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+ User Manual EE671

HVAC Air Velocity Probe



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1 General Information

This user manual is intended to ensure proper handling and optimal functioning of the device. The user manual shall be read before commissioning the equipment and it shall be provided to all staff involved in transport, installation, operation, maintenance and repair. E+E Elektronik Ges.m.b.H. accepts no liability for any warranty or liability claims arising from this publication or improper handling of the product(s) described.

All information, technical data and diagrams included in this document are based on the information available at the time of writing. The document may contain technical inaccuracies and typographical errors. The contents will be revised on a regular basis and changes will be implemented in subsequent versions. The product(s) described and the contents of this document may be changed or improved at any time without prior notice.

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PLEASE NOTE

Find this document and further product information on our website at www.epluse.com/ee671.

1.1 Explanation of Warning Notices and Symbols

Safety precautions

Precautionary statements warn of hazards in handling the device and provide information on their prevention. The safety instruction labeling is classified by hazard severity and is divided into the following groups:

DANGER

Danger indicates hazards for persons. If the safety instruction marked in this way is not followed, the hazard will very likely result in severe injury or death.

WARNING

Warning indicates hazards for persons. If the safety instruction marked in this way is not followed, there is a risk of injury or death.

CAUTION

Caution indicates hazards for persons. If the safety instruction marked in this way is not followed, minor or moderate injuries may occur.

NOTICE

Notice signals danger to objects or data. If the notice is not observed, damage to property or data may occur.

Informative notes

Informative notes provide important information that is characterised by its relevance.

INFO

The information symbol indicates tips on handling the device or provides additional information on it. This information is useful to achieve optimum performance of the device.

The title field may deviate from "INFO" depending on the context. For instance, it may also read "PLEASE NOTE".

1.2 Safety Instructions

1.2.1 General Safety Instructions

NOTICE

Improper handling of the device may result in its damage.

- No part of the EE671 shall be exposed to unnecessary mechanical stress.
- Do not apply the supply voltage to the RS485 data lines.
- The EE671 electronics is sensitive to electrostatic discharge (ESD), appropriate protective measures shall be taken when touching it.
- Use the EE671 only as intended and observe all technical specifications.

1.2.2 Intended Use

The EE671 is an air velocity probe that is ideally suited for HVAC (Heating, Ventilation, Air Conditioning) applications. The measured air velocity of up to 20 m/s (4000 ft/min) is available at voltage output 0 - 1 V, 0 - 5 V or 0 - 10 V or on the Modbus RTU interface.

WARNING

Non-compliance with the product documentation may cause safety risks for people and the entire measurement installation.

The manufacturer is not liable for any damage caused by improper handling, installation and maintenance of the device.

- Do not use the EE671 in explosive atmosphere or for measurement in aggressive gases.
- This device is not appropriate for safety, emergency stop or other critical applications where device malfunction or failure could cause injury to human beings.
- The device may not be manipulated with tools other than specifically described in this manual.

NOTICE

Failing to follow the instructions in this user manual may lead to measurement inaccuracy and device failures.

- The EE671 may only be operated under the conditions described in this user manual and within the specification included in chapter 8 Technical Data.
- Any unauthorised product modifications will invalidate all warranty claims. Modifications may only be carried out with express authorisation of E+E Elektronik Ges.m.b.H.!

1.2.3 Mounting, Start-up and Operation

The EE671 has been produced under state of the art manufacturing conditions, has been thoroughly tested and has left the factory after fulfilling all safety criteria. The manufacturer has taken all precautions to ensure safe operation of the device. The device shall be set up and installed in a way that does not impair its safe use. All applicable local and international safety guidelines for safe installation and operation of the device have to be observed. This user manual contains information and warnings that must be observed in order to ensure safe operation.

PLEASE NOTE

The manufacturer or his authorised agent can only be held liable in case of willful or gross negligence. In any case, the scope of liability is limited to the corresponding amount of the order issued to the manufacturer. The manufacturer assumes no liability for damage caused by non-compliance with the applicable regulations, operating instructions or the specified operating conditions. Any consequential damage is excluded from liability.

⚠ WARNING

Non-compliance with the product documentation may result in accidents, personal injury or property damage.

- Mounting, installation, commissioning, start-up, operation and maintenance of the device may only be carried out by qualified staff. Such staff must be authorised by the operator of the facility to carry out the mentioned activities.
 - The qualified staff must have read and understood this user manual and must follow the instructions contained within. The manufacturer accepts no responsibility for non-compliance with instructions, recommendations and warnings.
 - All process and electrical connections must be thoroughly checked by authorised staff before commissioning the device.
 - Do not install or start-up a device suspected to be faulty. Mark it clearly as faulty and remove it from the process.
 - Service operations other than described in this user manual may only be performed by the manufacturer. A faulty device may only be investigated and possibly repaired by qualified, trained and authorised staff. If the fault cannot be fixed, the device shall be removed from the process.
-

1.3 ESD Protection



The sensing elements and the electronics board are ESD (electrostatic discharge) sensitive components of the device and must be handled as such. Otherwise, the device may be damaged by electrostatic discharge when touching exposed sensitive components.

2 Scope of Supply

- EE671 HVAC Air Velocity Probe
- Protection cap
- Mounting flange
- Quick guide

3 Product Description

3.1 General

The EE671 is dedicated for accurate and reliable measurement in building automation and ventilation applications. The air velocity probe works according to the hot-film anemometer principle and has an innovative, very robust E+E sensor element, which is manufactured using thin-film technology combined with transfer moulding.

The alignment strip on the probe facilitates the correct positioning in the air flow. The mounting flange within the scope of supply enables correct positioning and easy adjustment of the immersion depth.

