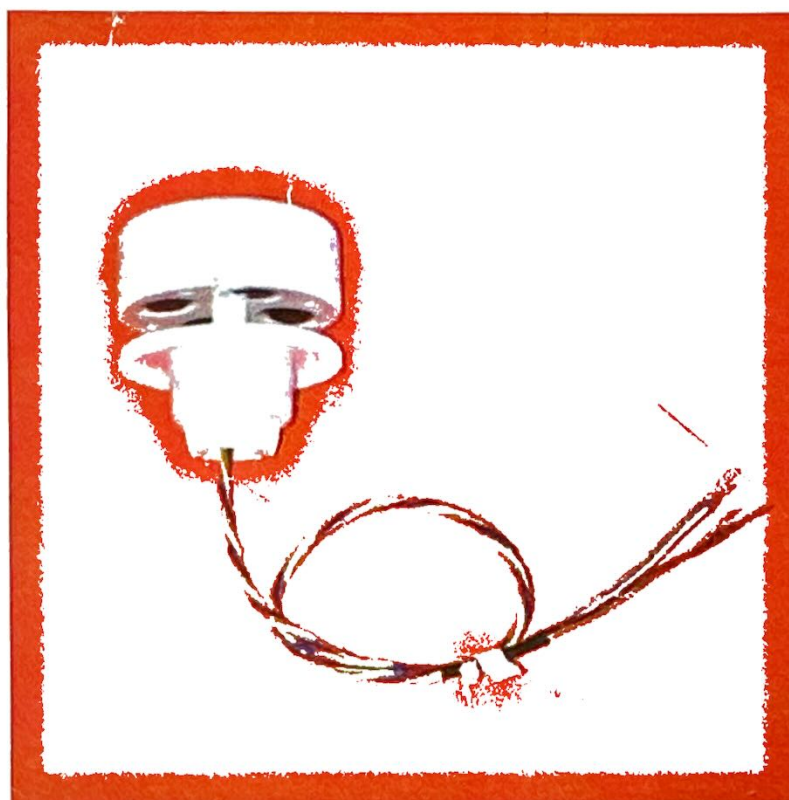


Ultrasonic Wind Sensor



S/N : 042228974

S/N : 042228975

S/N : 042228976

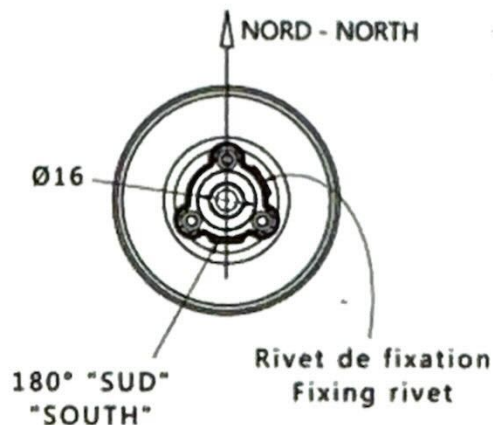
S/N : 042228977

1. Installation

Prepare the mast head for the mechanical installation. Use the template for the bracket's screwing. Align the bracket in order to have the CV7-OEM sensor heading to the bow while the mast is aligned to the boat's midline.

The correct alignment of the sensor will be obtained with the software calibration application. Run the cable down to the display's interface, avoiding locations where other cables or equipment may produce electromagnetic interferences.

Sensor view from below



2. Wind sensor alignment and configuration

CV7-OEM is delivered with the following configuration :

