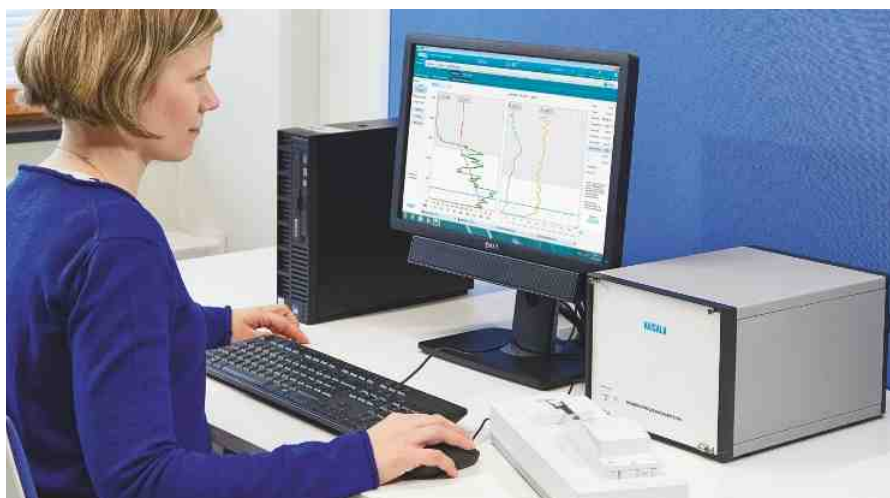


## Vaisala DigiCORA® Sounding System MW41 - The New Level of Operational Experience



### Features/Benefits

- Easy integration to existing soundings network
- Increased flexibility through advanced networking options
- Easy and simple operation, no specialist knowledge needed
- Quick station parameter configuration and modification, also remotely
- Consistent high quality data

The Vaisala MW41 system supports the world-class performance of Vaisala's RS41-SG radiosonde, as well as the previous generation RS92-SGP. This makes the MW41 system an excellent choice for both synoptical and research applications.

### Cost Efficient Integration

The MW41 system offers a smooth and cost-effective upgrade path from earlier Vaisala sounding systems. MW41 software is compatible with commonly used Windows operating systems and hardware, meaning that it supports our customers' current installed IT base and also helps to minimize maintenance costs. It also includes connectivity to existing Vaisala Automatic Weather Stations, providing highly accurate surface weather information, and making operation simpler and less sensitive to human error.

### Increased Flexibility

The user interface is separated from other software functionalities and can be operated from anywhere within the customer's network. For

example, sounding operations can be transferred from the sounding station to another network location. Additionally, all network users can remotely access sounding data online using commercially available web browser.

The MW41 software is available as a standard software package that includes all features needed to perform synoptic soundings. A number of optional modules can be added for more advanced sounding needs, for example ozone sounding capability or extended graphics. This makes the system very flexible; it can be tailored for the specific needs of a sounding station.

### Operational Easiness

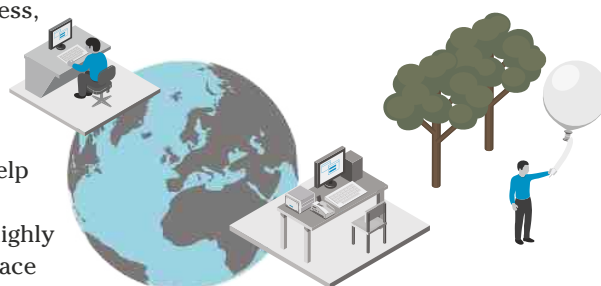
The MW41 automatically follows the radiosonde preparation process, and a minimum of user clicking and input is needed. Clear status indicators and animations are shown on the screen. A context-sensitive help function is also available to guide the operator. With its highly intuitive operation, the interface

also speeds up the training process. The available configuration options are designed to provide a simple and straightforward way of performing sounding while at the same time offering a wide range of customization options for operation. By utilizing different user groups and their related privileges, the operator can access a specific set of functionalities.

### Efficient Maintenance

The MW41 is also easy to configure for operation. The user interface supports quick station parameter configuration, including any necessary message creation and sending parameters. Furthermore, the system can be configured remotely.

Sounding-data validation ensures that the MW41 system provides high quality data. The system is able to create WMO messages and special text reports using the validated data. Data is also available in XML format.



# Technical Data

## Radiosonde

Compatible with Vaisala RS41-SG and RS92-SGP radiosondes

## Special sensor

Compatible with ECC-6A ECC and Z ECC ozone sensors.

## Sounding workstation

Commercial PC delivered by Vaisala, including pre-installed DigiCORA Sounding Software, system recovery tools including USB drive with recovery image, and optional Edgeport serial extension. Optionally, any PC fulfilling the requirements below can be used.

Operating system compliance

- Microsoft Windows Vista Business SP2 32 bit (English).
- Windows 7 Professional SP1 32 bit or SP1 64 bit (English).
- Windows 8.1 Pro 32 bit or 64 bit (English).

Web browser compliance

- Microsoft Internet Explorer 9 or higher (English), Adobe Flash Player.
- Mozilla Firefox 10 or higher (English), Adobe Flash Player.
- Google Chrome (English), Adobe Flash Player.

Minimum hardware requirements

- Processor Intel Pentium Dual Core or equivalent, Quad Core recommended
- Memory 2 GB RAM
- Hard Disk Space 80 GB
- Display 1366\*768
- DVD-ROM drive
- Serial ports, either integrated or via USB/RS232 converter: 1 for RS92 and 1 for possible Automatic Weather Station
- Ethernet adapter
- Speakers integrated either into computer or display

## Remote client PC

It is recommended to use devices fulfilling the same requirements as for Sounding Workstations. However it is likely that devices with lower hardware specifications, other operating systems or other browsers can be used, as long as the browsers have Adobe Flash Player.

## Vaisala Sounding Processing Subsystem SPS311

Software defined radio technology  
Code correlating GPS



## Antennas

- Directional UHF antenna (automatic direction control)
- Omnidirectional UHF antenna
- Portable antenna for UHF and GPS
- GPS antenna
- Advanced Multipath Rejection GPS antenna

## Ground check set

See separate brochure for details

## Telemetry

Frequency range	400,15 ... 406 MHz
Tuning step (user adjustable)	10 kHz
Error detection and correction	Reed-Solomon
Telemetry range: (using directional antenna)	up to 350 km

## Meteorological messages

Available in standard software:

- TEMP FM35-XI, TEMP SHIP FM36-XI, TEMP MOBIL FM38-XI
- PILOT FM32-XI, PILOT SHIP FM33-XI, PILOT MOBIL FM34-XI
- BUFR 3'09'052 (for TEMP data / High resolution data)
- BUFR 3'09'050 and BUFR 3'09'051 (for PILOT data / High resolution data)
- Advanced option CLIMAT TEMP FM 75-X BUFR 3'09'053 (for descent sounding) Range Format
- Special sensor option NILU
- Defense messages option METCM STANAG 4082, METB2/METB3 STANAG 4061, METFM STANAG 2103, METSR/METSRX, METTA STANAG 4140, METEO 11

## Environmental requirements

Indoor equipment:

Operating temperature	+10 ... 35 °C
Operating humidity	10 ... 90 %RH
Storage temperature	-40 ... +65 °C
Storage humidity	5 ... 95 %RH

Outdoor equipment:

Operating temperature	-40 ... +55 °C
Operating humidity	0 ... 100 %RH
Operating wind speed	0 ... 65 m/s
Operating precipitation	Unlimited
Storage temperature	-50 ... +71 °C
Storage humidity	0 ... 100 %RH

# VAISALA

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