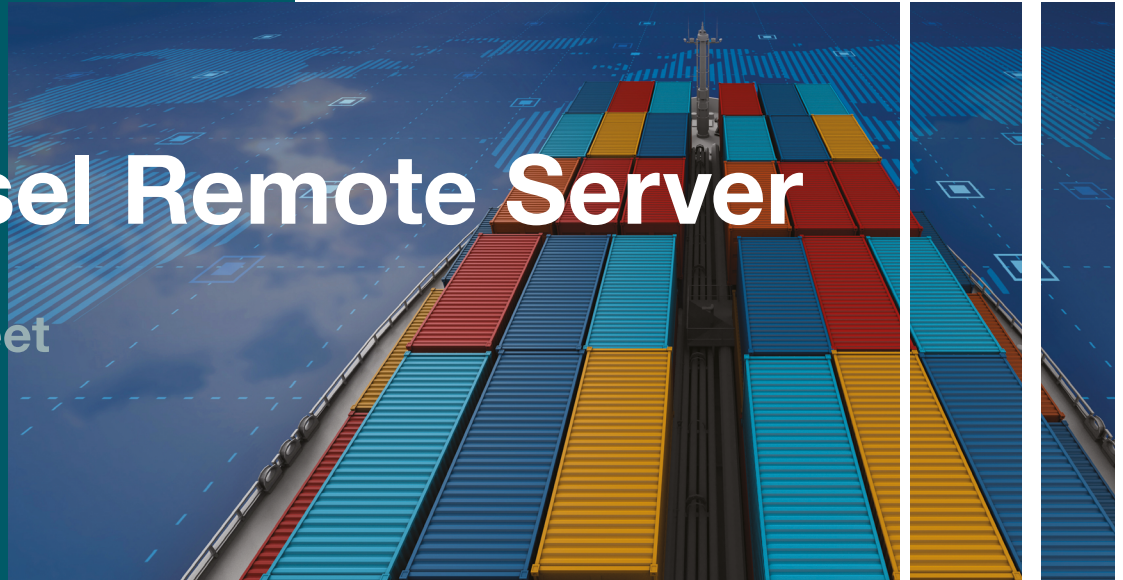# Vessel Remote Server
VRS 003
Datasheet

Danelec Marine Vessel Remote Server (VRS) 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.

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.
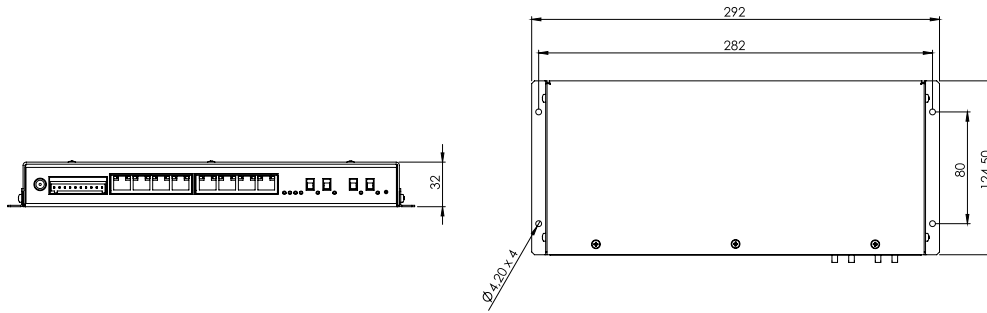
Data selection and processing

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.

MAC14157-10C

Product Specification

Dimensions

Weight	1000 g
Height/Width/Depth	32 x 292 x 124,5 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

There is always a service tech near your ship

Our extensive global network of service centers carry spare parts and provide service repairs 24/7 with 500+ factory-certified technicians in 50+ countries.

Ethernet → Vessel COMMS

VRS

Ethernet

VDR

Data from sensors

VESSEL

WITH DANELEC VDR

NO DANELEC VDR

Network data from sensors →

VRS

← Ethernet → Vessel COMMS

Ethernet

Ethernet

Ethernet

RDI 08-001S

RDI 08-001A

RDI 08-001D

Serial data from sensors

Analog data from sensors

Digital data from sensors

VESSEL