

# 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 1/2" 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 1/4 rotation

## Technical Data

### Measuring values

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

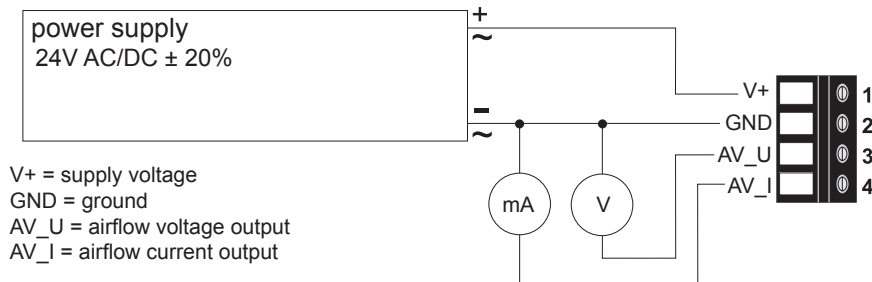
### General

Power supply	24V AC/DC $\pm 20\%$
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 $ \Delta\alpha  < 10^\circ$
Electrical connection	screw terminals max. 1.5 mm <sup>2</sup> (AWG 16)
Cable gland	M16x1.5
Electromagnetic compatibility	EN61326-1 EN61326-2-3 <b>CE</b>
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)

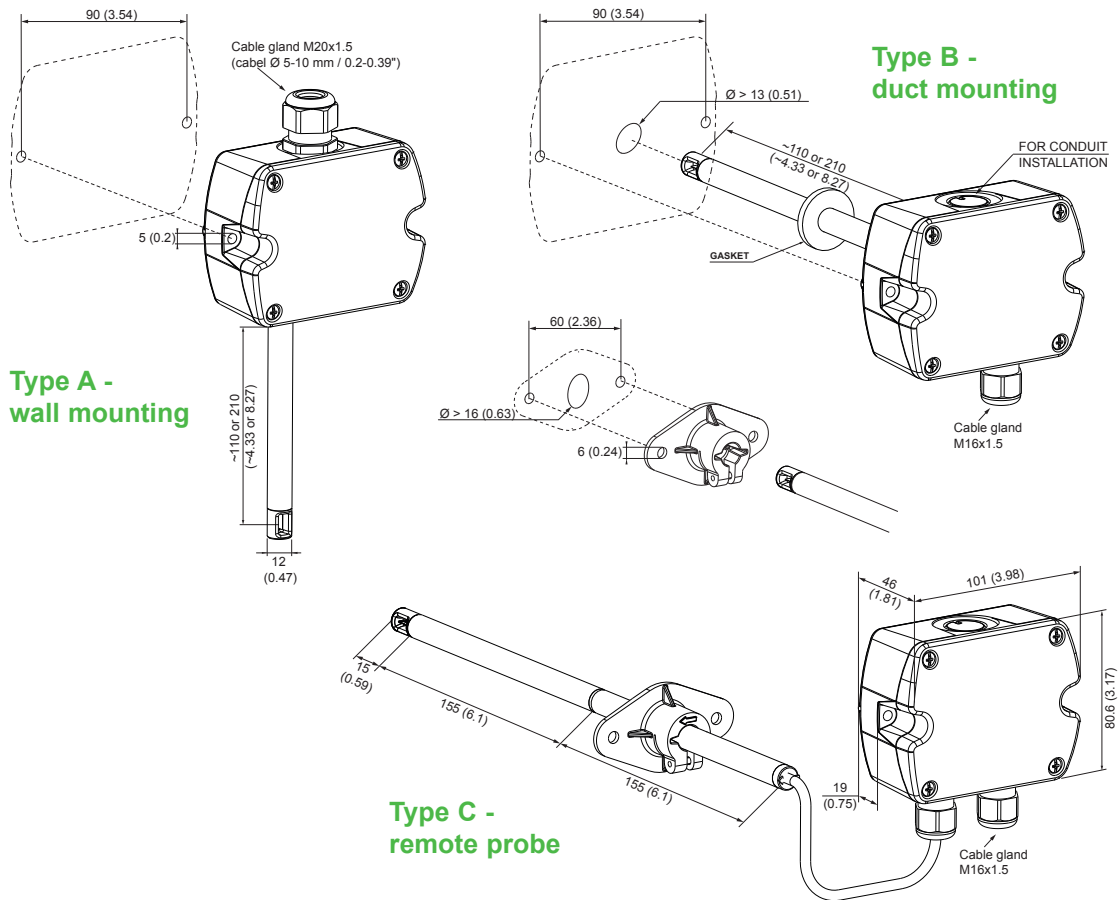
1) Selectable by jumper

2) Response time  $\tau_{90}$  is measured from the beginning of a step change of air velocity to the moment of reaching 90% of the step.

## Connection Diagram



## Dimensions mm (inch)



## Ordering Guide

MODEL	ANALOG <sup>1)</sup>	DIGITAL <sup>1)</sup>	HOUSING	PROBE LENGTH	CABLE LENGTH	DISPLAY	UNIT (Display)
Velocity	(V)	(7)	wall mounting <sup>2)</sup> (A)	100mm (3.9") (D)	1m (3.3 ft) (B)	Display (D)	metric [m/s] (M)
	0-10V / 4-20mA	none	duct mounting (B)	200mm (7.9") (F)	2m (6.6 ft) (D)	none (X)	non-metric [ft/min] (N)
			remote probe (C)	housing C (X)	5m (16.4 ft) (G)		
					10m (32.8 ft) (H)		
					housing A, B (X)		
<b>EE660-</b>							

1) A combination of analog and digital version is not possible

2) available June 2015

## 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)

## Accessories

Product configuration adapter  
 Product configuration software  
 Power supply adapter

see data sheet EE-PCA  
 EE-PCS (free download: [www.epluse.com/EE660](http://www.epluse.com/EE660))  
 V03 (see data sheet Accessories)