FURUNO

VDR

Voyage Data Recorder



Model: **VR-7000**

www.furuno.com

Records all crucial data to help identify the cause of marine accidents, as well as contribute to the prevention of future accidents



A Voyage Data Recorder (VDR) is similar to the black boxes carried on aircraft. The VDR aids investigators in securing evidence by reviewing procedures and instructions in the moments before an accident. The VDR collects data from all interfaced sensors on board the vessel, storing it in an external Data Recording Unit (DRU). The system comes with two tamperproof DRU units, one fixed and one float-free.
They are designed to withstand the extreme impact, pressure, shock and heat, which may happen during an incident.
When the DRU is retrieved, the stored data can be replayed by authorities to investigate the cause of the accident.

VDR
Voyage Data Recorder

▶Complies with the IMO performance standards for VDR
- ●Complies with the IMO performance standards for VDR, MSC 333(90) and MSC 494(104)
- ●Data storing for 48 hours both in fixed and float-free recording medium
- ●Data storing for 30 days/720 hours in SSD in the Data Collecting Unit
- ●No.1, 2 Radar and main ECDIS display images can be stored

* Up to 5 display images from FURUNO Radar FAR-3xxx series or FURUNO ECDIS FMD-3xxx series can be stored simultaneously through Ethernet without optional SSD.
* Radar and ECDIS images can be recorded at 15-second intervals.

▶Easy to integrate with IBS Network

* Radar and ECDIS that utilizes LAN interface based on IEC 61162-450 can be connected through Ethernet.

▶Video LAN converter can convert the Radar signal (DVI or RGB) into Ethernet

* Necessary when FURUNO Radar FAR-15x8/FAR-2xx8 series, ECDIS FMD-3xxx series or the products of third-party manufacturers are connected to VR-7000.

▶Optional sensor adapter gathers all the serial/analog/digital sensor data and collectively feeds it to DCU
Multiple sensor adapters can be interfaced depending upon the number of sensors to be interfaced.

▶"Live Player V5" allows monitoring and playback of collected data on a PC. In addition, remote replay and remote extraction via satellite connection available.

