

EE660

Low Air Velocity Sensor

The EE660 is optimized for highly accurate measurement of very low air velocity in laminar flow control and special ventilation applications, for instance in clean rooms.

Excellent Measurement Performance

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



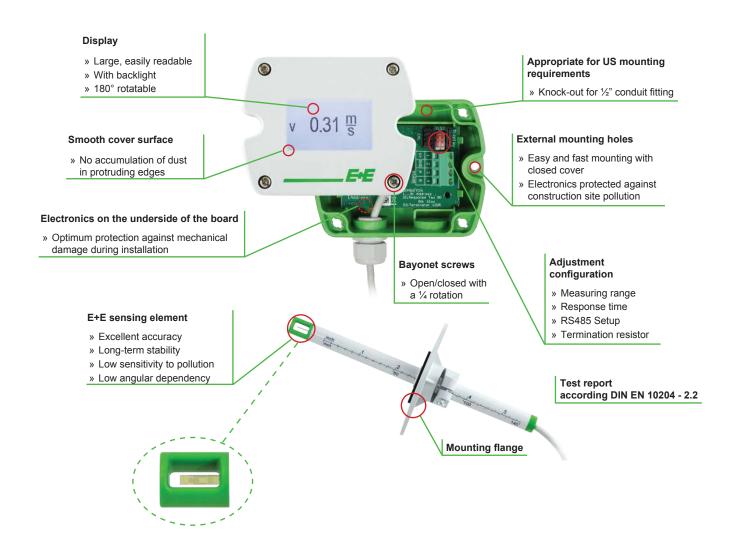
Analogue and Digital Outputs

The air velocity measured data is available as current and voltage outputs, on the RS485 interface with Modbus RTU or BACnet protocol, as well as on the optional display.

Easy Configuration and Adjustment

The EE660 is user configurable with jumpers on the electronics board or via software. An optional configuration adapter and the free EE-PCS Product Configuration Software facilitate the adjustment of EE660 and the display setup.

Features



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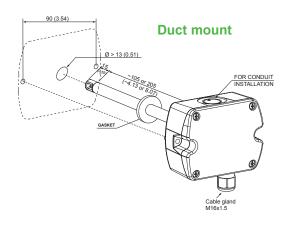


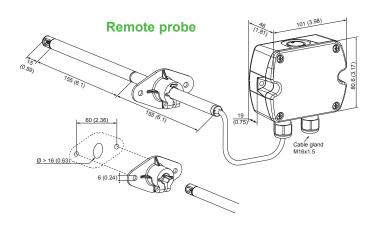
Technical Data

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Measurand							
Working range 1)		01 m/s (0200 ft/min) 01.5 m/s (0300 ft/min)					
A		02 m/s (0400 ft/min)					
Accuracy at 20 °C ²⁾ (68 °F),		,		1 m/s (7.9 ft/min)	+ 2 % of mv)		
45 % RH, 1013 hPa		151.5 m/s (30		5 m/s (9.8 ft/min)	+ 2 % of mv)		
		,	, ,	6 m/s (11.8 ft/min)	+ 2 % of mv)		
Response time $\tau_{90}^{3)}$	ty	p. 4 sec or typ. 1	sec (at constant	temperature)			
Output							
Analogue	0	- 10 V	and 4 - 20 mA				
01 m/s / 01.5 m/s / 02	? m/s ¹) -1	$mA < I_L < 1 mA$	R _L < 450 Ω	(linear, 3-wires)			
Digital interface	RS485 with max. 32 devices on one bus						
Protocol	tocol Modbus RTU or BACnet MS/TP						
General							
Power supply (Class III)	> 24	24 V AC/DC ± 20 %					
Current consumption (max.)	AC supply - no display	DC supply - no display	AC supply - with display	DC supply - with display		
	Analogue ouput	74 mA rms	41 mA	180 mA rms	85 mA		
	Digital output	120 mA rms	50 mA	-	-		
Angular dependence	<	< 3% of the measured value at $ \Delta\alpha $ < 10°					
Electrical connection	SC	screw terminals max. 1.5 mm² (AWG 16)					
Cable gland	M	M16x1.5					
Electromagnetic compatibili	ty El	EN61326-1 EN61326-2-3					
		Industrial Environment					
Housing material	Po	Polycarbonate, UL94V-0 (with Display UL94HB) approved					
Protection class	Eı	Enclosure IP65 / NEMA4, remote probe IP20					
Temperature range		working temperature probe -25 +50 °C (-13122 °C					
		working temperature electronic		-10 +50 °C (14122 °F)			
	st	storage temperature		-30 +60 °C (-22140 °F)			
Working range humidity	5.	95 % RH (non-c	condensing)				

¹⁾ Selectable by jumper, only for analogue output

Dimensions mm (inch)





²⁾ The accuracy statement includes the uncertainty of the factory calibration with an enhancement factor k=2 (2-times standard deviation).

The accuracy was calculated in accordance with EA-4/02 and with regard to GUM (Guide to the Expression of Uncertainty in Measurement).

3) Selectable by jumper (analogue) and slide switch (digital)



Ordering Guide

			EE660-		
	Model	duct mount	T2		
		remote probe		Т3	
	Output	0-10 V and 4-20 mA	A7		
		RS485	J3		
	Probe length	100 mm (3.94")	L100		
Configuration		200 mm (7.88")	L200		
		300 mm (11.82")		L300	
	Cable length	1 m (3.3 ft)		K1	
		2 m (6.6 ft)		K2	
		5 m (16.4 ft)		K5	
		10 m (32.8 ft)		K10	
	Display	no display	no code		
		with display (only for analogue ouput A7)	D2		
	Display unit	m/s	no code		
		ft/min	DA21		
p RS485	Protocol	Modbus RTU 1)	P1		
		BACnet MS/TP 2)	P3		
	Baud rate	9600	BD5		
		19200	BD6		
		38400	BD7		
		57600 ³⁾	BD8		
		76800 ³⁾	BD9		

¹⁾ Factory setting: Even Parity, Stopbits 1

Modbus Map see User Guide at www.epluse.com/ee660 Product Implementation Conformance Statement (PICS) available at www.epluse.com/ee660

Order Examples

EE660-T3J3L300K1P1BD5

Model: remote probe RS485 Output: Probe length: 300 mm (11.82") Cable length: 1 m (3.3 ft) Display: no display Protocol: Modbus RTU 9600

EE660-T2A7L200

duct mount Model: 0-10 V and 4-20 mA Output: Probe length: 200 mm (7.88")

Accessories

Baud rate:

USB configuration adapter Product configuration software Power supply adapter

HA011066

EE-PCS (free download: www.epluse.com/EE660)

V03 (see data sheet Accessories)

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²⁾ Factory setting: No Parity, Stopbits 1 3) Only for BACnet MS/TP





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