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OMC-150 Anemometer with OMC-158-2 Interface

Applications Offshore and Industry

Datasheet

OMC-150 /158-2 Intrinsically safe wind system

The OMC-150 is an Intrinsically Safe combined wind speed and direction sensor, based on the cup and vane principle.

To complete the Intrinsically safe wind system the OMC-158-2 is available. A DIN rail mounted Zener barrier and interface module. Further an Eex junction box is available as OMC-156.

Using a sin/cos potentiometer wind direction is measured without a dead-band, while speed is measured using a proximately switch and a code cap. The wind sensor is made from stainless steel and comes with a mounting arm which can be clamped to a mast using two U-Bolts.

The Zener barrier and interface module is provided with a R422, NMEA output which can be set as 4800 or 9600 baud and can include a VER message as well.

Features

- OMC-150 Wind sensor:
  - High accuracy sensor according W.M.O.
  - Meets ATEX Directive 94/9/EC; IEC 60079-0 : 2012, IEC 60079-11 : 2012 and IEC 13463-1 : 2009
  - Type approved Ex ia IIC T4 gb
  - Equipment category II 2 G
  - Certificate number DEKRA 13ATEX0119, IECEx DEK 13.0012
- OMC-158-2 Wind Sensor Interface Module:
  - Cable length between sensor 1 km
  - Certificate numbers: KIWA 17 ATEX 0005 and IECEx KIWA 17.0005
  - Output NMEA0183, RS422 on 4800 or 9600 Baud
  - Wind measurement on 4 Hz (standard) or 1 Hz
  - VER message can be included
  - Compensation (linear wind speed and bracket correction) may be set on or off

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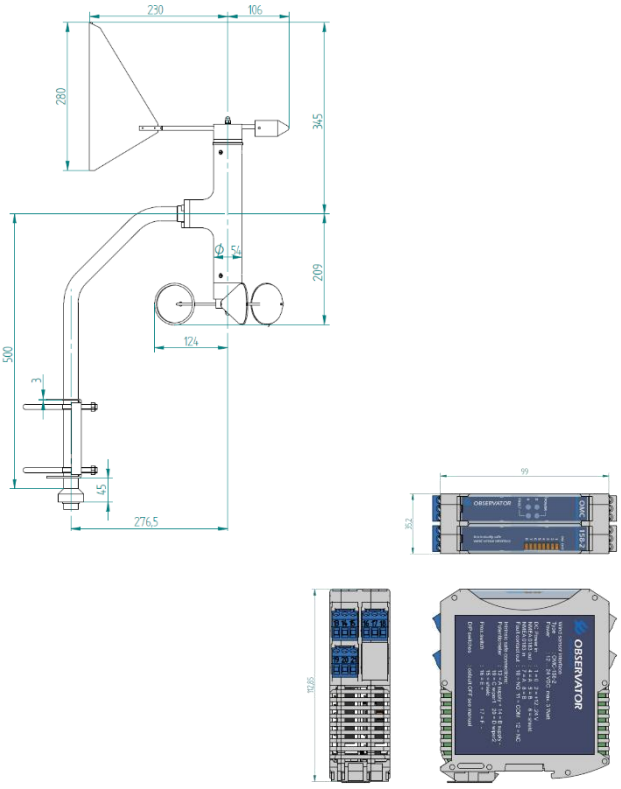
Data summary OMC-158-2

- Type of instrument Anemometer interface unit
- Certification ATEX group and category II(1) G [Ex ia Ga] IIC
- ATEX Certificate number KIWA 17 ATEX 0015
- IECEx 02 [Ex ia Ga] IIC
- IEXEx Certificate number IECEx KIWA 17.0005
- Ingress Protection IP-20
- Operation Temperature -25 … +70 deg. C
- Humidity 10 … 90% no condensing
- Power 10-30VDC max 3 Watt
- Output signal compatibility NMEA-0183
- Speed signal input NAMUR signal according to IEC/EN-60947-5-6
- Direction supply voltage 3 V
- Direction signals input Dual 0..3V analogue signals
- Dimensions (HxWxD) 114x37x108 mm
- Mounting method DIN rail mounted
- Weight Approx. 0.25 kgs.



Data summary OMC-150

- Type of instrument Anemometer
- Measuring principle Cup and vane
- Certification ATEX Ex ia IIC T4 Gb ATEX group and category II 2 G
- ATEX Certificate number
- IECEx 02 Ex ia IIC T4 Gb IEXEx Certificate number
- Measuring system ISO – Metric
- Materials of exposed parts Stainless steel
- Material of cups Polycarbonate with carbon black as antistatic
- Ingress Protection IP-x6 according to EN-60529
- Operation Temperature -25 … +70 deg. C
- Humidity 5 … 90%
- Measuring range speed 0 … 75 m/s
- Accuracy (wind speed) Better than 2 %
- Threshold (speed) Approx. 0.3 m/s
- Distance constant 1.68 meters
- Measuring range direction 0 … 360 º (no gap)
- Dir. accuracy(non-linearity)2 degrees
- Output signal compatibility Direct to OMC-158(-2)
- Speed signal NAMUR signal according to IEC/EN-60947-5-6
- Direction supply voltage 10 V nom. (-5V and +5V)
- Direction signals Dual –5..+5V analogue signals
- Electrical connector type ITT Canon CA3102E16S-1 PB
- Pigtail cable length 5 meters
- Pigtail cable type Screened blue signal cable, LAPP Ölflex EB-CY 8x0.75 mm2 or equivalent.
- Overall height (excl. plug) Approx. 905 mm
- Overall width (incl. vane) Approx. 460 mm max.
- Mounting method Pole-mounting bracket with U-bolts (M10) for mounting on cylindrical or square pole
- Clamping range 35 to 60 mm
- Weight Approx. 5 kgs. excluding cable
- Packing dimensions 1050 x 510 x 150 mm
- Packing weight 10 kgs

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