

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

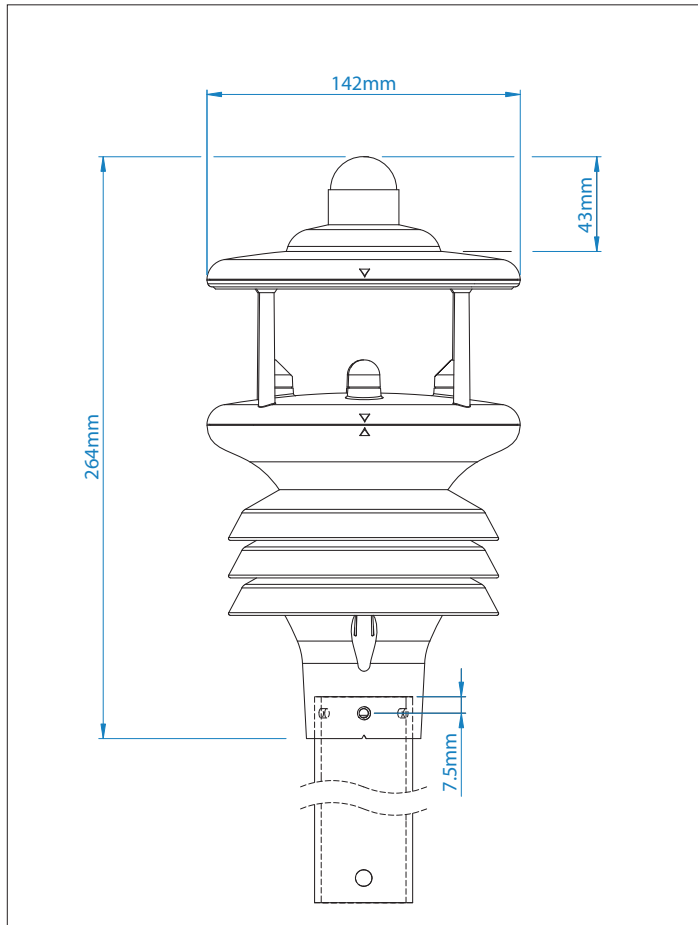
High quality, easy-to-use, integrated weather station

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
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	300-1250 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
GLOBAL 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

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 (10-30 VDC for heated models)
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	0.8Kg
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

GMX551 Compact Weather Station

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



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 and 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

