

Wind Speed & Direction Sensor

Key Features

- Wind Speed & Direction Sensor
- 0-60m/s (116 knots) Wind Speed
- 0-360° Wind Direction
- NMEA output
- Low Power consumption
- Fast start-up
- Solid-state – maintenance-free
- Corrosion Free

The Gill WindSonic is a low-cost anemometer, which utilises Gill's proven ultrasonic technology to provide wind speed and direction data via one serial or two analogue outputs. To confirm correct operation, outputs are transmitted together with an instrument status code.

With a robust, corrosion-free polycarbonate housing, this small, lightweight wind sensor is recommended for use in harsh environmental conditions and is particularly suited to marine & offshore (ships, data buoys) and land based installations. The WindSonic has no moving parts, offering maintenance-free operation in a wide range of applications.



WIND SPEED

Range	0 - 60 m/s (116 knots)
Accuracy	±2% @12 m/s
Resolution	0.01 m/s (0.02 knots)
Response Time	0.25 seconds
Threshold	0.01 m/s

DIRECTION

Range	0 - 360° (No dead band)
Accuracy	±2° @12 m/s
Resolution	1°
Response Time	0.25 seconds

MEASUREMENT

Ultrasonic Output Rate	0.25, 0.5, 1, 2 or 4 Hz
Parameters	Wind Speed & Direction or U and V (vectors)
Units of Measure	m/s, knots, mph, kph, ft/min

OUTPUTS

Option 1	RS232
Option 2	RS232 + RS422 + RS485*** + NMEA*
Option 3	RS232 + RS422 + RS485*** + NMEA* 0-5V or, 0-20mA or 4-20mA
Option 4	SDI-12 (refer to manual or separate data-sheet for technical specification)
Baud Rate	2400 to 38400
Anemometer Status	Supplied as part of standard message

POWER REQUIREMENT

Anemometer	5-30VDC Option 1 & 2
	7-30VDC Option 3
	9-30VDC Option 4
Current Drain	Dependent on option selected e.g. < 2mA @ 12V (SDI-12) to 44mA @ 12V (4-20mA) Refer to manual for further advice
	Start up time < 5 seconds

MECHANICAL

External Construction	LURAN S KR 2861/1C ASA/PC
Size	142mm x 163mm
Weight	0.5kg

ENVIRONMENTAL

Protection Class	IP66
Operating Temperature	-35°C to +70°C
Storage Temperature	-40°C to +80°C
Operating Humidity	< 5% to 100% RH
Precipitation	300mm/hr
EMC	EN 61326: 1998

OPERATIONAL

MTBF	15 years
Warranty	2 years
Factory Calibration	Traceable to National Standards

ACCESSORIES

Wind Software	Display / Logging**
Pipe Mounting (optional)	44.45mm (1.75 in) diameter
Cables (optional)	Available to match output options
Display (optional)	See Gill Display datasheet

