TEX-SD-LOG

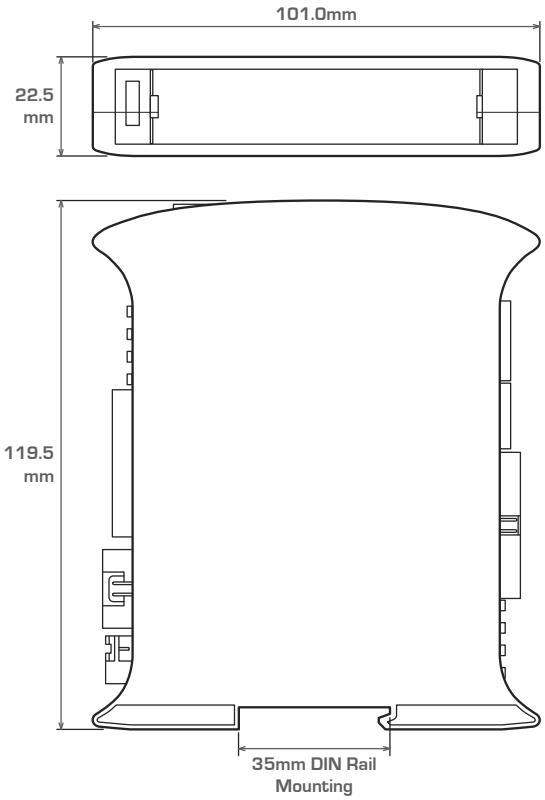
Data-logging memory module

Never before has the TEX-ICC400 controller had so much storage space! This convenient new data-logging memory module instantly expands your controller's 3MB memory to 1GB.

But the best part is that your data is now stored on a standard SD card, so it can be read directly using your PC or card reader. Instead of bringing your PC to the controller, you can simply eject the SD card and take it with you. Data can also be retrieved via your TEX-ICC400's communication port, as usual.

Logfiled data from the data-logging memory module can then be imported into the Texmate Data Viewer software, where a range of sorting, graphing, display and export options are instantly available.

(Download the Texmate Data viewer from www.texmate.co.nz/downloads or see pages 3-4 for more information).



Capacity (with supplied 1GB card):

- 32 million samples at 1-6 channels + time stamp
- 16 million samples at 7-14 channels + time stamp
- 8 million samples at 15-16 channels + time stamp

Product Specifications:

- *Rate:* Up to 100 samples/second
- *Time Stamp:* 1/100 of a second
- *SD Card:* Accepts standard SD cards up to 1GB. (1GB SD card included.)
- *Case:* Polycarbonate
- *Dimensions:* 101mm H x 22.5mm W x 119.5mm D

Connection Procedure

To function correctly, the TEX-SD-LOG data-logging module must be connected to the expansion bus connector of a TEX-ICC400 controller with the 20-way ribbon cable provided. (If your system has one or more I/O modules, please contact Texmate NZ for a 3-way expansion cable). A TEX-ICC400 controller cannot have more than one TEX-SD-LOG module connected to the expansion bus at a time.

ALWAYS power down the TEX-ICC400 controller before inserting or removing any ribbon cable connectors from the expansion bus. Plugging or unplugging modules while the system is operating may cause some modules to be rendered temporarily off-line.

Operating Status

The current operating status of the TEX-SD-LOG data-logging module is indicated on the front panel via two status LED's labelled 'Busy' and 'OK'. The following 4 operating states are possible:

	LED's	*Busy*	*OK*	*Operating State*
1	○●	Off	On	The TEX-SD-LOG is ready to log data. For this state to be active: • an SD card of the correct type must be fully inserted into the card slot (see compatible card types below) • the SD card must be formatted correctly as FAT • the card must have the Texmate logging file created (this is done by the module after the first insertion) • the cover must be closed
2	○◐	Off	Flashing	The TEX-SD-LOG is almost ready to log data, but the cover is open. Logging can only commence when the cover is closed.
3	●○	On	Off	The TEX-SD-LOG has found a new SD card and is busy creating the required data-logging files on the card. This procedure should take less than a minute to complete (typically 10 - 20 seconds).
4	◐○	Flashing	Off	There is no SD card inserted in the card slot, or the data logging module does not recognise the card as a compatible SD card (see compatible card types below).

Power Up

During the power-up procedure, the TEX-ICC400 will automatically scan for the presence of a data-logging module. If a TEX-SD-LOG is connected and its current operating status is 'OK' (status (1) in the table above), the TEX-ICC400 will proceed with a normal startup procedure and all data-logging writes will be stored on the SD card. If a status other than 'OK' is indicated on the TEX-SD-LOG, then data-logging to the SD card cannot proceed.

One possible reason for this is that the data-logging module is busy creating the data files on a new SD card. This process could take up to 30 or 40 seconds for large cards. Once it has completed, the status will change to 'OK' and normal operation of the TEX-ICC400 will resume.

DO NOT interrupt this process by turning off the controller or attempting to remove the card. Doing so may corrupt the card, requiring it to be reformatted!

If the TEX-SD-LOG's status is other than 'OK', the TEX-ICC400 will wait for up to 1 minute before it starts normal operation. During this time, if you have a remote display attached, (ie. A 1602, DI-60AT5, or DI602AT5 display), the message "207/SD CARD" will be displayed. You can press the 'P' button at any time to bypass the 1-minute time out and continue with normal start-up.

