

Technical Key Note



Subject: WindSonic RS232 vs GMX200

Reference KN1202 v3

WindSonic RS232 vs GMX200


Introduction

WindSonic RS232 and MaxiMet GMX200 have very similar specifications. However, there are some key differences including interfacing, specifications and choice depending on the application.

Please find below a table highlighting the key differences:

| | WindSonic RS232 | MaxiMet GMX200 |
|--------------------------------------|-----------------|----------------|
| Wind speed accuracy | ±2% | ±3% |
| Wind direction accuracy | ±2° | ±3° |
| Compass 2D, for direction correction | NO | YES |
| WMO wind averaging | NO | YES |
| WMO gust data | NO | YES |
| RS485 2-wire networking MODBUS | NO | YES |
| RS232 | YES | YES |
| RS422 | NO | YES |
| SDI-12 | NO | YES |
| NMEA0183 | YES | YES |
| User Configurable Output String | NO | YES |
| 0.25 & 0.5Hz Output | YES | NO |
| 1-4Hz Output | YES | NO, 1Hz only |
| Construction | PLASTIC | PLASTIC |
| Power (RS232) | 9mA | 25mA* |
| Working temperature | -35°C | -40°C |
| Windows Config/Display Software | YES | YES |
| Warranty | 2-YEAR | 2-YEAR |
| GPS | NO | OPTIONAL |

Please see the manuals for the WindSonic and MaxiMet for more details on the differences.

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Other points to note:

- GMX200 has better flexibility than WindSonic RS232 as it offers all of the connection options in a single unit i.e. RS232, RS422, RS485 MODBUS and SDI-12 so that the user can change their system design even after the sensor has been provided i.e. to work as a network (MODBUS) or on longer cables (RS422).
- WindSonic RS232 has a long proven history with moving applications like data buoys, however, GMX200 with its built in compass to correct for wind direction and optional GPS makes it very attractive for vehicles/vessels that are reasonably stable.
- WindSonic RS232 is not available with a compass so the 2D compass in GMX200 makes installation much simpler even in fixed installations as the user does not have to be concerned with the direction the sensor is pointing when its mounted or a mast twisting as it is erected due to being able to select a corrected output from GMX200.
- GMX200 is better suited for use in SCADA network systems than WindSonic RS232 as MODBUS is available as standard allowing networking of sensors.
- WindSonic RS232 offering continual 1Hz data at only 9mA would be considered low power for an ultrasonic wind sensor and using WindSonic SDI-12 offers a lower power of only 2mA, whereas GMX200 in “low power” mode is very low at 0.7mA*. Therefore WindSonic RS232 is better suited to low power installations where continual data is required i.e. 1Hz whereas GMX200 is well suited to low power applications where periodic data is required i.e. once per hour 0.7mA*.
- GMX200 is available with GPS as an option, which along with the built in compass reduces the amount of sensors, programming and cabling options required for systems based on moving platforms. Any reduction in cabling in applications like data buoys or remote platforms helps to reduce risk of failures.

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