EE660

Transmitter for Very Low Air Velocity

The EE660 is designed for highly accurate measurement of very low air velocity. It is the ideal solution for laminar flow control and special ventilation applications for instance in clean rooms.

The E+E thin film sensor used in EE660 operates on the hot film anemometer principle, which stands for excellent accuracy down to 0.15 m/s (30 ft/min) and high insensitivity to pollution.

The measured data is available on the current and voltage outputs (both signals are available on the terminal) as well as on the optional LCD backlight display. The measurement range and the response time can be selected via a jumper.

Low angular dependence and the mounting flange enable easy, cost-effective installation.

An optional kit facilitates easy adjustment of EE660 and configuration of the display.

EE660 - duct mounting

EE660 - remote probe

Features

Display

» Large, easily readable
» Back-light
» 180° rotatable

Smooth cover surface

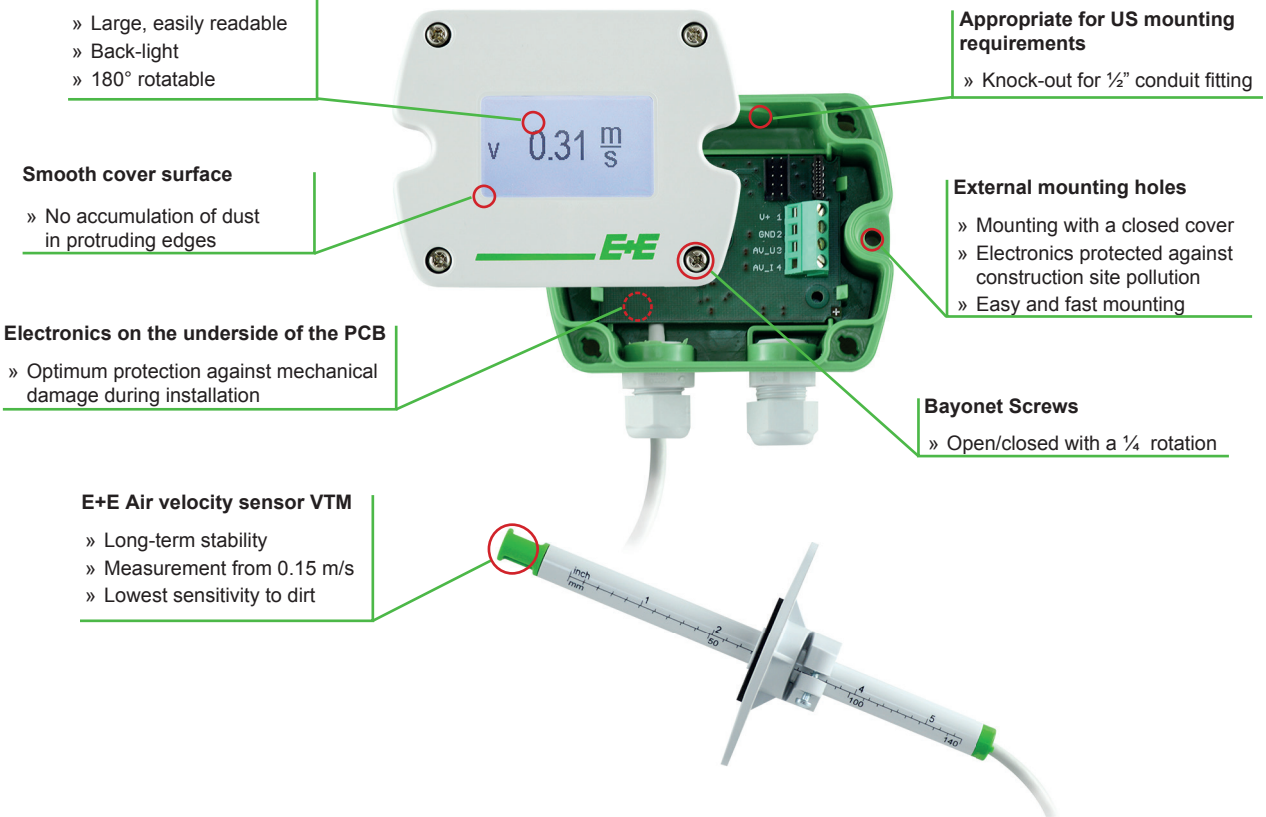
» No accumulation of dust in protruding edges

