

Voyage Data Recorder

Consilium S-VDR/VDR



Design For Excellence

Consilium has developed, manufactured and installed Voyage Data Recorders for new-buildings and retrofit ships since 1996. Consilium is now launching its fourth generation combined VDR and S-VDR system. The platform is emphasising “Design For Assembly” with high focus on reliability and flexibility. Very easy and cost-effective installations and a minimal amount of maintenance needed.

The **S-VDR** interfaces to all on the market available bridge systems and sensors. The flexible design also offers many options: i.e. recording of up to four radar displays and recording of CCTV systems.

The **Consilium Voyage Data Recorder** meets the IMO performance standard A.861 (20), IEC 61996, IEC 61996-2 (S-VDR amendment), IEC60945, IEC 68-2-27 part 2 and EU Directive no. 1999/35/EC.

System Description

S-VDR Main Unit

The system is completely passive and records all data fed to the Main Unit. It will not interfere with other systems for data retrieval. The S-VDR/VDR system will store data from the past 12 hours (optionally also for longer periods), continuously erasing older data as

new data is recorded.

Power Supply Unit

PSU with batteries for supplying the system and microphones with power during 2 hours in the event of a main power failure.

Microphone Unit

Can either be panel or bulkhead mounted and has a built-in loudspeaker for an automatic self-testing sequence. The design permits installation also on open bridge-wings.

Capsule

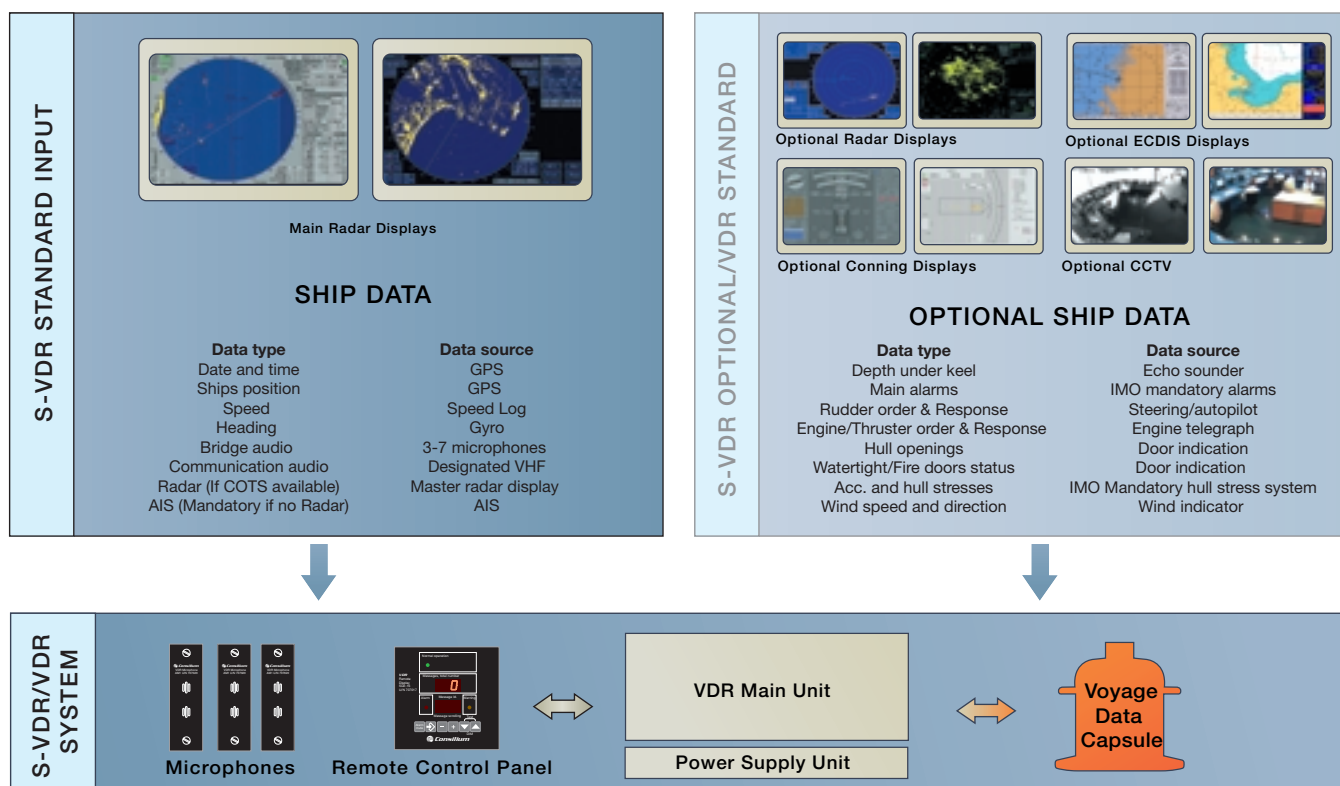
Continuously records 12 hours of data from the Main Unit. The Capsule completely fulfils the requirements in the test standard IEC 61996.

