

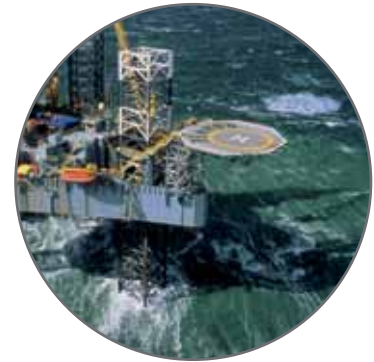
Consilium VDR



Voyage Data Recorder
Consilium VDR / S-VDR

Consilium - Your advisory partner within the marine industry

Consilium is a well established company within the marine industry, with a long experience from developing innovative and high quality products, such as the Consilium VDR. When choosing a Consilium product you will get a type approved product together with a life time commitment from an advisory partner, providing first class support and excellent service.



There is a strong demand for Consilium products within the cruise-, tanker-, LNG- and navy segments and the demand from the offshore sector is growing rapidly.



Consilium's products are certified by the major classification societies.



Secure – Learn – Optimize

According to regulations, the VDR's main purpose is to secure evidence in case of an accident. We agree. But we want to take it a few steps further. As we strongly believe that the recorded VDR data also has a great value for other matters, Consilium's VDR F2 is designed not only to secure evidence, but also to learn from incidents and optimize functionality.

Secure evidence

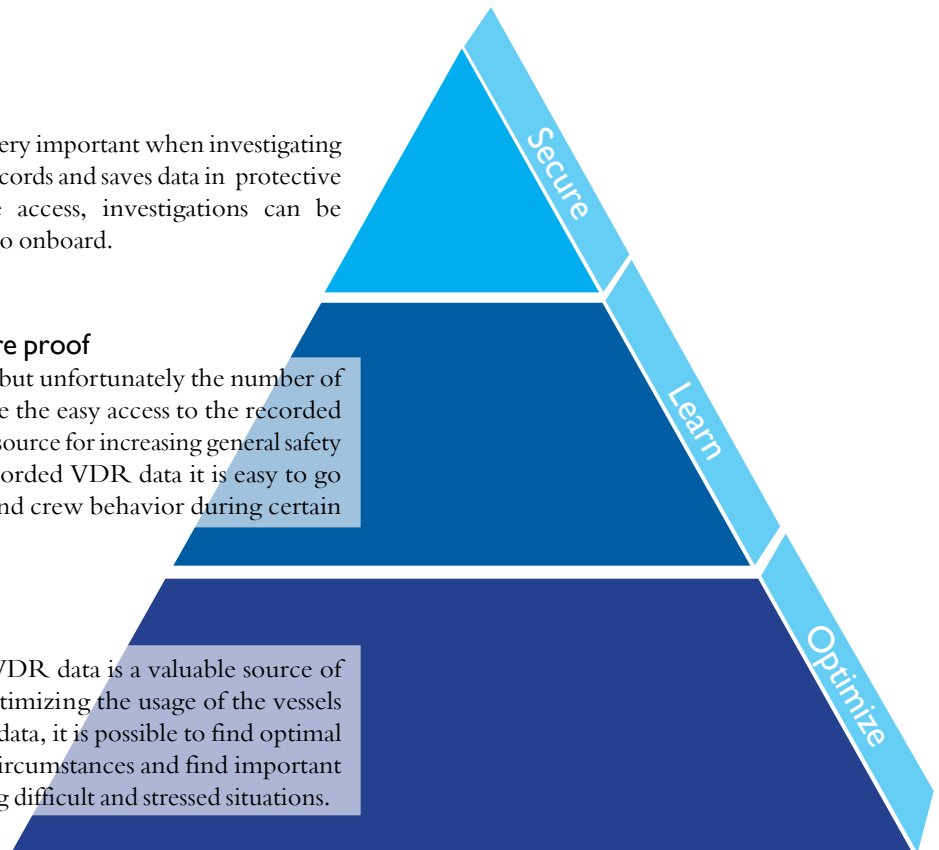
The recorded data in the VDR is very important when investigating an accident. The VDR F2 safely records and saves data in protective storages. With optional remote access, investigations can be commenced without the need to go onboard.

