

## Weather Station

Expandable, up to 10 Reference Quality Parameters

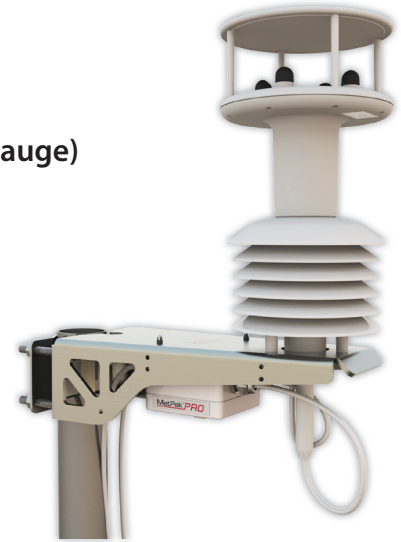
### Key Features

- Wind Speed & Direction
- Temperature
- Humidity
- Barometric Pressure
- Dew Point
- 2 Analogue Inputs
- Pt100 Input
- Digital Input (tipping bucket rain gauge)

MetPak Pro monitors the most essential weather parameters with the additional ability to connect up to four external measurement devices.

The system combines a Gill WindSonic ultrasonic wind speed & direction sensor, a highly accurate barometric pressure sensor and Rotronic Hydroclip temperature/humidity probe.

MetPak Pro contains additional inputs allowing for connection of a Pt100 temperature sensor, tipping bucket rain gauge (available from Gill) and two analogue sensors (water level sensor, pyranometer, pressure sensor, soil temperature sensor etc) and is supplied with selectable Gill ASCII, SDI-12 and Modbus outputs.

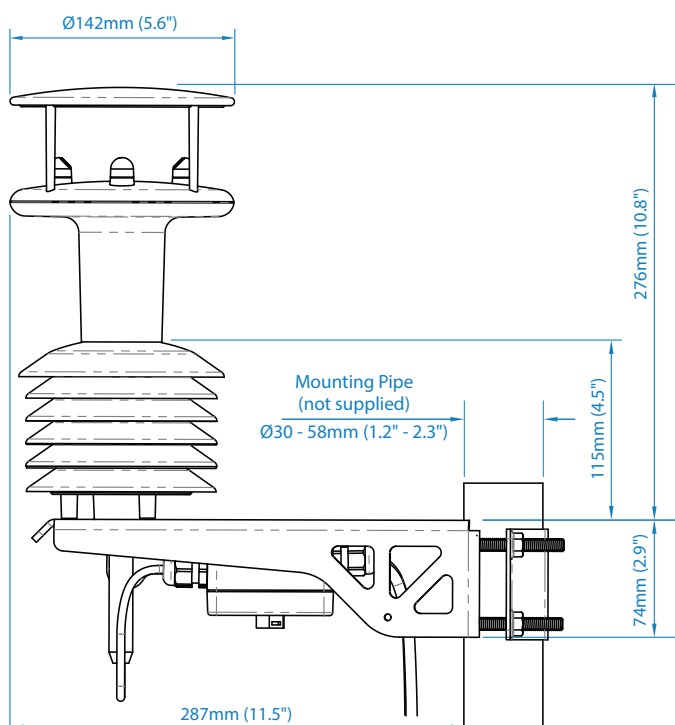


### Base Station Options Available

MetPak Pro can be configured with optional rain gauge and remote wind sensors. See page 3 for all wind sensor options.



### MetPak Pro



### Included

- MetSet configuration software
- MetView data logging/visualisation software
- Mounting kit to adapt to poles or masts
- Selectable ASCII, SDI-12 or Modbus Outputs

### Optional

- MetPak Pro Junction Box  
Allows an alternative method to connect the sensors to the MetPak in a convenient separate box.
- Heater Interface Box  
Ease of connection for remote heated wind sensors.
- Cables
- Tipping bucket rain gauge

## WIND MEASUREMENT

|                  |   |                          |
|------------------|---|--------------------------|
| Parameters       | Wind speed & direction or U & V (Vectors) |                          |
| Units of measure | m/s, knots, mph, kph, ft/min              |                          |
|                  | <b>Wind Speed</b>                         | <b>Wind Direction</b>    |
| Range            | 0-60m/s (134 mph)                         | 0 to 359° - No dead band |
| Accuracy         | ±2% @12m/s                                | ±3° @12m/s               |
| Resolution       | 0.01m/s (0.02 mph)                        | 1°                       |