New Remote Control Panel SD4-6

With the SD4-6 control panel you can control and constantly monitor the system status and alarms.

The new design with a 32 character LED display shows system status information in a user-friendly way.

The remote control panel is also equipped with an “Emergency back-up button”, designed to store an event on a standard USB2.0 memory unit for retrieval and very easy back-up.



Consilium S-VDR/VDR Technical Specification

M4 Main Unit

Environm. conditions	IEC 60945 protected equipment*
Record period	12 hrs, stored securely
16 NMEA 0183 INPUT	14 channels (IEC 61162-1) 2 channels HS 38400 bit/s (IEC 61162-2)
NMEA 0183 OUTPUT	4 channels (IEC 61162-1)
Audio channels	12 channels with up to 8 microphones with self test
VHF	2 channels, 775 mV Line input (0 dBu)
Radar	Display up to 1600x1200@60 resolution. Refresh rates up to 85Hz Can be configured for a capture interval as short as 5 seconds.
Data export features	Data output for standard USB2.0 memory.
Speed Log interface incl.	2 channels, galvanic isolated: 12VDC-48VDC, 100p/Nm to 20000p/Nm;
Updating frequency	1.1Hz
Digital input	Galvanic isolated
Relay outputs	Maximum voltage: 125VAC, 60VDC; Maximum current: 1A
RS-485,	Baud rate: max 115200 bit/s

Power Supply PSU

Environm. conditions	IEC 60945 protected equipment*
PSU	2 hrs of continuous recording at power failure
System Voltage	115 V AC / 230 V AC
Power Consumption	< 350 VA

Remote Control Panel SD4-6

Environm. conditions	IEC 60945 protected equipment*
Emergency incident button	Stores a preconfigured amount of time on a standard USB 2.0 memory stick.
32 character display	For user-friendly system status messages
Dimmer	Continuously adjustable
Alarm mute	Acknowledge alarms and errors

Microphone AM1

Environm. conditions	IEC 60945 protected equipment*
Loudspeaker	Standard feature for automatic self testing sequence
Housing for outdoor use	IP66 classed

Voyage Data Capsule VDC

Compliant to IEC 60996	
Record period	12 hrs
Penetration	250 kg/100 mm probe at 3 m
Fire protection	60 minutes at 1100°C 10 hours at 260°C
Impact	IEC 68-2-27, 50 g, 11 ms, and half sine shock
Immersion	6000 meters depth for 30 days

Analogue/Digital Module

Environm. conditions	IEC 60945 protected equipment*
Analogue/Digital	1024 separated inputs on each Gateway. +/- 10 V DC 8 inputs on each module 4 - 20 mA 8 inputs on each module Digital 16-32 inputs on each module

Number of different interfaces/adapters are available on request.

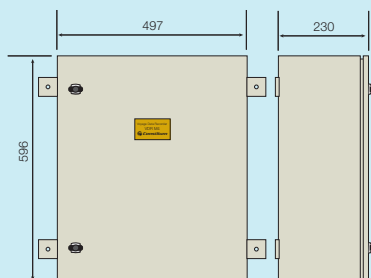
Data Acquisition Unit DAU

New centralized Analogue/Digital Unit
Including 6 modular Digital/Analogue PCB's for flexible combination.
Up to 96 digital inputs
Up to 24 (+/-10V or 4-20 mA) analogue inputs.

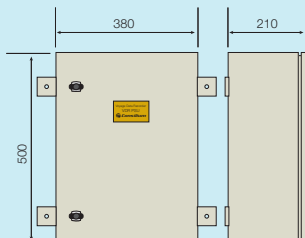
Options/Additional

Local Area Network LAN, TCP/IP-data export for extra data storage (no limit)
CCTV Cameras Up to 4 separate cameras
Radar 4 separate Radar, ECDIS or Conning displays
Frame rate down to every 5 second.

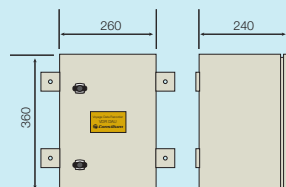
* Refer to technical manual for details temperature range for sub-parts



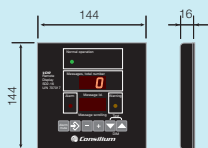
Main Unit (Weight: 30 kg)



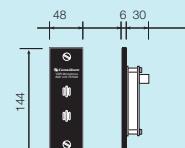
PSU (Weight: 34 kg)



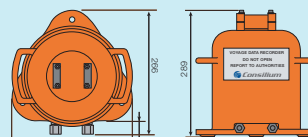
DAU (Weight: 11 kg)



Remote Control Panel SD4-6
(Weight: 0.6 kg)



Microphone AM1
(Weight: 0.2 kg)



VDC Voyage Data Capsule
(Weight: 8.6 kg)



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7. Cabling of the VDR M4 System