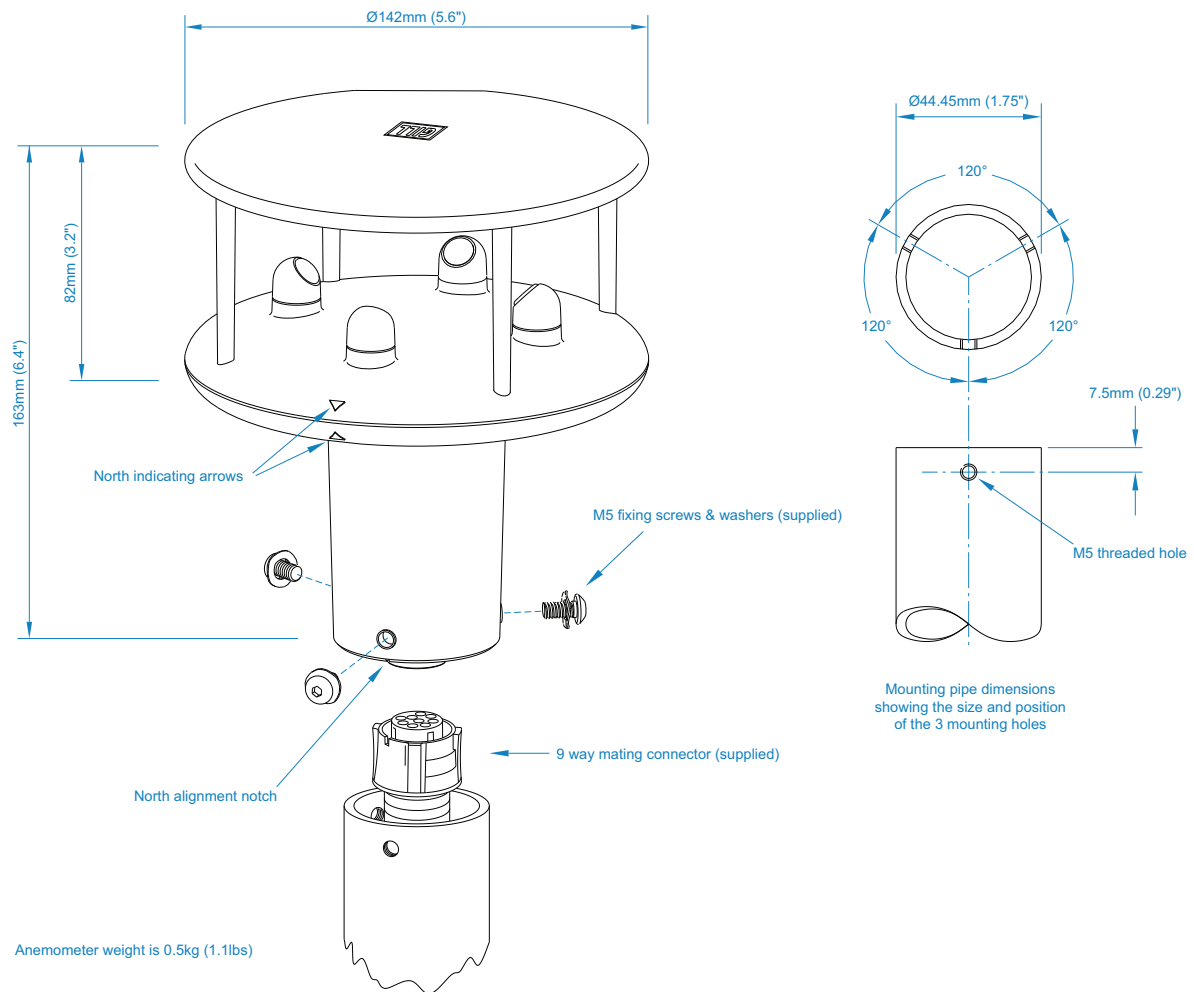
* NMEA 0183

** Download software free from www.gillinstruments.com

*** 2-wire is point to point only

Typical Applications

- Remote weather monitoring stations
- Building controls
- Data buoys
- Marine vessels
- Small airports & helipads
- Road & rail tunnels
- Environmental field sites
- Ports & harbours
- Mobile weather monitoring vehicles
- Coastal weather monitoring stations



Specifications may be subject to change without prior notice.

GILL

Gill Instruments Limited

Saltmarsh Park, 67 Gosport Street
Lymington, Hampshire
SO41 9EG United Kingdom

Tel: +44 (0) 1590 613 500

contact@gillinstruments.com

gillinstruments.com

1405-027 Iss 8

Copyright © Gill Instruments 2022

Gill Instruments Ltd, Reg No. 2281574
Registered Office: Towngate House, 2-8 Parkstone Road, Poole. BH15 2PW

Key Features

- Wind Speed & Direction Sensor
- 0-75m/s (146 knots) Wind Speed
- 0-360° Wind Direction
- NMEA output
- Low Power consumption
- Fast start-up
- Solid-state – maintenance-free
- Corrosion Free

The Gill WindSonic is a low-cost, high speed anemometer, which utilises Gill's proven ultrasonic technology to provide wind speed and direction data via one serial or two analogue outputs. To confirm correct operation, outputs are transmitted together with an instrument status code.

With a robust, corrosion-free polycarbonate housing, this small, lightweight wind sensor is recommended for use in harsh environmental conditions and is particularly suited to marine & offshore (ships, data buoys) and land based installations. The WindSonic has no moving parts, offering maintenance-free operation in a wide range of applications.



WIND SPEED

Range	0 - 75m/s (146 knots)
Accuracy	±2% @12 m/s
Resolution	0.01 m/s (0.02 knots)
Response Time	0.25 seconds
Threshold	0.01 m/s

DIRECTION

Range	0 - 360 ° (No dead band)
Accuracy	±2° @12 m/s
Resolution	1°
Response Time	0.25 seconds

MEASUREMENT

Ultrasonic Output Rate	0.25, 0.5, 1, 2 or 4 Hz
Parameters	Wind Speed & Direction or U and V (vectors)
Units of Measure	m/s, knots, mph, kph, ft/min

