

Wireless Wind Speed

Features

- Wind speed measurement range: 4mph to over 100 mph (6.4 to 161 km/h)
- Wind accuracy: +/- 3 mph maximum (typical 1 mph)
- Total error non-linearity and repeatability: <2%
- Radio range with line of sight: 4300 ft. (1300 m)
- Operates with one 'D' cell battery lithium 3.6V.
- Up to 3 years battery life for typical applications.
- Average of 12 months battery life for 24/24 hours use.
- Temperature range: -31°F to 185°F (-35°C to 85°C)
- Waterproof casing.
- Two-way communication with automatic radio power adjustment.



Figure 1, Wireless Wind Speed P/N GS020-V2

Applications

The GS020-V2 anemometer can be used in various types of applications to monitor wind speed and wind gust. It is designed to be used on moving crane and can also be used in a static condition.

General Description

The GS020-V2 is battery-powered stand-alone devices with no interconnecting cables. It utilizes a dual coil construction and generates voltage output proportional to wind speed. Its low moment of inertia and unique bearings permit very rapid response to gusts and lulls. Because of their output linearity these sensors are ideal for use with various data retrieval systems

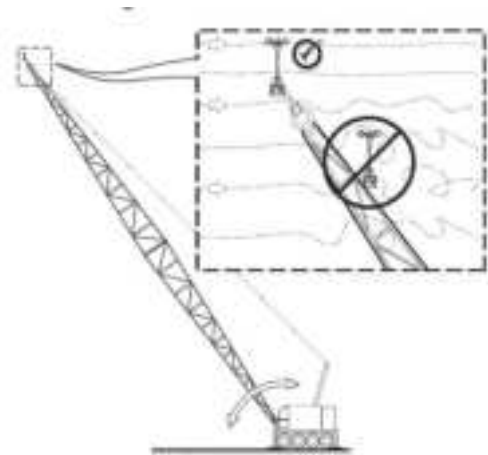


Figure 2, Wind Speed installation on crane boom

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Ordering Information

Model	Description
GS020-V2	Wind Speed Sensor – FCC (916 MHz).
GS020-CSA-V2	Wind Speed Certified Class 1 Division 1, Suitable for Div 1 & Div 2.
GS020-CE-V2	Wind Speed Sensor – CE (868 MHz).

GS020-V2

Specifications

Parameter	Test Condition	Min	Typ	Max	Unit
Wind					
Threshold			1.75		mph
Accuracy			+/- 1	+/- 3	mph
Radio Power					
	GS020-V2		0.0054		W
			7		dBm
	GS020-CE-V2	0.01	0.012	0.015	W
		10	11	12	dBm
Radio Frequency					
	GS020-V2	903	916	927	MHz
	GS020-CE-V2	868	868	870	MHz
Communication Range					
	Clear line of sight		1300		m
			4300		feet
Battery life					
40 hour/week	‘D’ cell lithium		36		Month
24/24 hours	‘D’ cell lithium		12		Month
Other					
Weight	GS020-V2		6		lb
			2700		g

Absolute Maximum Ratings

Parameter	Test Condition	Min	Typ	Max	Unit
Temperature range	Operating	-35		85	°C
		-31		+185	°F

Certifications

FCC/IC/CE certification – FCC Part 15 Subpart C 15.247,15.205, 15.207 & 15.209
ETSI EN 300 220 (AA)

EMI/C: EN 61000-4-3, EN 301 489-1 - Clause 8.2

CSA Certificate Number – 80130757

CSA C22.2 No. 60079-0:19, 60079-11:14 (R2018), 61010-1-12, Update 1&2, Amd1:2018
UL 60079-0-2020, UL 60079-11-2018, UL 61010-1-2018

Class I, Division 1, Group A, B, C & D T4
Ex ia IIC T4 Ga
Class I, Zone 0, AEx ia IIC T4 Ga

Ambient Temperature: -20°C to 40°C.

GS020-V2



WARNING: Only use Tadiran TL-5930 3.6V or Saft LS33600 cell 3.6V text.

l'avertissement: Utilisez uniquement du texte Tadiran TL-5930 3,6 V ou Saft LS33600 3,6 V.

WARNING: “Potential Electrostatic Charging Hazard” – See Instruction (for Wind Speed Sensor GS020-CSA-V2 only)

Under certain extreme circumstances, the non-metallic parts incorporated in the enclosure of this equipment may generate an ignition-capable level of electrostatic charge. Therefore, the equipment shall not be installed in a location where the external conditions are conducive to the build-up of electrostatic charge on such surfaces. In addition, the equipment shall only be cleaned with a damp cloth.

