

SPURTRONIC PTE LTD

No. 2, Joo Koon Road, Jurong
Singapore 628966
Tel: (65) 6861 5555 Fax: (65) 6862 4973
info@spurtronic.com
www.spurtronic.com
Company Registration No: 200505131C



VM500-XX SGP Model - Data Collection Package Manual (RS232 Interface)

General Description

- The Data Collection Package option allows a PC to download the temperature and or humidity measurements collected by a Temperature Guard product. Once the software is configured, it will poll the Temperature Guard at the specified interval.
- The data is stored in a CSV file in the specified directory. The comma delimited CSV file can then be imported directly into Excel for examination.
- The Temperature Guard Data Collection Screen shows all operational information.
- Status information is displayed in the yellow field and the temperature / humidity data is displayed in individual text boxes.
- The Data Collection Configuration Screen allows the data collection process to be customized. On this screen you can select the RS232 port, the directory to save the log file, how often to start a new log file, and how often to collect data from the Temperature Guard.
- Data logging does not interfere with the monitoring and alarming functions of the Temperature Guard.

Software System Requirements

Windows 95 or higher
Available RS232 port
Program size: 60K

Tips – Should there be no RS232 port available, purchase a USB to RS232 interface adaptor
Install the USB-RS232 adaptor to your PC, load the driver with the CD provided
Install the RS232 cable provided from the Temperature to the USB adaptor.

Installation

- 1) Insert the installation disk in the CD drive.
- 2) If auto-run is enabled, follow the instruction on the screen.
- 3) If auto run is not enabled, find setup.exe on the disk and double click to start the program.
(Follow the instruction on the screen)

Configuring the Data Collection Software

- 1) Start the program
- 2) If this is the first time running the program, you will see the following prompt "Please verify configuration arameters, prior to enabling data collection." Click on the OK button.
- 3) Click on the "Configure" menu item.
- 4) Select the RS232 Com Port that will be used for communications.
- 5) Select how often to start a new data log file. (see Suggestion below)
- 6) Select how often to poll the Temperature Guard for data to update the log file.
- 7) Select the directory to store the log files. The log files are named with the date the file was created (i.e. 2-14-03.csv)
- 8) Select the Temperature Guard model the software is communicating with.
- 9) Connect the com port on the PC to the Temperature Guard, and turn the Temperature Guard on.
- 10) Test the communication by clicking on the "Test Communication" button. If successful, the Temperature Guard model will be displayed. If unsuccessful, a warning message will be displayed. If the warning message is displayed, verify the com port and cable connection.
- 11) Click on the "Apply" button to save your selections. The options are saved in a file named "TemperatureGuardConfig.dat" and is stored in the directory the program is installed.

Suggestion: If you intend to collect data at a fast rate, start a new log file daily to limit the file size. If you intend to collect data at a slow rate, once an hour, you can select a long time between generating a new log file.

SPURTRONIC PTE LTD

No. 2, Joo Koon Road, Jurong
Singapore 628966
Tel: (65) 6861 5555 Fax: (65) 6862 4973
info@spurtronic.com
www.spurtronic.com
Company Registration No: 200505131C



Enabling Data Collection

Connect the selected com port on the PC to the Temperature Guard with the included cable. Turn on the Temperature Guard. Click on the "Enable Monitor" button. The button's label will change to "Disable Monitor" and the "Configuration" menu item will be disabled.

The yellow status box will show the following:

Current log file name:

Next log reading:

Monitor is...Enabled

Communication...ok

The monitor is now logging data at the specified rate and storing the data in the specified directory.

Exiting the Program

If monitoring is enabled, click on the "Disable Monitor" monitor.

Click on the "Exit" item.

If monitoring is disabled, click on the "Exit" menu item.

Interpreting the Data on the Display

The display shows the data collected from the Temperature Guard:

If a sensor is not connected, "N/C" is displayed.

If a sensor opens circuits, "OPEN" is displayed.

If a sensor shorts, "SHORT" is displayed.

Temperature data is in degrees C or F depending on the model.

Humidity is displayed as %RH.

Alarm Relay

Displays "OPEN" if there is no alarm condition.

Displays "CLOSED" if there is an alarm condition.

Computer Room Guard Water Sensor Input

If no water is present, "OPEN" is displayed.

If water is present, "CLOSED" is displayed.

Refrigerator/Freezer Guard and Cryogenic Freezer Guard Inputs / Alarm Input

Displays "OPEN" if the alarm input is open.

Displays "CLOSED" if the alarm input is closed.

Callout Disable

Displays "OPEN" if callouts are enabled at the Temperature Guard.

Displays "CLOSED" if callouts are disabled at the Temperature Guard.

Troubleshooting

Problem: The yellow status box indicates that the monitor is enabled and Communication is ok, but no data is being displayed.

Solution: Verify in the configuration screen that the correct model Temperature Guard has been selected.

Problem: The message: "Com port x is not available"

Solution: Verify that the com port exists and that no other program is trying to use this port. If this port is being used by another program, select another port.

Problem: The message: "*Communication failure at date time*" is displayed.

Solution: The software will try three times to get data from the Temperature Guard. This message is displayed if no data is returned from the Temperature Guard after the third try. Verify that the Temperature Guard is on and that the included serial cable or a standard straight through cable is being used.

Problem: The message: "Com port x...is not available" is displayed.

Solution: The selected com port is in use by another program or not available. Verify that the com port is not in use. If it is in use, select another com port.

SPURTRONIC PTE LTD

No. 2, Joo Koon Road, Jurong
Singapore 628966
Tel: (65) 6861 5555 Fax: (65) 6862 4973
info@spurtronic.com
www.spurtronic.com
Company Registration No: 200505131C



DATA COLLECTION PACKAGE - COMMUNICATION SPECIFICATION

General

This document outlines the communication protocol between a Temperature Guard product with Data Collection Package and a PC over a RS232.

The Data Collection Package was designed to allow any device with an RS232 communication port to retrieve all data collected by a Temperature Guard product.

Communication Specifications

Type: RS232, ASCII Format
Baud rate: 2400
Data bits: 8
Parity: None
Stop Bits: 1

Communication Details

When the Temperature Guard receives the "?" character followed by a carriage return, it will return the temperature/humidity of each zone, and the current status of all inputs in a single string. The returned string depends on the Temperature Guard model. The return strings are shown below.

VM500-5, VM500-7 Return String:

,Zone 1 Temp, Zone 2 Temp, Zone 3 Temp, Zone 4 Temp, Zone 5 Temp, Zone 6 Temp, Zone 7 Temp, Zone 8 Temp, Input 1 Status, Input 2 Status, Relay Status, CR, LF

VM500-8 Return String:

,Zone 1 Temp, Zone 1 RH, Zone 2 Temp, Zone 2 RH, Zone 3 Temp, Zone 3 RH, Zone 4 Temp, Zone 4 RH, Input 1 Status, Relay Status, CR, LF

A value of 1000 for a temperature or humidity input indicates that the sensor is not connected.
A value of 999 for a temperature or humidity input indicates that the sensor has opened.
A value of -999 for a temperature or humidity input indicates that the sensor has shorted.
A value of 1 for a dry contact input or the relay output indicates an closed state.
A value of 0 for a dry contact input or the relay output indicates an open state.
A value of 1 for a water sensor input indicates a water detected state.
A value of 0 for a water sensor input indicates a no water detected state.
A value of 1000 for a dry contact input, water sensor input, or the relay output indicates that the power is out, so a reading could not be made.