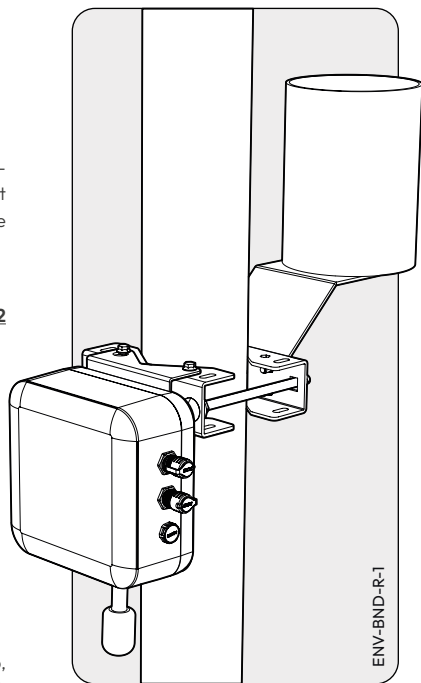
Fix the Environmental Sensor to the Pole clamp, on the side with the rounded end of the long M8 bolt, using the two provided M5 bolts. To make the installation easier, first insert the left bolt (without tightening it), then use the keyslot to position the Environmental Sensor with its L-shaped plate. Adjust the position, insert the second bolt, and then tighten both to secure the device.



5.2.2 Pole mounting Rain Probe Bundle (ENV-BND-R-1)

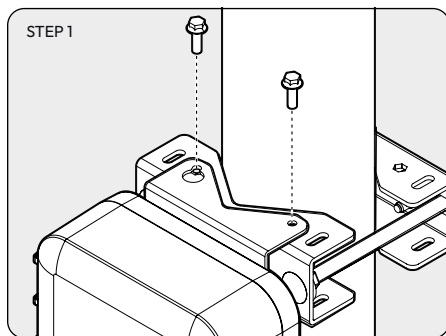
The pole mounting configuration with the Environmental Sensor and the Rain Gauge, without the Wind Probes, will appear as shown in the adjacent figure.

Follow **STEP A** and **STEP B** from chapter **5.2 Pole mounting** before continuing.



STEP 1. MOUNT THE ENVIRONMENTAL SENSOR ON THE CLAMP

Fix the Environmental Sensor to the Pole clamp, on the side with the rounded end of the long M8 bolt, using the two provided M5 bolts.

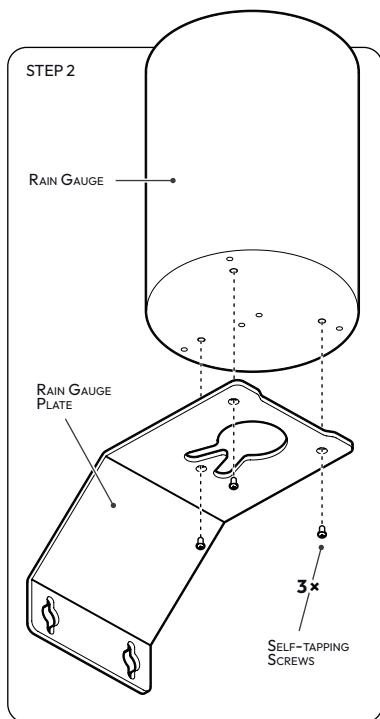


To make the installation easier, first insert the left bolt (without tightening it), then use the keyslot to position the Environmental Sensor with its L-shaped plate. Adjust the position, insert the second bolt, and then tighten both to secure the device.

STEP 2. MOUNT THE RAIN GAUGE PLATE

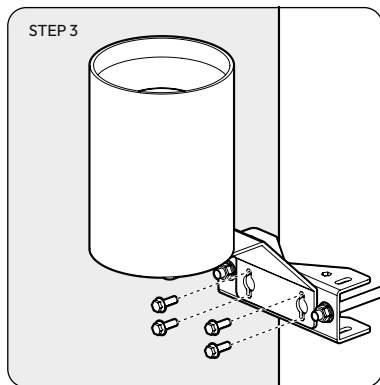
Before mounting the Rain Gauge to its plate, remove the internal shipping seal. Please read the manual provided with the Rain Gauge for further instructions.

To mount the Rain Gauge to its plate, first remove the three self-tapping screws from the bottom. Then, insert the cable into the rabbit-head-shaped hole, making sure that the bending direction of the plate is as shown in the adjacent figure. Screw back the three self-tapping screws removed earlier, ensuring that the cable is not clamped to the plate.



