



MaxiMet® Marine

Datasheet

GMX560 Compact Weather Station

Easy-to-use, integrated multi-parameter 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

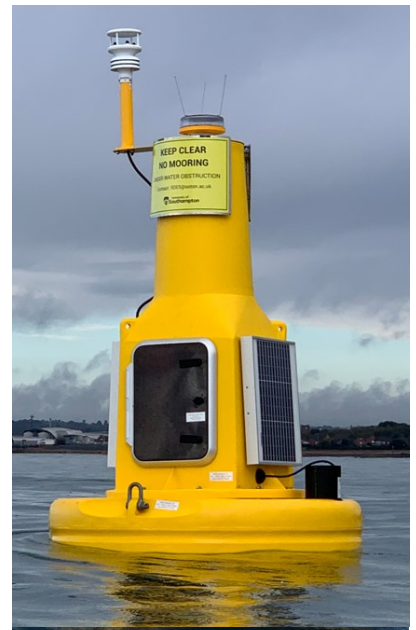
- MaxiMet Marine GMX560 provides 5 measured parameters:
 - Wind speed & direction, temperature, humidity, pressure and optional GPS function
- IP68 and IP66 environmental protection
- 6-axis compass
- High quality, accurate, solid-state sensors
- Compact design with robust construction
- Commonly available connector suitable for corrosive environments

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



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	0.01 m/s to 60 m/s
Accuracy	± 3% RMSE to 40 m/s, ± 5% RMSE 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° RMSE to 40 m/s ± 5° RMSE to 60 m/s
Resolution	1°
Starting threshold	0.01 m/s (0.05 m/s default)
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 of measurement	°C, °F, °K

HUMIDITY	
Range	0-100%
Resolution	1%
Accuracy	± 2% @ 20°C (10%-90% RH)
Sampling rate	1 Hz
Units of measurement	% RH, g/m³

DEW POINT	
Range	-40°C to +70°C
Accuracy	0.1
Resolution	± 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

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 SUPPLY	
Power supply	5-30 VDC
Power (nominal) 12 VDC	25 mA continuous high mode. 0.7 mA eco -power mode (1 hour polled)

ENVIRONMENTAL CONDITIONS	
IP rating	IP66 & IP68
Operational temperature range:	-35°C to +70°C
Storage temperature range:	-40°C to +80°C
Humidity	0% to 100%
Weight	0.7 kg
Origin	UK

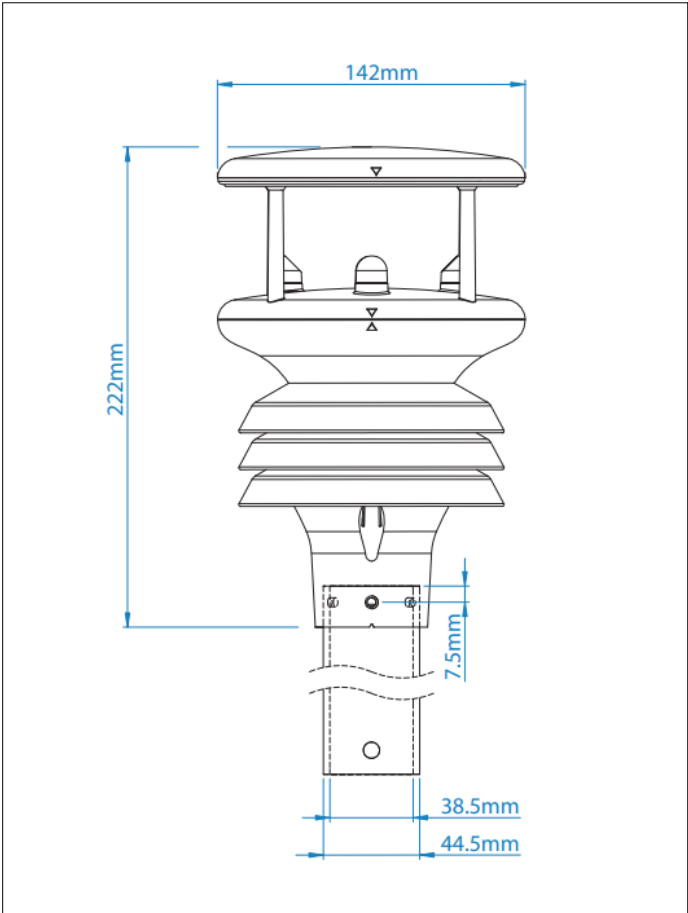
CONNECTOR TYPE	
M12 8-way	

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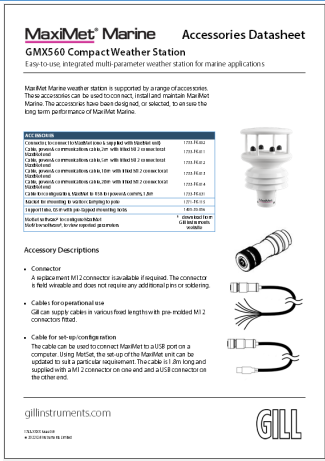
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EXAMPLE DERIVED PARAMETERS	
A full list of derived parameters is available in the User Manual which can be downloaded from gillinstruments.com	
Average wind speed	Sunrise
Average wind direction	Solar noon
Corrected wind speed	Twilight
Corrected wind direction	Sunset
Gust wind speed	Position of sun
Gust wind direction	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



OTHER MAXIMET MODELS

	Wind	Temperature, humidity, pressure	Rain	Solar	GPS, compass
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
GMX501	Y	Y		Y	Y, as option
GMX550	Y	Y	Tipping bucket connector		Y, as option
GMX551	Y	Y	Tipping bucket connector	Y	Y, as option
GMX600	Y	Y	Integrated optical rain sensor		Y, as option

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