

$\begin{array}{ll} PSG & 6M - X - W - CS \\ PSW & 6M - X - W - CS \end{array}$



Specifications	
Power source	4.5 – 36 VDC
Wireless interface	Wireless communication requires both wireless cable and CTi USB
	dongle. Neither of them can
	connect to another wireless
	device.
Protection	IP 67 (connector and cable) [‡]
Material	Connector: brass / nickel
	Cable molded head: TPU
	Cable carrier: TPU or nylon
	Conductor insulation: PVC
Operational	-40°C to +85°C (-40°F to +185°F)
Temperature Range	

Χ

meter (non-stock)

meter (non-stock)

meter (non-stock) <u>meter (Only PSG)</u>

meter (non-stock)

meter (non-stock)

Interface

G

U USB <u>W Wireless</u>**

<u>meter</u> <u>meter</u>

meter

_

CS

UART / RS232 / RS422 / RS485

Communication Cable Part Number §

Х

Length

<u>1</u> 2

<u>3</u>

4

5

6

10

15

30

<u>Straight</u>

Right Angle

XXX

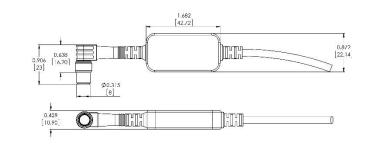
Type <u>PSG 6M</u>

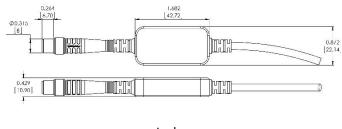
PSW 6M

XX

Connector Pins	RS232/UART / USB ⁺⁺	RS422	RS485	Wireless	Wire Color
Pin 1	+Vin	+Vin	+Vin	+Vin	Brown
Pin 2	GND	GND	GND	GND	White
Pin 3	ТΧ	TX+	D+	—	Blue
Pin 4	—	TX-	D- –		Black
Pin 5	RX	RX+	D+ –		Gray
Pin 6	—	RX-	D-	-	Pink
$1 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 3 \\ 4 \\ 3 \\ 4 \\ 3 \\ 3 \\ 4 \\ 3 \\ 3 \\ 4 \\ 3 \\ 3$	Device: M 8 – 6-contact (female)		Cable: M 8 – 6-pin (male)		

Dimensional Drawing





Inch [millimeter]

[‡] Excluding CTi sensors receiver dongle.

Terminal Assignment

[§] Available options for this model are <u>underlined</u>.

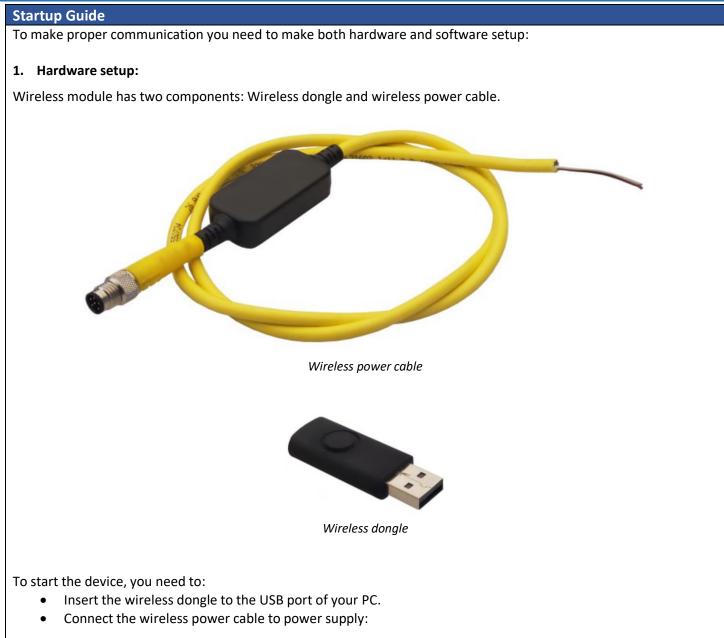
**Wireless Module on device side must be powered.

 $^{\rm ++}$ USB interface uses UART interface and a UART to USB driver.

Wireless Module Datasheet - 221110



$\begin{array}{ll} PSG & 6M - X - W - CS \\ PSW & 6M - X - W - CS \end{array}$



Please note Vin is Brown and GND is white.



2. Software setup

To setup the software please follow up the following steps:

- Download and install the appropriate GUI software, <u>CTi SENSOR CONNECT (CSC)</u> software for IMU, VRU and AHRS devices, <u>WinCTi-Tilt for Tilt-57</u>, and <u>WinCTi-Tilt</u> for all other tilt sensor devices. You can download the software from CTi website.
- Once the installation is successful, open the main panel (the screenshots on this document are captured with CTi SENSOR CONNECT):

CTi Sensor Connect				-		×
Home Config View Tool						
Connection COM Port Baud Rate Data Rate V 115200 V 2 V Co	onnect	Message Format Con ASCII Sensor ASCII Euler ASCII Quaternion ASCII System	trol Binary Sensor Binary Euler Binary Quaternion	REC 0	Samples	
Log						^
Record	Pause	Stop	Clear			~
Enter a command and click on 'Send'					Se	nd
Disconnect						

CTi SENSOR CONNECT (CSC) software main panel

- Select the following connection parameters and click on Connect once dongle established wireless connection with wireless module. User should select the following Connection parameters for serial communication:
 - o COM Port: Select the available COM port
 - Baud Rate: There is only one Baud Rate available. Wireless version only supports 115200bps.
- Once serial communication is established, data stream will be shown on the Log box.