STEP 3. MOUNT THE RAIN GAUGE ON THE CLAMP

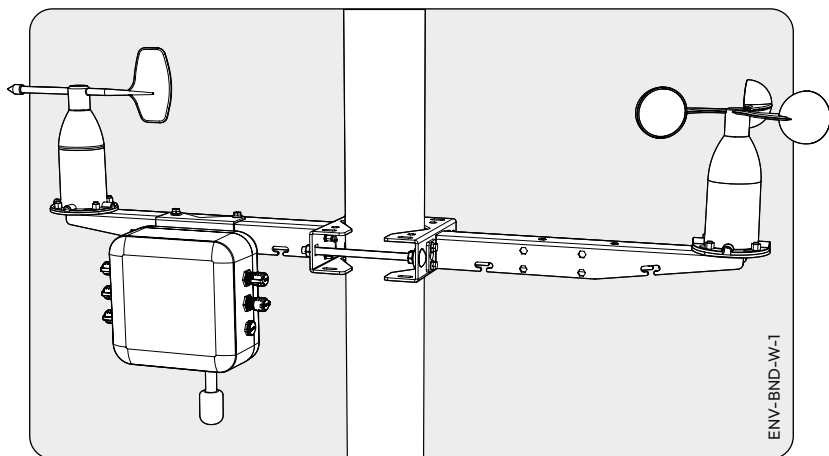
Fix the plate to the free V-shaped plate on the Pole clamp using the provided four M5 bolts. To make the installation easier, partially screw in only the top ones first, then place the Rain Gauge using the keyslot. The Rain Gauge will stay in place, making it easier to insert the remaining bolts. Finally, tighten all the bolts to secure the device.



5.2.3 Pole mounting

Wind Probes Bundle (ENV-BND-W-1)

Pole mounting configuration with the Environmental Sensor and the Wind Probes, without the Rain Gauge, will appear as shown in the figure below.

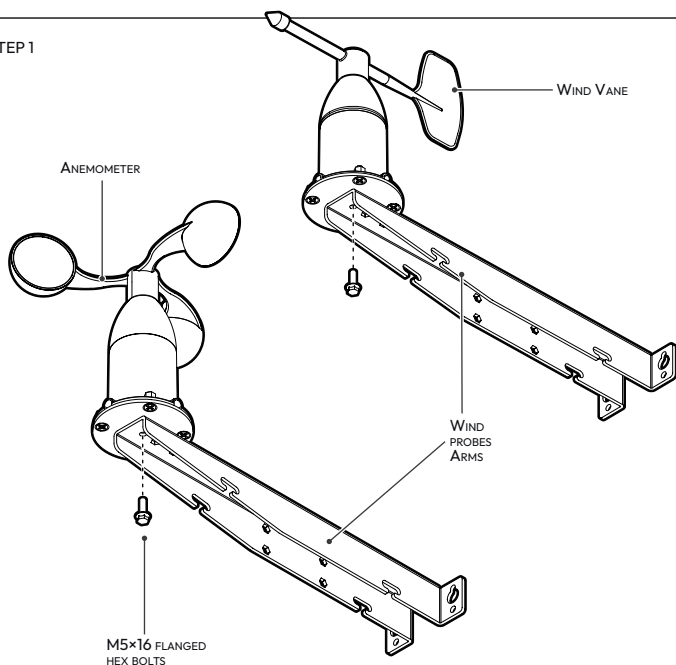


Follow **STEP A** and **STEP B** from chapter [5.2 Pole mounting](#) before continuing.

STEP 1. MOUNT THE WIND VANE AND THE ANEMOMETER ON THE WIND PROBES ARMS

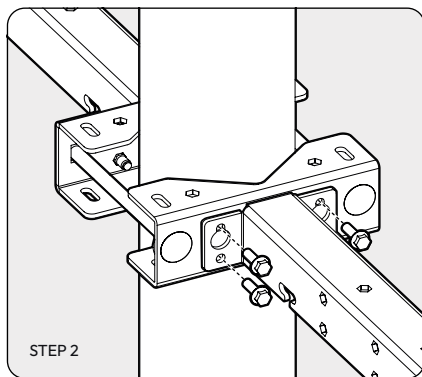
Use two M5 bolts (one per probe) to prepare both the Wind Vane and the Anemometer with their brackets using the 8 mm wrench as shown in the figure on the next page. The bolt for the Wind Vane will be loosened to permit its rotation during the calibration to magnetic north.

STEP 1



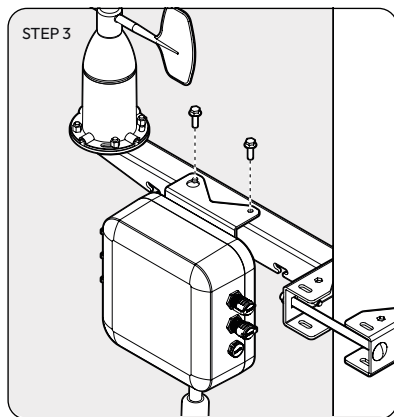
STEP 2. MOUNT THE WIND PROBES ARMS TO THE POLE CLAMP

Fix the Wind probes arms to the V-shaped plates on the Pole clamp using four M5 bolts for each arm. To make the installation easier, partially screw in only the top ones first, then place the two arms using the keyslot. The arms will stay in place, making it easier to insert the remaining bolts. Finally, tighten all the bolts to secure the device.



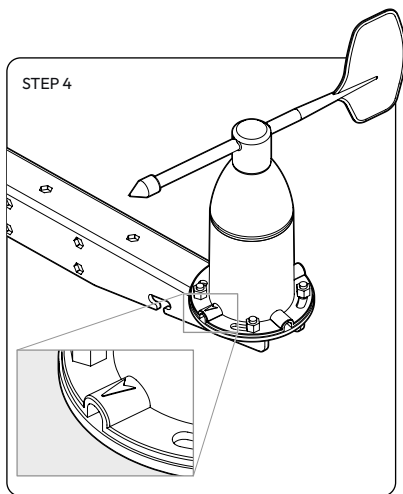
STEP 3. MOUNT THE ENVIRONMENTAL SENSOR ON THE ARM

Fix the Environmental Sensor using the provided M5 bolts in one of the installed arms (best in the one with the Wind Vane installed). To make the installation easier, first insert the left bolt (without tightening it), then use the keyslot to position the Environmental Sensor with its L-shaped plate. Adjust the position, insert the second bolt, and then tighten both to secure the device.