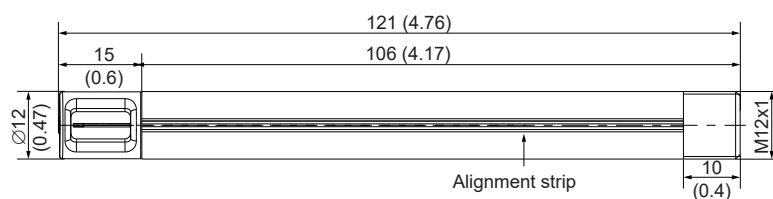
The EE671 is available with an M12 connector. The measured air velocity up to 20 m/s (4000 ft/min) is available at the analogue voltage output 0 - 1 V, 0 - 5 V or 0 - 10 V or on the digital RS485 interface with Modbus RTU protocol.

Configuration and adjustment can be carried out using the freely available Product Configuration Software and an optional configuration adapter. The software for EE671 with analogue output is the EE-PCS. The software for EE671 with digital interface is the PCS10.

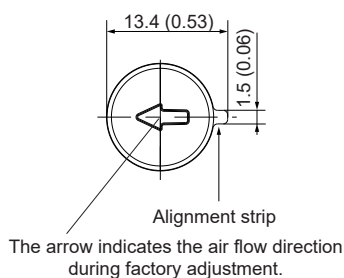
3.2 Dimensions

Values in mm (inch)

Probe with M12x1 plug

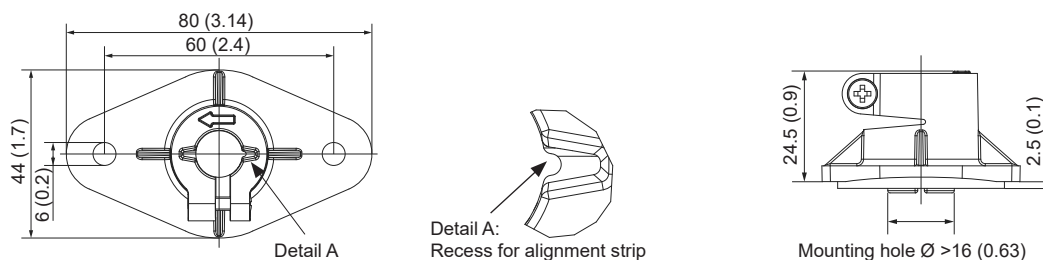


Front view sensing head



Flange

Included in the scope of supply



3.3 Electrical Connection


WARNING

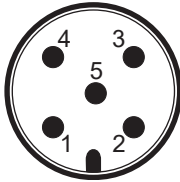
Incorrect installation, wiring or power supply may cause overheating and result in personal injury or property damage.

Cables must not be under voltage during electrical installation and connection or disconnection, especially at terminal connections on circuit boards. For correct cabling, always observe the presented wiring diagram for the product version used.

The manufacturer cannot be held responsible for personal injury or damage to property caused by incorrect handling, installation, wiring, power supply or maintenance of the device.

PLEASE NOTE

- The device may only be powered with a power supply class III  (Europe) or with a class 2 supply (North America).
- EE671 is an ESD-sensitive device. It is neither short-circuit-proof, nor surge-proof. The digital communication lines may not be connected to the supply lines.



**Plug for supply
and analogue outputs**
(Front view)

Pin	Wire colour	Analogue output	Digital interface
1	Grey	SDA	V+
2	Brown	GND	RS485 B (D-)
3	Green	v analogue	GND
4	Yellow	SCL	RS485 A (D+)
5	White	V+	n.c.

4 Mounting and Installation

4.1 General

If possible, use the mounting flange to install the EE671. The flange enables correct positioning in the flow and easy adjustment of the immersion depth. The arrows engraved on the sensing head of the EE671 and the mounting flange indicate the flow direction at the factory setting. Pay attention to the direction of the arrows when fitting the mounting flange. As soon as the mounting flange is correctly aligned with the air flow direction, the alignment strip along the sensor ensures that the EE671 is also correctly aligned.

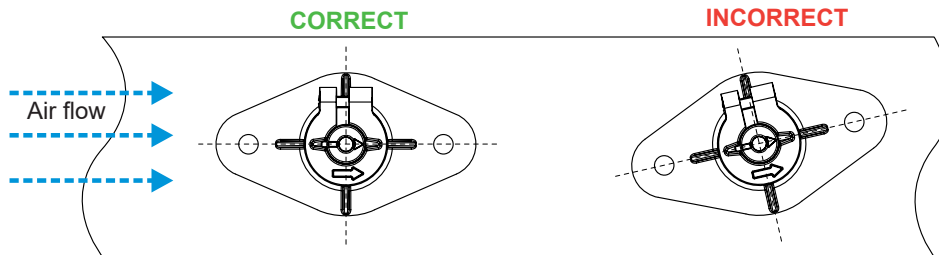


Fig. 1 Correct and incorrect probe position

4.2 Drilling Pattern

i PLEASE NOTE

By leaving out a key notch, the flange can only be fitted in the correct direction.

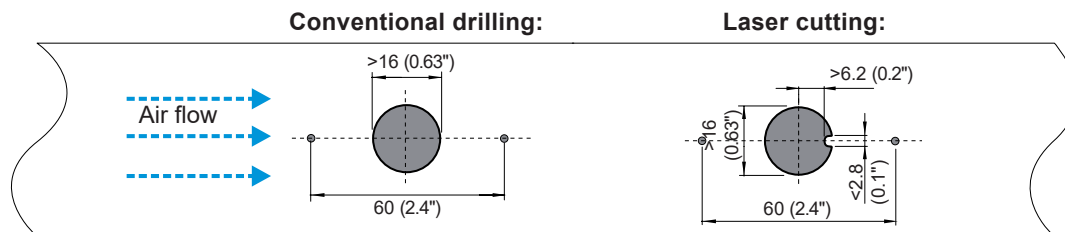


Fig. 2 Drill hole dimensions in mm (inch)

The mounting flange enables accurate adjustment of the immersion depth of the EE671. The entire sensing head must be located in the air flow to be measured. The sensing head must be fully immersed in the air flow.