If the status of the TEX-SD-LOG does not change to 'OK' within one minute, the controller will continue with a normal start-up but logging to the SD card will not be possible.

Data logging is not possible unless the cover is closed and the 'OK' LED is permanently on

Compatible Card Types/Formats

Most common SD card sizes from 64MB to 1GB will work in the SD data logging module (512MB or 1GB are recommended). The data logger module will create a file called 'TXMDTLOG.BIN' and will use up as much space as is available.

The card's file system should be formatted as FAT for the Windows operating system. If the 'Busy' LED on the data-logging module stays on for more than 1 minute, remove the card and place it in a PC card reader. Check that it is formatted correctly and that there is enough free space on the card. If necessary, you may need to re-format the SD card using the Windows 'Format' option.

Some older (smaller) cards may not function correctly with the TEX-SD-LOG module. If the operating status 'Busy' LED flashes continuously and you are sure that the card's file format is correct (FAT), the card should be replaced with a larger/newer one or one from a different manufacturer.

Although in most cases the data-logger will operate with cards which already contain other file types, we recommend that you use a 'clean' SD card dedicated for the purpose, without other data files on it.

TEX-ICC400 Internal Data-logging Memory

When the TEX-SD-LOG data-logging module is connected to the TEX-ICC400 controller, any internal data-logging memory installed in the TEX-ICC400 is disabled, however the real time clock data from the TEX-ICC400 internal real-time clock will still be used to time stamp samples.

Texmate Data Viewer

Download it from **texmate.co.nz/downloads**

Data-log processing software

The Texmate Data Viewer is ideal for research experiments, environmental monitoring, process monitoring and quality management. It can display up to 16 channels of data (+ time stamp), and makes data retrieval, removal and graphing easy.

Importing data

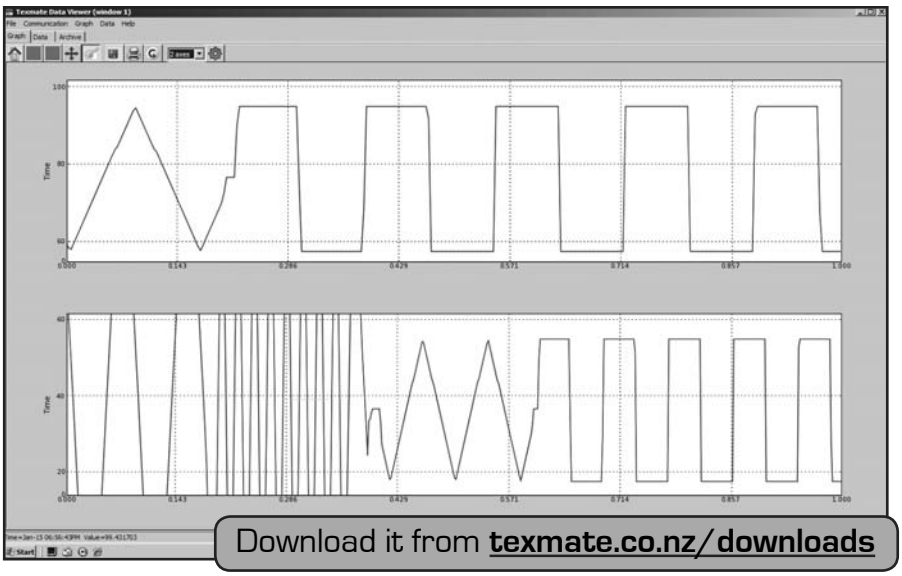
Data can be imported either live from the meter, or from a saved data-log. A saved data-log can be extracted either directly from the SD card in your TEX-SD-LOG, or from your TEX-ICC400 (via a serial (RS232/485) or Ethernet (TCP/IP) connection).

Configuring your data-log

With the data-viewer you can set logging timers and triggers, and print data for serial printers.

Graphing

Your live data or data-log can be graphed. The data viewer can display up to 6 graphs at once, and allows you to customise legends, axes, titles and colours. You can also zoom and pan for easy viewing.



Download it from **texmate.co.nz/downloads**

Exporting

Information can be exported from the data viewer to other formats, including spreadsheets (suitable for opening with standard programs such as Microsoft Excel). You can also print your graph or export it as an image (.bmp, .png, or .eps).

Clearing Log Data

Once logged data has been downloaded and saved, you can use the data-viewer to clear the old data:

- **If the SD card is inserted in the data logger module** and your TEX-ICC400 is connected to your PC, click *'Communication'* (top left of window) ›› *'Delete log in meter...'*.
- **If the SD is being read directly on your PC** in a card reader, click: *'File'* (top left of window) ›› *'Delete log on SD card...'*. You will be prompted to specify the data-log file name and location. When you press *'Open'*, the logged data will be cleared.

Note

Clearing the log data using one of the above methods resets the log read and write pointers back to zero - it does not actually erase the data file. Until new log data is written to the card, the old data will remain intact and can be retrieved by restoring the write pointer to its original position. Contact Texmate for more information on how to write to the log pointer.

TexmateNZ intelligent-control

Unit 2, 10 Canaveral Drive, Albany,
North Shore City
0632, New Zealand

Ph: +64 (9) 835-1550 Email: info@texmate.co.nz
Fax: +64 (9) 835-1250 Web: www.texmate.co.nz

Distributor:

DOCUMENT REVISION CODE: SDL-MAN-07-V.02