WindObserver IS

Intrinsically Safe Anemometer for Hazardous Areas

Key Features

- **ATEX, IECEx & UKEX certification**
- **Low voltage or mains voltage power supplies**
- **Galvanic isolation**
- **Gill or NMEA digital output**
- **Averaging/gusts to WMO guidelines**
- **Reduce offshore maintenance costs**
- **0-75m/s wind speed operation**
- **Over 10 years proven service worldwide**
- **Factory calibrated for life**

The WindObserver IS system is particularly suited to offshore oil production platforms, support tankers, drilling platforms, onshore petrochemical plants and other hazardous petrochemical environments. The system provides wind speed and direction data for use in producing offshore meteorological observations in accordance with UK CAA CAP 437.

The WindObserver IS is certified as 'Intrinsically Safe' for use in the 'Hazardous Area', whilst the associated power and communications interface is located in the 'Non Hazardous Area'.

The ATEX, IECEx & UKEX certification ensures that the wind system may be deployed on a worldwide basis without the need for expensive local recertification.

The system requires no regular maintenance, beyond a visual check, eliminating in-service maintenance costs in the offshore environment where the installation of reliable low maintenance equipment is essential.

Customer selectable vector rolling average and 3 second gust in accordance with WMO - No. 8 Seventh Edition 2008 ISBN 978-92-63-10008-5.

HAZARDOUS AREA

WindObserver IS
Intrinsically safe
ultrasonic anemometer

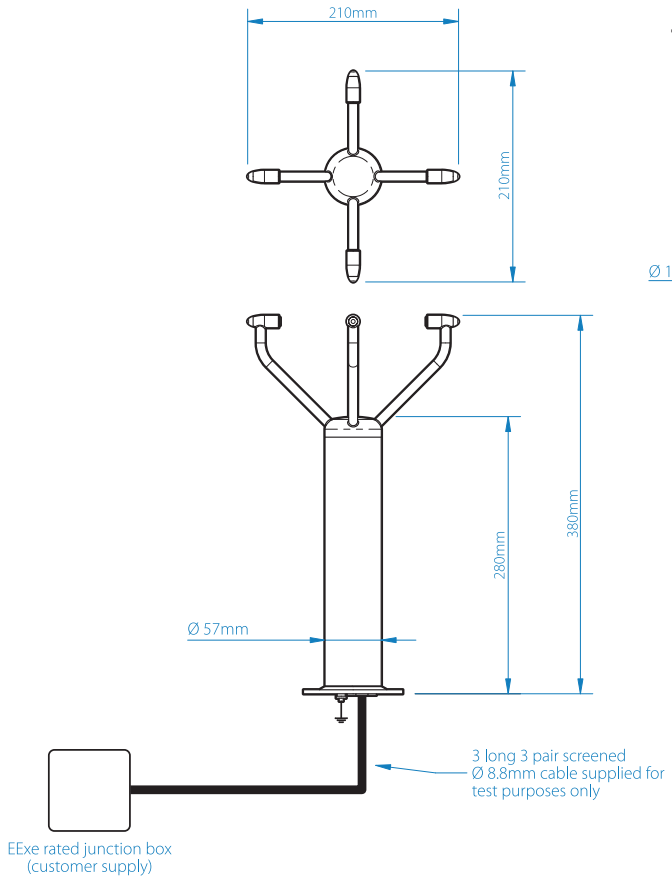
NON-HAZARDOUS AREA

Low voltage (DC)
Power & communications
interface (LVPCI)

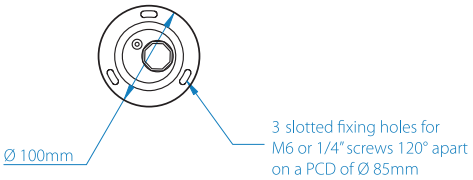
or

Mains voltage (AC)
Power & communications
interface (PCI)

ATEX & IECEx certification is valid for systems that include the WindObserver IS with a Gill Power & Communications Interface only



WindObserver IS Ultrasonic Anemometer for use in Hazardous Areas



WIND SPEED

Range	0 - 75 m/s
Starting Threshold	0.01 m/s
Accuracy	2% at 12 m/s
Resolution	0.01 m/s

DIRECTION

Range	0 - 360°
Accuracy	± 4°
Resolution	1°
Dead Band Direction	None

MEASUREMENT

Output	1 Hz, 2 Hz or 4 Hz
Parameters	UV, Polar and NMEA
Units	m/s, knots, mph, kph, ft/min
Averaging	0 - 3600s

DIGITAL OUTPUT

Communication	RS422, full duplex to PCI or LVPCI
Baud Rates	1200, 2400, 4800, 9600, 19200
Formats	8 bit data, odd, even or no parity
Anemometer Status	Supplied as part of standard Gill message (NMEA output includes V and A codes as part of the message)