$\begin{array}{ll} PSG & 6M - X - W - CS \\ PSW & 6M - X - W - CS \end{array}$

Wireless Module Accessories

CTi Sensor Connect		– 🗆 X
<u>H</u> ome <u>C</u> onfig <u>V</u> iew <u>T</u> ool		
Connection	Message Format Control	REC Samples
COM PortBaud RateData RateCOM261152002V	ASCII Sensor Binary Sensor ASCII Euler Binary Euler ASCII Quaternion ASCII System	0
Log		
\$CSGPS,+0225.06,+0449.17,-0854.04,+0000.48,+0000.05,+ \$CSGPS,+0225.05,+0449.21,-0854.03,+0000.48,+0000.05,+ \$CSGPS,+0225.03,+0449.20,-0854.12,+0000.47,+0000.05,+ \$CSGPS,+0225.11,+0449.14,-0854.03,+0000.48,+0000.03,+ \$CSGPS,+0225.02,+0449.12,-0854.06,+0000.49,+0000.04,+ \$CSGPS,+0225.03,+0449.11,-0854.04,+0000.46,+0000.03,+ \$CSGPS,+0225.01,+0449.18,-0854.00,+0000.47,+0000.02,+ \$CSGPS,+0225.04,+0449.09,-0854.02,+0000.47,+0000.02,+ \$CSGPS,+0225.06,+0449.22,-0854.01,+0000.47,+0000.05,+ \$CSGPS,+0225.06,+0449.14,-0854.06,+0000.47,+0000.03,+ \$CSGPS,+0225.10,+0449.15,-0854.05,+0000.46,+0000.03,+ \$CSGPS,+0225.00,+0449.18,-0854.09,+0000.48,+0000.02,+ \$CSGPS,+0225.00,+0449.17,-0854.03,+0000.46,+0000.04,+	0000.27,-0009.14,-0023.52,+0085.67,+036 0000.25,-0009.14,-0023.51,+0085.72,+036 0000.26,-0009.12,-0023.51,+0085.65,+036 0000.26,-0009.12,-0023.51,+0085.63,+036 0000.24,-0009.10,-0023.51,+0085.66,+036 0000.26,-0009.12,-0023.53,+0085.64,+036 0000.25,-0009.13,-0023.51,+0085.67,+036 0000.26,-0009.13,-0023.51,+0085.67,+036 0000.26,-0009.13,-0023.52,+0085.60,+036 0000.26,-0009.15,-0023.51,+0085.67,+036 0000.26,-0009.12,-0023.52,+0085.63,+036	^
		~
Record Pause	Stop Clear	

CTi SENSOR CONNECT (CSC) software once data stream is established

Notes:

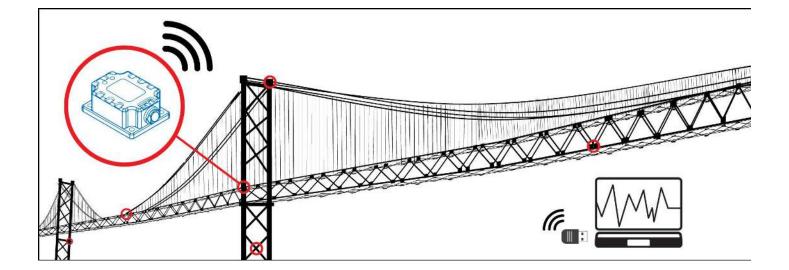
- The selections in message format control are based on the CTi Sensors product type. Different type of product supports different selection sets.
- Wireless version cannot change baud rate. Do not use the command "\$nBxxx*<cr>" to change baud rate.



Applications:

- Why: Wireless module is specially designed for inaccessible environments, which need remote monitoring.
- **How:** Using wireless module, sensor data are sent remotely from each measurement unit (sensor) to the host (computer) within the 50 m range around the measurement unit.
- Where: Structural failures are sudden and catastrophic. Structural Health Monitoring (SHM) is the process of adding damage or distortion detection strategy to the structure, which plays a major rule in public safety. SHM systems consist of an array of sensors connected to a host, which monitors data periodically.

Wireless module provides an easy to use and accessible framework to send and receive sensor data without the need to physically connect sensor modules to host.



Warranty: This product has 18 months limited warranty. For more information, please visit: www.CTiSensors.com/warranty

This product is entirely designed and manufactured in the U.S.A.

CTI SENSOR, INC. 30301 Emerald Valley Parkway, Unit B Solon, OH 44139 Phone: (440) 264 - 2370 Email: sales@CTiSensors.com

All contents of this document are subject to change without any notice.