

## GMX551 Compact Weather Station

High quality, easy-to-use, integrated weather station

MaxiMet compact weather stations are designed to be simple to install, use and maintain. In addition to providing measured parameters, the products derive additional parameters and data is output as a single string and available on a range of communications protocols.

MaxiMet weather stations benefit from the same technology used in Gill's scientific product range, ensuring measurement accuracy, low maintenance and continuous status reporting.

The MaxiMet family includes a range of sensor configurations allowing customers to select the model most appropriate to their needs.

### Typical applications

- Control systems including smart buildings, agriculture and industry.
- Solar farms.
- Road and rail.
- Ports and harbours.
- Reporting systems for transport and safety.
- Low power/solar powered deployments and IoT applications.

### MaxiMet GMX551 key features

- Seven measured parameters:  
**Wind speed & direction, temperature, humidity, pressure, rainfall (tipping bucket connector), solar radiation, optional heating, optional GPS function.**
- Multiple additional derived parameters based on combining measured parameters, such as gust, average wind speed and dew point.
- High quality, accurate, solid state sensors.
- 2-axis compass.
- Optional integrated GPS capability available to provide location, GPS timestamp and a calculation of true wind if the platform is moving.
- Optional low power heating

### Benefits

- High quality measurement data due to careful sensor selection and extensive design testing and verification.
- Easy to set-up and integrate using comprehensive software to select the reported and derived parameters and measurement units required.
- Easy to install and long operational life, due to a compact, robust design and the selection of low maintenance sensors.
- Suitable for use with battery or solar systems in low power mode.



MaxiMet GMX551 measures 7 parameters including precipitation and solar radiation.



MaxiMet compact weather stations are integrated into systems monitoring gas and particulate concentrations in the air.

GMX551 Compact Weather Station

High quality, easy-to-use, integrated weather station

WIND SPEED	
Range	0-60 m/s
Accuracy	0-10 m/s    0.3m/s RMSE 10-40 m/s    3% RMSE 40-60 m/s    5% RMSE
Resolution	0.01 m/s
Starting threshold	0.01 m/s
Units of measurement	m/s, km/h, mph, kts, ft/min
WIND DIRECTION	
Range	0-360°
Accuracy	0.5 m/s - 40 m/s    ±3° 40 - 60 m/s            ±5°
Resolution	1°
Units of measurement	degrees
AIR TEMPERATURE	
Range	-40°C to +70°C with heating
Accuracy	±0.3°C
Resolution	0.1°C
Units of measurement	°C, °F, K
RELATIVE HUMIDITY	
Range	0-100% RH
Accuracy	typically ±2% RH across full range
Resolution	0.1% RH
Units of measurement	% RH, g/m³
BAROMETRIC PRESSURE	
Range	300-1250 hPa
Accuracy	Absolute (typically) ±0.4 hPa 900-1100 hPa, 25-40°C Relative (typically) ±0.08 hPa
Resolution	0.1 hPa
Units of measurement	hPa, mbar, mmHg, inHg
PRECIPITATION	
Measurement type	Optical or TBRG
Range	See manual
Resolution	See manual
Units of measurement	mm/hr, mm total, in/hr, in total
SOLAR RADIATION	
Wavelength sensitivity	300 - 3000 nm
Output range	0-1600 W/m²
Resolution	1 W/m²
DIN standard	ISO 9060 Class: spectrally flat Class C
Units of measurement	W/m²

OUTPUTS	
Digital comms modes	RS232, RS422 RS485, SDI-12
Protocols	ASCII, SDI-12 v1.3, NMEA 0183 MODBUS (RTU and ASCII)
Data outputs rates	1/s, 1/min, 1/hour, or polled
POWER SUPPLY	
Input voltage	5-30 VDC (10-30 VDC for heated models)
Average current consumption @ 12 VDC	27 mA (or 65 mA with optical rain gauge) continuous mode (std unit). 400 mA total with heating option. +9 mA with GPS option. 1.3 mA eco-power mode (no GPS, 1/hr).
MECHANICAL	
Construction	UV stabilized thermoplastic
Fittings	Fit to 44.45 mm (1.75 in) pole or mast
Weight	0.8Kg
Connector type	9-way clipper connector
ENVIRONMENTAL	
Protection class	IP66
Operating temp.	-35°C to +70°C -40°C to +70°C with heating option
Storage temp	-40°C to +70°C
STANDARD EQUIPMENT (supplied with product)	
MaxiMet product	
Mating connector	
MetSet software*, to set-up and configure MaxiMet (comms mode, measurement units, reporting intervals, derived parameters, etc.)	
MetView software*, to view reported parameters	
MaxiMet User Manual*	
* downloadable from Gill Instruments website	
OPTIONS	
GPS	Available as an option. Enables reporting of location, height, real time clock, true wind (for vehicle mounting applications)
Heating	Available as an option for operation in extremely low temperatures
WARRANTY	
Warranty	24 months