STEP 4. ADJUST THE WIND VANE DIRECTION

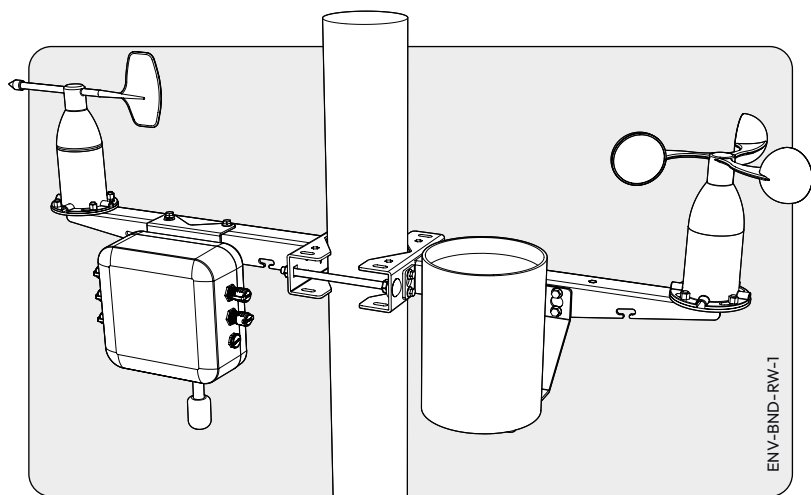
The Wind Vane needs to be pointed toward **magnetic north** to accurately provide wind direction data to the MyMove platform. To adjust the Wind Vane direction, loosen the M5 bolt previously mounted on the bottom of the probe, and rotate the Wind Vane until the embossed arrow at the base of the sensor points north (magnetic compass not provided in the box). Tighten the bolt again, ensuring that the probe does not rotate.



5.2.4 Pole mounting

Complete Bundle (ENV-BND-RW-1)

The complete pole mounting configuration with the Environmental Sensor, the Wind Probes and the Rain Gauge, will appear as shown in the figure below.

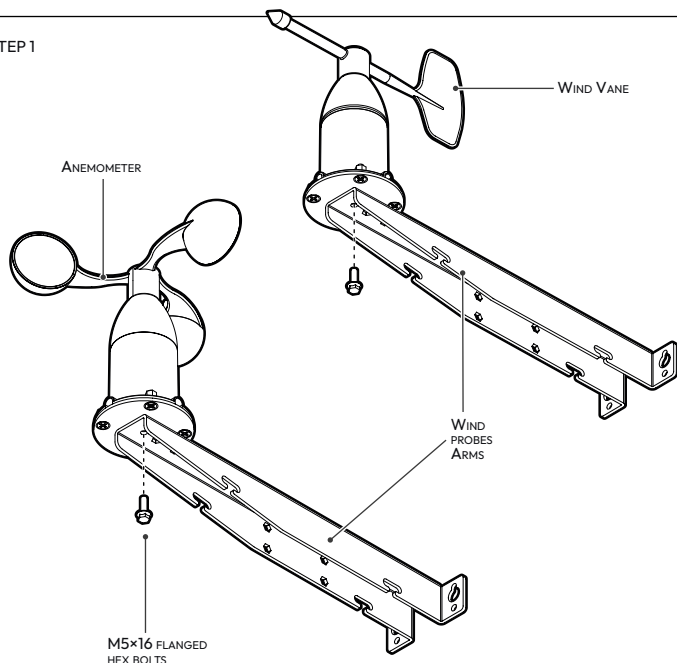


Follow **STEP A** and **STEP B** from chapter [5.2 Pole mounting](#) before continuing.

STEP 1. MOUNT THE WIND VANE AND THE ANEMOMETER ON THE WIND PROBES ARMS

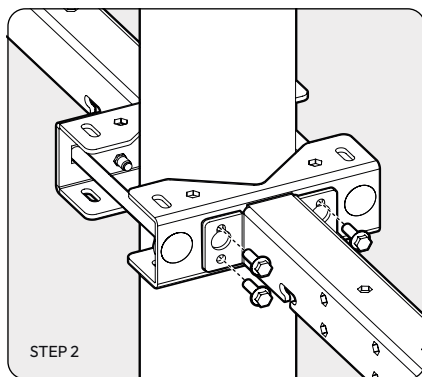
Use two M5 bolts (one per probe) to prepare both the Wind Vane and the Anemometer with their brackets using the 8 mm wrench as shown in the figure on the next page. The bolt for the Wind Vane will be loosened to permit its rotation during the calibration to magnetic north.

STEP 1



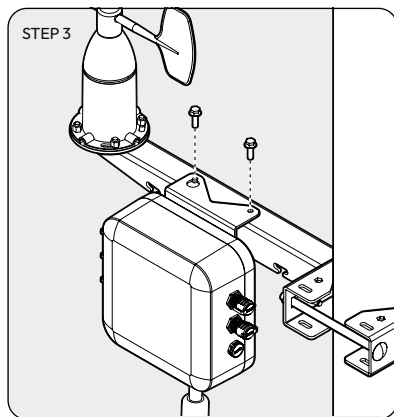
STEP 2. MOUNT THE WIND PROBES ARMS TO THE POLE CLAMP

Fix the Wind probes arms to the V-shaped plates on the Pole clamp using four M5 bolts for each arm. To make the installation easier, partially screw in only the top ones first, then place the two arms using the keyslot. The arms will stay in place, making it easier to insert the remaining bolts. Finally, tighten all the bolts to secure the device.