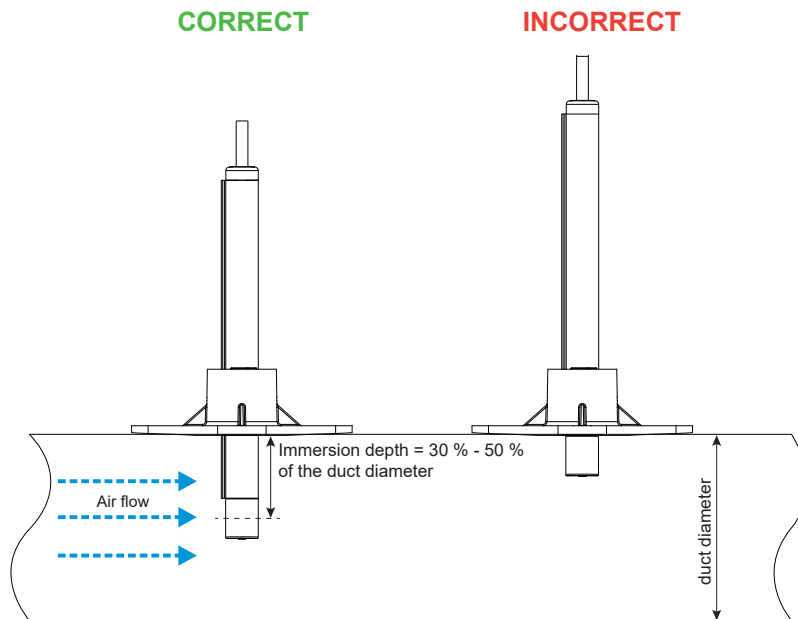


Fig. 3 Correct and incorrect immersion depth

Ensure that the arrow on the sensing head exactly matches the flow direction when installing the EE671 probe without a mounting flange.

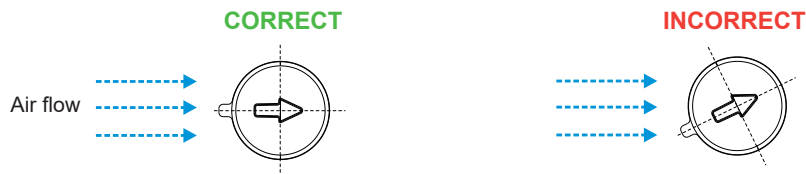


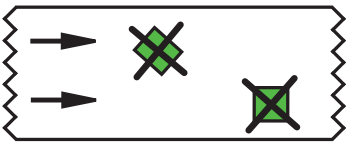
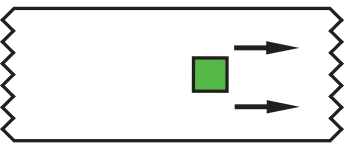
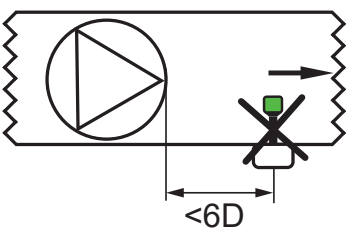
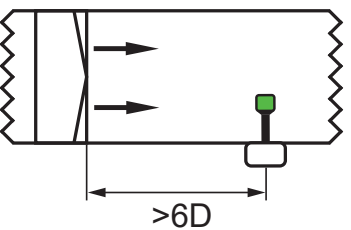
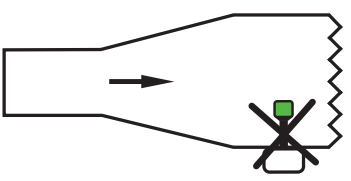
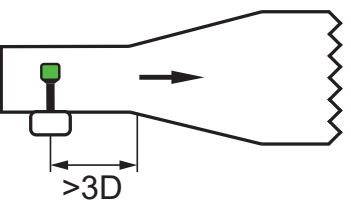
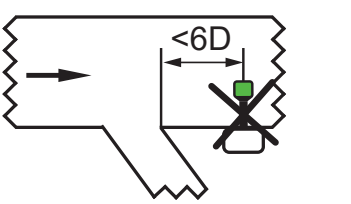
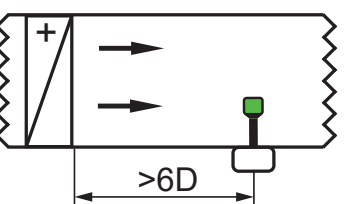
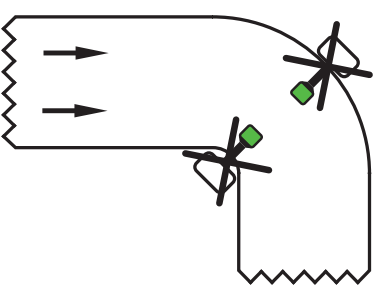
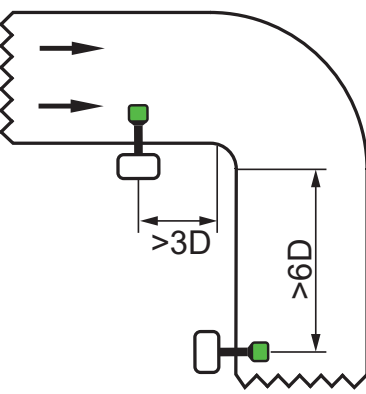
Fig. 4 Correct and incorrect alignment strip position

4.3 Mounting Guidelines for Air Velocity Measuring Devices

The reliable and accurate measurement of air velocity depends on the correct positioning of the sensor in the ventilation duct. Accurate measurements are only possible if the air velocity probe is positioned at a location with a laminar (not-turbulent) flow.

