

GMX551 Compact Weather Station

The MaxiMet range of compact weather stations is designed and manufactured by Gill Instruments. MaxiMet products use reliable, high quality instruments to provide accurate meteorological information in a wide variety of applications.

GMX551 Features

Temperature, humidity, pressure. A combined instrument mounted inside three double louvered, naturally aspirated radiation shields with no moving parts. The results are high performance across each measurement over long periods of time.

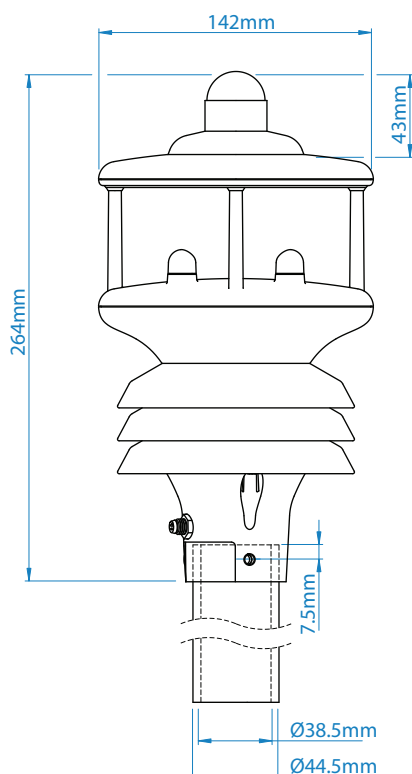
Solar radiation. An integrated solar radiation sensor/pyranometer. This highly accurate instrument uses a thermal sensor mounted at its base and protected by a single glass dome to record the amount of light in watts per metre². It is widely used in agro-meteorological applications and for monitoring the performance of solar panels.

Wind. Wind speed and direction measurements are provided via an ultrasonic sensor and the addition of an electronic compass provides apparent wind measurements. Average speed and direction together with WMO averages and gust data is also provided. Add GPS (optional) to provide true wind and other features.

Precipitation. An integrated side connector allows users to connect any tipping bucket rain gauge and select the tip size from 0-9.998 mm. The measurements are included in the output data string.



| TEMP, HUMIDITY & PRESSURE | SOLAR RADIATION | WIND | PARAMETERS |
|--|---|--|--|
| <ul style="list-style-type: none"> Air Pressure / Temperature Relative / Absolute humidity Naturally aspirated UV stable Radiation shield Protection against wind-blown precipitation/dust | <ul style="list-style-type: none"> Complies with ISO 9060 and WMO Guidelines Output in watts per metre² 180° hemispherical field of view Records sunshine hours Integrated Hukseflux LP02 pyranometer Glass dome | <ul style="list-style-type: none"> Wind speed & direction Apparent and true wind (with GPS) WMO wind averages and gust Compass | <ul style="list-style-type: none"> Solar radiation w/m^2 Sunshine hours <i>hrs</i> Solar Noon Temperature °C / °F / °K Relative humidity % <i>Rh</i> Barometric pressure <i>hPa, mbar, mm Hg, In Hg</i> Wet bulb temperature °C / °F / °K Absolute humidity g/m^3 Air density kg/m^3 Precipitation <i>mm/hr, mm/total, in/hr, in/total</i> Wind speed <i>m/s, km/hr, mph, kts, ft/min</i> Wind direction ° Wind chill °C / °F / °K True/apparent wind Angle of Tilt Outputs <i>RS232, 422, 485 (ASCII), SDI-12, NMEA, MODBUS, Analogue (option)</i> |
| | | GPS (OPTION) <ul style="list-style-type: none"> Height above sea level <i>m</i> Sunrise/sunset Position of the sun Twilight MSL pressure | |
| | | PRECIPITATION (INPUT) <ul style="list-style-type: none"> Ready for customer supplied 0-9.998 mm tipping bucket rain gauge via connector | |



