

Cell voltage measurement

SMARTDAC+ GM Data Acquisition & Control



What is SMARTDAC+ GM ?

The Data Acquisition System GM is a highly versatile and expandable data logger that uses Yokogawa's unique block structure that allows you to easily combine the modules you need. Since all modules can be attached and detached independently after installation, maintenance is also excellent.

Application for Batteries

SMARTDAC+ GM is ideal for applications that measure the voltage of each cell, such as fuel cells, secondary batteries, and electrolyzers.

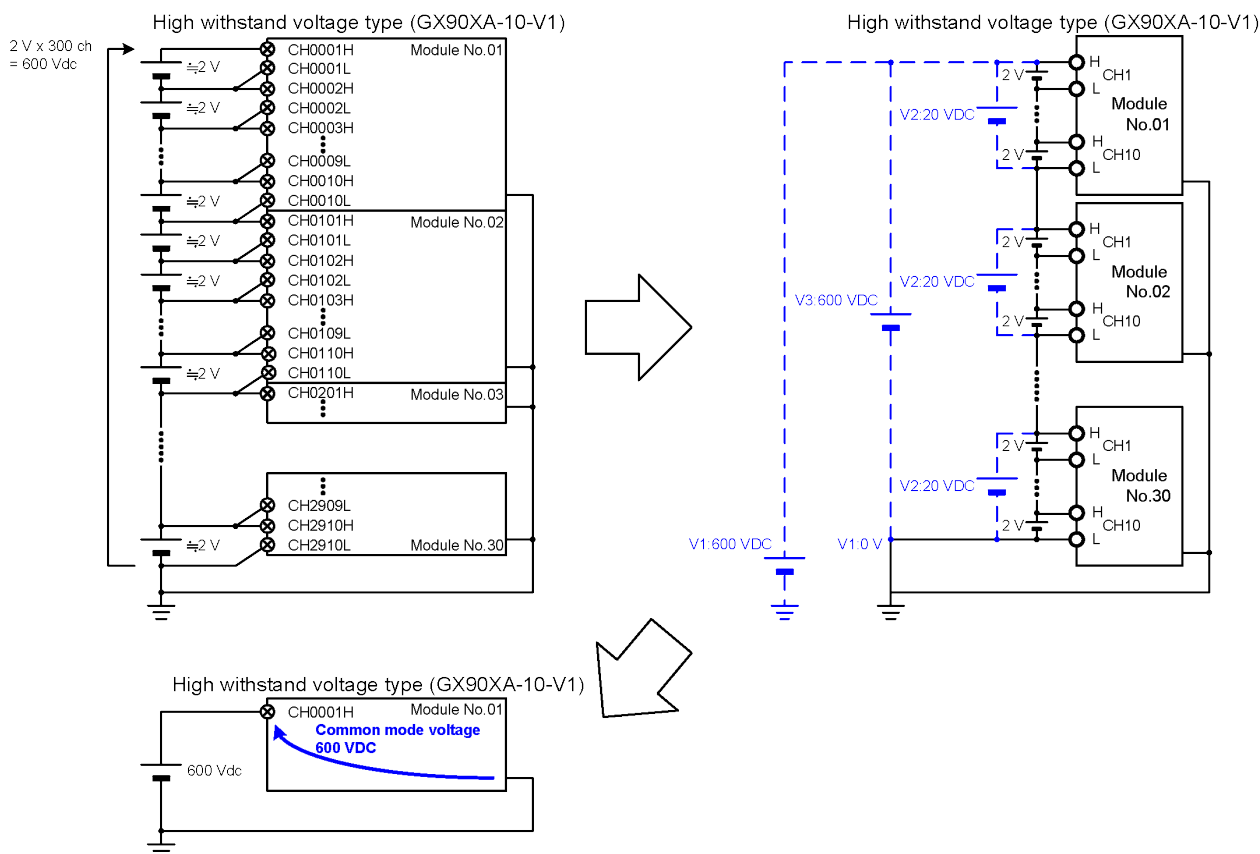
SMARTDAC+ GM's high withstand voltage performance allows you to safely measure the cell voltage of various batteries. Multi-channel synchronous measurement and high common mode voltage support are possible. Contributes to battery quality assurance and data management in the charge/discharge process.

Capabilities

- Flexible response to changes in the number of channels
- Easy access from a web browser
- Compatible with open networks
- High performance and high reliability design
- Environmental resistance and noise resistance

Working with High Voltage Measurement Applications

Even if each individual measurement target of an application has a low voltage, the combined voltage can be high when there are many low voltage measurement targets. Caution is required for applications like this. The measurement of cell voltages for electrolyzers and fuel cells is a typical example of this type of application.



The individual cell voltages in the example given in Figure 1 are only about 2 V, but a common mode voltage of up to 600 VDC may be applied if 300 ch of cells are connected in series. When measuring for a high voltage application like this, please use the high withstand voltage type (GX90XA-10-V1) which can handle a common mode voltage of up to 600 VACrms/VDC.

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