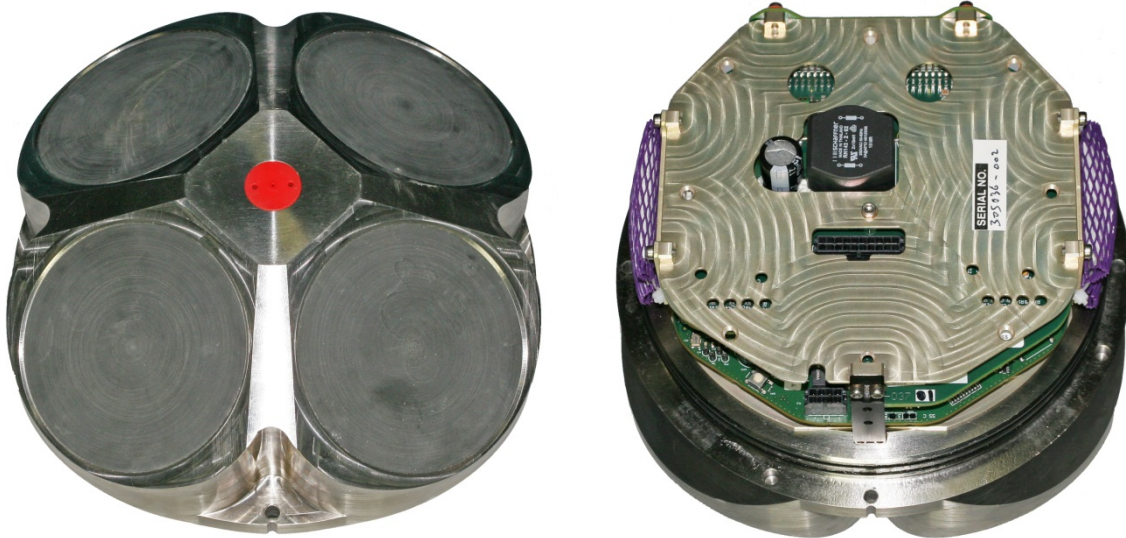


Datasheet

Syrinx – Doppler Velocity Log OEM



Description

The Syrinx DVL OEM is a class leading Doppler Velocity Log that builds on Sonardyne's existing product range of acoustic instrumentation by bringing to market a high integrity, high performance instrument. The OEM version contains the Core electronics for custom integration.

Syrinx can be used as a standalone navigation instrument or can be integrated into Sonardyne's SPRINT system or other 3rd party navigation systems.

This new DVL OEM provides the best of both worlds in a single unit. With a large altitude range and high precision at all altitudes, this combines the best of 300 and 1200 kHz DVLs.

Syrinx utilises both Doppler and Correlation technology to gain performance advantages in environments where each technology is best suited.

Processing techniques have been refined to avoid any loss in output measurements including undulating

and sharp roll off terrain of any type. The instrument has been tested over terrains with near vertical gradients to ensure velocity estimates are always provided, even when individual beam data can show vast differences in altitude.

Adaptive signalling techniques utilise the best signal type for the environment and terrain, this allows both low and high altitude class leading performance.

With multiple serial outputs and Ethernet connectivity the Syrinx DVL OEM allows users to simultaneously output data of different formats, so you can provide the ROV crew with one data format and your survey crew another. This reduces the requirement of more than one DVL on board the ROV, saving on weight and costs.