All MaxiMet Models Feature

- Quality Measurements
- Lightweight and Robust
- Low Power Mode
- Free of Charge Software
- Gill Proven Reliability
- Compact Integrated Design
- Real Time Output
- Easy Installation
- Gill Customer Support
- 2 Year Warranty

Applications

- Building and Industrial Controls
- Authorities
- Transport
- Coastal
- Agricultural
- Safety
- Educational
- Commercial
- Energy

| WIND SPEED | |
|--------------------|-----------------------------------|
| Range | 0.01 m/s to 60 m/s |
| Accuracy | ± 3% to 40 m/s, ± 5% to 60 m/s |
| Resolution m/s | 0.01 |
| Starting Threshold | 0.01 m/s |
| Sampling Rate | 1 Hz |
| Units | m/s, km/hr, mph, kts, ft/min |


| WIND DIRECTION | |
|--------------------|----------------------------------|
| Range | 0-360° |
| Accuracy | ± 3° to 40 m/s ± 5° to 60 m/s |
| Resolution | 1° |
| Starting Threshold | 0.05 m/s |
| Sampling Rate | 1 Hz |
| Units | Degrees |

| TEMPERATURE | |
|---------------|----------------|
| Range | -40°C to +70°C |
| Resolution | 0.1 |
| Accuracy | ± 0.3°C @ 20°C |
| Sampling Rate | 1 Hz |
| Units | °C, °F, °K |

| HUMIDITY | |
|---------------|--------------------------|
| Range | 0-100% |
| Resolution | 1% |
| Accuracy | ± 2% @ 20°C (10%-90% RH) |
| Sampling Rate | 1 Hz |
| Units | % Rh, g/m ³ |

| DEW POINT | |
|---------------|----------------|
| Range | -40°C to +70°C |
| Resolution | 0.1 |
| Accuracy | ± 0.3°C @ 20°C |
| Units | °C, °F, °K |
| Sampling Rate | 1 Hz |

| PRESSURE | |
|---------------|-----------------------|
| Range | 300 to 1100 hpa |
| Resolution | 0.1 hPa |
| Accuracy | ± 0.5 hPa @ 25°C |
| Sampling Rate | 1 Hz |
| Units | hPa, mbar, mmHg, inHg |

| PRECIPITATION (Input) | |
|--------------------------|--|
| Measurement input type | TBRG |
| Range | 0-1000 mm/hr |
| Precipitation Resolution | 0-9.998 mm Software selectable |
| Units | mm/hr, mm/total, mm/24 hr, in/hr, in/total, in/24 hr |
| Input to GMX | Contact closure via an M8 male 4-Pin connector Optional 20m cable or mating female connector required |
| Optional Rain Gauge: |  1957-PK-069 |

| GLOBAL SOLAR RADIATION | |
|------------------------|----------------------------|
| Wavelength Sensitivity | 300 to 3000 nm |
| Output Range | 0 to 1600 W/m ² |
| Resolution | 1 W/m ² |
| DIN Standard | ISO 9060 Second Class |
| Sampling Rate | 1 Hz |
| Units | W/m ² |

| OUTPUTS | |
|---------------------|---|
| Output rate | 1/s, 1/min, 1/hr |
| Digital Comms Modes | Serial RS232, RS422, RS485, SDI-12, NMEA, MODBUS, ASCII |
| Analogue Outputs | Available via separate optional device |

| POWER | |
|------------------------|---|
| Power Supply | 5 to 30 Vdc |
| Power (Nominal) 12 Vdc | 25 mA continuous high mode. 0.7 mA eco-power mode (1 hour polled) |

| ENVIRONMENTAL CONDITIONS | |
|--------------------------------|---|
| IP Rating | 66 |
| Operational Temperature Range: | -35°C to +70°C |
| EMC Standard: | BS EN 61326-2-1:2013 FCC, CFR Title 47, Part 15, Subpart B, Class A digital device |
| CE Marking | YES |
| RoHS compliant | YES |
| Weight | 0.8 Kg |
| Origin | UK |

Specifications may be subject to change without prior notice



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