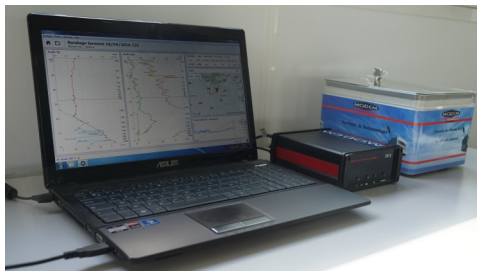


# M10 Radiosonde



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, ...
- 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 **EOSCAN** 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  
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)

### PRESSURE

Calculated from GPS altitude  
Range : 1100 hPa to 3 hPa  
Resolution : 0.1 hPa  
Accuracy : <1.0 hPa from 1100 hPa to 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

### BATTERIES

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

### GEOPOTENTIAL HEIGHT

Altitude range : >45 km  
Position : ±5 m  
Position resolution : 0.01 m

### WIND MEASUREMENT

Horizontal wind accuracy : 0.15 m/s  
Wind direction accuracy : 1 °  
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 MHz to 406 MHz  
Frequency step : 200 kHz (option 100 kHz)  
Frequency setting : By infrared  
Maximum drift : 1 kHz  
Maximum output power : 200 mW  
Modulation : PSK  
Transmission rate : 1 Hz

### CALIBRATION

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

### OPTIONS

GLONASS compatibility  
Additional captor : (XDATA, OZONE, LOAC, ...)

## Messages

- Edition of WMO 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)
- Edition of STANAG messages (**METCM** - 4082, **METB2/3** - 4061, **METCFL**, **METTA** - 4140, **METK3** - 4082, **METFM** - 2103, **MET11**, **METSR**, **EACMM**)