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+ Datasheet EE576

Probe for Very Low Air Velocity



EE576

Probe for Very Low Air Velocity

The compact EE576 probe is optimized for low air velocity measurement in applications like laminar flow control or filter monitoring. It operates on the hot-film anemometer principle which stands for high accuracy and fast response time.

Reliability

The flow sensing element manufactured in state-of-the-art E+E thin-film technology is highly insensitive to contamination and offers excellent long-term stability.

Easy installation

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

Output

The measured data up to 1 m/s (200 ft/min) or 2 m/s (400 ft/min) is available on the 0 - 5 V or 0 - 10 V output.



EE576 air velocity probe with flange

Features

Sensing head

- Protection rating IP20
- Polycarbonate (PC)
- Operates on the hot-film anemometer principle
- E+E thin-film technology
- Excellent long-term stability

Measurement performance

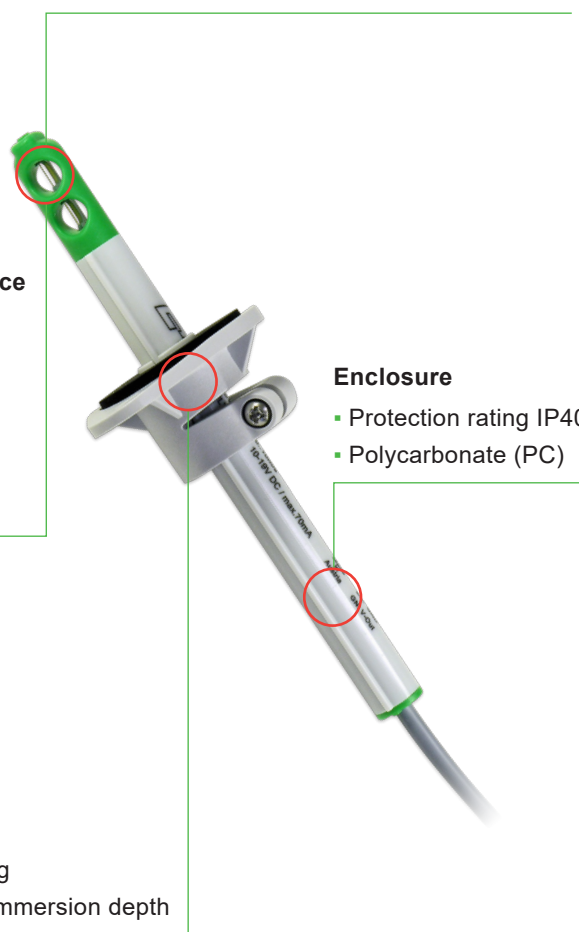
- High accuracy
- Measuring range:
 - 0...1 m/s
 - 0...2 m/s
- Fast response time:
 - 4 s @ 1 m/s

Enclosure

- Protection rating IP40
- Polycarbonate (PC)

Mounting flange

- Easy and quick mounting
- Accurate setting of the immersion depth

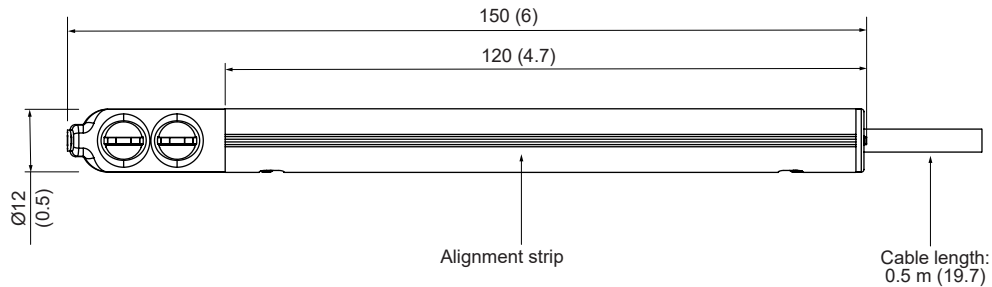


Dimensions

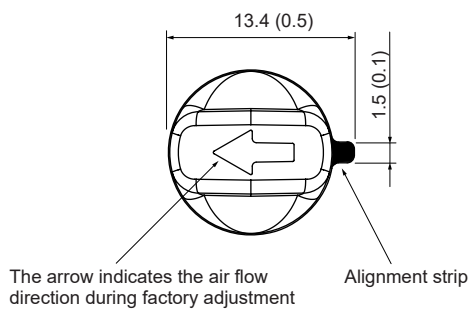
Values in mm (inch)

Probe

Polycarbonate (PC)

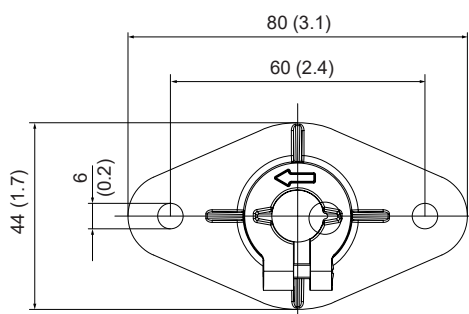


Front sensing head



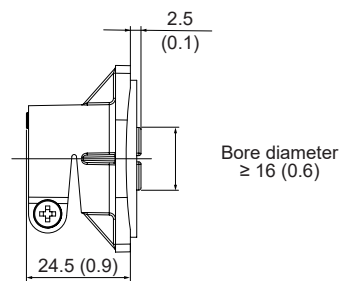
Mounting flange

Included in the scope of supply



Mounting flange

Side view



Technical Data

Measurands

Air Velocity (v)

Measuring range	0...1 m/s (0...200 ft/min) 0...2 m/s (0...400 ft/min)
Accuracy¹⁾ @ 20 °C (68 °F), 45 %rF und 1013 hPa (14.7 psi) 0.2...1 m/s (40...200 ft/min) 0.2...2 m/s (40...400 ft/min)	±(0.05 m/s + 2 % of mv) ±(0.08 m/s + 4 % of mv) mv = measured value
Response time t₉₀, typ.	4 s bei 1 m/s (200 ft/min)




1) 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).