The required length of the calming section after a fault is a function of the tube diameter D. For a rectangular channel a x b applies:

$$D_{gl} = \frac{2 \cdot a \cdot b}{a + b}$$

Incorrect positioning	Correct positioning	Description
		<p>Install the sensing probe in the centre of the duct.</p>
		<p>The optimum position is after the filter. Please ensure sufficient distance.</p>
		<p>Position the probe in front of the diffuser, at a place with high flow rate.</p>
		<p>Position the probe at a location with a laminar (to-turbulent) flow.</p>
		<p>Turbulent flows are caused by pipe bends, branches, behind flaps, flanges, air heaters, air coolers or cross-sectional changes.</p>

Tab. 1 Positioning examples

5 Setup and Adjustment

The EE671 is ready to use and does not require any further configuration. The factory setup of the EE671 corresponds to the specified order code. Please refer to the datasheet at www.epluse.com/ee671.

5.1 Analogue Output

The measuring range and the voltage output are fixed upon order placement. 1-point or 2-point adjustment can be carried out on the probe with the help of the EE-PCS Product Configuration Software for analogue versions. Connection to a PC is done via the EE-PCA Product Configuration Adapter. Please refer to Fig. 5 for an illustration of the cabling.

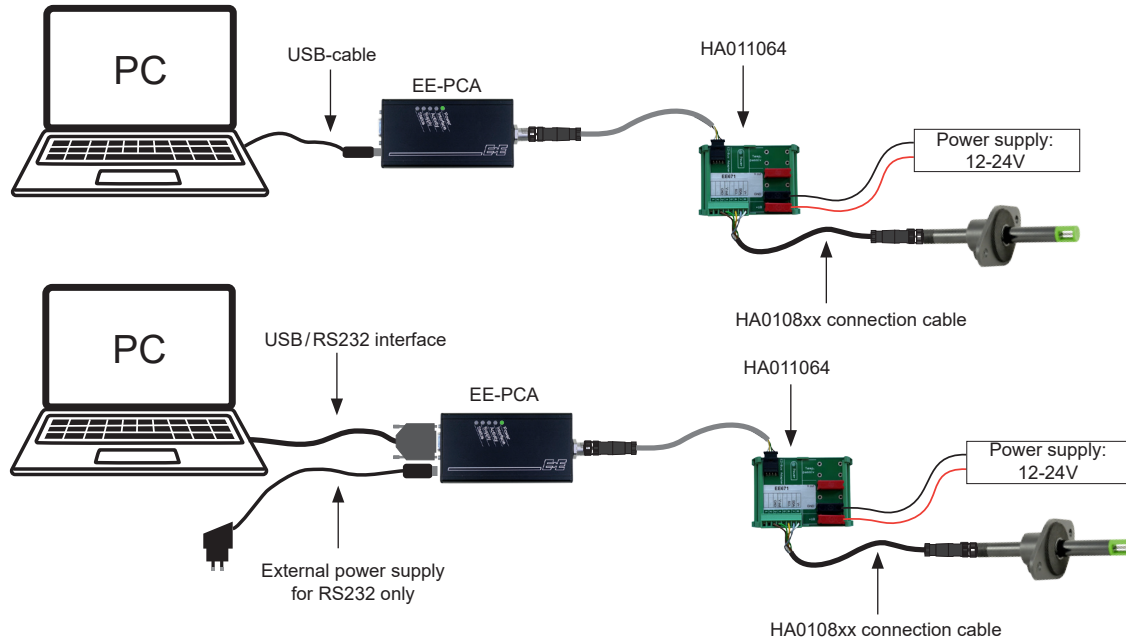


Fig. 5 EE671 connected to a PC running EE-PCS

i PLEASE NOTE

For the EE-PCA power supply during adjustment, please observe the following:

- For RS232, the EE-PCA shall be powered with the adapter included in the scope of supply.
- For connection to a USB port, the power adapter is not necessary.

For further information, please refer to the [EE-PCA datasheet](#).

To use the EE-PCS Product Configuration Software, please proceed as follows:

1. Download the EE-PCS from www.epluse.com/configurator and install it on the PC.
2. Connect the E+E device to the PC using the EE-PCA
3. Start the EE-PCS software.
4. Follow the instructions on the EE-PCS opening page to scan the ports and to identify the connected device.
5. Click on the desired adjustment mode from the main EE-PCS menu on the left and follow the online instructions.

5.2 RS485 Digital Interface

With a digital sensor, the communication parameters can be changed and a 1- and 2-point adjustment can be carried out. Changes are done with the PCS10 Product Configuration Software running on a PC and the EE671 connected to this PC with the Modbus configuration adapter HA011018. Please refer to Fig. 6

NOTICE

The EE671 must not be connected to any additional power supply when using the Modbus configuration adapter HA011018.

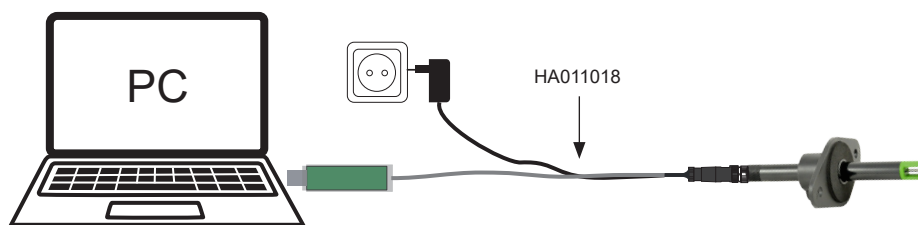


Fig. 6 EE671 connected to a PC running PCS10

To use the PCS10 Product Configuration Software for digital versions, please proceed as follows:

1. Download the software from www.epluse.com/pcs10 and install it on the PC.
2. Connect the EE671 to the PC using the Modbus configuration adapter.
3. Start the PCS10 software.
4. Follow the instructions on the PCS10 opening page to scan the ports and to identify the connected device.
5. Click on the desired setup or adjustment mode from the main PCS10 menu on the left. Follow the PCS10 online instructions that are displayed when clicking on the “Tutorial” button.
6. Upload changes to the probe by pressing the “Sync” button.