POWER REQUIREMENT

Anemometer	6V - 12VDC, 30 mA peak (from PCI or LVPCI) All circuits protected to 0.8 Joules

MECHANICAL

External Construction	Stainless Steel 316
Weight	1.9 kg
Size	380mm x 210mm

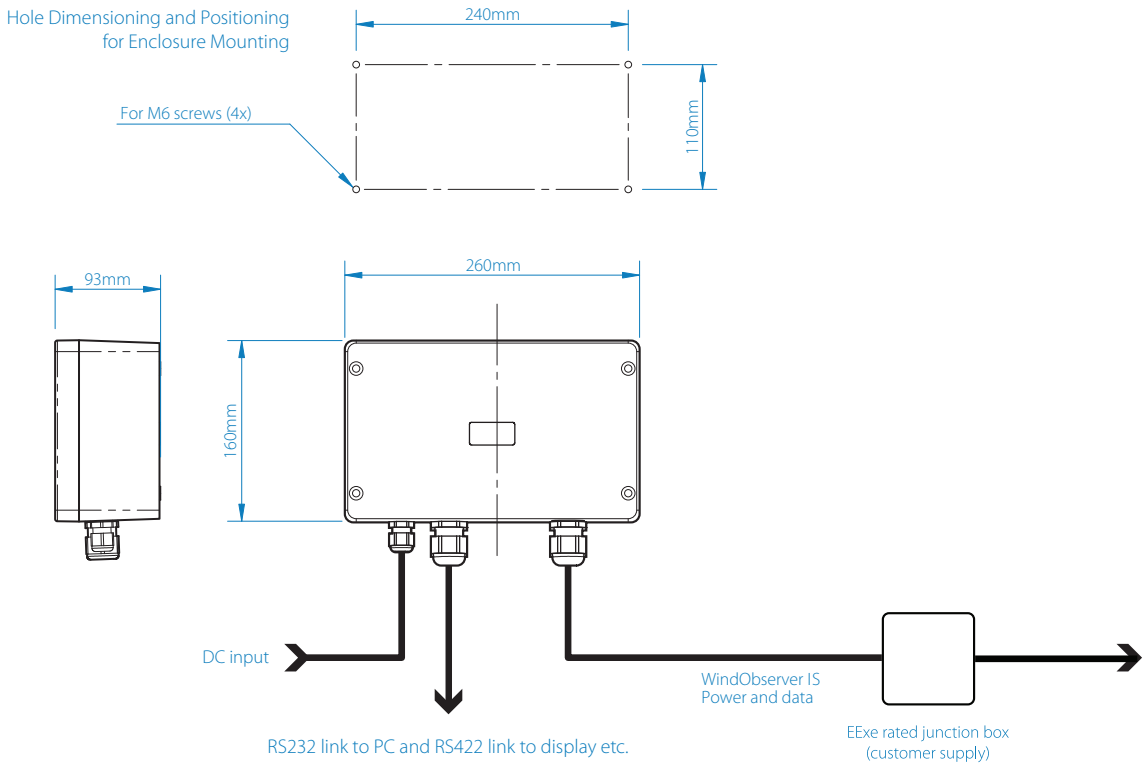
ENVIRONMENTAL

Moisture Protection	IP66 (NEMA4X)
Ambient Operating Temperature	-30°C to + 70°C
Storage Temperature	-50°C to + 75°C
Humidity	0% to 100% RH
Precipitation	300mm/hr
EMC	EN 60945:2002+AC1 (Clause 9, 10 & 11.2) EN 61326-1:2013