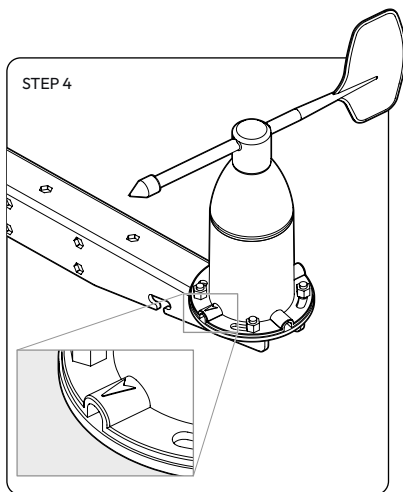
STEP 3. MOUNT THE ENVIRONMENTAL SENSOR ON THE ARM

Fix the Environmental Sensor using the provided M5 bolts in one of the installed arms (best in the one with the Wind Vane installed). To make the installation easier, first insert the left bolt (without tightening it), then use the keyslot to position the Environmental Sensor with its L-shaped plate. Adjust the position, insert the second bolt, and then tighten both to secure the device.



STEP 4. ADJUST THE WIND VANE DIRECTION

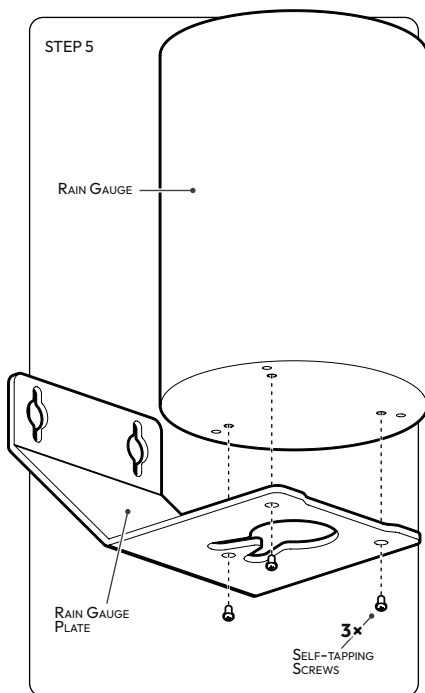
The Wind Vane needs to be pointed toward **magnetic north** to accurately provide wind direction data to the MyMove platform. To adjust the Wind Vane direction, loosen the M5 bolt previously mounted on the bottom of the probe, and rotate the Wind Vane until the embossed arrow at the base of the sensor points north (magnetic compass not provided in the box). Tighten the bolt again, ensuring that the probe does not rotate.



STEP 5. MOUNT THE RAIN GAUGE PLATE

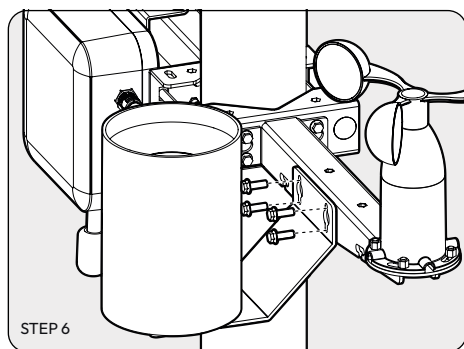
Before mounting the Rain Gauge to its plate, remove the internal shipping seal. Please read the manual provided with the Rain Gauge for further instructions.

To mount the Rain Gauge to its plate, first remove the three self-tapping screws from the bottom. Then, insert the cable into the rabbit-head-shaped hole, making sure that the bending direction of the plate is as shown in the adjacent figure. Screw back the three self-tapping screws removed earlier, ensuring that the cable is not clamped to the plate.



STEP 6. MOUNT THE RAIN GAUGE TO THE ARM

Fix the Rain Gauge plate to the free arm using the provided four M5 bolts. To make the installation easier, partially screw in only the top ones first, then place the Rain Gauge using the keyslot. The Rain Gauge will stay in place, making it easier to insert the remaining bolts. Finally, tighten all the bolts to secure the device.



5.3 Wall mounting



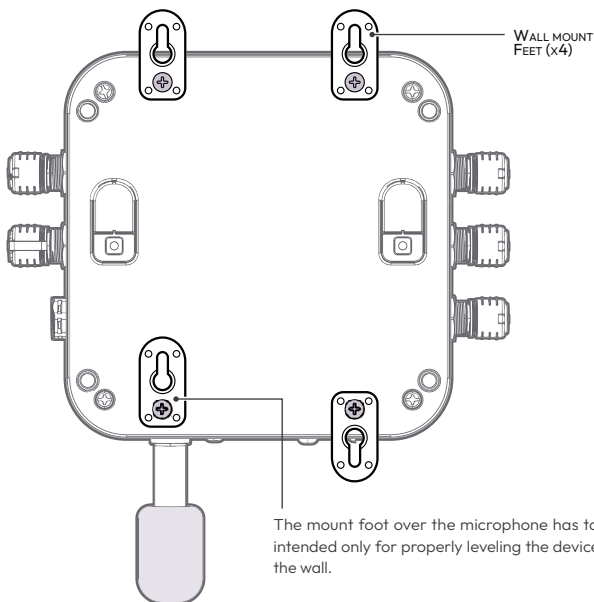
IMPORTANT

Wall mounting may alter the reading of the Noise agent by creating unwanted reflections. It can also affect the Air agent by restricting the air flow to the ports, and can lead to false positives if the wall is in itself a source of dust.