OUTPUTS

Option 1	RS232
Option 2	RS232 + RS422 + RS485*** + NMEA*
Option 3	RS232 + RS422 + RS485*** + NMEA* 0-5V or, 0-20mA or 4-20mA
Baud Rate	2400 to 38400
Anemometer Status	Supplied as part of standard message

POWER REQUIREMENT

Anemometer	12-30VDC Option 1 & 2
	12-30VDC Option 3
	Start up time < 5 seconds
Current Drain	Dependent on option selected typically e.g. to 44mA @ 12V (4-20mA) Refer to manual for further advice

MECHANICAL

External Construction	LURAN S KR 2861/1C ASA/PC
Size	142mm x 163mm
Weight	0.5kg

ENVIRONMENTAL

Protection Class	IP66
Operating Temperature	-35°C to +70°C
Storage Temperature	-40°C to +80°C
Operating Humidity	< 5% to 100% RH
Precipitation	300mm/hr
EMC	EN 61326: 1998

OPERATIONAL

MTBF	15 years
Warranty	2 years
Factory Calibration	Traceable to National Standards

ACCESSORIES

Wind Software	Display / Logging**
Pipe Mounting (optional)	44.45mm (1.75 in) diameter
Cables (optional)	Available to match output options
Display (optional)	See Gill Display datasheet