NMEA0183®

Filtering: 2 s

Wind speed unit : Kts

Temperature unit: °C

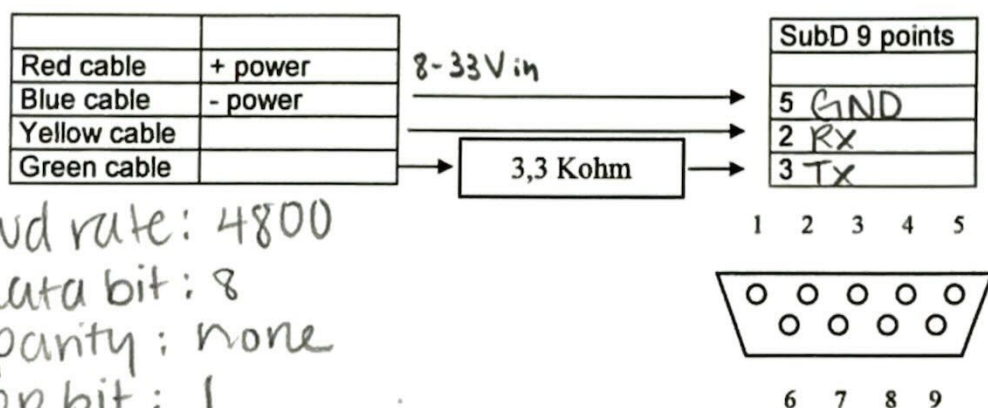
Wind angle adjustment: 0°

To select other parameters, use the downloadable software on this website:

www.lcjcaptours.com. « Configuration CV7 C »

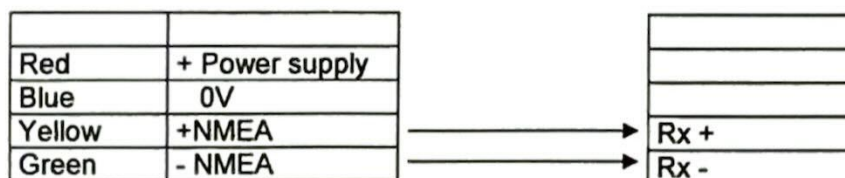
Make the following connections:

- For RS232 Type PC input

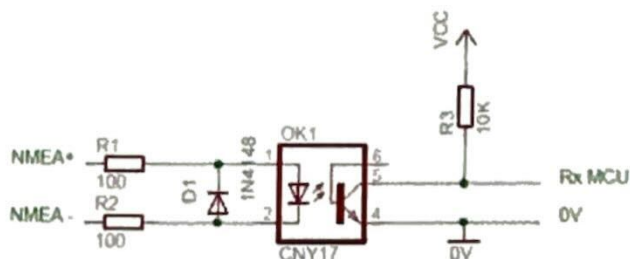


- For NMEA0183 standard input (RS422)

Power supply connections 12V (8 to 33 VDC). Blue Wire - / Red Wire +



Typical diagram NMEA0183 to use a long cable.



3. CV7-OEM Technical Specifications:

Wind speed range	0.12-40 m/s (0.25 – 80 knots)
Wind speed resolution	0.1 m/s (0.1 knots)
Wind speed sensitivity	0.12 m/s (0.25 knots) independent of weather conditions
Output data rate	2 Hz (30 Hz measurements)
Wind direction range	0-359 °
Wind direction resolution	1°
Wind direction sensitivity	+/- 1 °
Power requirement	8 to 33 VDC
Power consumption	9 mA
Boot up delay	4 s
Dimensions / Sensor	Cylinder Ø 64 mm - height 61 mm
Cable	50 cm standard delivery (4x0.22 mm ²)
Weight / Sensor	100 gr
Operational temperature	-15°C (without icing) to +55°C
Environment	Sensor IP67
CE Mark	EN 55022 EN 55024

Notes:

→ The wind sensors are mounted on a pole of 16 mm diameter by 150 mm length for factory calibration. It is your responsibility to evaluate the changes in air flow out of these conditions.

→ The sensor head is IP67. Special attention must be paid to the underside of the sensor to ensure continuous sealing. Care must be taken to ensure a pressure balance between the sensor head and atmospheric pressure.

4. NMEA0183 protocol:

Baud rate 4800, data bit 8, parity none, stop bit 1

Flow every 512 milliseconds

Variable length fields, delimiter « , ».

Start of sentence : \$

End of sentence : CR,LF

Voltage outputs: 0 or 5V

Symmetrical outputs

Examples :

\$IIMWV,225.0,R,000.0,N,A*38

\$WIXDR,C,022.0,C,,*52

\$PLCJ,5801,5F01,AA,4253,3341

\$PLCJEA870,6D98,C500,0056,AC,

Diagram illustrating the NMEA0183 sentence structure for Wind data:

Sentence formatter
Wind

\$IIMWV,225.0,R,000.0,N,A*38

Annotations:

- Wind angle 000.0° to 359.0° (points to 225.0)
- Relative reference (points to R)
- Wind speed (points to 000.0)
- Wind speed unit N = knots, M= m/s, K=km/h (points to N)
- Checksum (points to *38)
- Status of CV3F A : available, V=Alarm (points to A)