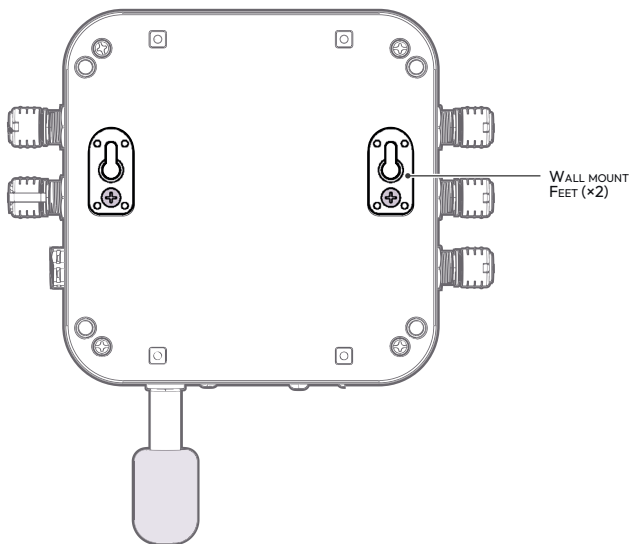
FASTENED TO THE WALL (PREFERRED)

1. Screw the four wall mount feet to the box as shown in the picture, with the foot closest to the microphone facing the inside of the box instead of the outside.
2. Drill three holes in the wall and insert three anchors (not included).
3. Fix the Environmental Sensor to the wall with three screws (not included).



HANGING

1. Screw two wall mount feet to the back of the box as shown in the picture.
2. Drill two holes in the wall and insert two anchors (not included).
3. Insert two screws in the holes.
4. Hang the Environmental Sensor onto the two screws (not included).



INSTALLING PROBES ON WALL MOUNTING CONFIGURATION

When using the wall mounting configuration, the installation of external probes is under the sole responsibility of the user. The probes supplied by Move Solutions are designed and tested for pole mounting only.

Installing the probes in a wall-mounted setup may require custom solutions, which are not covered by this manual. Move Solutions does not provide official support or specific accessories for integrating probes in wall-mounted configurations. Users must ensure the mechanical stability, correct orientation, and proper strain relief of cables and connectors when adapting the setup.

5.4 Connecting an external power source



WARNING



- When connecting an external power source make sure the power source is within the limits prescribed in this manual. Failure to comply with this warning could result in damage to the device.
- The cable used should be no longer than 3 meters.

Use the connector that's shipped with the product. The cable used should be no longer than 3 meters, have a diameter between 4 and 8 mm, and the nut of the connector should be tightened between 0.4 and 0.6 Nm to ensure that the connector is watertight.

1. Using a small flat-head screwdriver, loosen the screws on the terminal
2. Strip the cable's external jacket about 15 mm from the end. Expose the wires about 5 mm from the end.
3. Pass the cable through the rubber sealing ring, the plastic nut and the plastic cylinder.
4. Locate the small numbers embossed next to each terminal of the connector head.
5. Wire the two cables from the power source to the connector head as per the table below.
6. Screw the cylinder to the connector head.
7. Slip the rubber sealing ring into the cylinder and tighten the nut, taking care not to twist the cable.

The table shows how to wire the cable to the connector.

M12 Connector	Power source
1	V-
2	Not connected
3	Not connected
4	V+

MyMove platform



GENERAL SETTINGS

To access MyMove, connect to the URL that you have been supplied with by Move Solutions and log in with your credentials.

Through the MyMove platform you'll be able to:

- check the data of the last 24 hours and the current state of all your devices
- explore all the data that has been gathered by your sensors since day one
- set alarms and email notifications for each sensor
- manage settings for each sensor
- ...and more!

NOTES

- MyMove is frequently updated with new features and improvements. Refer to its documentation for more detailed information.
 - Settings that alter the Environmental Sensor behavior (settings that don't concern email alarms and sensor naming) can require up to 1 hour to be synchronized with the sensor.
-



Acquired data

The Environmental Sensor is divided into three “agents” which essentially behave as three independent sensors. Each agent is also divided into “channels” that act as a group of outputs that can be thought of as linked together.

- **Noise agent:** handles all measurements from the microphone. This agent is made of a single channel.
- The **Air agent** is made up of two channels:
 - The Air quality channel centers around PM measurements, and integrates temperature, humidity and pressure.
 - The Rain channel is unlocked by connecting and enabling an optional rain probe to the sensor.
- The **Wind agent** is also made up of two channels:
 - The Wind speed channel is unlocked by connecting and enabling an optional external wind speed probe and can output data on instant, average and maximum wind speed.
 - The Wind direction channel also requires connecting and enabling an optional external wind direction probe.

