

## GMX550 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 GMX550 key features

- Six measured parameters:  
**Wind speed & direction, temperature, humidity, pressure, rainfall (tipping bucket connector), 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 GMX550 measures 6 parameters including precipitation



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

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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
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	1% RH
Units of measurement	% RH, g/m <sup>3</sup>

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

WARRANTY	
Warranty	24 months

OUTPUTS	
Digital comms modes	RS232, RS422 RS485, SDI-12, NMEA 0183, MODBUS
Protocols	ASCII, SDI-12 v1.3, MODBUS (RTU and ASCII)
Data outputs rates	1/s, 1/min, 1/hour, or polled

POWER SUPPLY	
Input voltage	5-30 VDC
Current spec @ 12VDC	25 mA (or 64 mA with optical rain gauge) continuous mode (std unit). 400 mA total with heating option. +10 mA with GPS option. 0.7 mA eco-power mode.

MECHANICAL	
Construction	UV stabilized thermoplastic
Fittings	Fit to 30mm to 58mm pole or mast
Weight	0.7 kg
Connector type	9-way clipper connector

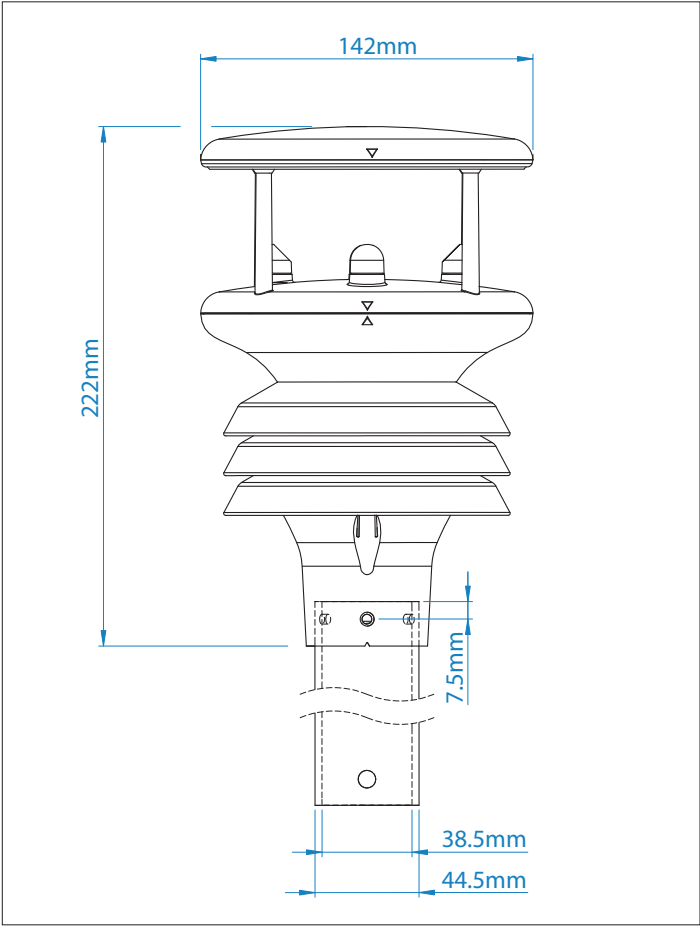
ENVIRONMENTAL	
Protection class	IP66
Operating temp.	-35°C to +70°C -40°C to +70°C with heating option
Storage temp	-40°C to +70°C

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

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EXAMPLE DERIVED PARAMETERS

A full list of derived parameters is available in the User Manual which can be downloaded from [gillinstruments.com](http://gillinstruments.com)

Average wind speed	Sunrise
Average wind direction	Solar noon
Corrected wind speed	Twilight
Corrected wind direction	Sunset
Gust wind speed & direction	Position of sun
Dew point	Angle of tilt
Wind chill	Pressure at sea level
Absolute humidity	Heat index

ACCESSORIES

A list of the accessories available to support MaxiMet is provided on the MaxiMet Accessories Datasheet, which can be downloaded from [gillinstruments.com](http://gillinstruments.com)

MaxiMet® Compact Weather Stations

Reliable, high quality compact, integrated weather stations

MaxiMet weather stations are supported by a range of accessories. These accessories can be used to connect, install and maintain MaxiMet. The accessories have been designed, or selected, to ensure the long term performance of MaxiMet products.

Accessories	Part Number
1. 4 pin cable to connect MaxiMet to a computer or data logger	14010001
2. 4 pin cable to connect MaxiMet to a weather station or data logger	14010002
3. 4 pin cable to connect MaxiMet to a weather station or data logger	14010003
4. 4 pin cable to connect MaxiMet to a weather station or data logger	14010004
5. 4 pin cable to connect MaxiMet to a weather station or data logger	14010005
6. 4 pin cable to connect MaxiMet to a weather station or data logger	14010006
7. 4 pin cable to connect MaxiMet to a weather station or data logger	14010007
8. 4 pin cable to connect MaxiMet to a weather station or data logger	14010008
9. 4 pin cable to connect MaxiMet to a weather station or data logger	14010009
10. 4 pin cable to connect MaxiMet to a weather station or data logger	14010010
11. 4 pin cable to connect MaxiMet to a weather station or data logger	14010011
12. 4 pin cable to connect MaxiMet to a weather station or data logger	14010012
13. 4 pin cable to connect MaxiMet to a weather station or data logger	14010013
14. 4 pin cable to connect MaxiMet to a weather station or data logger	14010014
15. 4 pin cable to connect MaxiMet to a weather station or data logger	14010015
16. 4 pin cable to connect MaxiMet to a weather station or data logger	14010016
17. 4 pin cable to connect MaxiMet to a weather station or data logger	14010017
18. 4 pin cable to connect MaxiMet to a weather station or data logger	14010018
19. 4 pin cable to connect MaxiMet to a weather station or data logger	14010019
20. 4 pin cable to connect MaxiMet to a weather station or data logger	14010020

Accessory Descriptions

- Connector (14010001)**  
A 4 pin connector is available if required. The connector is compatible with all MaxiMet models and is supplied with pins.
- Cable for operational use**  
The 4 pin cable can be used to connect MaxiMet to power and communication. The cable can be supplied as a 15m cable with pins fitted (14010001) or by the meter (14010002).
- Cable for setup configuration (14010003)**  
The cable can be used to connect a MaxiMet to a USB port on a computer. Using this method, the setup of the weather station can be updated to suit a particular requirement. The cable is 15m long and supplied with a MaxiMet connector on one end and a USB connector on the other end.

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OTHER MAXIMET MODELS						
	Wind	Temperature, humidity, pressure	Rain	Solar	Compass, GPS	Low power heating
GMX200	Y				Y, as option	
GMX240	Y		Integrated optical rain sensor		Y, as option	
GMX300		Y				
GMX301		Y		Y		
GMX400		Y	Integrated optical rain sensor			
GMX500	Y	Y			Y, as option	Y, as option
GMX501	Y	Y		Y	Y, as option	Y, as option
GMX551	Y	Y	Tipping bucket connector	Y	Y, as option	Y, as option
GMX560	Y	Y			Y, as option	Y, as option
GMX600	Y	Y	Integrated optical rain sensor		Y, as option	Y, as option

For more information about MaxiMet®, please contact Gill Instruments.

Designed and manufactured in the UK by Gill Instruments Limited.