



Meteomodem presents its last radiosonde, the **M20**.

Improve the quality of your upper-air measurements, while reducing your observation costs and environmental impact.

With a weight of just 36 grams, the **M20** can be used without a parachute* and saves gas up to 20%.

- Low carbon footprint makes the **M20** the greenest radiosonde on the market.
- Humidity sensor with integrated heating to limit condensation and icing situations.
- External On/Off button giving direct authorization to release.
- Pressure calculated from the GNSS altitude, concept introduced by Meteomodem, this method is now recommended by the WMO.
- Embedded barometer for more accurate pressure measurements in the lower layers.
- Additional analog and digital inputs (XDATA), compatible with CFH sensors, ECC Ozone, ...
- Automatic process makes preparation easier and more intuitive.
- Compatible with the **Robotsonde**, our automatic balloon launcher system (up to 24 radiosondes).



**To be verified with local authorities*

Technical specifications

GENERAL		CALIBRATION	
Dimensions	98 x 63 x 42 mm	Factory calibration	Stored on flash memory
Weight	36 g (including battery)	Groundcheck	Prior to launch
TEMPERATURE		PRESSURE : Calculated from GNSS altitude	
Sensor type	Thermistor	Range	1100 hPa to 3 hPa
Measurement range	+60 °C to -100 °C	Resolution	0.1 hPa
Resolution	0.01 °C	Accuracy barometer	0.3 hPa from 1100 to 700 hPa
Absolute accuracy	0.3 °C	Accuracy GNSS	< 1 hPa from 700 to 100 hPa
Repeatability	0.1 °C		0.3 hPa from 100 to 10 hPa
Reproducibility	0.2 °C		0.04 hPa < 10 hPa
Response time	< 1 s	Reproducibility	0.2 hPa at 100 hPa
Measurement rate	1 Hz		0.05 hPa at 10 hPa
HUMIDITY		TRANSMITTER :	
Sensor type	Capacitor	Compliant with european standard ETSI EN 302054	
Measurement range	0 % to 100 %	Frequency range	400.15 MHz to 406 MHz
Resolution	0.1 %	Frequency step	200 kHz (option 100 kHz)
Absolute accuracy	3 %	Frequency setting	By infrared
Repeatability	2 %	Drift	< 5 kHz
Reproducibility	2 %	Typical output power	110 mW
Response time	< 0.3 s (1000 hPa, 20° C) 50 s (300 hPa, -55 °C)	Modulation	FSK
Measurement rate	1 Hz	Transmission rate	1 Hz
Heated sensor	Icing prevention	Bit rate	9600 bps
WIND MEASUREMENT		BATTERIES	
Wind speed accuracy	0.05 m/s	Technology	3 V lithium
Wind speed resolution	0.01 m/s	Autonomy	> 4 h in flight
Wind direction accuracy	0.3 °	Package	1 battery
Wind direction resolution	0.1 °	Storage	> 3 years
Measurement rate	1 Hz	GNSS RECEIVER	
GEOPOTENTIAL HEIGHT		Type	GPS
Altitude range	50 km	Frequency	1 575,42 mHz, code L1 C/A
Altitude accuracy	+/- 10 m	OPTIONS	
Position accuracy	+/- 5 m	Additional sensors (XDATA, OZONE, LOAC, ...)	
Position resolution	0.01 m		

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 DROP 309053**, **BUFR PILOT PRESSURE 309050**, **BUFR PILOT ALTITUDE 309051**, **BUFR DROP 309056**, **BUFR 309057**)
- Edition of STANAG messages (**MECTM - 4082**, **METB2/3 - 4061**, **METCFL**, **METTA - 4140**, **METK3**, **METFM - 2103**, **MET11**, **MET44**, **METSR**, **EACMM**)