Wind Vane
PVC Housing, Rotor in black painted Stainless Steel
Type DWS-D-DAC13

CARLO GAVAZZI

- **Wind vane for relative wind direction**
- **Opto-electronic detection**
- **PNP- & NPN-open collector outputs in the same unit**
- **Indication of 0° and 90° intervals**
- **10 to 28 VDC supply voltage**
- **All inputs and outputs are protected against reverse polarity and transients**
- **Built-in heater**
- **Dust sealing**

Product Description

DWS-D-DAC13 is a relative wind vane designed mainly for the windmill industry for measurement of the relative wind direction.
The product contains both PNP- and NPN open collector outputs, in which a fixed current is switched according to the selected direction.
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-D-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-D-DAC13

Dynamic wind sensor
Wind direction
Digital output
(Future subtypes)
Cable version
Standard cable length in full metres[*)]

*) 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)

Output Specifications

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

General Specifications

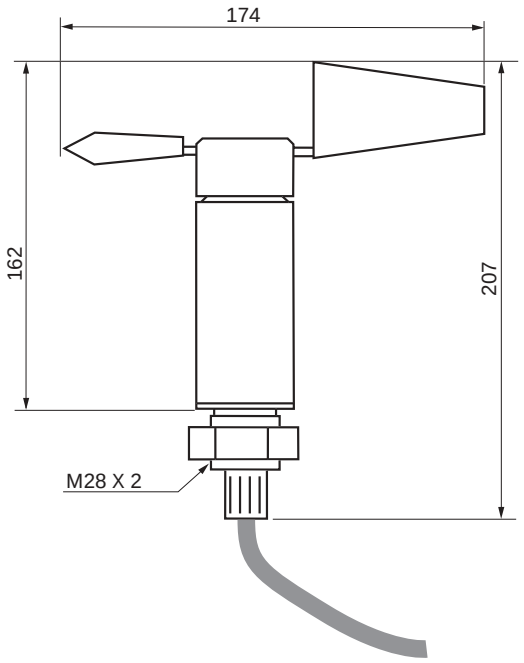
Dimensions	
Wind vane length	145 mm
Thread	External thread: M28 x 2 with one nut
Materials	
Body	Black PVC
Rotor	Stainless steel (AISI 303), black painted
Bearings	Instrument ball bearings, stainless steel
Cable	Shielded grey PVC, 8 x 0.25 mm^2
Rotor/housing tightening	Dust labyrinth
Environment	
Degree of protection	IP54
Ambient humidity	0 to 100% RH
Climatic protection	Against high humidity, salt and dust
Ambient temperature	
Operating temperature	-20 to 60°C (-4 to +140°F)
Storage temperature	-20 to 60°C (-4 to +140°F)
Heating system	> -20°C (> -4°F)
Heater	PTC-element
Supply voltage	12 to 24 VAC/DC on separate wires

CARLO GAVAZZI

General Specifications (cont.)

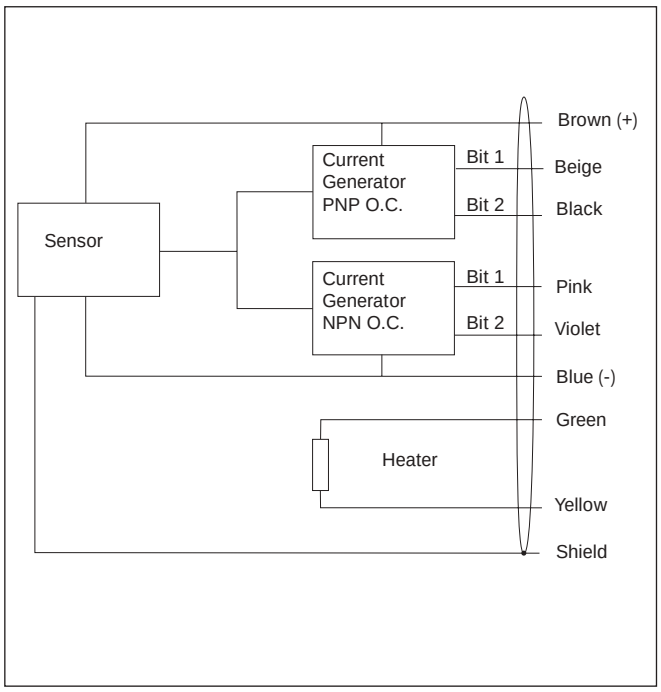
Inrush current	1.5 A
Power consumption	@ -20°C (-4°F): app. 10 W @ +20°C (+68°F): app. 5 W @ +60°C (+140°F): app. 1.5 W
EMC	
IEC 61000-4-2	
Contact discharge	± 4 kV
Air discharge	± 8 kV
IEC 61000-4-3	
Radiated radio-frequency Electromagnetic fields	15 V/m
IEC 61000-4-4	
Fast transients/burst	
Power port, performance B	± 2 kV
Signal port, performance B	± 1 kV
IEC 61000-4-5	
Surge 1.2/50 µs	
Power port, Ri = 2 Ω	500 V
Signal port, Ri = 47 Ω	2000 V
IEC 61000-4-6	
Conducted disturbances induced by radio-frequency fields	12 V_{rms}
Mounting instruction	Mounted vertical with M28 thread. Marking (dot) on the housing indicates 0° position.
Weight	1.1 kg incl. 13 m cable and packaging

Dimensions



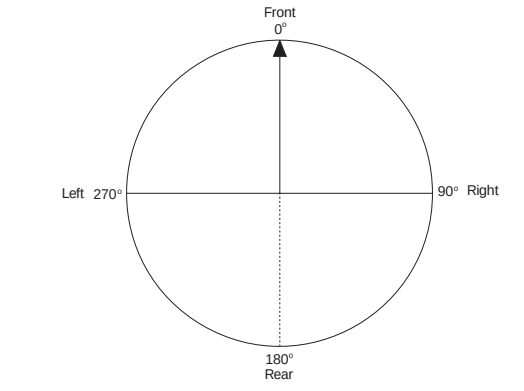
All dimensions in mm

Wiring Diagram



Signal

Wind direction	Bit 1	Bit 2
0° to 90°	0	1
90° to 180°	0	0
180° to 270°	1	0
270° to 360°	1	1
0°	Alternation between 0 - 1	1



X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Industrial Motion & Position Sensors ***category:***

Click to view products by Carlo Gavazzi ***manufacturer:***

Other Similar products are found below :

595002M9474 01071901 D02318603 70U1N048S104U FE-41164 G8652 G8744 GA1T040F103UA GA1T100F502UA-A GA2E056P102UA GA2G140F252UA-A GA2T044S103UA-B GPS8627 GS2T032F253BA GS4P048F503UC GS4T040F503UC GS8367B GS8819 9811405 RDC1010A12 JA3G032P501UA-A KJ5-M18MB60-AZS 27M226 9810825 9870706 F07008036 SPSN048P202U F65118112 GA2G042F103UA GA2M028S102MC GA2M028S502RA GA2T056F502UA GH8810 25M921 GS8368B CM47070 CR121250 31M573 380000M8643 385500M9303 388037M6962 388281M9646 388517025480039 388580038670069 388818078120022 388860073800031 388C11M9548 388C24160090003 389504075810001 389767001230861