

QUICK GUIDE

EE671 - Miniature Air Flow Probe

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

Electrical Connection



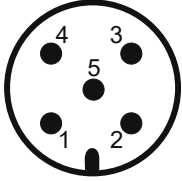
Important note:

The manufacturer cannot be held responsible for personal injuries or damage to property as a result of incorrect handling, installation, wiring, power supply and 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).



M12 device plug front view

| Pin number | Wire colour | Analog output | Digital interface |
|------------|-------------|----------------------------------|---------------------|
| 1 | grey | SDA (digital setup interface E2) | V+ = Supply voltage |
| 2 | brown | GND | RS485 B (D-) |
| 3 | green | AV = Analog output | GND |
| 4 | yellow | SCL (digital setup interface E2) | RS485 A (D+) |
| 5 | white | V+ = Supply voltage | n.c. |

Modbus RTU

The EE671 air flow probe represents 1 unit load in a Modbus RTU network.

Factory settings: Modbus address 238, baud rate 9600, even parity, 1 stop bit. The Modbus address can be customised in the register 0x00 (value margin 1 - 247 permitted). Selectable Baud rates are 9600, 19200 and 38400, parity may be even, odd or none.

Device address, Baud rate and parity can be set via:

1. PCS10 Product Configuration Software and the appropriate configuration cable HA011018.

The PCS10 can be downloaded free of charge from www.epluse.com/pcs.

2. Modbus protocol in the register 60001 (0x00) and 60002 (0x01).

For Modbus protocol settings see Application Note Modbus AN0103 (www.epluse.com/ee671).

| Measured value | Unit | Scaling | Type | Register [DEC] | Protocol address [HEX] |
|--|--------|---|----------------|---------------------------------------|--|
| Read registers (function code 0x03 / 0x04) | | | | | |
| Serial number | | | ASCII | 0001 | 0x00 |
| Software version | | | Binary | 0009 | 0x08 |
| Sensor name | | | ASCII | 0010 | 0x09 |
| Temperature | °C | | 32 bit float | ²⁾ 1003 ³⁾ 0026 | ²⁾ 0x3EA ³⁾ 0x19 |
| Temperature | °F | | 32 bit float | ↓ 1005 ↓ 0028 | ↓ 0x3EC ↓ 0x1B |
| Temperature | K | | 32 bit float | ↓ 1009 ↓ 0030 | ↓ 0x3F0 ↓ 0x1D |
| Air velocity | m/s | | 32 bit float | 1041 0032 | 0x410 0x1F |
| Air velocity | ft/min | | 32 bit float | 1043 0034 | 0x412 0x21 |
| Temperature ¹⁾ | °C | ²⁾ x 100 ³⁾ x 100 | 16 bit integer | 4002 0046 | 0xFA1 0x2D |
| Temperature ↓ | °F | ↓ x 50 ↓ x 100 | 16 bit integer | 4003 0047 | 0xFA2 0x2E |
| Temperature | K | x 50 x 100 | 16 bit integer | 4005 0048 | 0xFA4 0x2F |
| Air velocity | m/s | x 100 x 100 | 16 bit integer | 4021 0049 | 0xFB4 0x30 |
| Air velocity | ft/min | x 1 x 10 | 16 bit integer | 4022 0050 | 0xFB5 0x31 |
| Write registers (function code 0x06) | | | | | |
| Modbus address | | | | 0001 | 0x00 |
| Communication parameters | | | | 0002 | 0x01 |

1) Please observe correct scaling for used registers

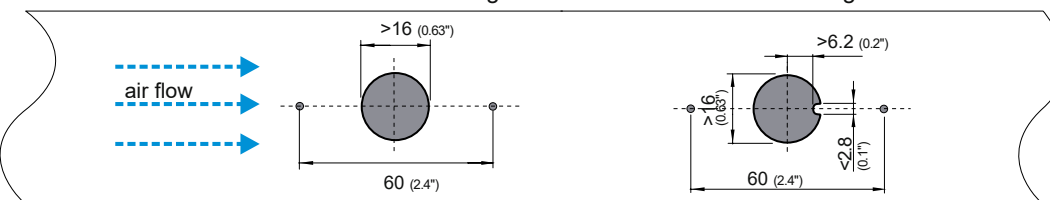
2) Measured values available in both registers

3) Registers in right column not intended for new design (0026...0050 / 0x19...0x31) } left column E+E standard registers, right column legacy registers

Drilling Pattern

conventional drilling:

laser cutting:



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