5.2.1 Modbus RTU Protocol Settings

	Factory settings	Selectable values (via EE-PCS)
Baud rate	As specified in the order code	9 600, 19 200, 38 400
Data bits	8	8
Parity	Even	None, odd, even
Stop bits	1	1
Modbus address	238	1...247

Tab. 2 Modbus RTU protocol settings

i PLEASE NOTE

- The recommended settings for multiple devices in a Modbus RTU network are 9600, 8, even, 1.
- The EE671 represents 1 unit load on an RS485 network.

Device address, baud rate, parity and stop bits can be set via:

- PCS10 Product Configuration Software and the Modbus configuration adapter HA011018.
The PCS10 can be downloaded free of charge from www.epluse.com/pcs10.
- Modbus protocol in the register 1 (0x00) and 2 (0x01).
See Application Note Modbus AN0103 (available at www.epluse.com/ee671).

The serial number as ASCII-code is located in read-only registers 1 - 8 (0x00 - 0x07).

The firmware version is located in read-only register 9 (0x08) (bit 15...8 = major release; bit 7...0 = minor release).

The sensor name as ASCII-code is located in read-only registers 10 - 17 (0x09 - 0x10).

NOTICE

When reading information that spans multiple registers, it is always necessary to read all registers, even if the desired information requires less.

NOTICE

To obtain the correct floating point values, both registers have to be read within the same read cycle. The measured value can change between two Modbus requests, which can cause inconsistencies in the exponent and mantissa.

i INFO

The Modbus function codes mentioned throughout this document shall be used as described in the MODBUS APPLICATION PROTOCOL SPECIFICATION V1.1b3, chapter 6:

www.modbus.org/docs/Modbus_Application_Protocol_V1_1b3.pdf

5.2.2 Modbus RTU Communication Settings**Communication settings (INT16)**

Parameter	Register number ¹⁾ [Dec]	Register address ²⁾ [Hex]	Size ³⁾
Write register: function code 0x06			
Modbus address ⁴⁾	1	00	1
Modbus protocol settings ⁴⁾	2	01	1

Device information (INT16)

Parameter	Register number ¹⁾ [Dec]	Register address ²⁾ [Hex]	Size ³⁾
Read register: function code 0x03 / 0x04			
Serial number (as ASCII)	1	00	8
Firmware version	9	08	1
Sensor name (as ASCII)	10	09	8

1) Register number (decimal) starts from 1.

2) Register address (hexadecimal) starts from 0.

3) Number of registers

4) For Modbus address and protocol settings see Application Note Modbus AN0103 (available at www.epluse.com/ee671).

Tab. 3 EE671 registers for device setup

5.3 Modbus Register Map

The measurement data is saved as 32 bit floating point values (data type FLOAT32) and as 16 bit signed integer values (data type INT16).

FLOAT32

Parameter	Unit ¹⁾	Register number ²⁾ [DEC]		Register address ³⁾ [HEX]	
Read register: function code 0x03 / 0x04					
Temperature	°C	1003	26	3EA	19
Temperature	°F	1005	28	3EC	1B
Temperature	K	1009	30	3F0	1D
Air velocity	m/s	1041	32	410	1F
Air velocity	ft/min	1043	34	412	21

INT16

Parameter	Unit ¹⁾	Scale ⁴⁾		Register number ²⁾ [DEC]		Register address ³⁾ [HEX]	
Read register: function code 0x03 / 0x04							
Temperature	°C	100	100	4002	46	FA1	2D
Temperature	°F	50	100	4003	47	FA2	2E
Temperature	K	50	100	4005	48	FA4	2F
Air velocity	m/s	100	100	4021	49	FB4	30
Air velocity	ft/min	1	10	4022	50	FB5	31

- 1) The choice of measurement units (metric or non-metric) must be done according to the ordering guide, see EE671 datasheet. Switching from metric to non-metric or vice versa by using the EE-PCS is not possible.
- 2) Register number (decimal) starts from 1.
- 3) Register address (hexadecimal) starts from 0
- 4) Examples: For scale 100, the reading of 2550 means a value of 25.5. For scale 50, the reading of 2550 means a value of 51.
- 5) Please observe correct scaling for used registers.
- 6) Measured values available in both registers - left column E+E standard registers, right column legacy registers
- 7) Registers in right column not intended for new design (0026...0050 / 0x19...0x31) - left column E+E standard registers, right column legacy registers

Tab. 4 EE671 FLOAT32 and INT16 measured data registers

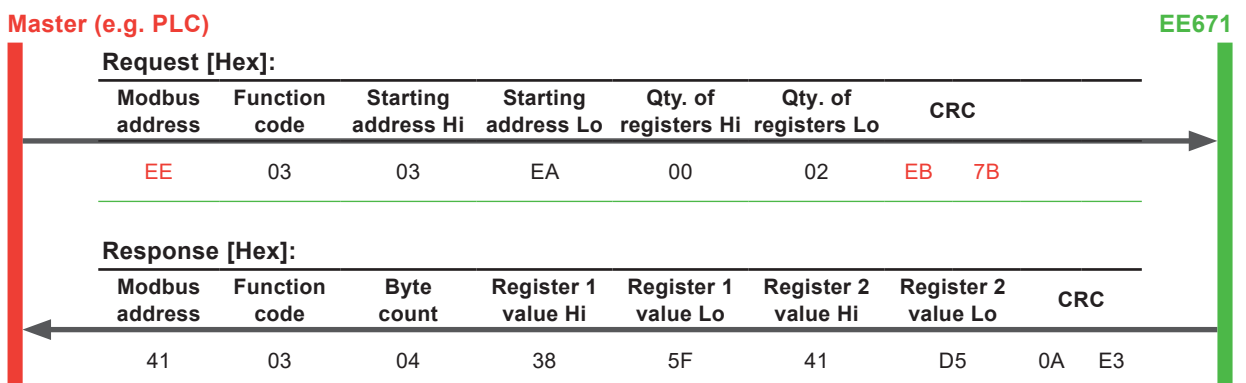
5.4 Modbus RTU Example

The EE671's Modbus address is 238 [0xEE].