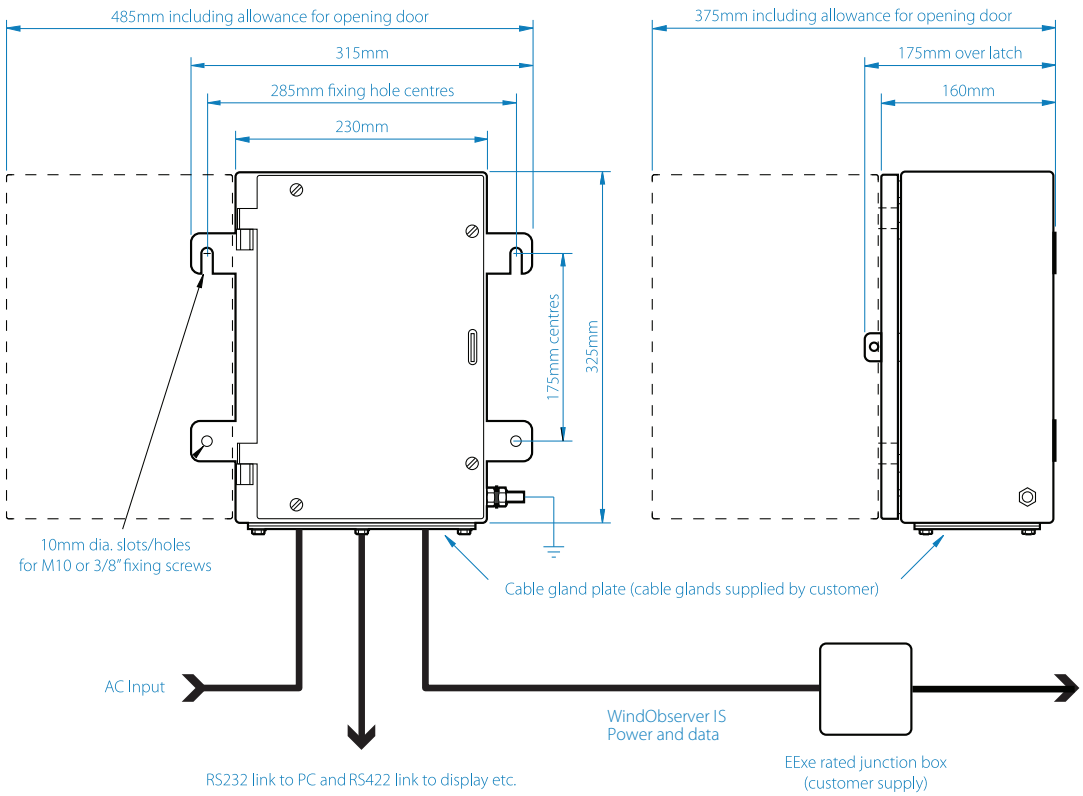
CERTIFICATIONS & APPROVALS

Approvals: Intrinsic Safety	ATEX, IECEx & UKEX certification. Certificates available to view in full on gillinstruments.com

Low Voltage Power & Communications Interface (LVPCI) for use in Non-Hazardous areas



Mains Voltage Power & Communications Interface (PCI) for use in Non-Hazardous areas



CERTIFICATIONS & APPROVALS

LOW VOLTAGE POWER & COMMUNICATION INTERFACE	
Approvals: Intrinsic Safety	ATEX, IECEx & UKEX certification. Certificates available to view in full on gillinstruments.com

MAINS VOLTAGE POWER & COMMUNICATION INTERFACE	
Approvals : Intrinsic Safety	ATEX, IECEx & UKEX certification. Certificates available to view in full on gillinstruments.com

INPUTS AND OUTPUTS

Digital Input	RS422 (data from WindObserver IS to LVPCI)
	Data lines between the anemometer and power supply opto-isolated and protected with zener barriers
Digital Output	RS232 and RS422 (data from LVPCI)

Digital Input	RS422 (data from WindObserver IS to PCI)
	Data lines between the anemometer and power supply opto isolated and protected with zener barriers
Digital Output	RS232 and RS422 (data from PCI)

POWER

Power Requirement	DC Supply
Input Power	9V to 30V dc at 200mA max (fused 20mm, 1 A anti surge)
	Galvanic isolation between input power and WindObserver IS
	No external earth required
Output Power	10.5Vdc at 50mA to WindObserver IS (fused 100mA)

Power Requirement	AC Supply
Input Power	100 Vac - 120 Vac, 10 VA for the 115V switch position 200 Vac - 250 Vac, 10 VA for the 230V switch position
	Galvanic isolation between input power and WindObserver IS supply
	Power Supply case must be externally earthed
Output Power	10.5Vdc at 50mA to WindObserver IS (fused 100mA)

MECHANICAL

External construction	Fibox Euronord Polyester
Size	260 x 160 x 93mm
Weight	2.4 Kg
	Refer to additional information drawing on data sheet or manual

External construction	Stainless Steel 316
Size	230 x 325 x 175mm
Weight	9.5 Kg
	Refer to additional information drawing on data sheet or manual

ENVIRONMENTAL

Moisture protection	IP54
Ambient Operating Temperature	-30°C to +60°C
Storage Temperature	-50°C to +75°C
Humidity	5% to 90% RH
EMC	EN 61326-2-1:2013, EN 61204-3:2000, EN 60945:2002 clause 9 and 10
Standards	Performance traceable to UK national standards

Moisture protection	IP65
Ambient Operating Temperature	-30°C to +60°C
Storage Temperature	-50°C to +75°C
Humidity	5% to 90% RH
EMC	EN61000-6-1:2007, EN61000-6-3:2007/A1:2011
Standards	Performance traceable to UK national standards

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1954 - 004 Iss 10

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OBSERVATOR
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The Observator range is in continuous development and so specifications may be subject to change without prior notice.