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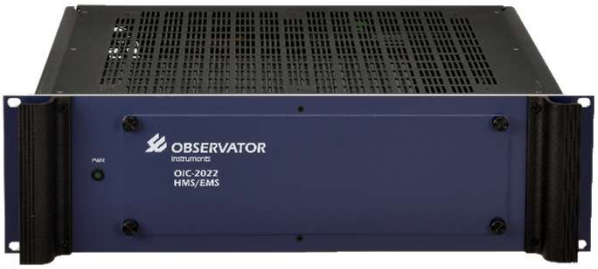

OIC-2022 Server

Datasheet

OIC-2022 HMS/EMS Server

Observator has supplied many helideck monitoring systems during the past decades. In order to meet the high-demanding authority regulations and after listening to customer feedback, Observator has now launched the OIC-2022 HMS/EMS Server

It is a helideck monitoring system which is designed to measure and visualize all relevant weather conditions in order to ensure maximum safety during helicopter landing and take-off operations.

Compared with its precursor, the OIC-2022 has a compact design and is based on the Observator OIC/MeteoLink-principle, which means a lower cost of ownership and reduced cabling during installation.

Installation of the HMS system has been simplified as all relevant sensors can be connected directly to the central server unit. The HMS is applicable on all kinds of helicopter landing platforms, such as different types of vessels(OIC-2021), platforms, heliports, windfarms, etc.

Features

- Compact hardware design with a ‘Plug & Play’ system
- Real time helideck weather information
- Compliant with CAP-437/746/1264, and other international helideck standards
- Options for remote access via web interface
- Alarm options
- Easily expendable with ATIS (Automatic Terminal Information System)-module

A complete HMS system consists of:

- OIC-2022 19” industrial central unit
- B2C-155 Software (to be ordered separately)
- Relevant weather sensors
- Additional ATIS module (when required)

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System information

The HMS system (incl. software) meets the following requirements:

- The latest UK CAA CAP-437/746/1264 (Standards for Offshore Helicopter Landing Areas)
- Norwegian Norsok CAA BSL D 5-1
- Canadian OPEG helideck guidelines
- UAE CAAP-71

Standard HMS systems require the following parameters:

- Wind speed and direction
- Temperature
- Humidity
- Dew point
- Barometric pressure (QFH / QNH)
- Visibility
- Present weather
- Cloud height
- Thunderstorm

Where measured, the following information should also be included in the weather report: significant wave height.

By using several sensors based on our new MeteoLink-principle the connection of different sensors is simplified and cabling between these sensors is limited.

Offshore meteorological observations require devices designed to withstand the hardest environmental conditions (such as heavy vibrations, sea spray and extremes of temperature). With more than 30 years of experience, Observator knows the special demands for any particular application in many different markets.

OIC-2022 central unit

The OIC-2022 is Observator's latest HMS / MetOcean/ EMS Server, provided with dedicated Blue2Cast Software (to be ordered separately) Obviously, the complete system fully complies with CAP437, and other standards as well.

The unit comes in a 19" sub-rack of 3 HE only and comprises an industrial server and all required i/o, based on Observator's MeteoLink concept.

Backside of the OIC-2022. On the left side: sensor or MeteoLink inputs. On the right side: the Auxiliary ports and ports to drive e.g.dedicated displays and contact outputs for the helideck lights (optional through OMC-141-2B).

The server is an industrial DNV 2.4 compliant, IEC 60945 certified, head-less PC with Intel® Core™ i5-7300U 2.6 GHz*/i5-6300U 2.4 GHz processor, Chipset: SoC integrated; System Memory 2 x DDR4-1866/2133 SO-DIMM, 4GB(32GB max); BIOS: AMI; Memory SSD 128GB.
The 2 swappable 2.5" SAT drives are easy accessible, by removing the cover plate at the front of the OIC-2022. The OIC-2022 is a Linux-operated server that comes with Observator's pre-installed software package Blue2Cast.

The OIC-2022 HMS Server further contains two accurate barometric pressure sensors, which can be accessed by the same cover plate, for calibration purposes. A common air-pressure inlet (conform CAP-regulations) is available on the backside as well. The barometric pressure sensors are specified as follows:

•Range: 750..1.150 hPa
•Accuracy: 0,2 hPa
•Drift: max 0,1 hPa/year
•Temp.: -40°C..+85°C (fully compensated over the temperature range)
•Number of sensors: 2

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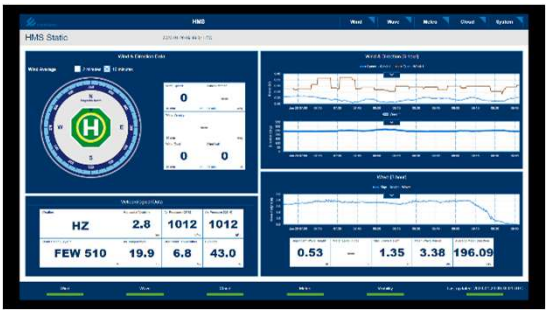
Blue2Cast Software

B2C-software is a flexible software program and is used on many different applications. The software can combine meteorological data with ocean related and motion related data (vessels), so you will have all information available in one system.