Please refer to

- MODBUS APPLICATION PROTOCOL SPECIFICATION V1.1b3, chapter 6: www.modbus.org/docs/Modbus_Application_Protocol_V1_1b3.pdf
- E+E Application Note Modbus AN0103 (available at www.epluse.com/ee671)

Read the temperature (FLOAT32) T = 26.652524 °C from the register 0x03EA:



Tab. 5 Example temperature query

Decoding of floating point values:

Floating point values are stored according to IEEE754. The byte pairs 1, 2 and 3, 4 are transformed as follows (numbers taken from T reading Modbus request/response example above):

Modbus response [Hex]			
Byte 3	Byte 4	Byte 1	Byte 2
38	5F	41	D5
MMMMMMMM	MMMMMMMM	SEEEEEEE	EMMMMMMM

Tab. 6 Modbus response

IEEE754			
Byte 1	Byte 2	Byte 3	Byte 4
41	D5	38	5F
0100 0001	1101 0101	0011 1000	0101 1111
SEEE EEEE	EMMM MMMM	MMMM MMMM	MMMM MMMM
Decimal value: 26.652524			

Tab. 7 Data representation according to IEEE754

6 Maintenance and Service

Due to the absence of moving parts, the E+E air velocity sensors are not subject to wear. The construction (shape, dimensions and materials) of the hot film air velocity sensor is per se highly insensitive to dust and dirt. No maintenance is required under normal environmental conditions. For operation in polluted environment it is advisable to clean periodically the sensing head by washing it in isopropyl alcohol, preferably in an ultrasound cleaner. Alternatively shake it gently few minutes in a pot with isopropyl alcohol and let it dry free. Do not touch or rub the sensor and do not use any mechanical tools for cleaning.

6.1 Calibration and Adjustment

The EE671 with digital interface can be adjusted with the help of the PCS10. For this purpose, the probe needs to be connected to a PC via a Modbus configuration adapter.

The EE671 with analogue outputs can be calibrated with the help of the EE-PCS. For this purpose, the probe needs to be connected to a PC via a EE-PCA kit.

Definitions

- **Calibration** documents the accuracy of a measurement device. The device under test (specimen) is compared with the reference and the deviations are documented in a calibration certificate. During the calibration, the specimen is not changed or improved in any way.
- **Adjustment** improves the measurement accuracy of a device. The specimen is compared with the reference and brought in line with it. An adjustment can be followed by a calibration which documents the accuracy of the adjusted specimen.

i PLEASE NOTE

To achieve results comparable to the E+E factory setting, please observe the following instructions:

- The adjustment should be done in a wind tunnel with homogeneous, low turbulent flow profile.
- Insert the probe 10 cm (4") deep into the flow channel.
- The fixtures should be mounted outside the flow channel and should not rise into the air stream.

6.2 Calibration and Adjustment

Depending on the application and the requirements of certain industries, there might arise the need for periodical calibration (comparison with a reference) or adjustment (bringing the device in line with a reference).

Calibration and adjustment at E+E Elektronik

Calibration and/or adjustment can be performed in the E+E Elektronik calibration laboratory. For information on the E+E capabilities in ISO or accredited calibration please see www.eplusecal.com.

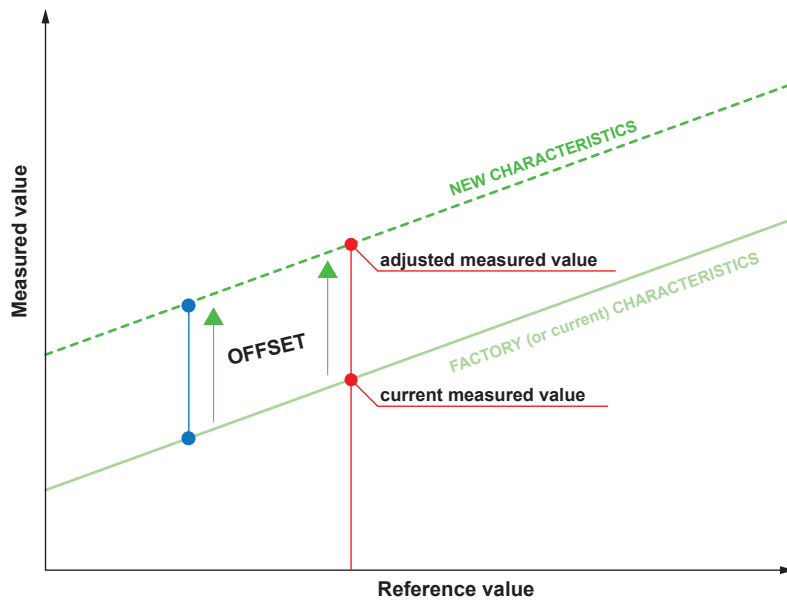


Fig. 7 1-point adjustment adjustment (offset)