Learn from incidents and secure proof

Luckily, very few accidents occur but unfortunately the number of incidents is much larger. Therefore the easy access to the recorded VDR data is an extremely valuable source for increasing general safety onboard. By remote access to recorded VDR data it is easy to go back in time to prove the vessel and crew behavior during certain situations.

Optimize

The easy access to the recorded VDR data is a valuable source of information when it comes to optimizing the usage of the vessels resources. By analyzing recorded data, it is possible to find optimal vessel performance for different circumstances and find important differences in crew behavior during difficult and stressed situations.



ConServ - Consilium service agreement

With Consilium's service agreement ConServ, the shipowner can predict and ensure a lower service and maintenance costs. Consilium monitors and ensures that all systems have a healthy status. The vessel sends short status reports periodically to the Consilium server and the Consilium remote maintenance system analyzes the reports and updates the overview table. If a problem is identified, an engineer can easily access the onboard system remotely, for a deeper analyze to proactively suggest how to rectify the problem at minimum efforts.

The VDR F2 fulfil latest SOLAS regulation 2014, MSC 333(90)

Final recording medium

The final recording medium should consist of the following items:

1. Fixed recording medium (48 hrs. storage)
2. Float-free recording medium (48 hrs. storage)
3. Long term recording medium (30 days storage)

Data to be recorded *(addition to previous regulation)*

- RADAR Display from both ship's radar
- ECDIS Display and chart data
- AIS Data
- Rolling motion (inclinometer, if installed)

Consilium VDR F2 - much more than a VDR!

Easy retrieved data

The recorded data in the Consilium VDR F2 is easily retrieved from the unit's storage devices and can be used for many types of analyzing, for instance after incidents and accidents.

With remote playback (optional) the data can be downloaded and viewed directly from the office via any Internet connection. If required, an onboard wireless live connection to the VDR can be used as an additional source of centralized information for the crew.

Flexible

The VDR F2 is based on a modular platform which easily can be adapted to any type of installation and extended if new requirements appear. This makes the F2 very suitable for both new buildings and retrofits as well as for system integrators and suppliers of integrated bridge solutions.

User friendly

The system status is monitored and easily operated through a small size colour display. Full operational test including radar image check is performed with a simple user interface in the control unit. The USB port on the display can be used for fast and simple backup of recorded data.

Reliable

The VDR F2 is based on a platform designed by Consilium, in order to fulfil our own high demands of quality and reliability. The hardware design is based on long experience from the marine industry and its functionality is well proven in use during operation on a large number of vessels all around the world. The VDR F2 system doesn't include any moving parts ensuring a minimum of service and maintenance.

Consilium Remote Monitoring

In order to provide a safe and efficient VDR system, Consilium has developed a remote monitoring solution for the F1/S1 and F2 VDR generations. With the Consilium Remote Monitoring solution Consilium VDRs can be accessed from shore for diagnostics, change of configuration and SW upgrades. This offers numerous benefits for the user in regards of cost efficiency, reduced maintenance and increased safety.

