

# Vessel Remote Server

## VRS 003

The VRS 003 is the combination of a robust, cost-efficient purpose-built aggregation point for all sensor data on-board a vessel and a connectivity module for transferring the collected data to shore.

### Cyber Secure Interface to the VDR

Acting as a firewall and proxy server, the VRS creates a secure conduit between the Voyage Data Recorder (VDR) and surrounding networks and systems. It employs a “one-way” protocol to receive data from the VDR, ensuring seamless functionality without compromising the VDR’s performance.

### Simple and Secured Data Aggregation

VRS provides an agnostic data collection solution for any type of sensors (analog, digital or serial) throughout the ship by connecting to Remote Data Interfaces (RDI). VRS utilises the existing network infrastructure on-board but runs segregated to ensure isolation from the rest of the connected systems. It works with existing Danelec Voyage Data Recorder (VDR) installations or any other VDR make and model, and can even be applied on vessels without any VDR on-board. VRS relies on a TPM device to store and operate sensitive data e.g. device private keys as well as device identification to provide state-of-the-art security.

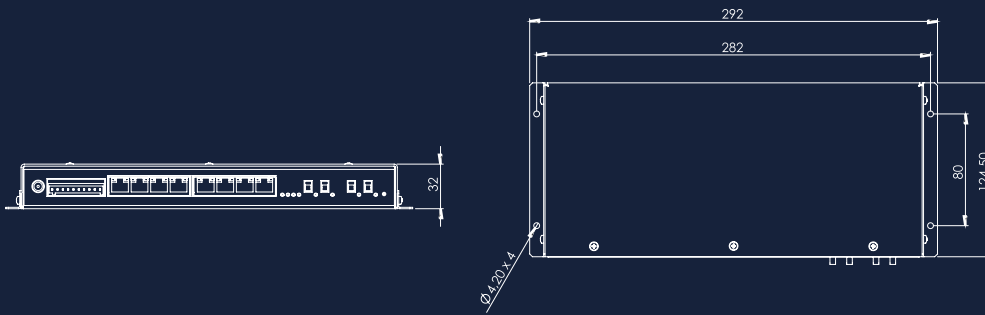
### Data Selection and Processing

VRS allows you to choose what data to log from the VDR and/or RDI’s data streams, as well as configure sample window and report window size. The collected sensor data is pre-processed before being transmitted to shore limiting the bandwidth usage to a minimum.

### Most Affordable Maritime IoT Solution

VRS is the gateway to advanced data utilization functionalities on shore. It allows for asset management as well as remote access to the vessel’s VDR for transfer and replay of recorded data in case of incident or emergency situation. Data collected from on-board sensors can be applied in 3rd party analytics solutions such as performance and fuel optimization applications.





**Product Specification**

Dimensions	
Weight	1000 g
Height/Width/Depth	32 x 262 x 125 mm
Interfaces	
Ethernet (1000BASE-T)	8 ports
RS-422 serial interface	1 TX/RX
Digital inputs	2
Electrical	
Power supply	AC (110-230V, 50-60Hz) IEC 60945 nominal
Power consumption	12-24VDC IEC 60945 nominal, 18W. 110-230VAC IEC 60945 nominal, 20W.
Environmental	
IEC 60945 protected	
Performance	
Internal storage	1TB SSD
VDR data cache	512GB (30 days)
RAM	4GB
Processor	Dual Core
Max. processing power	1.250 values per sec
Max. number of tags	10.000
Special features	
Motion tracking sensor	
Application hosting	
Cybersecurity	
Certification	IEC 61162-460 ed. 3 & IACS E27

**Integration with Danelec Safety Insights**

Enabling access to GTT Marine’s comprehensive cloud services is straightforward, providing a suite of advanced functionalities.