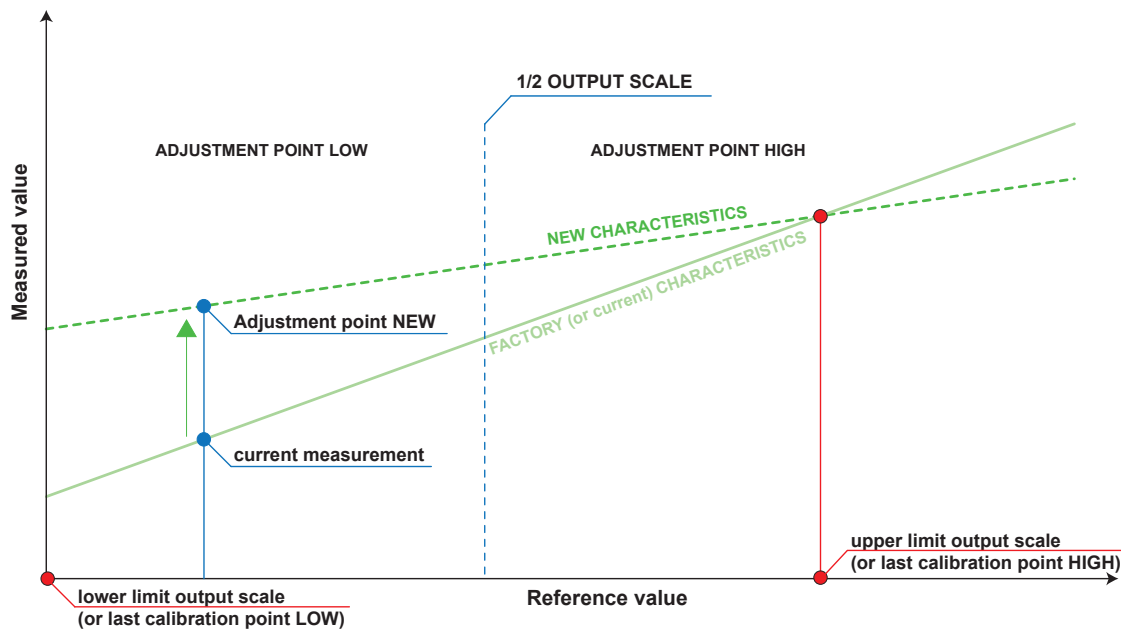


Fig. 8 2-point adjustment procedure

6.3 Repairs

i PLEASE NOTE

Repairs may only be carried out by the manufacturer. The attempt of unauthorised repair excludes any warranty claims.

7 Accessories

For further information please refer to the [Accessories](#) datasheet.

Description	Code
PCS10 Product Configuration Software for digital version (Free download: www.epluse.com/pcs10)	PCS10
Modbus configuration adapter, M12 4 poles ↔ USB	HA011018
EE-PCS Product Configuration Software for analogue version (Free download: www.epluse.com/configurator)	EE-PCS
E+E Product Configuration Adapter please refer to datasheet www.epluse.com/ee-pca	EE-PCA (for analogue Version)
Sensor connection cable, shielded, 5 poles, M12x1 socket ↔ free cable ends with wire ferrules	
1.5 m (4.9 ft)	HA010819
5 m (16.4 ft)	HA010820
10 m (32.8 ft)	HA010821
Sensor connection cable PVC, 5 poles, M12x1 socket ↔ free cable ends with wire ferrules	
0.5 m (1.64 ft)	HA010831
2 m (6.56 ft)	HA010832
Connector, M12x1 socket, 4 poles, for self assembly	HA010707
Protection cap for M12 socket	HA010781
Protection cap for M12 plug	HA010782
Y-style splitter, M12, 1 plug ↔ 2 sockets, 5 poles	HA030204

8 Technical Data

Measurands

Air Velocity (v)

Measuring range	0...5 m/s (0...1000 ft/min) 0...10 m/s (0...2000 ft/min) 0...15 m/s (0...3000 ft/min) 0...20 m/s (0...4000 ft/min)
Accuracy¹⁾ in air @ 20 °C (68 °F) and 1 013 hPa (14.7 psi) 0.5...5 m/s (100...1000 ft/min) 1... 10 m/s (200...2000 ft/min) 1... 15 m/s (200...3000 ft/min) 1... 20 m/s (200...4000 ft/min)	<div style="text-align: right;">mv = measured value</div> $\pm(0.2 \text{ m/s} + 3 \% \text{ of mv} / 40 \text{ ft/min} + 3 \% \text{ of mv})$ $\pm(0.3 \text{ m/s} + 4 \% \text{ of mv} / 60 \text{ ft/min} + 4 \% \text{ of mv})$ $\pm(0.35 \text{ m/s} + 5 \% \text{ of mv} / 70 \text{ ft/min} + 5 \% \text{ of mv})$ $\pm(0.4 \text{ m/s} + 6 \% \text{ of mv} / 80 \text{ ft/min} + 6 \% \text{ of mv})$
Response time t_{90}, typ.	4 s

1) The accuracy statement includes the uncertainty of the factory calibration with a coverage factor $k=2$ (2-fold standard deviation). The tolerance was calculated in accordance with EA-4/02 following the GUM (Guide to the Expression of Uncertainty in Measurement).

Outputs

Analogue




Output signal	0 - 1 / 5 / 10 V ¹⁾ max. 1 mA
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1) 0 - 10 V version only with supply voltage ≥ 15 V

Digital

Digital interface	RS485 (EE671 = 1 unit load)
Protocol Factory settings Supported Baud rates Measured data types	Modbus RTU 9 600 Baud, parity even, 1 stop bit, Modbus address 238 9 600, 19 200 and 38 400 FLOAT32 and INT16

General

Power supply class III  USA & Canada: Class 2 supply necessary	10 - 29 V DC
Current consumption , max. @ 20 m/s (4000 ft/min)	50 mA
Humidity working range	5...95 %RH, non-condensing
Temperature range	Operation -20...60 °C (-4...140 °F) Storage -30...60 °C (-22...140 °F)
Connection Plug	M12 connector, 5 poles
Material Enclosure and Probe head	PC (Polycarbonate)
Protection rating Probe Probe head	IP54 IP50
Electromagnetic compatibility¹⁾	EN 61326-1 EN 61326-2-3 Basic environment FCC Part15 Class B ICES-003 Class B
Conformity	 
Configuration and adjustment	PCS10 Product Configuration Software (free download) and an optional configuration adapter

1) The EE671 is not short-circuit-proof and not surge-proof (ESD-sensitive device).

