Meteomodem reinvents its radiosonde with the M20. Improve the quality of your PTU and Wind measurements while reducing your radiosonde costs. With its weight of only 36 grams, the M20 can be used without a parachute and allows a gas saving of 20%.

- Humidity sensor with integrated heating to limit condensation and icing situations
- External ON/OFF power switch and authorization to release indicated on the radiosonde
- Pressure calculated from the GNSS altitude, concept introduced by Meteomodem, this method is now recommended by the WMO
- Barometer option (More accurate pressure measurements in the lower layers)
- Additional analog and digital inputs (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)

Compatible with the EOSCAN software:

Meteomodem – Rue de Bessonville – 77760 URY France
Tél : (33) 1.60.74.74.60 - Fax : (33) 1.60.74.74.19
www.meteomodem.com
## Technical specifications

### GENERAL
- **Dimensions**: 98 x 63 x 42 mm
- **Weight**: 36 g (including batteries)

### BATTERIES
- **Technology**: 3 V Lithium
- **Autonomy**: >4 h in flight
- **Package**: 1 battery
- **Storage**: >3 years

### 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

### GEOPOTENTIAL HEIGHT
- **Altitude range**: >45 km
- **Position accuracy**: ±5 m
- **Position resolution**: 0.01 m/s

### 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

### HUMIDITY
- **Sensor type**: Capacitor
- **Measurement range**: 0 % to 100 %
- **Resolution**: 0.1 %
- **Absolute accuracy**: 3 %
- **Repeatability**: 2 %
- **Reproducibility**: 2 %
- **Response time**: <0.3 s (1000 hPa, 20 °C)
- **Measurement rate**: 1 Hz
- **Heated sensor**: Icing prevention

### PRESSURE
- **Calculated from GPS altitude / barometer (option)**
- **Range**: 1100 hPa to 3 hPa
- **Resolution**: 0.1 hPa
- **Accuracy**: <1.0 hPa / <0.4 hPa from 1100 hPa to 100 hPa
- **Reproducibility**: 0.2 hPa at 100 hPa
- **Heated sensor**: Icing prevention

### 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
- **Typical output power**: 150 mW
- **Modulation**: PSK
- **Transmission rate**: 1 Hz

### CALIBRATION
- **Factory calibration**: Stored on flash memory
- **Groundcheck**: Prior to launch

### OPTIONS
- **Barometer**: 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 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)

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