

Weather Station



Attention:

The sensors of the weather station are running autonomously. Please contact DWD for any inquiries.

Summary

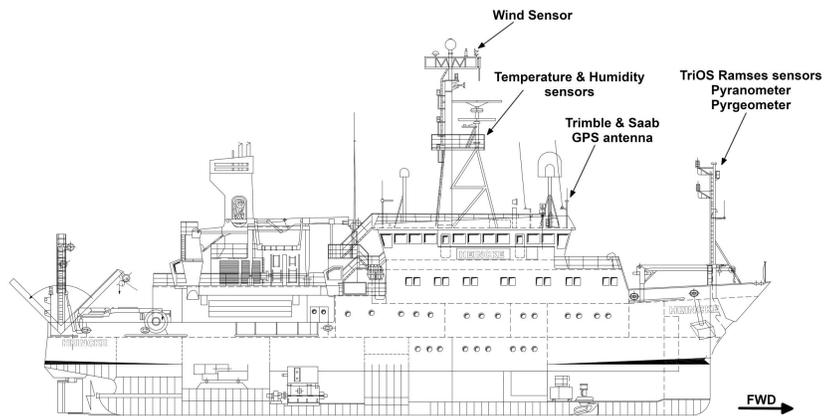
The weather station at Heincke consists of several devices which autonomously measure standard parameters such as temperature, wind, humidity, barometric pressure, radiation and precipitation.

Manufacturer	DWD
Model	DWD
Serial No.	n/a
Type	small scale facility
REGISTRY-Link	REGISTRY (583)



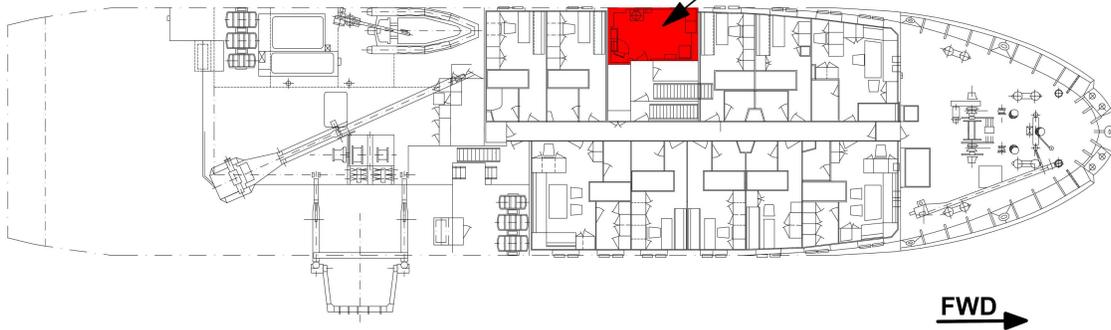
DWD data acquisition

Locations on RV Heinckes compass platform and masts



Locations on RV Heinckes forecastle

Umformerraum
(Gyrocompass, DWD Data Acquisition,
Barometric Pressure Sensor, Storage of
GAPS and Fishnet Echo Sounder Transponder)



Contacts

Name	Institution	Role
Henry Kleita	Deutscher Wetterdienst (DWD)	Data Provider

Components

Data of the different sensors are gathered by the central data acquisition unit which sorts them into telegrams.

- DWD weather report: This telegram contains weather data encoded as required by WMO guideline (FM-13 SHIP). It is generated once per hour and sent via a DCP sender (DWD) to a Meteosat satellite. The sending antenna is installed on the portside of the main mast.
- Data telegram for onboard DShip data acquisition: This telegram is constructed in accordance with the "NMEA 0183" standard.
- Data telegram onboard weather station and PC: Data exchange is also conducted between a PC on the bridge deck and the data acquisition unit. The PC serves as a display for the weather data but can also be used for manually entering observations. The telegram is DWD-internal and does not follow any standards. It is not distributed to foreign users.

Name	Model	Serial Number	REGISTRY-Link
Barometric Pressure Sensor	PTB220	n/a	REGISTRY (2372)
Data acquisition unit	MILOS 500	n/a	REGISTRY (2644)
Humidity Sensor	HMP45D	n/a	REGISTRY (2371)
Temperature Sensor	PT-100	n/a	REGISTRY (2374)
Water Temperature Sensor	PT-100	n/a	REGISTRY (2375)
Wind Sensor (anemometer)	wind and wind direction transmitter classic	n/a	REGISTRY (2373)

Position

Info	Sensors are installed on the main mast of RV Heincke. The barometric pressure sensor and the data acquisition unit are installed in the Umformerraum.
X	0.0 (no unit given) (no description given)
Y	0.0 (no unit given) (no description given)
Z	0.0 (no unit given) (no description given)

Data logging, storage and archiving

Logged parameters

Parameter	O2ARegistry Output Type	Unit
absolute wind direction	wind direction	deg
absolute wind speed	wind speed	m/s
air pressure	pressure	hPa
air temperature	air temperature	°C
humidity	relative humidity	%
relative wind direction	wind direction	deg
relative wind speed	wind speed	m/s
water temperature	water temperature	°C
global radiation	global radiation	W/m ²
longwave radiation	diffuse radiation	W/m ²

Central geographical ship's position and time standard

Rawdata storage on board

DShip

Data archiving on land

Documentation

No resources available.