▶Extracted data can be saved onto a USB flash memory

▶Global customer support and services with FURUNO worldwide service network

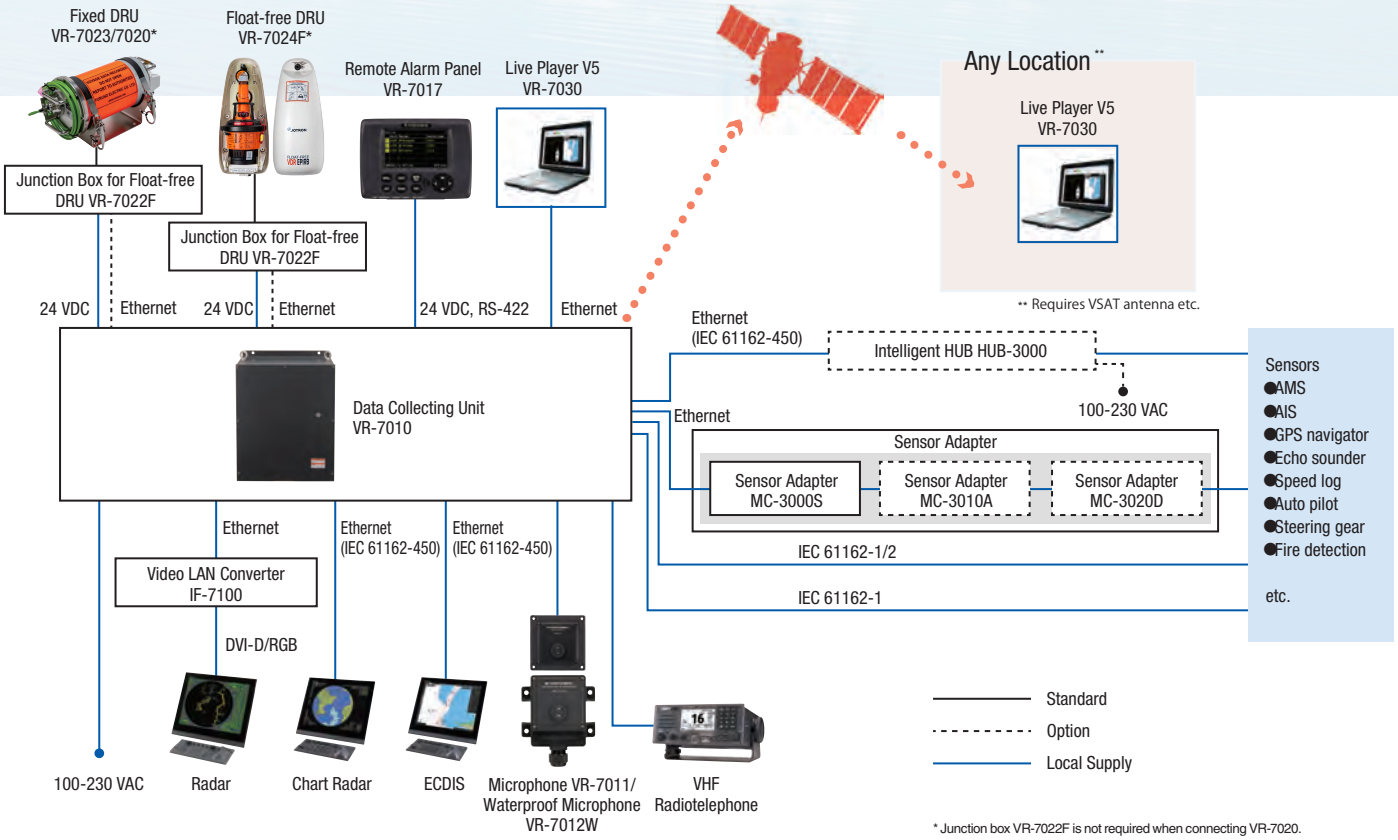
Remote APT (Annual Performance Test)

By utilizing the remote monitoring platform HermAce, VDR annual performance test can now be conducted remotely. Tests that once required engineers to visit vessels can be performed efficiently from shore. Through verification and diagnostics based on real-time data and accumulated historical records, HermAce delivers reliability equivalent to conventional onboard testing. Even in regions or situations where vessel access is difficult, the platform offers flexible, dependable solutions — enhancing operational efficiency.



Easy to input the sensor data and review stored data

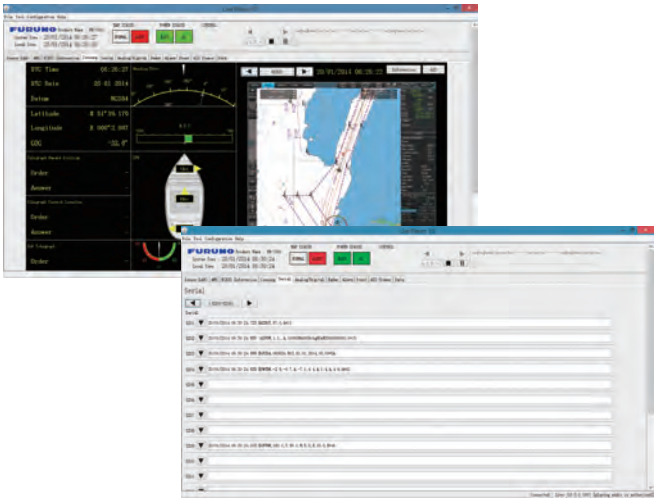
The onboard sensors can be integrated and interfaced to the VR-7000 thanks to Video LAN converter and sensor adapters.
Also, the collected data can be replayed with the PC software or extracted onto a USB flash memory for later analysis.



* Junction box VR-7022F is not required when connecting VR-7020.