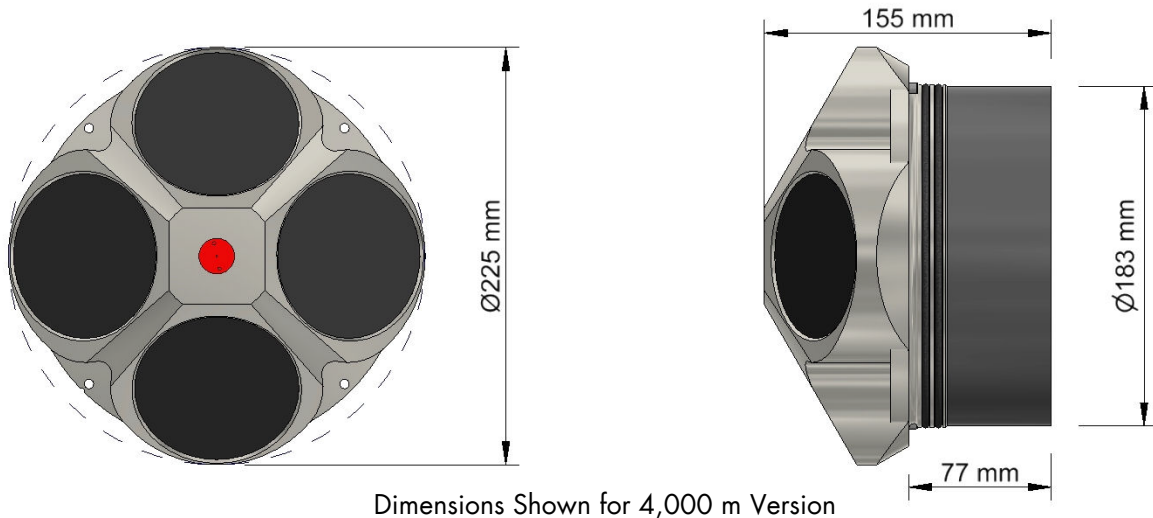
Sonardyne have developed the transducers to be singularly interchangeable, dramatically reducing maintenance time and cost.

Key Features

- Class leading 600 kHz DVL combining the benefits of 300 and 1200 kHz instruments in one
- Reliable adaptive bottom lock
- Capsule case design built around field proven USBL array capsules developed over last 30 years
- Concurrent Ethernet and serial connectivity
- Individually replaceable transducers
- On-board DVL system manager web interface for configuration and diagnostics
- Titanium array casing
- Full linear signal processing
- Up to 25 Hz ping rate
- 0.4 to 175 m operation range
- Tight integration to Sonardyne SPRINT INS, providing unmatched DVL aided navigation even in challenging bottom lock conditions

Specifications

Syrinx – Doppler Velocity Log OEM



Dimensions Shown for 4,000 m Version

| Features | | Type 8275 OEM |
|---|-----------------------------|---|
| Operating Frequency | | 600 kHz |
| Bottom Velocity – Single Ping Precision | Standard Deviation @ 1 m/s* | ±0.22 cm/s |
| Long Term Accuracy | | ±0.12% ±0.1 cm/s |
| Minimum/Maximum Altitude | | 0.4/175 m |
| Velocity Range | | 0 to 10 m/s |
| Velocity Resolution | | 0.01 cm/s |
| Data Output Rate | | 25 Hz max |
| Maximum Transmit Source Level (dB re 1 uPa @ 1 m) | | 217 dB |
| Water Reference Velocity | Accuracy | ±0.2% ±0.1 cm/s |
| | Layer Size | Selectable |
| | Minimum/Maximum Range | 0.5 m/70 m |
| Sensors | Temperature | -5° to 40°C |
| | Pitch/Roll (Optional) | ±0.5° |
| | Pressure (Optional) | ±0.1% full scale |
| Configuration | Array | 4-beam array @ 30° beam angles |
| Communication and Logging | Communications | Dual RS232, multi-port Ethernet (TCP & UDP) |
| | Trigger Inputs | 3–12 V rising or falling edge configurable |
| | Internal Logging | 32 GB internal memory |
| Output | Output Telegrams | Sonardyne proprietary & PD0, PD3, PD4, PD6, PD13, SDDBT |
| | | Simultaneous telegram output to multiple ports |
| Power | Voltage Range (DC Input) | 24 V (±10%) |
| | Average Power (Typical) | 10 W |
| Environmental | Depth Rating** | 4,000 m or 6,000 m Array |
| | Operating Temperature | -5 to 55°C |
| | Storage Temperature | -20 to 55°C |
| Mechanical Construction | Titanium | |
| Dimensions (Height x Max Diameter) | | 225 x 155 mm |
| Weight in Air/Water*** | | 7.7 kg (4,000 m) |

*Standard deviation refers to proven single-ping true horizontal velocity precision, specified at 20-30 m altitude.

**If mounted to equipment that is equally specified for depth rating

***Estimated Weight