Accessories Datasheet

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. MaxiMet weather station cable (1.5m) (see MaxiMet user manual)	142310001
2. MaxiMet weather station cable (3m) (see MaxiMet user manual)	142310002
3. MaxiMet weather station cable (5m) (see MaxiMet user manual)	142310003
4. MaxiMet weather station cable (7.5m) (see MaxiMet user manual)	142310004
5. MaxiMet weather station cable (10m) (see MaxiMet user manual)	142310005
6. MaxiMet weather station cable (15m) (see MaxiMet user manual)	142310006
7. MaxiMet weather station cable (20m) (see MaxiMet user manual)	142310007
8. MaxiMet weather station cable (25m) (see MaxiMet user manual)	142310008
9. MaxiMet weather station cable (30m) (see MaxiMet user manual)	142310009
10. MaxiMet weather station cable (35m) (see MaxiMet user manual)	142310010
11. MaxiMet weather station cable (40m) (see MaxiMet user manual)	142310011
12. MaxiMet weather station cable (45m) (see MaxiMet user manual)	142310012
13. MaxiMet weather station cable (50m) (see MaxiMet user manual)	142310013
14. MaxiMet weather station cable (55m) (see MaxiMet user manual)	142310014
15. MaxiMet weather station cable (60m) (see MaxiMet user manual)	142310015
16. MaxiMet weather station cable (65m) (see MaxiMet user manual)	142310016
17. MaxiMet weather station cable (70m) (see MaxiMet user manual)	142310017
18. MaxiMet weather station cable (75m) (see MaxiMet user manual)	142310018
19. MaxiMet weather station cable (80m) (see MaxiMet user manual)	142310019
20. MaxiMet weather station cable (85m) (see MaxiMet user manual)	142310020
21. MaxiMet weather station cable (90m) (see MaxiMet user manual)	142310021
22. MaxiMet weather station cable (95m) (see MaxiMet user manual)	142310022
23. MaxiMet weather station cable (100m) (see MaxiMet user manual)	142310023
24. MaxiMet weather station cable (105m) (see MaxiMet user manual)	142310024
25. MaxiMet weather station cable (110m) (see MaxiMet user manual)	142310025
26. MaxiMet weather station cable (115m) (see MaxiMet user manual)	142310026
27. MaxiMet weather station cable (120m) (see MaxiMet user manual)	142310027
28. MaxiMet weather station cable (125m) (see MaxiMet user manual)	142310028
29. MaxiMet weather station cable (130m) (see MaxiMet user manual)	142310029
30. MaxiMet weather station cable (135m) (see MaxiMet user manual)	142310030
31. MaxiMet weather station cable (140m) (see MaxiMet user manual)	142310031
32. MaxiMet weather station cable (145m) (see MaxiMet user manual)	142310032
33. MaxiMet weather station cable (150m) (see MaxiMet user manual)	142310033
34. MaxiMet weather station cable (155m) (see MaxiMet user manual)	142310034
35. MaxiMet weather station cable (160m) (see MaxiMet user manual)	142310035
36. MaxiMet weather station cable (165m) (see MaxiMet user manual)	142310036
37. MaxiMet weather station cable (170m) (see MaxiMet user manual)	142310037
38. MaxiMet weather station cable (175m) (see MaxiMet user manual)	142310038
39. MaxiMet weather station cable (180m) (see MaxiMet user manual)	142310039
40. MaxiMet weather station cable (185m) (see MaxiMet user manual)	142310040
41. MaxiMet weather station cable (190m) (see MaxiMet user manual)	142310041
42. MaxiMet weather station cable (195m) (see MaxiMet user manual)	142310042
43. MaxiMet weather station cable (200m) (see MaxiMet user manual)	142310043
44. MaxiMet weather station cable (205m) (see MaxiMet user manual)	142310044
45. MaxiMet weather station cable (210m) (see MaxiMet user manual)	142310045
46. MaxiMet weather station cable (215m) (see MaxiMet user manual)	142310046
47. MaxiMet weather station cable (220m) (see MaxiMet user manual)	142310047
48. MaxiMet weather station cable (225m) (see MaxiMet user manual)	142310048
49. MaxiMet weather station cable (230m) (see MaxiMet user manual)	142310049
50. MaxiMet weather station cable (235m) (see MaxiMet user manual)	142310050
51. MaxiMet weather station cable (240m) (see MaxiMet user manual)	142310051
52. MaxiMet weather station cable (245m) (see MaxiMet user manual)	142310052
53. MaxiMet weather station cable (250m) (see MaxiMet user manual)	142310053
54. MaxiMet weather station cable (255m) (see MaxiMet user manual)	142310054
55. MaxiMet weather station cable (260m) (see MaxiMet user manual)	142310055
56. MaxiMet weather station cable (265m) (see MaxiMet user manual)	142310056
57. MaxiMet weather station cable (270m) (see MaxiMet user manual)	142310057
58. MaxiMet weather station cable (275m) (see MaxiMet user manual)	142310058
59. MaxiMet weather station cable (280m) (see MaxiMet user manual)	142310059
60. MaxiMet weather station cable (285m) (see MaxiMet user manual)	142310060
61. MaxiMet weather station cable (290m) (see MaxiMet user manual)	142310061
62. MaxiMet weather station cable (295m) (see MaxiMet user manual)	142310062
63. MaxiMet weather station cable (300m) (see MaxiMet user manual)	142310063
64. MaxiMet weather station cable (305m) (see MaxiMet user manual)	142310064
65. MaxiMet weather station cable (310m) (see MaxiMet user manual)	142310065
66. MaxiMet weather station cable (315m) (see MaxiMet user manual)	142310066
67. MaxiMet weather station cable (320m) (see MaxiMet user manual)	142310067
68. MaxiMet weather station cable (325m) (see MaxiMet user manual)	142310068
69. MaxiMet weather station cable (330m) (see MaxiMet user manual)	142310069
70. MaxiMet weather station cable (335m) (see MaxiMet user manual)	142310070
71. MaxiMet weather station cable (340m) (see MaxiMet user manual)	142310071
72. MaxiMet weather station cable (345m) (see MaxiMet user manual)	142310072
73. MaxiMet weather station cable (350m) (see MaxiMet user manual)	142310073
74. MaxiMet weather station cable (355m) (see MaxiMet user manual)	142310074
75. MaxiMet weather station cable (360m) (see MaxiMet user manual)	142310075
76. MaxiMet weather station cable (365m) (see MaxiMet user manual)	142310076
77. MaxiMet weather station cable (370m) (see MaxiMet user manual)	142310077
78. MaxiMet weather station cable (375m) (see MaxiMet user manual)	142310078
79. MaxiMet weather station cable (380m) (see MaxiMet user manual)	142310079
80. MaxiMet weather station cable (385m) (see MaxiMet user manual)	142310080
81. MaxiMet weather station cable (390m) (see MaxiMet user manual)	142310081
82. MaxiMet weather station cable (395m) (see MaxiMet user manual)	142310082
83. MaxiMet weather station cable (400m) (see MaxiMet user manual)	142310083
84. MaxiMet weather station cable (405m) (see MaxiMet user manual)	142310084
85. MaxiMet weather station cable (410m) (see MaxiMet user manual)	142310085
86. MaxiMet weather station cable (415m) (see MaxiMet user manual)	142310086
87. MaxiMet weather station cable (420m) (see MaxiMet user manual)	142310087
88. MaxiMet weather station cable (425m) (see MaxiMet user manual)	142310088
89. MaxiMet weather station cable (430m) (see MaxiMet user manual)	142310089
90. MaxiMet weather station cable (435m) (see MaxiMet user manual)	142310090
91. MaxiMet weather station cable (440m) (see MaxiMet user manual)	142310091
92. MaxiMet weather station cable (445m) (see MaxiMet user manual)	142310092
93. MaxiMet weather station cable (450m) (see MaxiMet user manual)	142310093
94. MaxiMet weather station cable (455m) (see MaxiMet user manual)	142310094
95. MaxiMet weather station cable (460m) (see MaxiMet user manual)	142310095
96. MaxiMet weather station cable (465m) (see MaxiMet user manual)	142310096
97. MaxiMet weather station cable (470m) (see MaxiMet user manual)	142310097
98. MaxiMet weather station cable (475m) (see MaxiMet user manual)	142310098
99. MaxiMet weather station cable (480m) (see MaxiMet user manual)	142310099
100. MaxiMet weather station cable (485m) (see MaxiMet user manual)	142310100