## AIR TEMPERATURE

|                  |                   |
|------------------|-------------------|
| Air temperature  | Pt100 1/3 Class B |
| Range            | -50°C to +100°C   |
| Accuracy         | ±0.1°C            |
| Resolution       | 0.1°C (0.1°F)     |
| Units of measure | °C or °F          |

## RELATIVE HUMIDITY

|  |              |
|--|--------------|
| Range                                  | 0-100% RH    |
| Accuracy                               | ±0.8% @ 23°C |
| Resolution                             | 0.1% RH      |
| Units of measure                       | % RH         |
| Compensated for temperature dependency |              |

## BAROMETRIC PRESSURE

|   |                       |
|---|-----------------------|
| Range   | 600-1100hPa           |
| Accuracy  | ±0.5hPa               |
| Resolution  | 0.1hPa                |
| Units of measure                                      | hPa, mbar, mmHg, inHg |
| Compensated for temperature dependency -30°C to +70°C |                       |

## DEW POINT

|                  |  |
|------------------|--|
| Resolution       | 0.1°C (0.1°F)                                |
| Units of measure | °C or °F                                     |
| Accuracy         | ±0.15°C (23°C ambient temp @ 20°C dew point) |

## POWER SUPPLY

|               |                                   |
|---------------|-----------------------------------|
| Input voltage | 5V to 30V d.c.**                  |
| Current       | <26mA (Output 1 second) @12V d.c. |
| <b>SDI-12</b> |                                   |
| Input voltage | 12V nominal (9.6-16V d.c.)        |
| Current       | <12mA Low power operation         |

\*\* For Base Station please check the individual anemometer datasheets

Specifications may be subject to change without prior notice.

MetPak Pro integrates industry leading products in a convenient, economical package allowing users to concentrate on the measurement rather than the quality of the measurement. Calibration services available from Gill.

## OUTPUTS

|                 |  |
|-----------------|--|
| Digital outputs | RS232, RS422, RS485*, SDI-12 or Modbus <sup>1</sup><br>(user selectable) * 2 wire point to point |
| Baud rates      | 4800-57600 (ASCII) or 1200 (SDI-12)  |
| Protocols       | ASCII, SDI-12 V 1.3, Modbus (RTU and ASCII)  |
| Data output     | 1s, 2s, 4s or polled mode  |

## INPUTS

|                           |   |
|---------------------------|---|
| Analogue 1                | 0-5 V or 4-20mA loop or self powered  |
| Analogue 2                | 0-5 V or 4-20mA loop or self powered  |
| MetPak Pro A-D Conversion | 12 bit resolution with an accuracy of ± 0.1% of reading +35µV offset                    |
| Pt100 Temperature Probe   | 4 Wire Pt100 conforms to IEC 60751  |
| Digital                   | Contact closure for tipping bucket rain gauge<br>Capable of capturing events up to 10Hz |

## ENVIRONMENTAL

|                       |                     |
|-----------------------|---------------------|
| Protection class      | IP65                |
| EMC                   | EN 61326            |
| Operating temperature | -35°C to +70°C      |
| Storage temperature   | -40°C to +80°C      |
| Operating humidity    | 0% to 100% humidity |

## MECHANICAL

|                       |   |
|-----------------------|---|
| External construction | UV stabilised white thermoplastic   |
| Fittings              | Anodised Aluminium bracket to allow fitting to 30mm to 58mm mast dimensions |
| Weight                | 2.1kg (including bracket)   |

## SOFTWARE

|         |   |
|---------|---|
| MetView | Free software for the display of data and logging                         |
| MetSet  | Free software for the configuration of the MetPak, MetPak RG & MetPak Pro |

## OPTIONAL ACCESSORIES

|          |   |
|----------|---|
| Cables   | 15m Power & Data cable<br>USB Configuration cable   |
| Hardware | Tipping Bucket Rain Gauge<br>MetPak Pro Junction Box<br>MetPak Pro Junction Box PCB<br>MetPak Pro Junction Box Mounting Bracket<br>Heater Interface Box |

## Base Station

MetPak Pro is available as a Base Station which enables the system to be specified with a remote wind sensor if required. This sensor can be positioned away from the Base Station and a connection cable is provided.

The Base Station has been tested in accordance with BSEN 60945 and is suitable for use in marine environments. This system, which includes inputs for a Pt100 temperature sensor, tipping bucket rain gauge (available from Gill) and two analogue sensors, can also be specified without a wind sensor if wind measurement data is not required.

