Vaisala ASAP Sounding Station

Features

- Upper-air observation station for marine conditions.
- Radiosonde data collection and transmission in standard WMO message format, TEMP SHIP and BUFR.
- Radiosonde launcher: ALS211

Vaisala ASAP Sounding Station is a semi-automatic upper-air observation station for use on-board ships. ASAP receives the radiosonde signals and converts them into meteorological messages.

The Vaisala ASAP Sounding Station converts radiosonde signals into meteorological messages, which are forwarded in standard WMO message format, TEMP SHIP and BUFR through satellite system to land station. Vaisala automatic weather stations can be integrated in order to bring data into the system for surface weather observation and SYNOP SHIP message.

Accurate Meteorological Measurements

The Vaisala ASAP Sounding Station uses Vaisala RS41 family radiosondes that measure air pressure, temperature, relative humidity and wind direction/ speed. Wind-finding methods are based on the GPS.

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 to 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 the minimum amount of time from the operator 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:

- Vaisala DigiCORA® Sounding System MW41 with a no-break power supply and the necessary software and hardware options.
- Vaisala RS41 radiosondes
- Optionally Vaisala Automatic Weather Station for making the surface PTU and wind observations.
- Vaisala ALS211 semiautomatic radiosonde launcher which includes electrical heaters and air-conditioner.

Benefits

- Very compact structure
- Easy to install, operate and transfer
- Reliable data collection and transmission.

Technical Data

Vaisala DigiCORA® Sounding System MW41

Sounding Workstation	
Ruggedized laptop delivered by Vaisala, including pre-installed DigiCORA Sounding Software, system recovery tools including USB drive with recovery image, and optional Edgeport serial extension.	
Operating system	Windows, pre-installed
Ground check device	
Uninterruptible Power Supply (UPS)	
Vaisala Sounding Processing Subsystem SPS311	
Windprofiling options	Code correlating GPS
Antenna	
Antenna options	Directional UHF antenna Omnidirectional UHF antenna GPS antenna
Antenna stand	Acid proof (AISI316), fitting for container roof installation
Options	
Vaisala Automatic Surface Weather Observing System	

ASAP Launcher ALS211

Mechanical Specifications	
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) 6 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
Lights	2 x 9 W ceiling lights
Heating	2 x 750 W radiators
Air conditioner	
Launcher Vessel	
Material	Fiberglass
Balloon size	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 6 kVA or 1-phase 6 kVA
Storage cabinet	1030 x 500 x 2000 mm
OR gas bottle rack	8 gas bottles
Filling gas regulator	
Ladder steps 6 pcs	

VAISALA

www.vaisala.com

Published by Vaisala | B210462EN-E © Vaisala 2017