



# Independent Robotics

# SNS100 DUO

A depth-rated solution for global navigation.



Engineered to perform on any platform and depth-rated beyond 100m, the **SNS100 Duo** brings the power of moving-baseline RTK beneath the waves. By leveraging this game-changing technology, the sensor is able to get an accurate position and heading within three seconds of breaching the surface. This can be used to tag locations accurately at the surface or to anchor your robot's data to the geographic coordinates.

Always referencing true north, robust against electromagnetic interference, and never requiring calibration, the **SNS100 Duo** empowers rapid, reliable, and accurate deployments.

## Key features

- Precise position and heading
- 100m (300ft) depth-rating
- Instant heading, without moving
- No calibration required
- 0.5m position accuracy (typical)
- 1° heading accuracy (typical)
- ROS2 Integration
- Adaptable baseline for any robot

Immune to magnetic interference



Anchor data geographically



Suitable for relocalization & recovery



Plug and play integration



# Technical specifications

## Sensor

|                             |                                    |
|-----------------------------|------------------------------------|
| Constellations              | GPS/QZSS, GLONASS, Galileo, BeiDou |
| Bands                       | L1, L2, E1, E5, B1, B2             |
| Position accuracy (typical) | 0.3m - 1.0m                        |
| Heading accuracy (typical)  | 0.5° - 1.5°                        |

## Interface

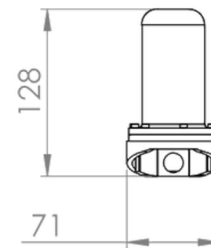
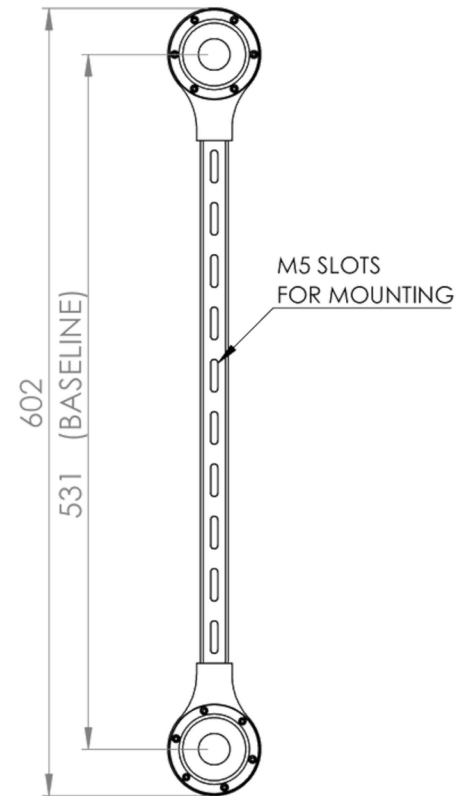
|             |                 |
|-------------|-----------------|
| Protocol    | Serial over USB |
| Update rate | 1 Hz, 5 Hz      |

## Electrical

|                          |               |
|--------------------------|---------------|
| USB 3.0 power compatible | ✓             |
| Voltage range            | 3.8 V - 5.5 V |
| Power consumption (max)  | 2.5 W         |

## Mechanical

|                   |                             |
|-------------------|-----------------------------|
| Materials         | ULTEM, Delrin, Carbon Fibre |
| Depth rating      | 100m                        |
| Weight            | 0.5 kg (air)                |
| Temperature range | -40°C - 85°C                |
| Connector length  | 0.35m                       |



DIMENSIONS IN MM

## Ordering options

### Connector:

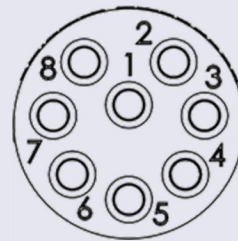
- 8 circuit wet-mate connector (**standard**)
- Unterminated, custom length

### Strut:

- 0.5m carbon fibre tube (**standard**)
- Custom length carbon fibre tube
- None, with custom cable length

### Mounting kit:

- None (**standard**)
- Aqua2 Mk3
- Blue ROV



1. VIN
2. GND
3. USB D+
4. NC
5. USB D-
6. NC
7. NC
8. NC

Compatible with  
Suburban Marine  
Baromax 8-pin and  
MacArtney  
Subconn Type B  
8-pin connectors

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