MetPak Pro can be specified with a wind sensor from any of the options shown below:

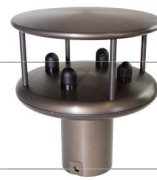


## Sensor Options



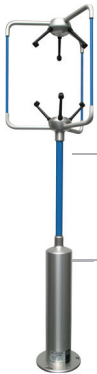
### WindSonic

For wind speed and direction measurements to 75 m/s. Corrosion free, polycarbonate housing.



### WindSonic M

Wind speed and direction measurements to 60 m/s with heating and impact resistant to UL2218 Class 1 & BSEN 60945.



### WindMaster

Three dimensional wind measurements up to 45 m/s in a lightweight carbon fibre/aluminium construction.



### WindMaster PRO

Three dimensional wind measurement up to 65 m/s in a stainless steel housing.



### WindObserver

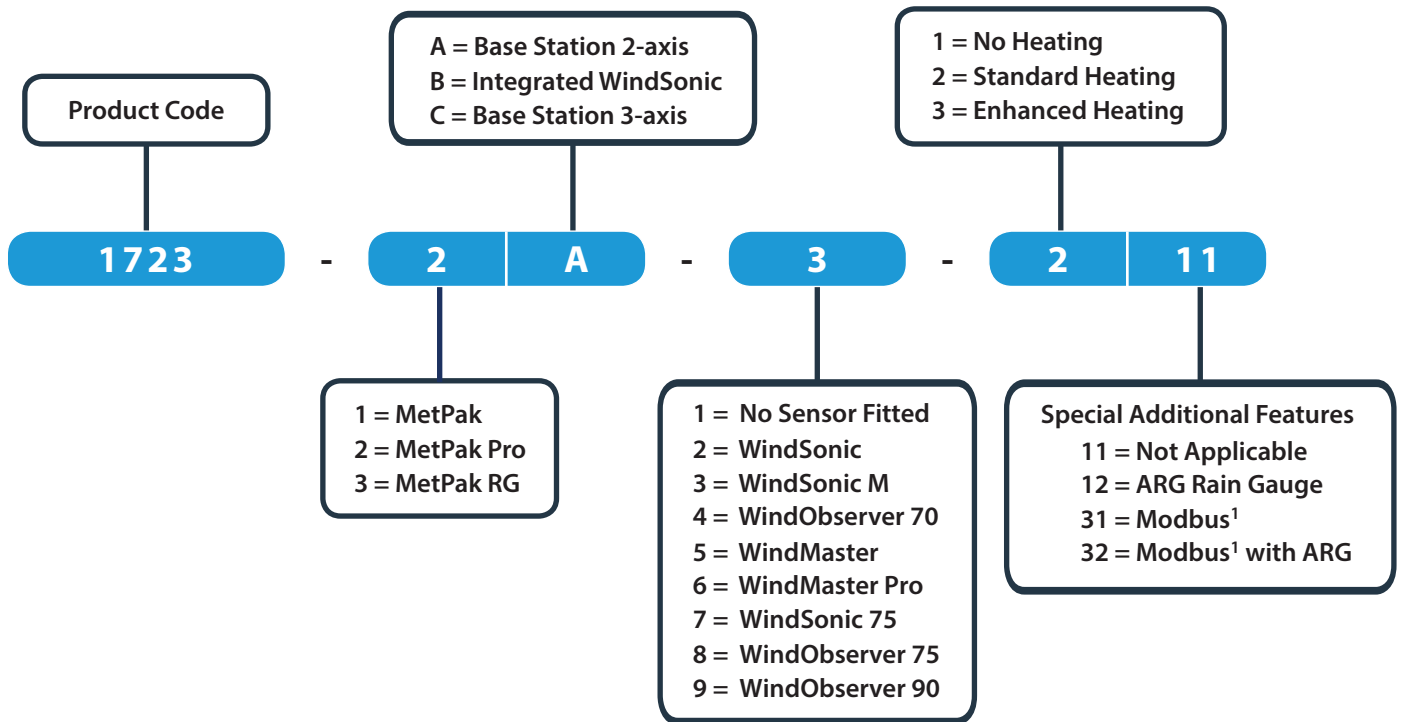
With enhanced heating and wind measurements up to 90 m/s for extreme conditions.



### RAINGAUGE

ARG100 Professional quality tipping bucket Rain Gauge.

Product options may be model specific. Consult the Gill sales team for availability



<sup>1</sup> RS232 ASCII for configuration only with Modbus option



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