AVERTISSEMENT : "Risque potentiel de charge électrostatique" - Voir les instructions (pour le capteur de vitesse du vent GS020-CSA-V2 uniquement)

Dans certaines circonstances extrêmes, les pièces non métalliques incorporées dans le boîtier de cet équipement peuvent générer un niveau de charge électrostatique capable de s'enflammer. Par conséquent, l'équipement ne doit pas être installé dans un endroit où les conditions extérieures sont propices à l'accumulation de charges électrostatiques sur ces pièces. conditions extérieures sont propices à l'accumulation de charges électrostatiques sur ces surfaces. En outre, l'équipement ne doit être nettoyé qu'à l'aide d'un chiffon humide.

Dimensions and Installation

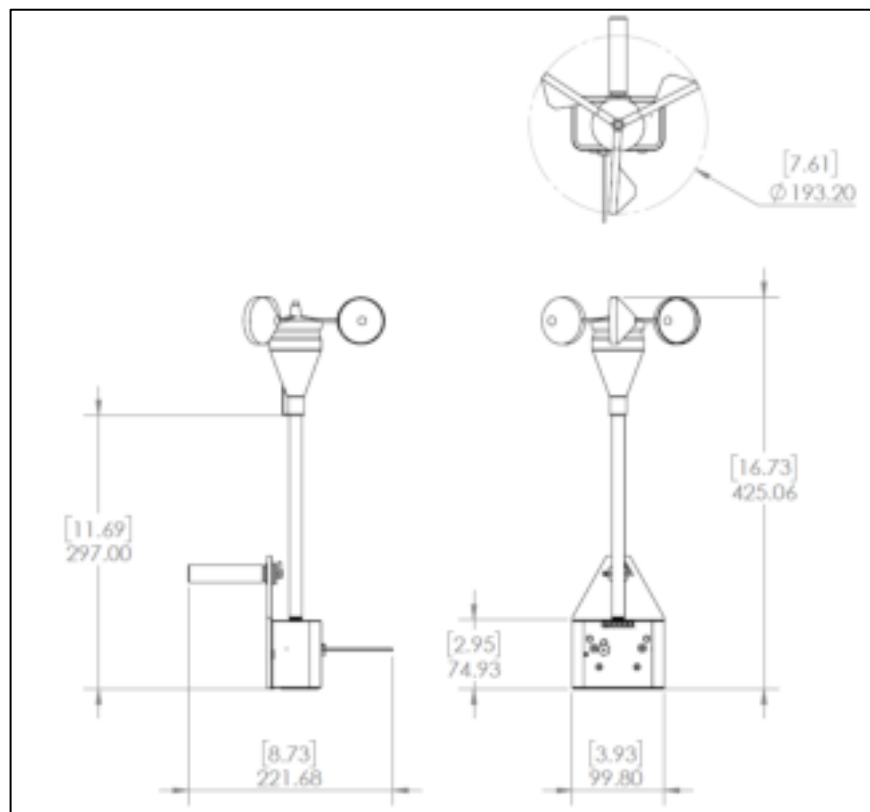


Figure 3: General dimensions (not to scale), in inches [mm]

GS020-V2

For optimal performance, the anemometer should be installed in a place where the wind can flow freely with no obstruction or perturbation. See *Figure 2*. The utilization of the GS020-V2 Anemometer is not limited to crane industry. It can also be used on any static structures.

Materials:

The black Lexan cups (virtually shatterproof) have thermal properties which let it resist and shed icing far more effectively than metal assemblies.

PMN: GS020-V2
HVIN: MB106_M-03

FCC Compliance Statement (USA)

FCC ID: S9E-GS200B

Compliance Statements: This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including, an interference that may cause undesired operation.

Caution Statements:

- Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.
- This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and your body.

Industry Canada (IC) Compliance Statement

IC: 5817A-GS000B

Compliance Statements: This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: 1) This device may not cause interference., 2) This device must accept any interference, including interference that may cause undesired operation of the device.

Déclarations de conformité: Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Caution Statements:

- This equipment complies with radio frequency exposure limits set forth by Industry Canada for an uncontrolled environment.
- This equipment should be installed and operated with a minimum distance of 20 cm between the device and the user or bystanders.

Déclarations de mise en garde:

- Cet équipement est conforme aux limites d'exposition aux radiofréquences définies par Industrie Canada pour un environnement non contrôlé.
- Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance dispositif et l'utilisateur ou des tiers.

Information to the User

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.