Electronics on the underside of the PCB

» Optimum protection against mechanical damage during installation

E+E Air velocity sensor VTM

» Long-term stability
» Measurement from 0.15 m/s
» Lowest sensitivity to dirt



Appropriate for US mounting requirements

» Knock-out for ½" conduit fitting

External mounting holes

» Mounting with a closed cover
» Electronics protected against construction site pollution
» Easy and fast mounting

Bayonet Screws

» Open/closed with a ¼ rotation

Technical Data

Measuring values

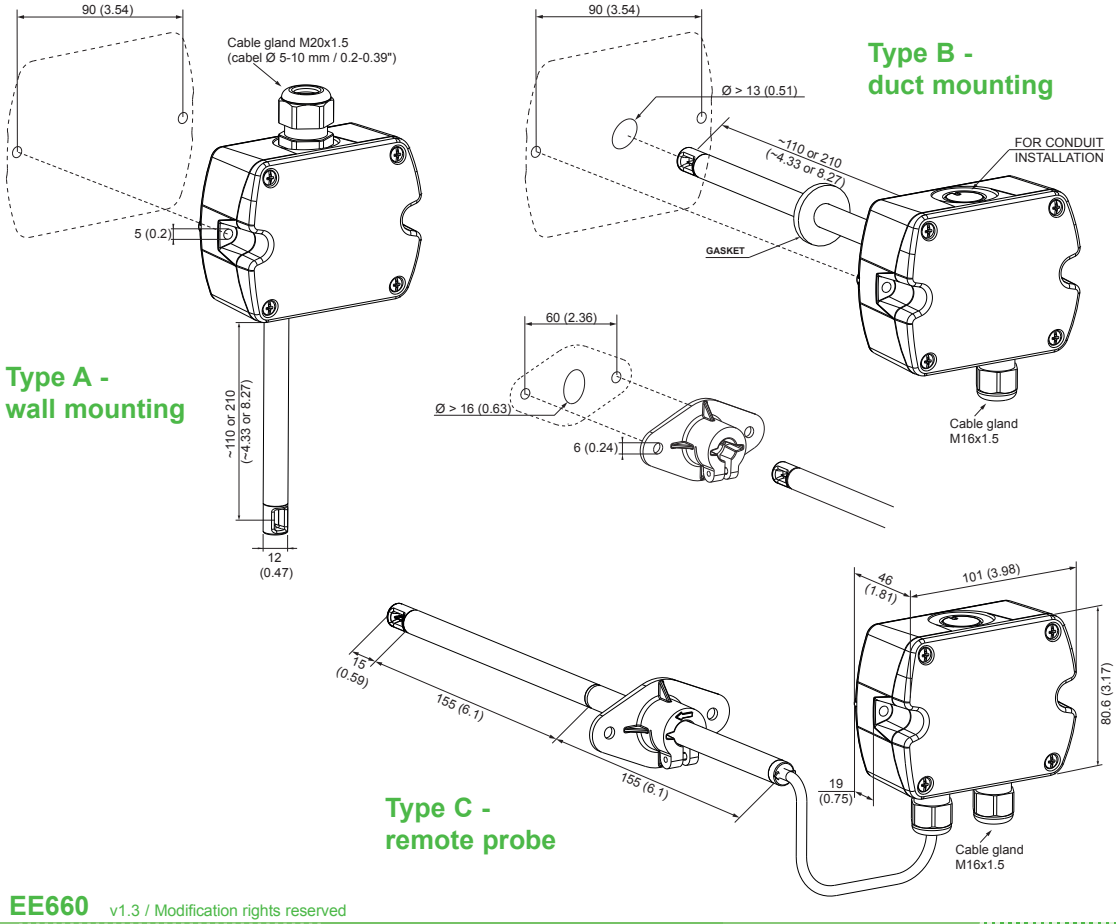
Working range [1]	0...1 m/s (0...200ft/min) 0...1.5 m/s (0...300ft/min) 0...2 m/s (0...400ft/min)	
Output 0...1 m/s / 0...1.5 m/s / 0...2 m/s	0 - 10 V -1 mA < I_L < 1 mA 4 - 20 mA R_L < 450 Ω (linear, 3-wires)	
Accuracy at 20 °C (68 °F), 45 % RH, 1013 hPa	0.15...1 m/s (30...200 ft/min) 0.15...1.5 m/s (30...300 ft/min) 0.15...2 m/s (30...400 ft/min)	± (0.04 m/s (7.9 ft/min) + 2 % of mv) ± (0.05 m/s (9.8 ft/min) + 2 % of mv) ± (0.06 m/s (11.8 ft/min) + 2 % of mv)
Response time τ_{90} [1) 2)]	typ. 4 sec or typ. 1 sec (at constant temperature)	