Diagram illustrating the NMEA0183 sentence structure for Temperature of wind:

Sentence formatter
Temperature of wind

\$WIXDR,C,022.0,C,,*52

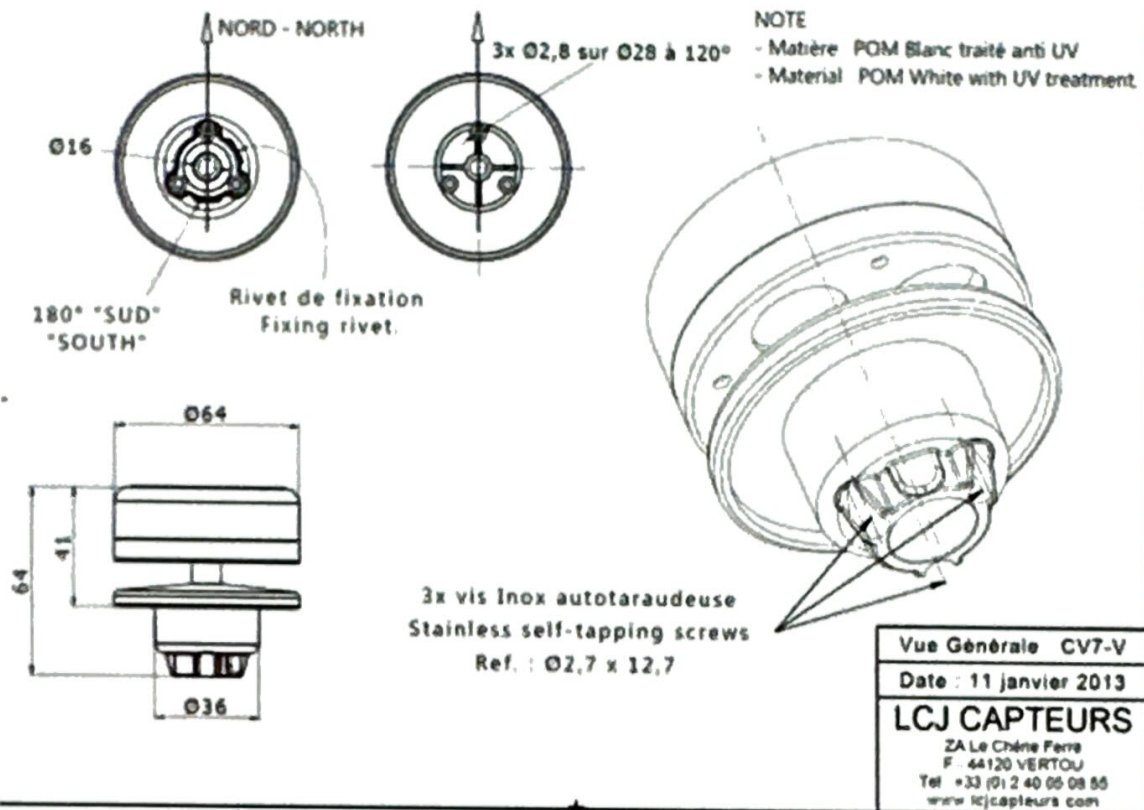
Annotations:

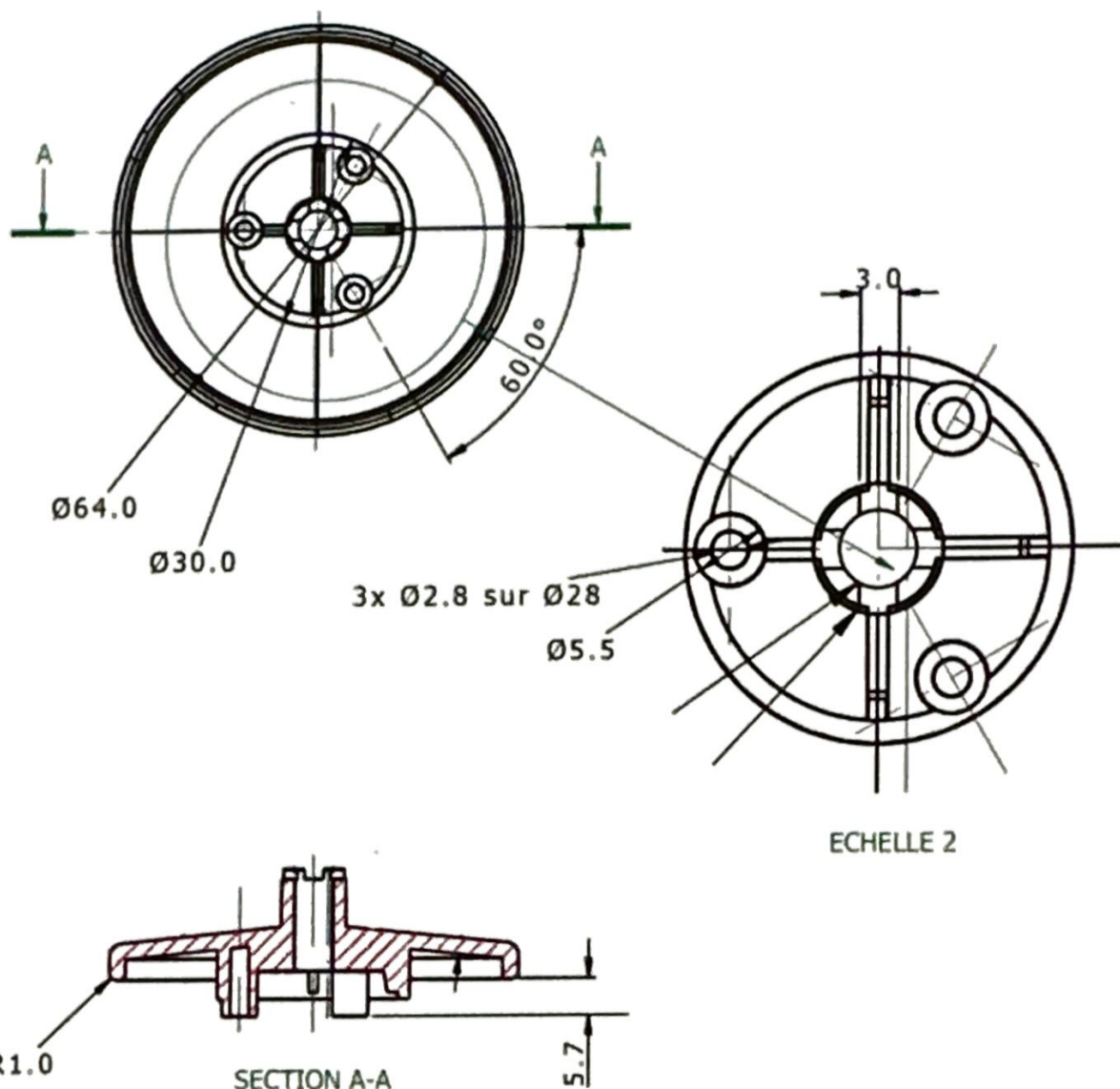
- Temperature (points to 022.0)
- Unit of measurement C = Celsius, F= Fahrenheit (points to C)
- Checksum (points to *52)

\$PLCJ,AAAA,BBBB,CC,,,DDDD,EEEE
\$PLCJEFFFF,GGGG,HHHH,IIII,JJ

} Sentences for LCJ CAPTEURS
technical service

5. Dimensions





6. Warranty

Your CV7-OEM is warranted against manufacturing defects in materials and workmanship for a period of 2 years from the date of purchase.

LCJ Capteurs will repair or replace a faulty product free of charge excluding shipping costs. Proof of purchase shall be required for a warranty claim. All claims shall be made in writing to LCJ Capteurs and once accepted, the faulty product shall be sent to LCJ Capteurs address in Vertou, France.

For further information, please visit www.lcjcpteurs.com where video presentations are available.



EN 55022 EN 55024



Remember to respect the local regulations: dispose non-working electronic equipment to an appropriate waste disposal center

LCJ CAPTEURS – 29 Allée des Cinq Continents – ZA le Chêne Ferré – 44120 VERTOU – France

Tel : +33(0)2 40 05 08 55 | Email lcjcpteurs@lcjcpteurs.com | Website : www.lcjcpteurs.com

Reg. 42493307500022 / RCS Nantes – VAT : FR17424933075