

# Vaisala ASAP Sounding Station



## Features

- Only Vaisala provides complete upper air observation station for harsh marine conditions.
- Very compact structure
- Easy to install, operate and transfer
- Reliable data collection and transmission
- Radiosonde launcher: ALS211



*Balloon launcher ALS211 is used in the ASAP station.*

The Vaisala ASAP Sounding Station is a semi-automatic ship-board upper-air observation station that launches radiosondes, receives the radiosonde signals and converts them into meteorological messages. These are then forwarded in standard WMO message format, TEMP SHIP, to Land Earth Stations (LESS) using geostationary Inmarsat satellites. Vaisala automatic weather stations can be integrated in order to bring surface weather data into the system for sending SYNOP SHIP messages.

## Accurate meteorological measurements

The Vaisala ASAP Sounding Station uses Vaisala RS92 family radiosondes that accurately measure air pressure, temperature, relative humidity and wind direction/speed. Wind-finding methods are based on the GPS or Loran-C radio navigation systems.

## Robust design for extreme conditions

The Vaisala ASAP Station is housed in a 10-foot container. It meets the international requirements for mechanical construction (ISO), with a design that applies the original specifications set by the ASAP Coordinating Committee (ACC) including certain carefully considered modifications. Vaisala Balloon Launcher ALS211 protects the meteorological balloon during the filling and launches the radiosonde. It has been designed for marine applications thus the functionality of the balloon launcher is reliable even in most extreme weather conditions at sea.

## User friendly operation

The Vaisala ASAP Sounding Station includes the DigiCORA® Sounding System that requires minimum operator's time prior to balloon release. Sounding preparation phase can be easily followed with the sounding system user interface. The ASAP container offers comfortable and air-conditioned room for the operator during the sounding preparation phase, protecting at the same time from the current conditions at the sea. Balloon filling and release actions are performed by simply operating two separate control levers. After the balloon and radiosonde are released all actions are automatically fulfilled including message transmission.

## The Vaisala ASAP Station consists of:

- A Vaisala DigiCORA® Sounding System MW31 with a no-break power supply and the necessary software and hardware options.
- Vaisala RS92 radiosondes
- Optionally Vaisala Automatic Weather Station for making the surface PTU and wind observations.
- An Inmarsat C transceiver for transmission of the TEMP SHIP messages to geostationary satellites and further on, to ground stations connected to the Global Telecommunications System (GTS).
- Vaisala ALS211 semiautomatic radiosonde launcher which includes electrical heaters and air-conditioner.

# Technical data

## Vaisala DigiCORA® Sounding System MW31

Operating system: Windows XP, pre-installed  
Sounding software: DigiCORA Sounding Software, pre-installed,  
including:  
Sounding software  
METGRAPH software (optional)  
System recovery software

## VAISALA SOUNDING PROCESSING SUBSYSTEM SPS311

Windprofiling options: Code correlating GPS  
Loran-C with automatic chain selection

## ANTENNA

Antenna options: Directional UHF antenna  
Omnidirectional UHF antenna  
GPS antenna  
Antenna stand: Acid proof (AISI316), fitting for container roof  
installation

## INMARSAT-C TRANSCEIVER

## UPS

## OPTIONS

Ground check device  
Vaisala Automatic Surface Weather Observing System

## ASAP Launcher ALS211

Dimensions: 2991 x 2438 x 2591 mm (l x w x h)  
Gross weight without gas bottles: 2400 kg  
Interior is insulated with fireproof mineral wool and paneled with  
fibre cement flat sheets  
Rack for electrical equipments AISI304

## ELECTRICITY

Power consumption: 4.2 kW without transformer option  
6 kVA (1-phase with transformer option)  
9 kVA (3-phase with transformer option)

Nominal input voltages: 230/400 VAC, 3-phase; or 230 VAC 1-phase  
Optional input voltages (with transformer option):

220/380/400/440 VAC, 3-phase or 1-phase  
Supply frequency: 50/60 Hz for 60 Hz supply; air conditioner  
should be selected correspondingly  
2 x 11 W fluorescent ceiling lights  
Lights: 2 x 11 W fluorescent ceiling lights  
Heating: 2 x 800 W radiators  
Air conditioner

## LAUNCHER VESSEL

Material: Fiberglass  
Balloon size: 200 - 300 g or 350 - 500 g  
Control: Controlled by pneumatic actuators  
Launch door: Stainless steel

## OPTIONS

Compressor and pressurized air tank  
Main transformer with volt meter 3-phase 9 kVA or 1-phase 6 kVA  
Storage cabinet 1030 x 500 x 2000 mm  
OR gas bottle rack 8 gas bottles  
Filling gas regulator  
Fixtures for rack installation equipment  
Ladder steps 6 pcs  
Exterior surface material for container AISI316  
20 feet container



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