



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 0.3 hPa from 100 to 10 hPa 0.1 hPa < 10 hPa
Repeatability	0.1 °C	Reproducibility	0.2 hPa at 100 hPa 0.05 hPa at 10 hPa
Reproducibility	0.2 °C		
Response time	< 1 s		
Measurement rate	1 Hz		
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		
GEOPOTENTIAL HEIGHT		GNSS RECEIVER	
Altitude range	50 km	Type	GPS
Altitude accuracy	+/- 10 m	Frequency	1 575,42 mHz, code L1 C/A
Position accuracy	+/- 5 m		
Position resolution	0.01 m		
		OPTIONS	
		Additional sensors (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 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**)