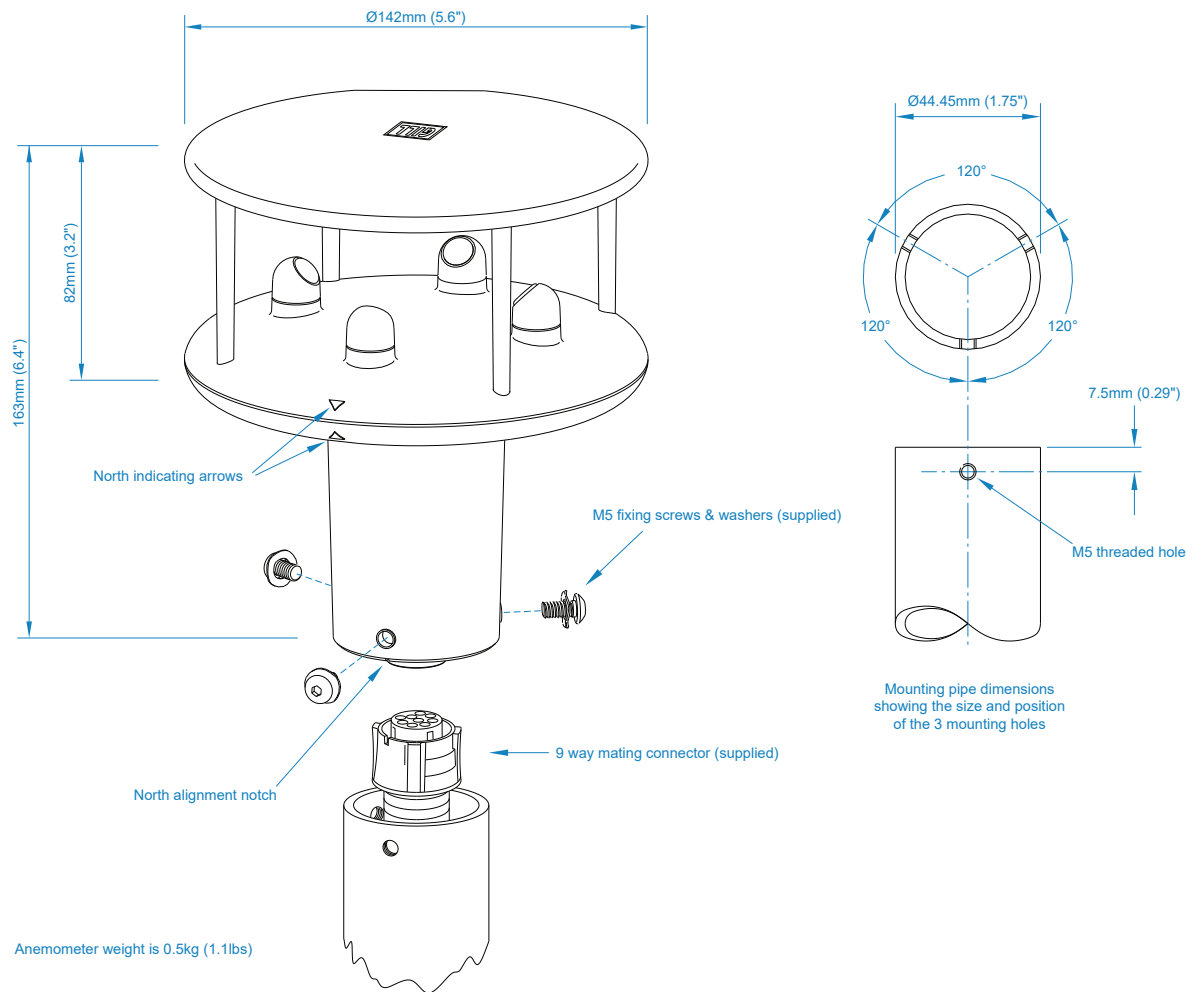
* NMEA 0183

** Download software free from www.gillinstruments.com

*** 2-wire is point to point only

Typical Applications

- Remote weather monitoring stations
- Building controls
- Data buoys
- Marine vessels
- Small airports & helipads
- Road & rail tunnels
- Environmental field sites
- Ports & harbours
- Mobile weather monitoring vehicles
- Coastal weather monitoring stations



Specifications may be subject to change without prior notice.

GILL

Gill Instruments Limited

Saltmarsh Park, 67 Gosport Street
Lymington, Hampshire
SO41 9EG United Kingdom

Tel: +44 (0) 1590 613 500

contact@gillinstruments.com

gillinstruments.com

1405-0035 Iss 5

Copyright © Gill Instruments 2022

Gill Instruments Ltd, Reg No. 2281574
Registered Office: Towngate House, 2-8 Parkstone Road, Poole, BH15 2PW

Ultrasonic Wind Sensor

Aluminium Construction, Optional Heating System

Key Features

- Compact Wind Speed & Direction Sensor
- Hard Anodised Aluminium Alloy Construction
- -40°C Operation (with optional heating)
- IP66 Protection Class
- Vibration BS EN 60945 : 2002
- Impact Resistance to UL2218 Class 1
- Solid-State – Maintenance-Free
- NMEA Output
- Analogue Output (Optional)

The Gill WindSonic M utilises Gill's proven ultrasonic technology that has an established performance over many years of operation in the popular WindSonic.

With an impact resistant, corrosion-free, hard anodised aluminium alloy housing and optional heating system this wind sensor is recommended for use in harsh environmental conditions and is particularly suited to both marine and land based installations. The WindSonic M has no moving parts, offering maintenance-free operation in a wide range of applications.



WIND SPEED

Range	0 - 60 m/s (116 knots)
Accuracy	±2% @12 m/s
Resolution	0.01 m/s (0.02 knots)
Response Time	0.25 seconds
Threshold	0.01 m/s

DIRECTION

Range	0 - 360° (No dead band)
Accuracy	±2° @12 m/s
Resolution	1°
Response Time	0.25 seconds

MEASUREMENT

Ultrasonic Output Rate	0.25, 0.5, 1, 2 or 4 Hz
Parameters	Wind Speed & Direction or U and V (vectors)
Units of Measure	m/s, knots, mph, kph, ft/min

OUTPUTS

Digital	RS232 + RS422 + RS485**** + NMEA*
Baud Rate	2400 to 38400
Analogue (optional)	0-5v or 0-20mA or 4-20mA

POWER REQUIREMENT

Anemometer	5-30V DC (5.5mA @ 12V)
Optional heating**	24V AC/DC (4.2A @ 24V)
	Start up time < 5 seconds
Analogue Outputs	Current consumption increases if analogue output is selected. Add up to 40mA to nominal power consumption above

MECHANICAL

External Construction	Al. Alloy 6061 T6
Finish	Hard Anodised
Size	142mm x 163mm
Weight	0.9kg

ENVIRONMENTAL

Protection Class	IP66 BS EN 60529 : 1992
Operating Temperature	-40°C to +70°C (with heating) -35°C to +70°C (without heating)
Storage Temperature	-40°C to +80°C
Operating Humidity	< 5% to 100% RH
Precipitation	300mm/hr
EMC	BS EN 61326 : 2006 & BS EN 60945 : 2002
Impact Resistance	UL2218 Class 1
Compass Safe Distance	BS EN 60945: 2002 Section 11.2
Vibration	BS EN 60945 : 2002

OPERATIONAL

Warranty	2 years
Factory Calibration	Traceable to National Standards

ACCESSORIES

Wind Software	Display / Logging**
Pipe Mounting (optional)	44.45mm (1.75 in) diameter
Cables (optional)	Available to match output options
Display (optional)	See Gill Display datasheet