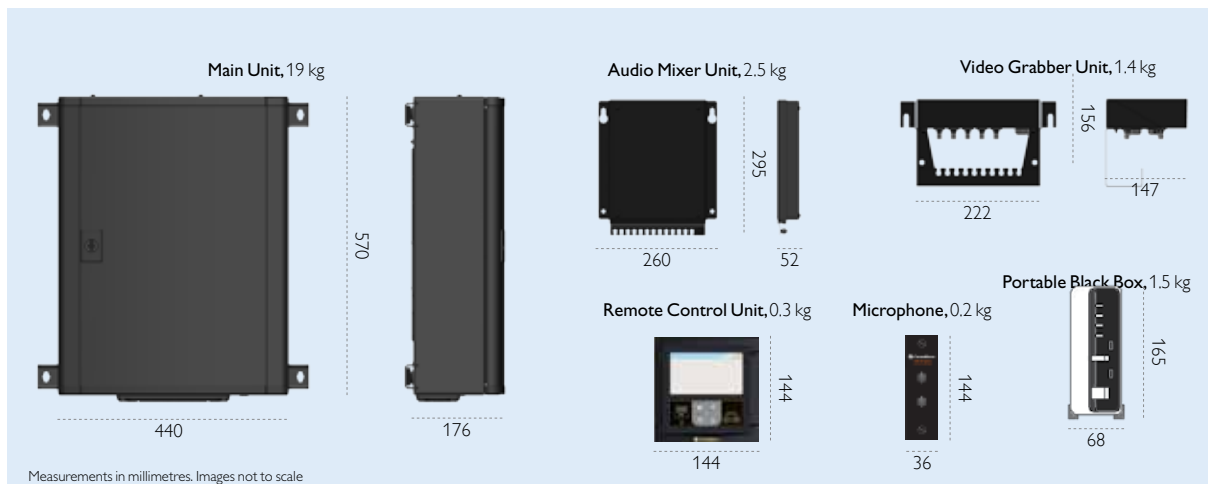


Retrofit

The design of the F- and S-series of VDR and SVDR is very suitable for retrofit installations. Due to the modular flexibility and complete interface capability, these systems will easily replace earlier generations of centralized as well as distributed systems.

The Consilium organization is specialized in projects related to replacing and retrofitting any brand of VDR system. All the way from sales process and projecting to installation and long term support Consilium always strive to be an advisory partner with focus on the customer needs and requests.

Consilium VDR F2 - technical specification



Measurements in millimetres. Images not to scale

Main Unit (MU)

Environmental conditions	IEC 60945 protected equipment IP22
Battery backup	2 hours of continuous audio recording
System voltage	115-230 VAC Power Consumption < 120 W
Recording period	720 hours/30 days
NMEA inputs	Up to 24 NMEA inputs (IEC611-62-1) 1 NMEA input (IEC 61162-2)
Data	Network streams 40 x (4800 Bd) / Serial streams (1x38400Bd) + 6/12/18 4800Bd
Alarm management system	(IEC61162-1) Rx/ Tx
Network Connection	100Base-TX (IEEE 802.3)
Protocols	Radar over LAN IEC 62388 annex H2 Modbus (TCP) Proprietary
Service Communication Monitoring	100Base-TX (IEEE 802.3) Web viewer/monitoring and configuration

Audio Mixer Unit (AMU)

Environmental conditions	EC 60945 protected equipment
Microphone inputs	8 microphone inputs
VHF inputs	2 inputs 0dBV
Max no of AMU	2 pcs

Video recording unit (VGU)

Environmental conditions	IEC 60945 protected equipment
Resolution	Up to WUXGA (1920x1200) and 60 Hz.
Capture interval	5-15 s.
Network video	4 network video, 15 sec interval
1 pcs VGU	2 analogue/ network video , 4 network video
2 pcs VGU	4 analogue/ network video
CCTV	4 inputs 5 s interval stored to PBB

Remote Control Unit (RCU)

Environmental conditions	IEC 60945 protected equipment
Display	TFT colour display
Built in functions	operational performance test OPT and USB backup and maintenance function

Fixed capsule (ProCap)

Environmental conditions	Compliant to IEC 61996-2
Record period	Min 48 hours
Fire protection	60 minutes at 1100°C. 10 hours at 260°C Impact 50 g, 11 ms and half sine shock
Immersion	6 000 m depth for 30 days

Float free capsule (Tron)

Environmental conditions	Compliant to IEC 61996-2
Record period	Min 48 hours
Immersion	10 m depth at 5 minutes

Portable Black Box (PBB) optional

Storage capacity >	90 days
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Signal converter (DDU)

Environmental conditions	IEC 60945 protected equipment
	4 /8/ 16 Analogue inputs +-10V / +-20 mA / 4-20 mA 8/16/24/48/ Digital inputs dry contact

Microphone AM2

Environmental conditions	IEC 60945 protected equipment Standard feature for automatic self-testing sequence. Housing for outdoor use, IP66 classed
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Features with VDRs from Consilium:

- Easy to install
- Easy to maintain
- Flexible hardware configuration
- Based on small, optimized modules
- Remote diagnostics possibilities
- High quality
- No moving parts

You find us worldwide



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