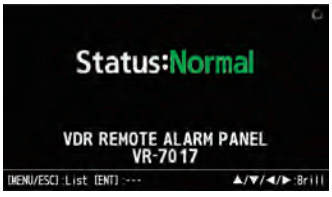
Live Player V5

This software extracts and displays the data recorded in the Data Recording Unit, in real time, on the networked PC screen. In addition,The data can be extracted and displayed remotely on the PC screen anywhere via satellite connection. Also, the data can be replayed for a more thorough data analysis at a later date.



Remote Alarm Panel

At-a-glance recognition of VDR status with minimal operation.

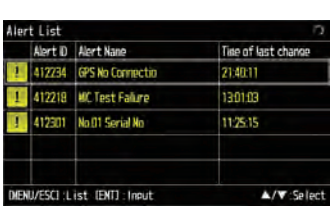


《Normal Status》





《System health checking》
(serial/analog/digital signals)



《Alert List》

SPECIFICATIONS

Product Name			VOYAGE DATA RECORDER
Data Collecting Unit (DCU)	Recording Period		720 hours
	Interface	Ethernet (IEC 61162-450)	7 ports (1 port for PC)
		Serial (IEC 61162-1/2) Input	2 ports (when interfaced with the MC-3000S, 4 additional ports can be added)
		Serial (IEC 61162-1) Input	6 ports (when interfaced with the MC-3000S, 4 additional ports can be added)
		Digital Input	Option (when interfaced with the MC-3020D, 8 ports can be added)
		Analog Input	Option (when interfaced with the MC-3010A, 3 ports can be added)
		Bridge audio	8 ports
		VHF audio	2 ports
		Remote Alarm Panel	1 port
		24 VDC for Fixed DRU	1 port
		24 VDC for Float-free DRU	1 port
		24 VDC for Sensor Adapter	1 port
		CAM (AMS) (Serial IEC 61162-1 Input/Output)	1 port
		CAM (AMS) (Contact)	Input: 2 ports Output: 3 ports
		USB	1 port (for USB flash memory to extract the data only)
Fixed Data Recording Unit (Fixed DRU)*		Memory	32 GB
		Recording Period	48 hours
Float-free Data Recording Unit (Float-free DRU)*		Memory	80 GB
		Recording Period	48 hours
Remote Alarm Panel		Display	4.3" color LCD
Video LAN Converter		Interface	DVI-D/RGB: 2 ports Ethernet: 1 port
Sensor Adapter (Serial)		MC-3000S	IEC 61162-1/2: 4 ports IEC 61162-1: 4 ports
Sensor Adapter (Analog)		MC-3010A (option)	Analog Input: 3 ports
Sensor Adapter (Digital)		MC-3020D (option)	Digital Input: 8 ports
Intelligent Hub		HUB-3000	Ethernet: 8 ports

POWER SUPPLY

DCU	100-230 VAC: 1.6-0.7 A, 1 phase, 50-60 Hz
Sensor Adapter	24 VDC: 1.4 A max (11units), fed from DCU
Video LAN Converter	24 VDC: 0.7 A

ENVIRONMENT

Ambient Temperature	DCU	-15˚C to +55˚C
	Fixed DRU	-25˚C to +55˚C
	Float-free DRU	-20˚C to +55˚C
	Waterproof Microphone	-25˚C to +55˚C
	Others	-15˚C to +55˚C
Relative Humidity		93 % at +40˚C
Degree of Protection	DCU	IP20
	Fixed DRU	IP66
	Float-free DRU	IP67
	Microphone	IP22
	Waterproof Microphone	IP56
	Remote Alarm Panel	IP22 (front panel), IP20 (chassis)
	Video LAN Converter	IP22
Vibration		IEC 60945 Ed. 4

