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 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 precise setting of the immersion depth.

Output

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

Typical Applications

laminar flow control
filter monitoring

Features

outstanding accuracy and long term stability
excellent price/performance ratio
easy and fast mounting

Technical Data

Air Velocity

Working range	0...1 m/s (0...200 ft/min) 0...2 m/s (0...400 ft/min)		
Accuracy[1)] at 20 °C / 68 °F / 45 % RH and 1013 hPa	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 t_{90}	typ. 4 sec. at 1 m/s (200 ft/min)		
Output signal	0-5 V 0-10 V	I_L < 1 mA	I_L = Load current

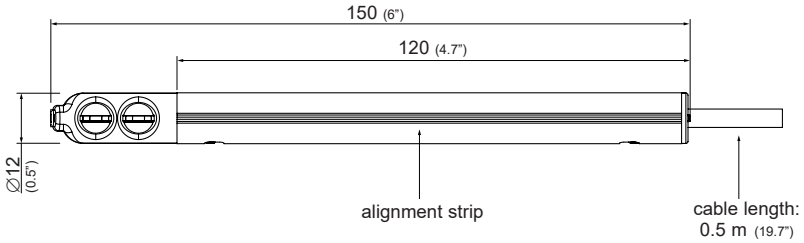
General

Supply voltage (Class III)	10 - 19 V DC or 19 - 29 V DC	
Current consumption	max. 70 mA at 2 m/s (400 ft/min)	
Connection	0.5 m cable, PVC 3x0.25 mm² with cable end sleeves	
Electromagnetic compatibility	EN61326-1 EN61326-2-3	CE
Probe material / Protection class	polycarbonate / IP20 (sensing head); IP40 (probe)	
Humidity working and storage range	10...95 % RH (non-condensing)	
Temperature working range	-20...60 °C (-4...140 °F)	
storage range	-30...60 °C (-22...140 °F)	

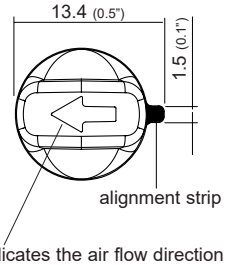
1) The accuracy statement includes the uncertainty of the factory calibration with an enhancement factor k=2 (2-times standard deviation).
The accuracy was calculated in accordance with EA-4/02 and with regard to GUM (Guide to the Expression of Uncertainty in Measurement).

Dimensions in mm (inch)

Probe:

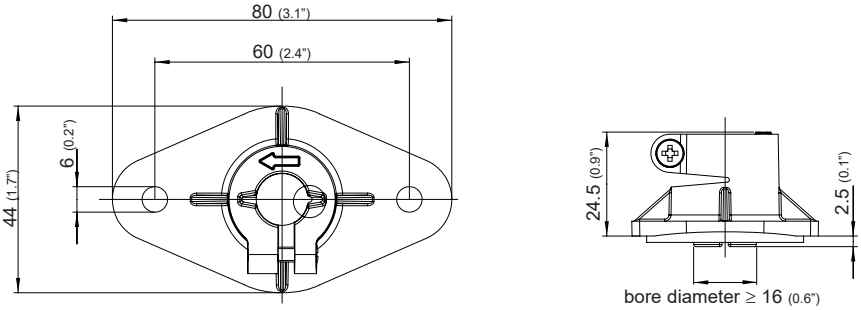


Front sensing head:



The arrow indicates the air flow direction during factory adjustment.

Flange (included in the scope of supply):



Cable Assignment

white → V+
brown → GND
green → output signal

Ordering Guide

		EE576-
Output	0 - 5 V	A2
	0 - 10 V[1)]	A3
Air velocity range	0...1 m/s (0...200 ft/min)	HV21
	0...2 m/s (0...400 ft/min)	HV23
Supply	10 - 19 V DC	V5
	19 - 29 V DC	V6
Cable length	0.5 m (1.64 ft)	KL50
	2 m (6.56 ft)	KL200

1) with 19 - 29 V DC supply only

Order Example

EE576-A2HV23V5KL200

Output: 0 - 5 V
Air velocity range: 0...2 m/s
Supply: 10 - 19 V DC
Cable length: 2 m