Accessory Descriptions

- Connector (1405PK069)**
An optional connector is available if required. The connector is compatible with all MaxiMet models and is supplied with pins.
- Cables for operational use**
The 15m cable can be used to connect MaxiMet to power and communication. The cable can be supplied as a 15m cable with pins fitted (1405PK069) or by the meter (standard).
- Cable for setup configuration (116310-066)**
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 1.5m long and is supplied with 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				
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
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.



**As a representative of this supplier,
we – from Observator – distribute
these products. Originating from
the Netherlands, Observator has
grown into an internationally
oriented company with a worldwide
distribution network.**

**For more information contact
Observator Instruments:**

Australia

T: +61 3 8706 5000

E: sales.au@observator.com / service.au@observator.com

Germany

T: +49 (0)152 02047306 / +49 (0)152 02047308

E: contact@observator.com

The Netherlands

T: +31 (0)180 463411

E: sales@observator.com / service@observator.com

Poland

T: +48 537 209 665

E: a.miller@observator.com

Singapore

T: +65 68 72 08 63

E: sales@observator.sg

United Kingdom

T: +44 (0)783 346 4884

E: info.uk@observator.com

Welcome to the world of Observator

Since 1924 Observator has evolved to be a trend-setting developer and supplier in a wide variety of industries. Originating from the Netherlands, Observator has grown into an internationally

oriented company with a worldwide distribution network and offices in Australia, Germany, the Netherlands, Singapore and the United Kingdom.

www.observator.com