

Modbus Interface Module (MIM) Frequently Asked Questions

What is Modbus?

Modbus is a serial communication protocol that allows a wide variety of instruments to be connected to a common data collection network. Modbus is typically used on SCADA systems, and can be used on any Modbus-enabled network. Modbus is commonly used by irrigation districts, water treatment plants, and other industrial facilities to gather data from a wide variety of sensors and to control gates and other devices.

What is the Modbus Interface Module?

The SonTek/YSI Modbus Interface Module (MIM) is a device that allows a SonTek Argonaut system to be connected to a Modbus data acquisition network. This provides simple and powerful method for accessing all major parameters measured by the Argonaut on an established data collection and control network.

How does the MIM work?

The MIM uses Modbus RS-232 Serial protocol and operates as an RTU slave device, storing Argonaut data in a series of Modbus registers. A Modbus network requests data from specific registers in order to monitor the Argonaut data in real time.

What SonTek/YSI systems can be used with the MIM?

Any Argonaut-SL, SW, or XR with firmware version 11.3 (released February 2006) or later is compatible with the MIM.

Is my existing Argonaut system compatible with the MIM?

As mentioned above, any Argonaut-SL/SW/XR system needs firmware v11.3 or later to support the MIM. A system with firmware v7.0 or later can be upgraded to v11.3 at no charge. Upgrading from v7.0 to v11.3 does not require the system to be sent to SonTek. Any systems with firmware versions before v7.0 would need to be returned to SonTek for a hardware upgrade (there is a fee for this service). You can contact our Support team with the system serial number for upgrade information (support@sontek.com or +1-858-546-8327).

Can the MIM be used in conjunction with SDI-12 or Analog Output modules?

No. The Argonaut must be run exclusively with the RS-232 interface.

Can the MIM be used with the SonTek Argonaut Flow Display?

Yes. The data can be sent to the MIM and displayed on the Argonaut Flow Display box.

How is the MIM powered?

The MIM operates from 9-16 VDC power, commonly the same power supply as the Argonaut. It consumes less than 0.5 W of power.

What data parameters are output by the MIM?

All parameters measured or calculated by the Argonaut are stored in a separate register on the MIM and are available for output. Primary Argonaut parameters (velocity, stage, flow rate, etc.) are always found in the same register locations. The only data not available through the MIM is multi-cell (profiling) data and raw pressure time-series data used for wave height spectra.