Data from any channel can be divided into three categories:

- Instant data
- Cadence-based data
- Average data

Instant data refers to data that is acquired at the time of transmission. For example, the instant pressure output from the air quality channel is the atmospheric pressure when the sensor transmits this data to the MyMove platform, without any sort of filtering or averaging.

Cadence-based data is data that is calculated during the time between one transmission and the next. For example the Rainfall output from the rain channel of the air agent is the amount of rainfall since the last transmission. Similarly, maximum PM_{10} from the air quality channel is the maximum PM_{10} registered since the last transmission.

Finally, average data is measured continuously, and the data’s moving average is continuously calculated and used as output. For example, when the noise agent’s evaluation window is set to 1h the L_{Aeq} output is the average A-weighted sound pressure level over the last hour at the time of transmission. If the cadence is 5 minutes, this means that at 11:00 AM the user will

receive L_{Aeq} averaged between 10:00 AM and 11:00 AM, and at 11:05 AM the user will receive L_{Aeq} averaged between 10:05 AM and 11:05 AM. Notice how this data is independent from the cadence time, which only affects how often the data is presented to the user. Think of this as having an instrument on your desk that is continuously measuring the average of some input over the last hour (the evaluation window) and continuously updating the reading on the screen, and every 5 minutes (the cadence time) you are looking at the instrument's screen and writing down the reading.

7.1 Noise agent

The table below shows the output data of the agent.

Output	Category
L_{Aeq}	Average
L_{Ceq}	Average
L_{AFmax}	Cadence-based
L_{CFmax}	Cadence-based
L_{ASmax}	Cadence-based
L_{CSmax}	Cadence-based
L_{Apk}	Cadence-based
L_{Cpk}	Cadence-based
L_{AF10}	Cadence-based
L_{AF50}	Cadence-based
L_{AF90}	Cadence-based
L_{CF10}	Cadence-based
L_{CF50}	Cadence-based
L_{CF90}	Cadence-based

These parameters are expressed using terminology and definitions consistent with the corresponding parameters described in IEC 61672-1, where applicable. The letters A and C in the name of the outputs stand respectively for A-weighted and C-weighted sound pressure level, which are two different frequency weightings specified in the standard IEC 61672-1 and used

in most applications. The letters F and S in the name of the outputs stand respectively for Fast and Slow time-weighting, which affect how sensitive the parameter is to sudden changes in noise level; these two weightings are also specified in the standard IEC 61672-1 and used in many applications.

Every parameter output by this agent is expressed in dB_{SPL} .

L_{Aeq} and L_{Ceq} correspond to the time-averaged sound level, also referred to as the equivalent continuous sound level in IEC 61672-1. Simply put, they represent the average noise level over a given evaluation window, with A-weighting and C-weighting, respectively.

L_{AFmax} , L_{ASmax} , L_{CFmax} , L_{CSmax} represent the maximum sound pressure level over the cadence time, in all four combinations of frequency-weighting and time-weighting.

L_{Apk} and L_{Cpk} are similar to the L_{max} outputs, but without taking into account the time-weighting.

L_{AF10} , L_{AF50} and L_{AF90} are statistical descriptors representing the A-weighted, Fast time-weighted sound levels exceeded for 10%, 50% and 90% of the measurement time, respectively. The same applies to L_{CF10} , L_{CF50} and L_{CF90} , but with C-weighting instead.

7.2 Wind agent

This agent is composed of two channels: the wind speed channel and the wind direction channel. The two channels share the cadence time, and each of them has additional settings.

WIND SPEED CHANNEL

The wind speed channel has two working modes.

In **Low Power** mode, the channel is turned on only at the time of transmission to read the instant wind speed. This allows for low power consumption, extending the battery life of the product.

In **Always On** mode on the other hand, the probe is kept on and sampled at short intervals; this allows the channel to compute maximum and average values of wind speed at the expense of the battery life of the product. In **Always On** mode the user can also enter a threshold that immediately triggers an acquisition when exceeded. Triggered acquisitions do not include average and maximum wind speed outputs; they do, however, also trigger the wind direction channel to provide more complete data.

Output	Category	<u>Low Power</u> mode	<u>Always On</u> mode	Triggered acquisition
Instant wind speed	Instant	Available	Available	Available
Average wind speed	Cadence-based	Not available	Available	Not available
Maximum wind speed	Cadence-based	Not available	Available	Not available

NOTES

- Instant wind speed is computed as the 3 seconds average of the signal from the probe.
 - Despite being an “average” measurement, average wind speed has no evaluation window setting. Instead, it is always averaged over the cadence time.
-

WIND DIRECTION CHANNEL

The wind direction channel provides a single output: instant wind direction. It has no additional settings, but it is included in acquisitions triggered by the wind speed channel.

Output	Category
Instant wind direction	Instant

NOTE

Instant wind direction is computed as the 3 seconds average of the signal from the probe.

7.3 Air agent

The air agent is made up of two separate channels: the air quality channel and the rain channel. The two channels share the cadence, and each one has its own settings as well.

AIR QUALITY CHANNEL

The air quality channel has two working modes. In **Low Power** mode the particulate matter sensor is turned on only at the time of transmission to measure instantaneous particulate matter concentrations, and is then turned back off to ensure a much longer battery life. In **Always On** mode on the other hand the particulate matter sensor is kept running and its output is sampled at regular intervals, allowing the channel to track average and maximum values of particulate matter. In **Always On** mode the user can also activate independent thresholds on each size of

particulate matter to trigger an acquisition when instant values exceed the threshold value.

