

GMX560 Compact Weather Station

High quality, easy-to-use, integrated weather station for marine applications

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 communication 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 for MaxiMet Marine GMX560

- Marine environments including:
 - Marine buoys.
 - Unmanned surface vessels.
- Helidecks.
- Offshore wind farms.
- Low power deployments and IoT applications.

MaxiMet Marine key features

- MaxiMet Marine GMX560 provides 5 measured parameters:
Wind speed & direction, temperature, humidity, pressure, optional heating, optional GPS function.
- IP68 and IP66 environmental protection.
- 6-axis compass.
- High quality, accurate, solid-state sensors.
- Compact design with robust construction.
- Multiple additional derived parameters.
- Optional integrated GPS capability available to provide location, GPS timestamp and calculation of true wind if the platform is moving.
- Commonly available connector suitable for corrosive environment.
- Optional low power heating.

Benefits

- Based on the GMX500, highly deployed in harsh marine applications, and now with additional environmental protection including temporary submersion.
- 6-axis compass compensates for tilt and provides pitch & roll data.
- No moving parts increases reliability and reduces maintenance requirements.
- Multiple output protocols offer a range of integration options.
- Easy to set up, integrate and install.



MaxiMet Marine GMX560 combines IP68 environmental protection with high quality sensors for marine environments



(photo: Xylem DB1250 buoy)
MaxiMet Marine's IP68 rating enhances performance in harsh weather conditions encountered by buoys and unmanned surface vessels

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WIND SPEED	
Range	0 - 60 m/s
Accuracy	0-10 m/s 0.3 m/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 ³

BAROMETRIC PRESSURE	
Range	300 to 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

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 @ 12 VDC	25 mA 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 30 mm to 58 mm pole or mast
Weight	0.7 kg
Connector type	M12 8-way

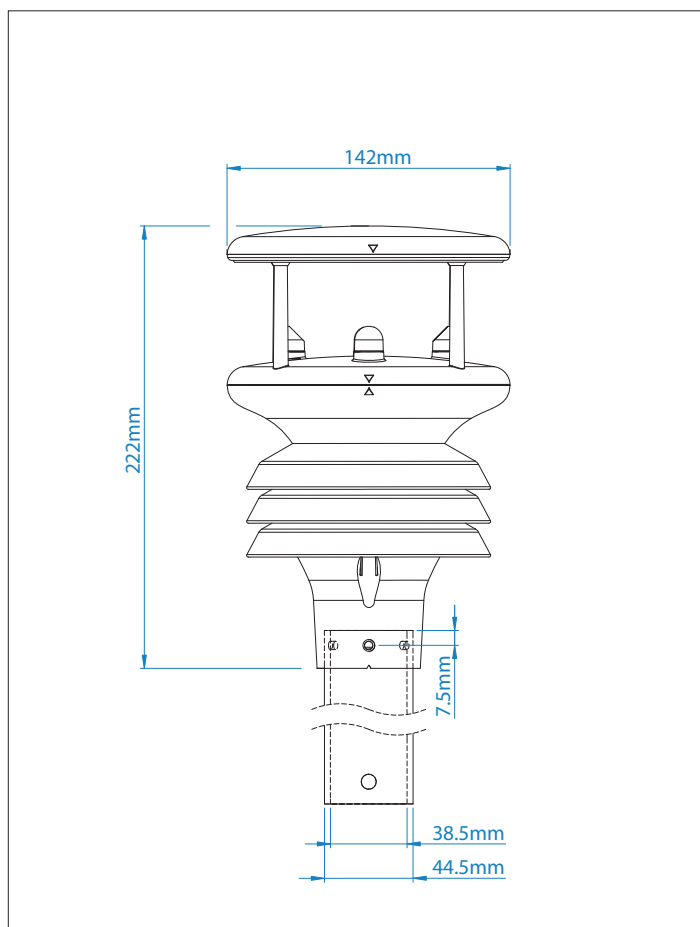
ENVIRONMENTAL	
Protection class	IP66 & IP68
Operating temp	-35°C to +70°C -40°C to +70°C with heating option
Storage temp	-40°C to +70°C

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

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® Marine Accessories Datasheet
GMX560 Compact Weather Station
 Easy-to-use, integrated multiparameter weather station for marine applications

MaxiMet Marine weather station supports a range of accessories. These accessories can be used to connect, install and maintain MaxiMet Marine. The accessories have been designed or selected to ensure the long term performance of MaxiMet Marine.

Accessories	Part Number
MaxiMet connector (MT2) cable with terminal ends	9500001
MaxiMet connector (MT2) cable with terminal ends (2m)	9500002
MaxiMet connector (MT2) cable with terminal ends (3m)	9500003
MaxiMet connector (MT2) cable with terminal ends (4m)	9500004
MaxiMet connector (MT2) cable with terminal ends (5m)	9500005
MaxiMet connector (MT2) cable with terminal ends (6m)	9500006
MaxiMet connector (MT2) cable with terminal ends (7m)	9500007
MaxiMet connector (MT2) cable with terminal ends (8m)	9500008
MaxiMet connector (MT2) cable with terminal ends (9m)	9500009
MaxiMet connector (MT2) cable with terminal ends (10m)	9500010

Accessory Descriptions

- Connector**
A replacement MT2 connector is available if required. The connector is field replaceable and does not require any additional pins or soldering.
- Cables for operational use**
Gill can supply cables in various fixed lengths with pre-terminated MT2 connectors.
- Cable for setup/configuration**
This cable can be used to connect MaxiMet to a USB computer. Using MaxiMet, the setup of the MaxiMet unit can be updated to suit a particular requirement. The cable is 5m long and supplied with a MT2 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				
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
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
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.