

# Wind Vane PVC, black painted Stainless Steel Type DWS-D-DGC13

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- Opto-electronic wind vane for absolute wind direction metering
- Output: PNP transistors for control equipment
- Wind vane with conical wind catcher in black painted stainless steel (AISI 303)
- Supply voltage: 20 to 28 VDC
- Indication of the wind direction in 16 steps, 22 1/2° each
- Built-in heater for automatic de-icing

## Product Description

Absolute wind vane (anemoscope) type DWS-D-DGC13 for the control of yawing wind turbine. DWS-D-DGC13 contains four Ga-As diodes, a coded disc, and four phototransistors with open collector PNP output. The wind vane is registering and sig-

nalling the wind direction from the starting point. The heating element is supplied separately. The wind vane is placed on the top of a wind turbine and consists of a wind vane of stainless steel, a rotor shaft with ball bearings, and a house of PVC.

### Housing

Black PVC

### Output

PNP  
Open collector

## Specifications

<b>Rated operational voltage</b>	20 to 28 VDC
<b>Rated operational current (I<sub>e</sub>)</b>	28 mA (1 kΩ)
<b>No-load supply current (I<sub>o</sub>)</b>	Typical 20 mA
<b>Hysteresis (H)</b>	3.5°
<b>Resolution</b>	22 1/2° ± 1 1/2°
<b>Signal output</b>	4 bit Gray code
<b>Mounting</b>	On the top of the wind turbine with the marking dot on the housing pointing forward (perpendicularly to the wings)
<b>Ambient temperature</b>	-20 to +50°C (-4 to +122°F)
<b>Housing material</b>	Black PVC
Body	Blackpainted stainless steel (AISI 303)
Rotor	Conical wind catcher
Bearings	Ball bearings

### Cable

Unscreened, black PVC  
12.5 m, 8 x 0.25 mm<sup>2</sup>,  
Ø 6.3 mm. Strain relieved

### Weight

(incl. cable and packaging)

Approx. 1.1 kg

### Thread

External thread: M28 x 2  
With one nut

### Heating element

Separate supply

12-24 VAC/DC

Inrush current

1.5 A

Consumption -20°C (-4°F)

10 W

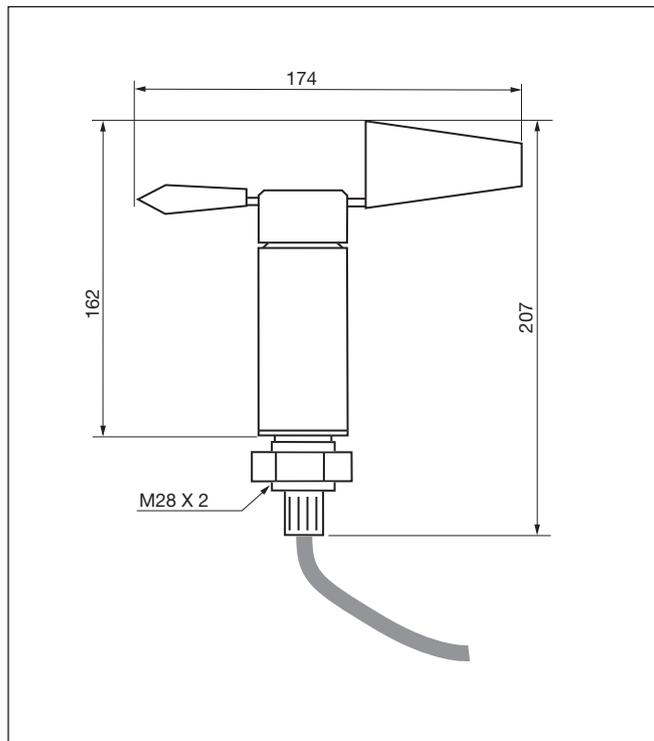
+20°C (+68°F)

5 W

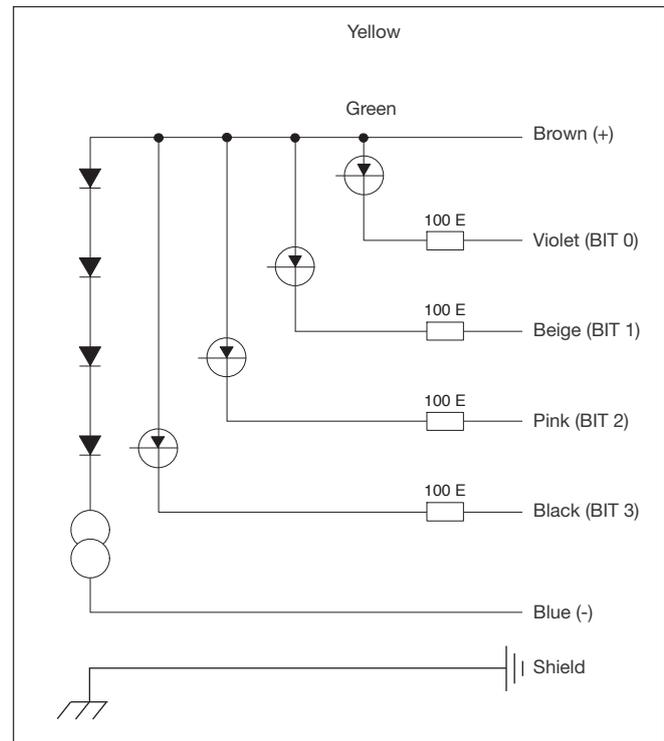
+50°C (+122°F)

1.5 W

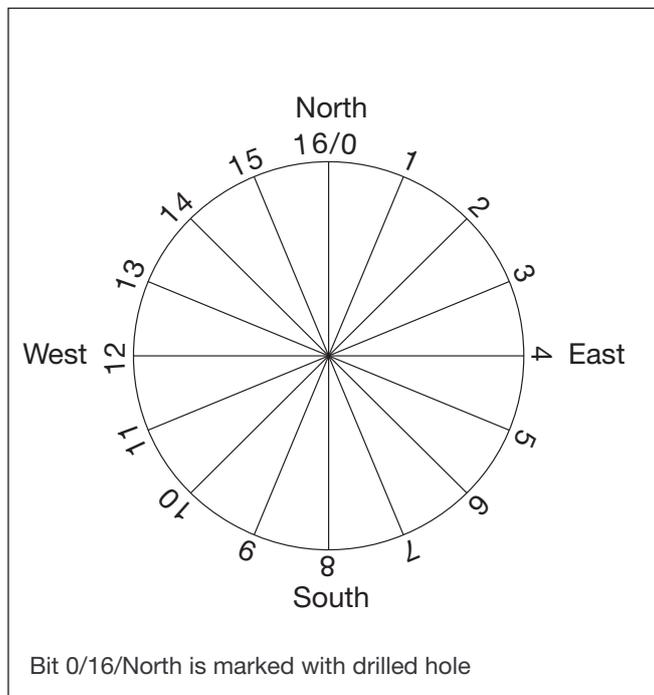
## Dimensions (mm)



## Wiring Diagram



## Mode of operation



Decimal	Bit			
	3	2	1	0
0	0	0	0	0
1	0	0	0	1
2	0	0	1	1
3	0	0	1	0
4	0	1	1	0
5	0	1	1	1
6	0	1	0	1
7	0	1	0	0
8	1	1	0	0
9	1	1	0	1
10	1	1	1	1
11	1	1	1	0
12	1	0	1	0
13	1	0	1	1
14	1	0	0	1
15	1	0	0	0