All data can be stored and trends can be made visible. The data can be viewed on any pc installed via a standard network or which has access to the internet.

It is possible to generate weather reports (as per authority regulations):

Location		Vessel Heading	degrees		
Lat		Long			
Date		Time	UTC		
Wind	degrees	Speed	knots	Gust	knots
Visibility	metres	Lightning Present	Yes / No		
Present Weather					
Cloud amount		Cloud Height	feet		
Cloud amount		Cloud Height	feet		
Cloud amount		Cloud Height	feet		
Cloud amount		Cloud Height	feet		
Air Temperature	°C	Dew Point	°C		
Pressure QNH	hPa	QFE	hPa		
Significant Wave Height	metres	Significant Heave Rate	metres/sec		
Pitch	degrees up / degrees down	Roll	degrees left / degrees right	Helideck Inclination	degrees
Remarks					

ATIS and HLS

The OMC-141-2(B) Automatic Terminal Information Service, or ATIS, is a continuous broadcast of recorded non-control weather information for unmanned offshore or wind energy platforms. The broadcast contains essential weather information like, wind information, temperature, humidity, visibility or any other information required by pilots. Helicopter pilots usually listen to an available ATIS broadcast before the final approach, in order have a safe landing on the platform. The pilot can, by using the VHF radio, request the actual weather information (by automatic voice message) from the unmanned station.

The system also offers the possibility to control the helideck lights from the helicopter by using a standard VHF radio.

Unmanned transformer station

OIC-2022 with OMC-141-2B ATIS module

The voice functionality in the Observator system follows the usual ATIS practice; how ever this practice is not described in standards and varies from country to country. The client should specify specific requirements.

More information is available is the OMC-141-2(B) datasheet which can be downloaded from our website.

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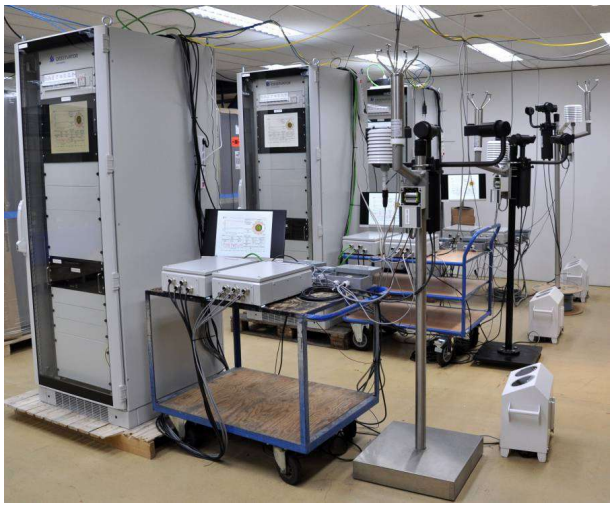
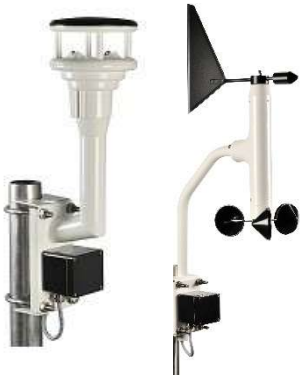
Service, project support and training

On customer request, Observator can integrate the HMS central server in a full wired 19” cabinet or sub-racks. Also project engineering, Factory Acceptance Test (FAT), Site Acceptance Test (SAT), commissioning, service and training can be arranged by our own authorised engineers or service engineers with offshore licenses.



Sensors

Wind speed and direction sensors



Temperature, humidity and dew point sensor

Visibility and Present Weather sensor

Cloud height sensor

Wave and tide sensors

Welcome to the world of Observator

Solutions beyond expectations. That’s what sets Observator apart. We believe in taking the extra step. Retaining our competitive edge, through innovation and uncompromised support, are key to success. As an ISO 9001:2015 certified company, we apply the highest quality standards to our products and systems.

Solutions beyond expectations

Since 1924 Observator has evolved to be a trend-setting developer and supplier in a wide variety of industries. From instruments for meteorological and hydrological solutions, air and climate technology, to high precision mechanical production, window wipers and sunscreens for shipping and inland applications.

Originating from the Netherlands, Observator has grown into an internationally oriented company with a worldwide distribution network and offices in Australia, Germany, the Netherlands, Singapore and the United Kingdom.

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