* NMEA 0183

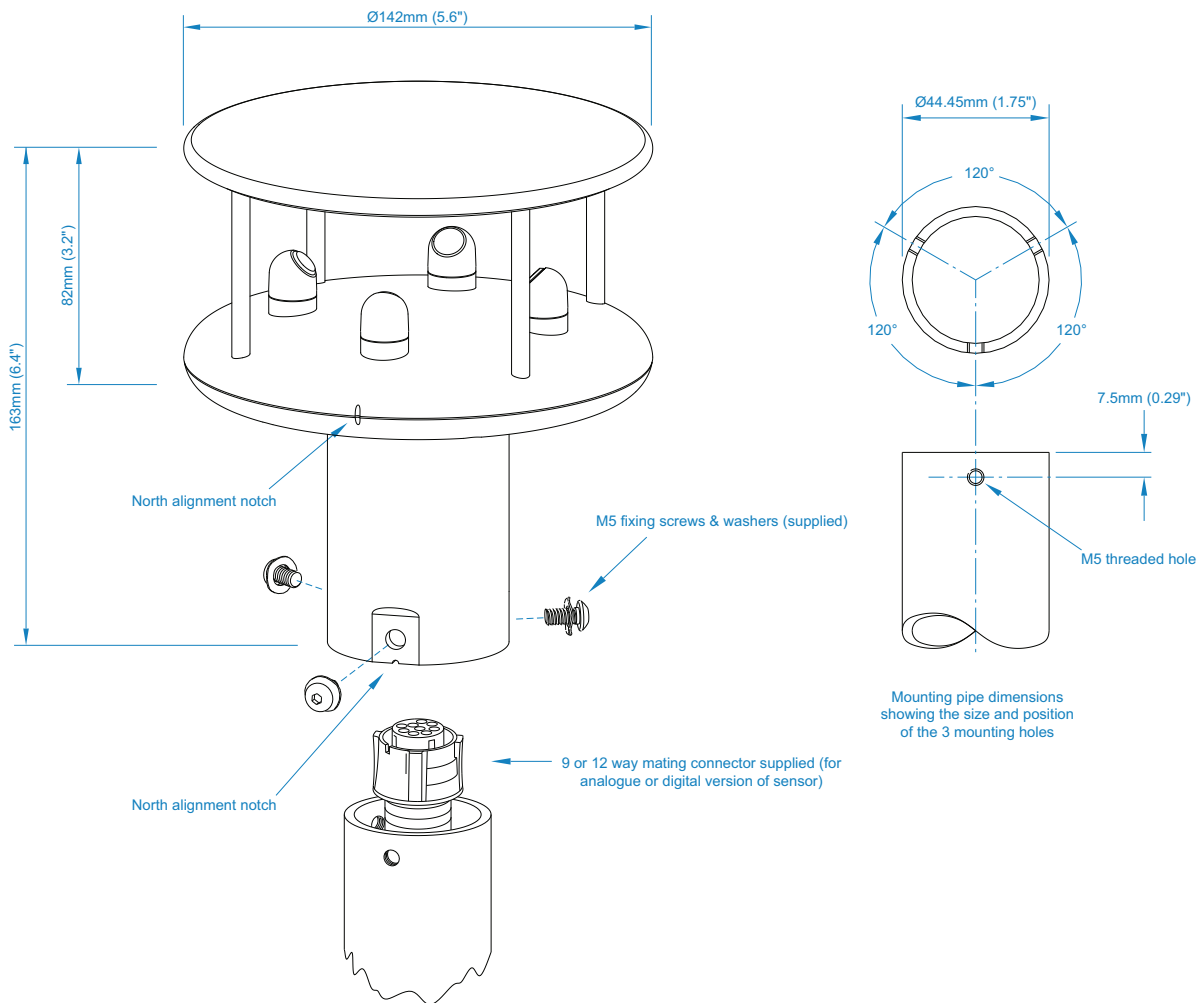
** Consult the technical manual for optimum heating supply voltage.

*** Download software free from www.gillinstruments.com

**** 2-wire is point to point only

Typical Applications

- Remote weather monitoring stations
- Building controls
- Data buoys
- Marine vessels
- Road & rail tunnels
- Environmental field sites
- Ports & harbours
- Mobile weather monitoring vehicles
- Remote airports & helipads
- Coastal weather monitoring stations



Specifications may be subject to change without prior notice.

GILL

Gill Instruments Limited

Saltmarsh Park, 67 Gosport Street
Lymington, Hampshire
SO41 9EG United Kingdom

Tel: +44 (0) 1590 613 500

contact@gillinstruments.com

gillinstruments.com

1405-0029 - Iss 13

Copyright © Gill Instruments 2022

Gill Instruments Ltd, Reg No. 2281574
Registered Office: Towngate House, 2-8 Parkstone Road, Poole, BH15 2PW