EQUIPMENT LIST

Standard

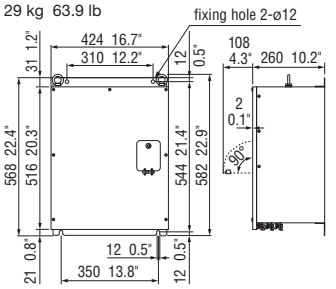
1. Data Collecting Unit (DCU)	VR-7010	1 unit
2. Remote Alarm Panel	VR-7017	1 unit
3. Fixed Data Recording Unit (Fixed DRU)*	VR-7023 or 7020	1 unit
4. Float-free Data Recording Unit (Float-free DRU)*	VR-7024F	1 unit
5. Junction Box for Float-free DRU	VR-7022F	1 unit
6. Video LAN Converter	IF-7100	0~2 units
7. Microphone	VR-7011	1~8 units
8. Waterproof Microphone	VR-7012W	
9. Sensor Adapter (Serial)	MC-3000S	0~8 units

Option

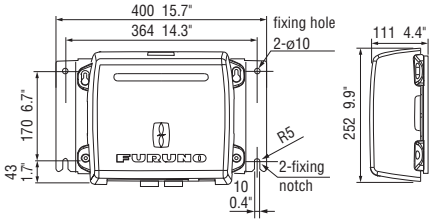
1. Sensor Adapter (Serial*1/Analog/Digital)	MC-3000S/3010A/3020D
2. Video LAN Converter*2	IF-7100
3. Microphone	VR-7011
4. Waterproof Microphone	VR-7012W
5. Intelligent HUB	HUB-3000
6. SSD for DCU	
7. DVI cable	

*1 Up to 8 units (including 1 unit of the standard configuration) can be connected
*2 Up to 2 units (including 1 unit of the standard configuration) can be connected

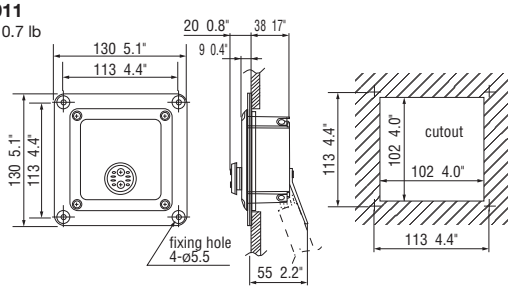
Data Collecting Unit
VR-7010
29 kg 63.9 lb



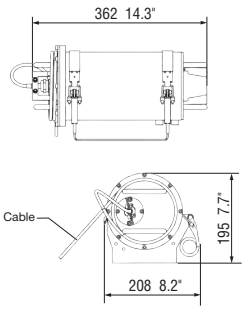
Video LAN Converter
IF-7100
3.2 kg 7.1 lb



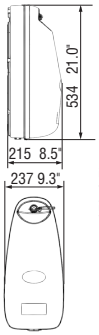
Microphone
VR-7011
0.3 kg 0.7 lb



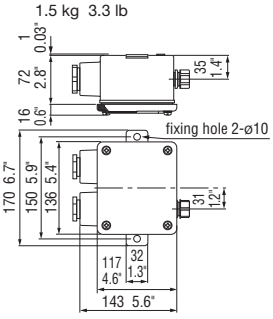
Fixed Data Recording Unit
VR-7023
8.0 kg 17.6 lb



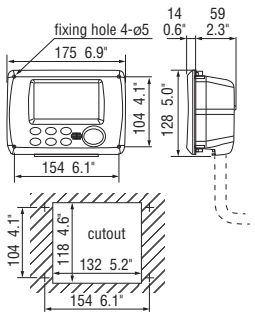
Float-free Data Recording Unit
VR-7024F
5.4 kg 11.9 lb



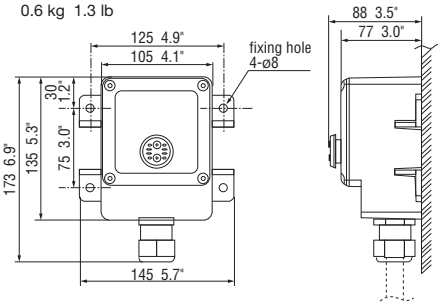
Junction Box for Float-free Data Recording Unit
VR-7022F
1.5 kg 3.3 lb



Remote Alarm Panel
VR-7017
0.64 kg 1.4 lb



Waterproof Microphone
VR-7012W
0.6 kg 1.3 lb



Beware of similar products

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