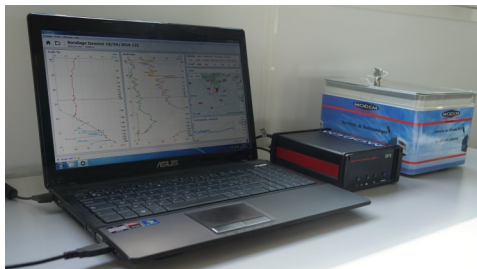


MODEM

Meteomodem.com

M10 Radiosonde



The **M10** radiosonde is the Modem's bestseller product for PTU and Wind data collection. Used in more than 60 countries around the world, the **M10** is a guarantee of quality and reliability of data.

- External ON/OFF power switch and authorization to release directly indicated on the radiosonde (led)
- Pressure calculated from the GNSS altitude, concept introduced by Meteomodem, this method is now recommended by the WMO
- Additional analog and digital sensors (Xdata), compatible CFH sensors, ECC Ozone, ...
- GLONASS compatibility
- Process facilitated by a fully automatic preparation (frequency change, calibration, BIT and a simplified balloon train)
- Compatible with the **Robotsonde**, automatic balloon launcher system (up to 24 radiosondes)
- Real-time processing of wet bubble effect
- On going GRUAN certification process



Compatible with the **EDSCAN software :**



M10 Radiosonde

Technical specifications

GENERAL

Dimensions : 95 x 95 x 88.5 mm
Weight : 150 g (including batteries)

TEMPERATURE

Sensor type : Thermistor
Measurement range : +60°C to -100°C
Resolution : 0.01°C
Absolute accuracy : 0.3°C
Repeatability : 0.1°C
Reproducibility : 0.2°C
Response time : <1 s (1000 hPa, 20°C)
Measurement rate : 1 Hz

HUMIDITY

Sensor type : Capacitor
Measurement range : 0 % to 100 %
Resolution : 0.1 %
Absolute accuracy : 3 %

Repeatability : 2 %
Reproducibility : 2 %
Response time : <2 s (1000 hPa, 20°C)
Measurement rate : 1 Hz

PRESSURE

Calculated from GPS altitude
Range : 1100 to 3 hPa
Accuracy : 1.0 hPa / 0.3 hPa from 1100 - 100 hPa
: 0.3 hPa from 100 hPa to 10 hPa
: 0.1 hPa < 10 hPa
Reproducibility : 0.2 hPa at 100 hPa
: 0.05 hPa at 10 hPa
Resolution : 0.1 hPa

BATTERIES

Technology : 1.5 V alkaline
Autonomy : >4 h in flight
Package : 4 batteries
Storage : more than 3 years

WIND MEASUREMENT

General : Differential corrections
Altitude Range : 45 km
Position accuracy : 10 m
Horizontal Wind accuracy : 0.15 m/s
Wind direction accuracy : 1°
Position resolution : 0.01 m
Horizontal Wind resolution : 0.01 m/s
Wind direction resolution : 0.1°
Measurement rate : 1 Hz

TRANSMITTER

Compliant with European standard ETSI EN 302054
Frequency range : 400 to 406 MHz
Frequency step : 100 / 200 kHz
Frequency setting : By infrared wireless technology
Maximum drift : 1 kHz
Output Power max. : 200 mW
Modulation : PSK

SENSORS CALIBRATION

Factory calibration : Stored on Flash memory
Groundcheck : Prior to launch

OPTION

GLONASS compatibility

Files

- Edition of WMO code messages (**TEMP** FM35, **TEMP SHIP** FM36, **TEMP MOBIL** FM38, **TEMP DROP** FM37, **PILOT** FM32, **PILOT SHIP** FM33, **PILOT MOBIL** FM34, **CLIMAT** TEMP FM75, **BUFR** 309052, **BUFR HR** 309052, **BUFR DROP** 309053, **BUFR HR DROP** 309053, **BUFR PILOT PRESSURE** 309050, **BUFR PILOT ALTITUDE** 309051)
- STANAG edition (**METCM** - 4082, **METB2/3** - 4061, **METCFL**, **METTA** - 4140, **METK3** - 4082, **METFM** - 2103, **MET11**)