Anemometer Young Propeller for vertical measurements, CFT Propeller 27106T

Low threshold precision air velocity sensor

Description

- Low threshold precision air velocity sensor
- Fast response helicoid propeller
- Vertical air measurements

The Propeller Anemometer is a precision, single axis wind measuring instrument. The anemometer utilizes a fast response helicoid propeller and high quality tach-generator transducer to produce a DC voltage that is linearly proportional to air velocity.

Airflow from any direction may be measured, however, the propeller responds only to the component of the air flow which is parallel to its axis of rotation. Off-axis response closely approximates a cosine curve with appropriate polarity; with perpendicular air flow, the propeller does not rotate.

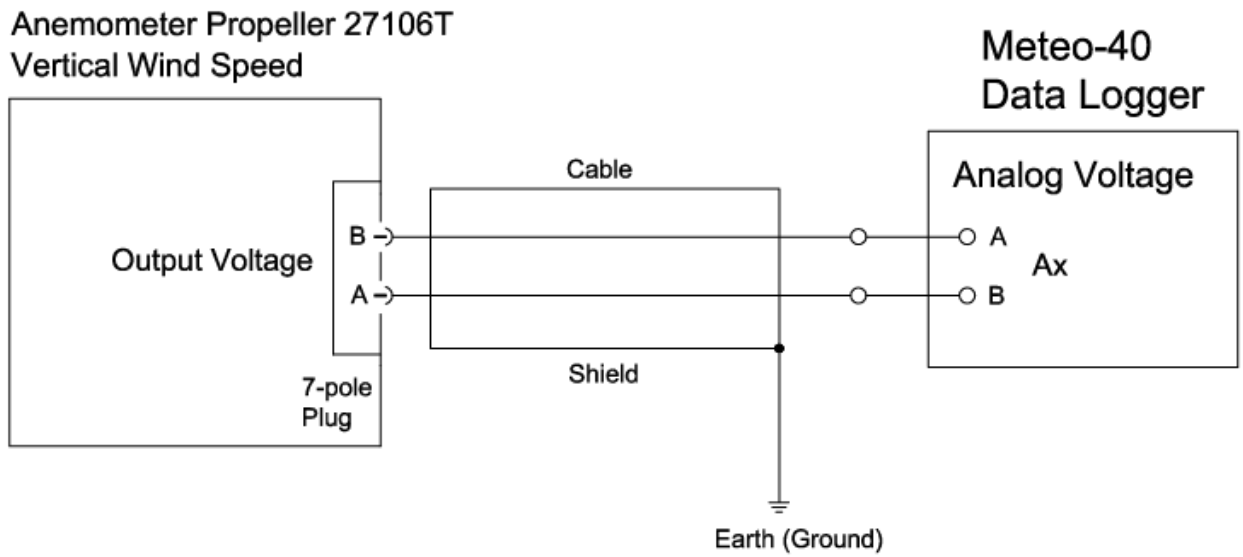
The output signal is suitable for a wide range of signal translators and data logging devices. The Model 27106T with carbon fiber thermoplastic (CFT) propeller offers high sensitivity and durability.

Specifications

Characteristic	Description / Value
Measurement range	0 ... 40 m/s (axial flow) 0 ... 35 m/s (all angles)
Accuracy	± 1% (0.0049 m/s per rpm)
Slope	18 m/s/V
Output voltage	Analog DC voltage proportional to axial wind component. Polarity reverses with reverse rotation. 1800 rpm (500 mV) = 9 m/s ± 1 V = ± 18 m/s

Characteristic	Description / Value
Threshold sensitivity	0.4 m/s
Operating temperature	-50 ... 50°C
Propeller	4-blade helicoid propeller molded of carbon fiber thermoplastic
Dimensions	Length: 43 cm, housing diameter: 2.5 cm, propeller diameter: 20 cm
Weight	0.5 kg
Mounting	3/4 “ pipe thread adapter
Manufacturer	Gill / Young

Sensor connection diagram



Sensor	Plug Pin No.	Ammonit Wire Colour	Meteo-40 Analog Voltage
Vertical Wind Speed Output Voltage	B	white	A
		red	
	A	blue	B
		black	

Connect the shield logger-sided to Ground (GND)
Cable LiYCY 4 x 0.25 mm²

Note:
In case of ascending air flow Pin B of the anemometer plug is the positive pole.