Output

Analogue

Air velocity (v)	0 - 5 V 0 - 10 V	0 < I _L < 1 mA	I _L = load current
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General

Power supply class III  USA & Canada: Class 2 supply necessary	10 - 19 V DC or 19 - 29 V DC		
Current consumption , max. @ 2 m/s (400 ft/min)	70 mA		
Humidity range Operation and Storage	10...95 %RH, non-condensing		
Temperature range Operation Storage	-20...+60 °C (-4...+140 °F) -30...+60 °C (-22...+140 °F)		
Probe cable	Polyvinylchloride (PVC), 3 x 0.25 mm ² with wire ferrules		
Probe material	Polycarbonate (PC)		
Protection rating Probe head Probe	IP20 IP40		
Electromagnetic compatibility	EN 61326-1 FCC Part15 Class B	EN 61326-2-3 ICES-003 Class B	Industrial environment
Conformity	 		

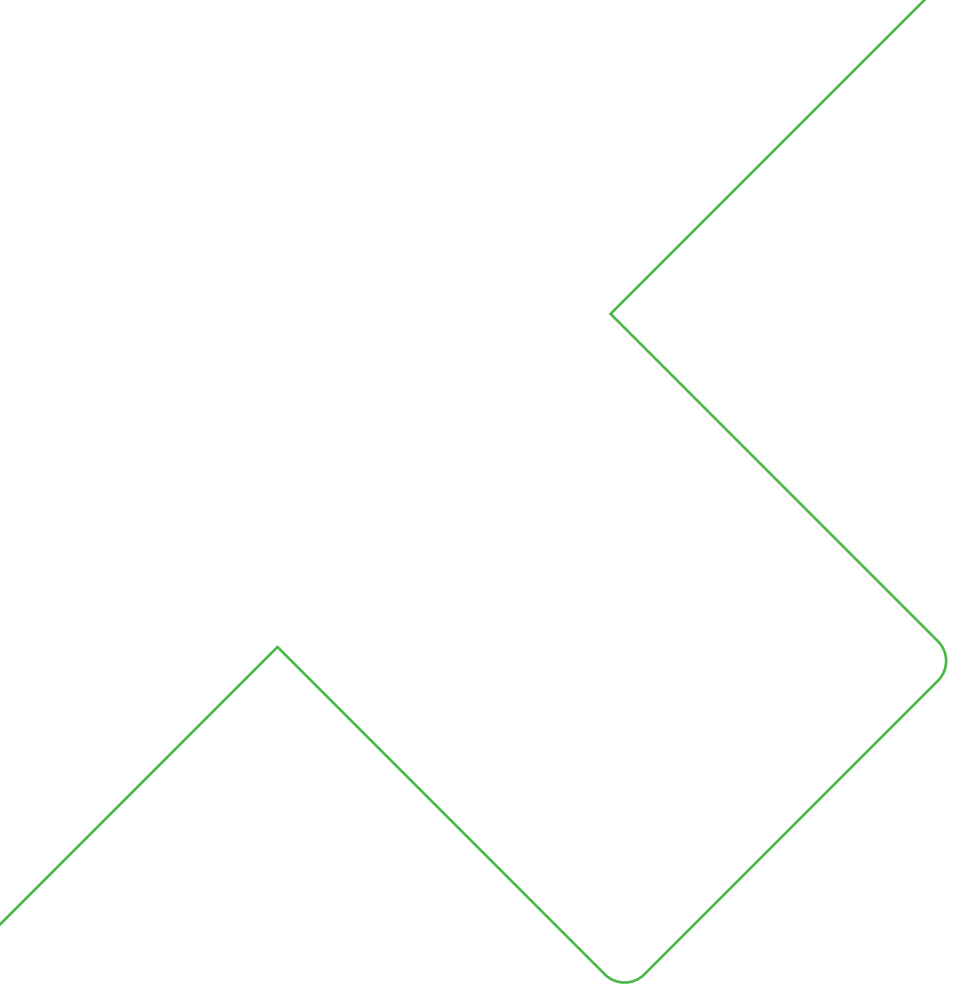
Ordering Guide

Feature	Description	Code	
Hardware Configuration		EE576-	
	Output	0 - 5 V	A2
		0 - 10 V (with 19 - 29 V DC supply only)	A3
	Measuring range	0...1 m/s (0...200 ft/min)	HV21
		0...2 m/s (0...400 ft/min)	HV23
	Power supply	10 - 19 V DC	V5
		19 - 29 V DC	V6
	Connection cable length	0.5 m (1.64 ft)	KL50
		2 m (6.56 ft)	KL200

Order Example

EE576-A2HV23V5KL200

Feature	Code	Description
Output	A2	0 - 5 V
Measuring range	HV23	0...2 m/s (0...400 ft/min)
Power supply	V5	10 - 19 V DC
Connection cable length	KL200	2 m (6.56 ft)



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