

# VOYAGE DATA RECORDER

## MEETING THE NEW STANDARDS



Voyage Data Recorders (VDRs) enable accident investigators to review procedures and instructions in the moments before an incident and help identify the cause of any accident. From 1st July 2014 all VDRs installed must comply with the new standards. Kelvin Hughes new X-VDR meets the new standards and also offers more flexibility, functionality and features to the operator.

### X-VDR

The new standards require VDRs to have both a fixed and float free capsule capable of holding 48 hours of voyage data. A long term storage medium is also required to record 30 days of data. The new VDR is able to record ECDIS as well as a second radar.

The system is compliant with MSC.333(90) and IEC61996-1 Ed 2.0 and collects data from the sensors on board the vessel and stores it in an externally mounted CSM (Crash Survivable Module). The CSM is tamperproof and designed to withstand extreme shock, impact, pressure and heat.

### FEATURES

CONTROL	CONTROL PANEL IS A HIGH RESOLUTION 8.4" CONSOLE MOUNT TOUCH SCREEN DISPLAY.
SYSTEM MONITOR	CONTINUOUS AND MANUAL HEALTH CHECKING OF THE SYSTEM DISPLAYED USING A TRAFFIC LIGHT SYSTEM FOR SIMPLE FAULT DIAGNOSIS.
SIMPLE PLAYBACK	HIGH SPEED DOWNLOADS FROM THE BRIDGE VIA USB 3.0 OF ANY DATA AND/OR PERIOD. PLAYBACK ON A PC OR LAPTOP ON BOARD USING THE NEWLY DEVELOPED SOFTWARE THAT ENABLES FULL VOYAGE ANALYSIS AND DATA REPLAY FUNCTIONS.
EASY INSTALLATION	CABLE ENTRY TO THE MEU (MAIN ELECTRONIC UNIT) AND CABLE TERMINATIONS ARE QUICK AND SIMPLE VIA AN INNOVATIVE CABLE GLAND DESIGN, ENSURING NO SPECIALISED TOOLS ARE REQUIRED. SPECIALISED CABLE ENTRIES TO INSTALL VGA, VIDEO, POWER AND CAPSULE CABLES DIRECTLY IN TO THE MEU ENABLE EASY CUSTOMISATION TO THE VESSELS NEEDS.
COMPLIANT	FLOAT FREE, FIXED CAPSULES AND LONG TERM MEDIA STORAGE MEDIA ARE FULLY APPROVED MEETING THE MINIMUM RECORDING REQUIREMENTS IN ACCORDANCE WITH MSC.33(90) AND IEC.61996-1 ED 2.0).
UPGRADEABLE	QUICK AND SIMPLE INSTALLATION WITH REDUCED COSTS IS ACHIEVED BY A SINGLE CABLE BETWEEN THE MEU AND INTERFACES THAT CONTAINS BOTH DATA AND POWER. INTERFACES CAN ALSO BE DAISY CHAINED. THIS EXPANSION CAPABILITY HELPS FUTURE PROOF THE SYSTEM SHOULD ADDITIONAL CONNECTIONS TO THE VDR BE REQUIRED FOR FUTURE IMO REQUIREMENTS.

# VDR SYSTEM SPECIFICATIONS

DATA COLLECTION	S-VDR	VDR 2002-2014	NEW X-VDR
DATE AND TIME	■	■	■
VESSEL POSITION, SPEED AND HEADING	■	■	■
BRIDGE AUDIO	■	■	■
COMMUNICATION AUDIO	RADAR RECORDED IF POSSIBLE ELSE AIS DATA MUST BE RECORDED	■	■
RADAR DATA		■	■
AIS	RECORDED IF SUITABLE EQUIPMENT IS FITTED AND INTERFACES USING IEC61162 FORMAT		■
ECHO SOUNDER		■	■
ENGINE AND RUDDER ORDER AND RESPONSE		■	■
HULL OPENING, WATERTIGHT AND FIRE DOOR STATUS		■	■
MAIN ALARMS		■	■
ACCELERATION AND HULL STRESSES		RECORDED IF SUITABLE EQUIPMENT IS FITTED AND INTERFACES USING IEC61162 FORMAT	
WIND SPEED AND DIRECTION			
SECOND RADAR, ECDIS, INCLINOMETER			■

SYSTEM INFORMATION	DETAILS	DIMENSIONS (HWD)
MEU (MAIN ELECTRONIC UNIT)	10 AUDIO CHANNELS 21 NMEA DATA INPUTS 2 DVI-D/DVI-A/VGA INPUTS FOR RADAR CAPTURE 2 ETHERNET INTERFACE FOR SHIPS NETWORK (ECDIS) POWER 24VDC	550 x 460 x 144mm
FIXED HARDENED CAPSULE	48 HOURS RECORDING 20m CABLE ETHERNET INTERFACE POWER 24VDC (SUPPLIED FROM MEU)	340 x 308 x 310mm
FLOAT FREE CAPSULE	48 HOURS RECORDING 20m CABLE ETHERNET INTERFACE POWER 24VDC (SUPPLIED FROM MEU)	520 x 220 x 200mm
BCP (BRIDGE CONTROL PANEL)	GRAPHICAL COLOUR DISPLAY CONTINUOUS AND MANUAL HEALTH CHECK POWER 24VDC (SUPPLIED FROM MEU)	200 x 266 x 43mm
BRIDGE MICROPHONE	BUILT IN SELF TEST POWER 12VDC (SUPPLIED FROM MEU)	28 x 113 x 63mm
BRIDGE WING MICROPHONE	IP66 WATERPROOF BUILT IN SELF TEST POWER 12VDC (SUPPLIED FROM MEU)	28 x 113 x 63mm
PSU (POWER SUPPLY UNIT)	110 TO 230VAC 50/60Hz BATTERY BACK UP AC FAIL OUTPUT POWER 24VDC OUTPUT	400 x 300 x 210mm

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