



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 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	< 0.4 hPa from 1100 to 700 hPa
Absolute accuracy	0.3 °C	Accuracy GNSS	< 1,0 from 700 to 100 hPa
Repeatability	0.1 °C		0.3 hPa from 100 to 10 hPa
Reproducibility	0.2 °C		0.1 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 %	Maximum drift	5 kHz
Reproducibility	2%	Typical output power	110 mW
Response time	< 0.3 s (1000 hPa, 20°C)	Modulation	FSK
Measurement rate	1 Hz	Transmission rate	1 Hz
Heated sensor	Icing prevention	BATTERIES	
WIND MEASUREMENT		Technology	3 V lithium
Horizontal wind accuracy	0.05 m/s	Autonomy	> 4 h in flight
Wind direction accuracy	0.3 °	Package	1 battery
Horizontal wind resolution	0.01 m/s	Storage	> 3 years
Wind direction resolution	0.1 °	GNSS RECEIVER	
Measurement rate	1 Hz	Type	GPS
GEOPOTENTIAL HEIGHT		Frequency	1 575,42 mHz, code L1 C/A
Altitude range	> 45 km	OPTIONS	
Position accuracy	± 5 m	Additional sensor (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 HR 309052, BUFR DROP 309053, BUFR HR DROP 309053, BUFR PILOT PRESSURE 309050, BUFR PILOT ALTITUDE 309051, BUFR HR 309056, BUFR HR 309057**)
- Edition of STANAG messages (**MECTM - 4082, METB2/3 - 4061, METCFL, METTA - 4140, METK3 - 4082, METFM - 2103, MET11, MET44, METSR, EACMM**)