9 Conformity

9.1 Declarations of Conformity

E+E Elektronik Ges.m.b.H. hereby declares that the product complies with the respective regulations listed below:



European directives and standards.

and



UK statutory instruments and designated standards.

Please refer to the product page at www.epluse.com/ee671 for the Declarations of Conformity.

9.2 Electromagnetic Compatibility

EMC for basic environment.

The probe is a group 1 device and corresponds to class B.

9.3 FCC Part 15 Compliance Statement

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 installation manual, 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.

9.4 ICES-003 Compliance Statement

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.

10 Recycling of the Device

i PLEASE NOTE

Products from E+E Elektronik Ges.m.b.H. are developed and manufactured in compliance with relevant environmental protection requirements. Please observe local regulations for the disposal of the device.



For disposal, the individual components of the device must be separated according to local recycling regulations. The electronics shall be disposed of correctly as electronics waste.

Probe

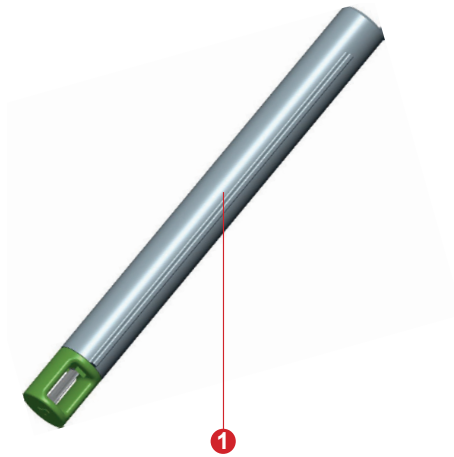


Fig. 9 EE671 probe

No.	Part	Material	Recycling Type
1	EE671 probe	Various materials	Electrical and Electronics waste

Tab. 8 Recycling of EE671 probes

Protection Cap

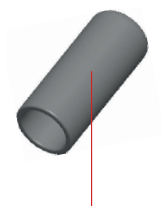


Fig. 10 EE671 protection cap

No.	Part	Material	Recycling Type
1	EE671 protection cap	PVC (Polyvinylchloride)	Plastics waste

Tab. 9 Recycling of the protection cap

Flange

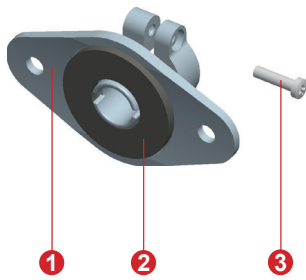
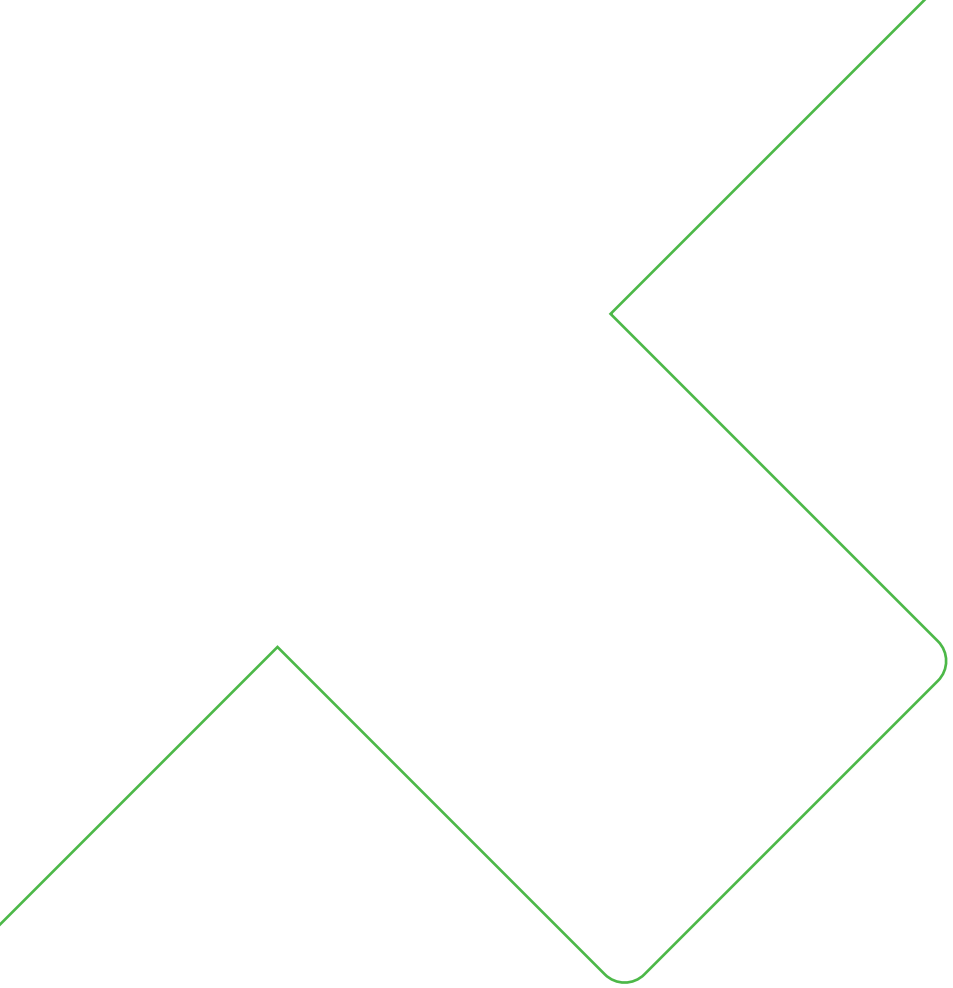


Fig. 11 Plastic mounting flange

No.	Part	Material	Recycling Type
1	Flange body	PA (Polyamide)	Plastics waste
2	Gasket	Plastic	Plastics waste
3	Screw	Metal	Metal waste

Tab. 10 Recycling of the plastic mounting flange



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