

Cup Anemometer PVC Housing, Rotor of black painted Stainless Steel Type DWS-V-DAC13



- Anemometer with opto-electronic detection
- Measuring range: 2 to 30 m/s
- PNP and NPN open collector outputs in the same unit
- Current source outputs
- 10 to 28 VDC supply voltage
- All inputs and outputs are protected against reverse polarity and transients
- High ESD protection
- Built-in heater
- Dust sealing

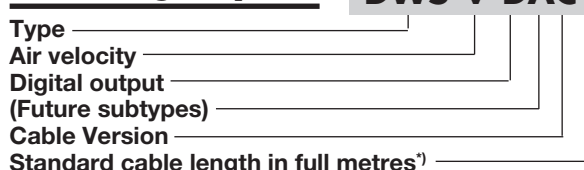
Product Description

DWS-V-DAC13 is a cup anemometer designed for measuring air speed in a wide variety of applications, including wind turbines, buildings, cranes, weather stations, green-houses, etc. The product contains both PNP- and NPN open collector outputs, in which a fixed current is switched proportionally to the air speed at the rate of 10 pulses per m/s. A built-in self-regulated heater reduces the risk of

glazing. The heater is supplied separately, which makes it possible to control the heating. The DWS-V-DAC13 is equipped with a specially designed protection mechanism, which protects the bearings and the electronic parts against dirt and humidity. The body of the sensor is made of black PVC, and the rotor is produced in stainless steel.

Ordering Key

DWS-V-DAC13



¹⁾ can be specified by customer

Specifications

Rated operational voltage	U_B	12 to 24 VDC
	U_C	10 to 28 VDC
Supply current (without heater)	Approx. 20 mA (all outputs off)	
Measuring range	1.5 to 30 m/s	
Operating range	≤ 75 m/s	
Accuracy	≤ 3 m/s: ±0.5 m/s ≥ 3 m/s: ±10%	

Output Specifications

Signal output NPN Open Collector constant current sink PNP Open Collector constant current source	Square wave 12.5 mA ± 2mA
	Square wave 12.5 mA ± 2mA
Output frequency	10 Hz per m/s
Output power	≤ 250 mW
Load supply voltage	Min. 10 VDC
	Max. 28 VDC
Voltage drop	Typ. 4.9 VDC

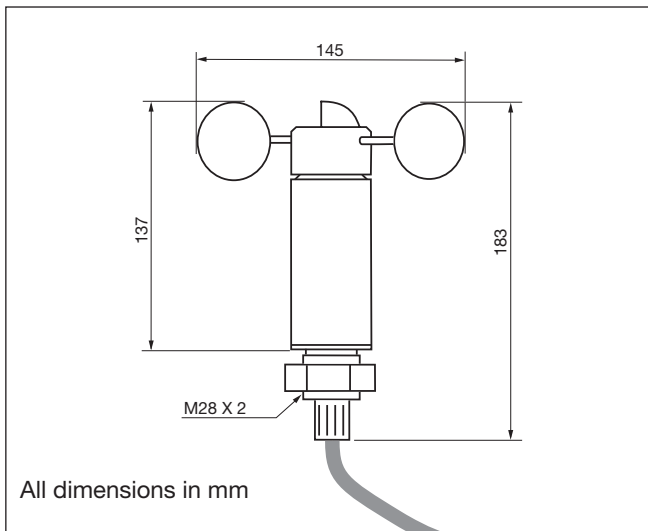
General Specifications

Dimensions Rotor diameter Thread	145 mm External thread: M28 x 2 with one nut
Materials Body Rotor Bearings Cable	Black PVC Stainless steel (AISI 303), black painted Instrument ball bearings, stainless steel 13 m shielded grey PVC, 6 x 0.25 mm ²
Rotor/housing tightening	Dust labyrinth
Environment Degree of protection Ambient humidity Climatic protection	IP54 0 to 100% RH Against high humidity, salt and dust
Ambient temperature Operating temperature Storage temperature	-20 to 60°C (-4 to +140°F) -20 to 60°C (-4 to +140°F)
Heating system Heater Supply voltage	> -20°C (> -4°F) PTC-element 12 to 24 VAC/DC on separate wires

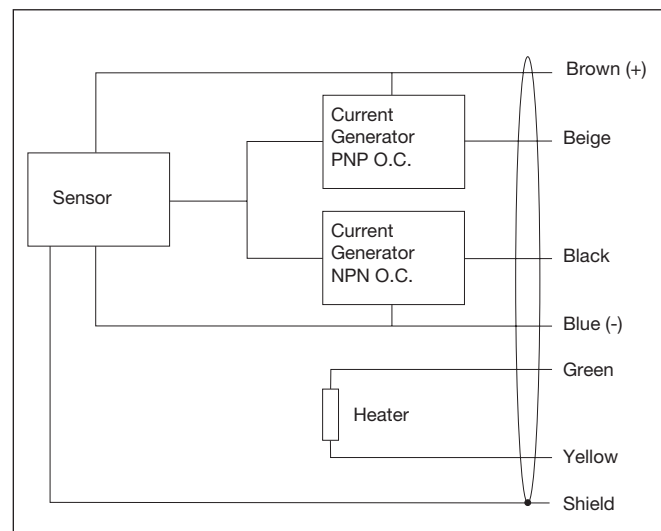
General Specifications (cont.)

Inrush current	1.5 A	IEC 61000-4-5 Surge 1.2/50 μ s Power port, $R_i = 2 \Omega$ Signal port, $R_i = 47 \Omega$	500 V 2000 V
Power consumption	@ -20°C (-4°F): app. 10 W @ +20°C (+68°F): app. 5 W @ +60°C (+140°F): app. 1.5 W		
EMC		IEC 61000-4-6 Conducted disturbances induced by radio-frequency fields	12 V _{rms}
IEC 61000-4-2 Contact discharge	± 4 kV	Mounting position	Vertical with M28 thread
Air discharge	± 8 kV		
IEC 61000-4-3 Radiated radio-frequency Electromagnetic fields	15 V/m	Weight	1.1 kg incl. 13 m cable and packaging
IEC 61000-4-4 Fast transients/burst			
Power port, performance B	± 2 kV		
Signal port, performance B	± 1 kV		

Dimensions



Wiring Diagram



PV output versus wind speed