General

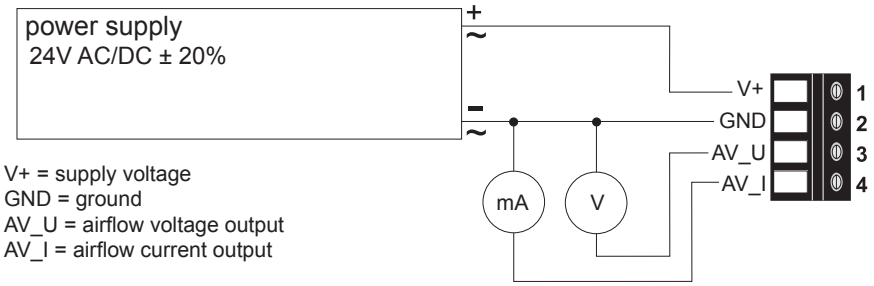
Power supply	24V AC/DC ± 20%
Current consumption	
for AC supply	max. 180 mA rms (with Display), 74 mA rms (without Display)
for DC supply	max. 85 mA (with Display), 41 mA (without Display)
Angular dependence	< 3% of the measured value at | Δα | < 10°
Electrical connection	screw terminals max. 1.5 mm² (AWG 16)
Cable gland	M16x1.5
Electromagnetic compatibility	EN61326-1 EN61326-2-3 Industrial Environment CE
Housing material	Polycarbonate, UL94V-0 (with Display UL94HB) approved
Protection class	Enclosure IP65 / NEMA4, remote probe IP20
Temperature range	working temperature probe -25 ... +50 °C (-13...122°F) working temperature electronic -10 ... +50 °C (14...122°F) storage temperature -30 ... +60 °C (-22...140°F)
Working range humidity	5...95 % RH (non-condensing)

1) Selectable by jumper
2) Response time τ_{90} is measured from the beginning of a step change of air velocity to the moment of reaching 90% of the step.

Dimensions mm (inch)



Connection Diagram



V+ = supply voltage
GND = ground
AV_U = airflow voltage output
AV_I = airflow current output

Ordering Guide

			EE660-	EE660-	EE660-
Configuration	**Model**	Velocity	V	V	V
	Output	0-10V / 4-20mA	7x	7x	7x
	Housing		A	B	C
	Probe length	100 mm	D	D	x
		200 mm	F	F	x
	Cable length	1 m	x	x	B
		2 m	x	x	D
		5 m	x	x	G
		10 m	x	x	H
	Display	with Display	D	D	D
		without Display	x	x	x
	Unit (Display)[1)]	metric [m/s]	M	M	M
		non-metric [ft/min]	N	N	N

1) Only available with display

Order Example

EE660-V7xBFxx

Model:	Velocity
Housing:	Duct mounting
Probe length:	200mm
Display:	no Display

EE660-V7xCxDD/M

Model:	Velocity
Housing:	remote Probe
Cable length:	2m
Display:	with Display metric (m/s)

Scope of Supply

- EE660 Transmitter according ordering guide
- Cable gland
- Mounting flange (for Type B & C only)
- Mounting kit
- Protection cap
- Operation manual
- Two self-adhesive labels for configuration changes (see user guide at www.epluse.com/relabeling)
- Test report according to DIN EN10204 - 2.2

Accessories

Product configuration adapter	see data sheet EE-PCA
Product configuration software	EE-PCS (free download: www.epluse.com/EE660)
Power supply adapter	V03 (see data sheet Accessories)