

GMX301 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 GMX301 key features

- Four measured parameters:
Temperature, humidity, pressure, solar radiation.
- Multiple additional derived parameters based on combining measured parameters, such as dew point, pressure at sea level, heat index and sunshine hours.
- High quality, accurate, solid state sensors.

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 GMX301 measures 4 parameters including solar radiation.



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

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AIR TEMPERATURE	
Range	-35°C to +70°C
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 ³

BAROMETRIC PRESSURE	
Range	300-1250 hPa
Accuracy 900-1100 hPa, 25-40°C	Absolute (typically) ±0.4 hPa Relative (typically) ±0.08 hPa
Resolution	0.1 hPa
Units of measurement	hPa, mbar, mmHg, inHg

SOLAR RADIATION	
Wavelength sensitivity	300 - 3000 nm
Output range	0-1600 W/m ²
Resolution	1 W/m ²
DIN standard	ISO 9060 Second Class
Units of measurement	W/m ²

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	6 mA continuous mode (std unit) +10 mA with GPS option 0.7 mA eco-power mode

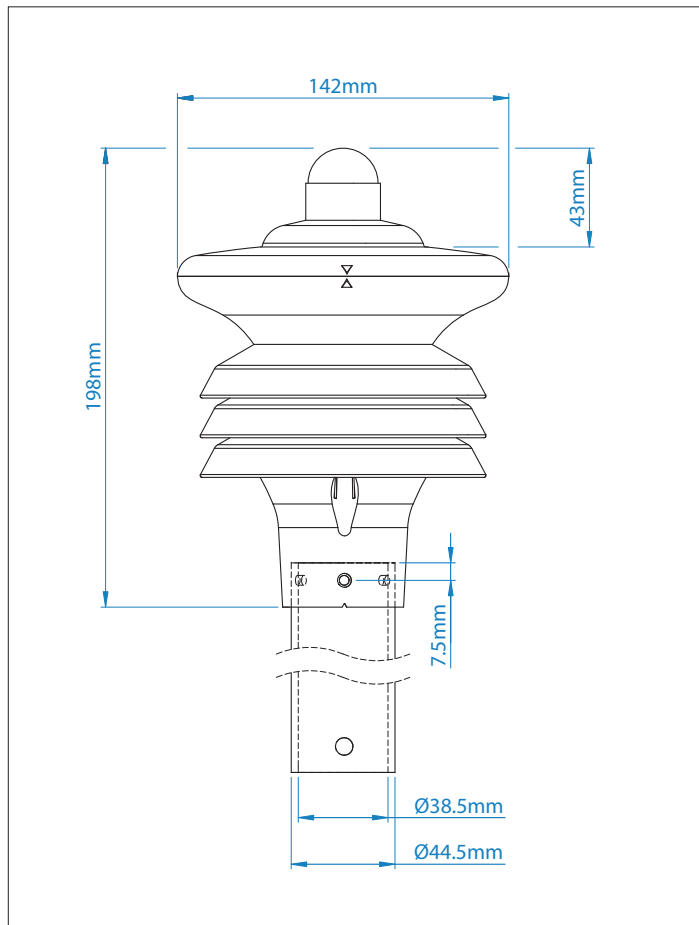
MECHANICAL	
Construction	UV stabilized thermoplastic
Fittings	Fit to 30mm to 58mm pole or mast
Weight	0.6 kg
Connector type	9-way clipper connector

ENVIRONMENTAL	
Protection class	IP66
Operating temp.	-35°C to +70°C
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	

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EXAMPLE DERIVED PARAMETERS FOR MAXIMET RANGE

A full list of derived parameters is available in the User Manual which can be downloaded from 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

