

# Propeller Anemometer

## Features

- Precision wind speed measurement
- Tach-generator output
- Optional photochopper transducer  
single or dual direction available

## Description

The Model WS-27106 Propeller Anemometer is a precision air speed measuring instrument.

The four blade helicoid propeller drives a miniature tach-generator. Output voltage is directly proportional to the axial component of the wind speed. Signal polarity indicates direction of propeller rotation.

The WS-27106 Propeller Anemometer is also available with single or dual direction photochopper transducer.

The WS-27106 Propeller Anemometer is especially suited for measuring the vertical wind component.

## Signal Output

### Standard Tach-Generator

Analog DC voltage proportional to wind component  
Polarity indicates direction  
1800RPM (500mV) = 8.8m/s (22kph)

### Optional Photochopper transducer

Voltage pulse with frequency proportional to wind component  
Amplitude approx. equal to supply voltage minus 2V  
10 pulses per revolution  
1800RPM (300Hz) = 8.8m/s (22kph)



## Specifications

WS-27106 with WS-08274

expanded polystyrene (EPS) propeller (standard)

Range	0 to 25m/s (0 to 90kph)
Threshold	0.3m/s
Distance Constant	1.0m
Propeller diameter	22cm
Propeller Pitch	29.4cm wind passage per revolution

WS-27106 with WS-08254

carbon fibre thermoplastic propeller (CFT)

Range	0 to 35m/s (0 to 125kph)
Threshold	0.4m/s
Distance Constant	2.1m
Propeller diameter	20cm
Propeller Pitch	30.0cm wind passage per revolution

### General Specifications

Power requirements	Tach-generator model self powered Photochopper models require 10-14VDC (12mA at 12V)
Dimensions	Overall length = 43cm, housing dia = 2.5cm, mounts on 3/4" pipe
Weight	0.5kg (shipping 1.8kg)

## Order Codes

Model	Signal Output
WS-27106	Tach-Generator
WS-27106D	Single direction photochopper
WS-27106F	Dual direction photochopper
For WS-08254 CFT propeller	add "T" to model number

WS27106-1.2-0

**AMALGAMATED INSTRUMENT CO PTY LTD**

ACN: 001 589 439

Unit 5, 28 Leighton Place Hornsby  
NSW 2077 Australia

Telephone: +61 2 9476 2244  
Facsimile: +61 2 9476 2902

e-mail: sales@aicpl.com.au  
Internet: www.aicpl.com.au