Output	Category	Low Power mode	Always On mode	On PM triggered acquisition
Instant pressure	Instant	Available	Available	Available
Instant temperature	Instant	Available	Available	Available
Instant humidity	Instant	Available	Available	Available
Instant PM ₁	Instant	Available	Available	Available
Instant PM _{2.5}	Instant	Available	Available	Available
Instant PM ₄	Instant	Available	Available	Available
Instant PM ₁₀	Instant	Available	Available	Available
Average PM ₁	Average	Not available	Available	Not available
Average PM _{2.5}	Average	Not available	Available	Not available
Average PM ₄	Average	Not available	Available	Not available
Average PM ₁₀	Average	Not available	Available	Not available
Maximum PM ₁	Cadence-based	Not available	Available	Not available
Maximum PM _{2.5}	Cadence-based	Not available	Available	Not available
Maximum PM ₄	Cadence-based	Not available	Available	Not available
Maximum PM ₁₀	Cadence-based	Not available	Available	Not available

Instant pressure is the atmospheric pressure measured at the time of transmission.

Instant temperature and instant humidity are the temperature and relative humidity of the air outside the Environmental Sensor.

Instant PM₁, PM_{2.5}, PM₄ and PM₁₀ are the mass-concentration of particulate matter (in µg/m³) at the time of transmission. PM₁ stands for particles with a diameter less than 1 micron; similarly, PM_{2.5} refers to particles with diameter less than 2.5 microns: this means that PM_{2.5} includes PM₁. The same definitions apply to the other kinds of particulate matter, with PM₄ including PM₁ and PM_{2.5}, and PM₁₀ including all the other classes of particulate matter.

Average PM outputs measure the average mass-concentration of each kind of particulate matter over the selected evaluation window, while Maximum PM outputs keep track of the peaks in particulate matter concentration between one transmission and the next.

RAIN CHANNEL

The rain channel has an enable option in the MyMove platform that allows the user to turn it on or off, but this doesn't affect the battery life of the product. The evaluation window setting decides what period of time is considered when computing the total rainfall output.

The rain channel also has a **trigger mode** that can be enabled to trigger a transmission when the total rainfall exceeds a user-defined threshold.

Output	Category	On Rain triggered acquisition
Rainfall	Cadence-based	Available
Total rainfall	Average	Available

The Rainfall output measures the total rain (in mm) that has fallen between one transmission and the next, while Total rainfall measures the total rain that has fallen in the selected evaluation window.



IMPORTANT

For issues on devices still covered by warranty, always consult Move Solutions before deciding to open the product. Only change the batteries independently when the warranty has already expired.

8.1 Microphone windscreen

If upon visual inspection the microphone's windscreen looks damaged, worn out or is missing, a spare part can be requested from Move Solutions. To replace it, simply pull it off the microphone and gently insert the new windscreen. When doing this make sure the microphone and the new windscreen are both dry to avoid trapping droplets of water between the windscreen and the microphone capsule.



IMPORTANT

DO NOT, for any reason, unscrew or loosen the microphone capsule as this might permanently compromise its functionality.

8.2 Air filters

The two filters on the air ports prevent insects and bigger particles like pollen from obstructing the particulate matter sensor; as a result, the filters may need occasional cleaning. To clean them, you can use tweezers to remove obstacles, being careful not to damage the steel net.

If tweezers are not enough to clean the filters, they can be dismantled and cleaned with pressurized air or water before reinstalling them in the sensor. To dismantle the filter follow these steps:

1. Disconnect any cables or accessories connected to the Environmental Sensor's connectors. To protect the exposed connectors during maintenance, cover them using appropriate caps or temporary shielding.
2. Remove the Environmental Sensor from the installation and move it to a clean, dry en-

vironment.

3. Turn the Environmental Sensor upside down and place it on a flat, soft surface, with the back cover facing up and the silk-screened side of the enclosure resting on the surface. Take care not to press on the microphone or its windscreen.
4. Unscrew the four screws on the back of the product and remove the back cover.
5. Disconnect the batteries.
6. Disconnect the cable of the air sensor by gently pressing the tab of the connector located on the PCB.
7. Unscrew the three screws on the front panel and dismount the air sensor. Take care not to lose the screws and the nuts.
8. The two filters come off easily. Clean them with pressurized air or clean water, or take new ones if they need replacement (spare parts can be ordered from Move Solutions). Before mounting the filters, make sure they are dry.
9. Reassemble the air sensor, making sure the filters are correctly aligned to the holes. When tightening the three screws, make sure to distribute the pressure evenly. If after tightening the screws the wall of the box looks warped, loosen the screws in small steps until the wall is straight again.
10. Reconnect the batteries.
11. Refit the back cover and screw it in place. Make sure its gasket is in place and is not pinched between the box and the cover.
12. Reinstall the Environmental Sensor.

8.3 Replacing the batteries

Depending on the settings and operating conditions of the product, the batteries might eventually need to be changed. In this event, only use the prescribed batteries.

For information on how to provision said batteries, please contact a Move Solutions representative. If the prescribed batteries are unavailable, or provisioning is not possible, consult a Move Solutions representative to find a viable alternative.