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
MaxiMet weather station cable (1.5m) with USB connector	10010001
MaxiMet weather station cable (1.5m) with RS485 connector	10010002
MaxiMet weather station cable (1.5m) with RS485 connector (shielded)	10010003
MaxiMet weather station cable (1.5m) with RS485 connector (shielded) with power supply	10010004
MaxiMet weather station cable (1.5m) with RS485 connector (shielded) with power supply and antenna	10010005
MaxiMet weather station cable (1.5m) with RS485 connector (shielded) with power supply and antenna (longer)	10010006
MaxiMet weather station cable (1.5m) with RS485 connector (shielded) with power supply and antenna (longer) with power supply	10010007
MaxiMet weather station cable (1.5m) with RS485 connector (shielded) with power supply and antenna (longer) with power supply and antenna (longer)	10010008
MaxiMet weather station cable (1.5m) with RS485 connector (shielded) with power supply and antenna (longer) with power supply and antenna (longer) with power supply	10010009
MaxiMet weather station cable (1.5m) with RS485 connector (shielded) with power supply and antenna (longer) with power supply and antenna (longer) with power supply and antenna (longer)	10010010
MaxiMet weather station cable (1.5m) with RS485 connector (shielded) with power supply and antenna (longer) with power supply and antenna (longer) with power supply and antenna (longer) with power supply	10010011
MaxiMet weather station cable (1.5m) with RS485 connector (shielded) with power supply and antenna (longer) with power supply and antenna (longer) with power supply and antenna (longer) with power supply and antenna (longer)	10010012
MaxiMet weather station cable (1.5m) with RS485 connector (shielded) with power supply and antenna (longer) with power supply and antenna (longer) with power supply and antenna (longer) with power supply and antenna (longer) with power supply	10010013
MaxiMet weather station cable (1.5m) with RS485 connector (shielded) with power supply and antenna (longer) with power supply and antenna (longer) with power supply and antenna (longer) with power supply and antenna (longer) with power supply and antenna (longer)	10010014
MaxiMet weather station cable (1.5m) with RS485 connector (shielded) with power supply and antenna (longer) with power supply and antenna (longer) with power supply and antenna (longer) with power supply and antenna (longer) with power supply and antenna (longer) with power supply	10010015
MaxiMet weather station cable (1.5m) with RS485 connector (shielded) with power supply and antenna (longer) with power supply and antenna (longer) with power supply and antenna (longer) with power supply and antenna (longer) with power supply and antenna (longer) with power supply and antenna (longer) with power supply	10010016
MaxiMet weather station cable (1.5m) with RS485 connector (shielded) with power supply and antenna (longer) with power supply and antenna (longer) with power supply and antenna (longer) with power supply and antenna (longer) with power supply and antenna (longer) with power supply and antenna (longer) with power supply and antenna (longer) with power supply	10010017
MaxiMet weather station cable (1.5m) with RS485 connector (shielded) with power supply and antenna (longer) with power supply and antenna (longer) with power supply and antenna (longer) with power supply and antenna (longer) with power supply and antenna (longer) with power supply and antenna (longer) with power supply and antenna (longer) with power supply	10010018
MaxiMet weather station cable (1.5m) with RS485 connector (shielded) with power supply and antenna (longer) with power supply and antenna (longer) with power supply and antenna (longer) with power supply and antenna (longer) with power supply and antenna (longer) with power supply and antenna (longer) with power supply and antenna (longer) with power supply	10010019
MaxiMet weather station cable (1.5m) with RS485 connector (shielded) with power supply and antenna (longer) with power supply and antenna (longer) with power supply and antenna (longer) with power supply and antenna (longer) with power supply and antenna (longer) with power supply and antenna (longer) with power supply and antenna (longer) with power supply	10010020

Accessory Descriptions

- Connector (1405PK069)**
An optional connector is available if required. The connector is compatible with all MaxiMet models and is supplied with pins.
- Cable for operational use**
The 1.5m cable can be used to connect MaxiMet to power and communication. The cable can be supplied as a 1.5m cable with pins fitted (1405PK069) or by the meter (1405PK069).
- Cable for setup configuration (1405PK069)**
The cable can be used to connect a MaxiMet to a USB port on a computer. Using this method, the setup of the MaxiMet can be updated to suit a particular requirement. The cable is 1.5m long and supports a MaxiMet connector on one end and a USB connector on the other end.

gillinstruments.com

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				
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
GMX550	Y	Y	Tipping bucket connector		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.

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