IMPORTANT

Move Solutions is not responsible for malfunctions and damage caused by batteries supplied by other companies and/or utilization of batteries different from the specified part number.

1. Disconnect any cables or accessories connected to the Environmental Sensor's connectors. To protect the exposed connectors during maintenance, cover them using appropriate caps or temporary shielding.
2. Remove the Environmental Sensor from the installation and move it to a clean, dry environment.
3. Turn the Environmental Sensor upside down and place it on a flat, soft surface, with the back cover facing up and the silk-screened side of the enclosure resting on the surface. Take care not to press on the microphone or its windscreen.
4. Unscrew the four screws on the back of the product and remove the back cover.
5. Disconnect the old batteries and remove them, together with the shipping battery ties. Wait a few seconds before proceeding.
6. Connect the new batteries.
7. Refit the back cover and screw it in place. Make sure its gasket is in place and is not pinched between the box and the cover.
8. Reinstall the Environmental Sensor.

Overall dimensions

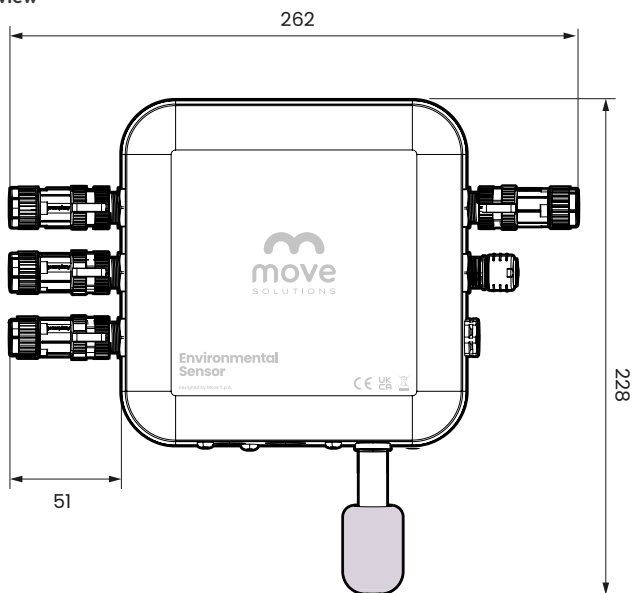
Please note that the drawings provided in this manual are not drawn to scale.

The purpose of these illustrations is to assist you in understanding the various components and their relative positions. Therefore, it is essential to rely on the numerical measurements provided alongside the drawings for accurate dimensions.

The following measurements are expressed in millimeters (mm).

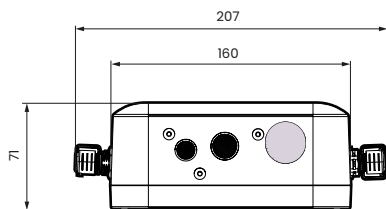
Maximum width with connectors

Upper view

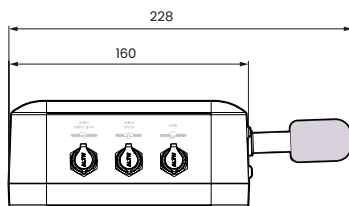


Without connectors

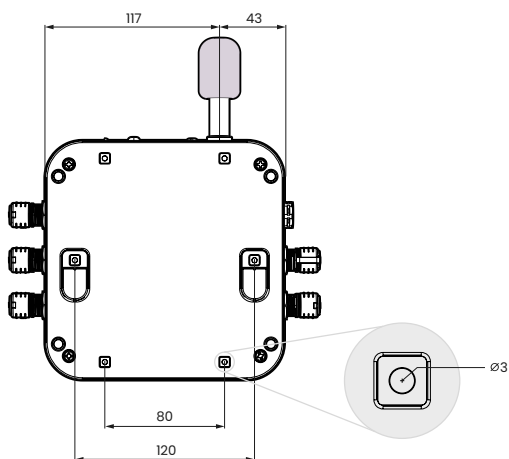
Front view



Right view



Lower view



Annex A

Wiring of the probes



NOTE

The probes provided with the bundles are already pre-wired and ready to use. If you choose to use third-party or custom probes, please refer to the following wiring specifications.

The connector must be the **Amphenol LTW M12A-04BFFB-SL7001** or an equivalent connector (in which case the customer should check the compatibility under their own responsibility). A set of four replacement connectors (product code **ENV-CON-4PF-1**) is available upon request from Move Solutions, for use in custom probe integration or alternative sensor setups.

The connector should be wired with a cable of suitable diameter (according to the connector's datasheet) and the lock nut must be tightened sufficiently to ensure proper waterproof rating and avoid malfunctions when the cable is pulled.

This table shows the proper wiring of the Wind Vane and Anemometer probes.

M12 Connector	4–20 mA sensor
1	Ground
2	4–20 mA signal
3	Power (12 V)
4	Not connected

This table shows the proper wiring of the Rain Gauge.

M12 Connector	Pulse output sensor
1	Ground
2	Signal (Normally Open Contact)
3	Not connected
4	Not connected

Document revisions

N°	DATE	NOTES
Rev. 1	27 January 2025	Initial release
Rev. 2	10 February 2025	Text corrections
Rev. 3	11 April 2025	Text corrections and Installation procedure update
Rev. 4	8 July 2026	Complete template and style update; specifications update

MOVE SOLUTIONS CUSTOMER ASSISTANCE SERVICE

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