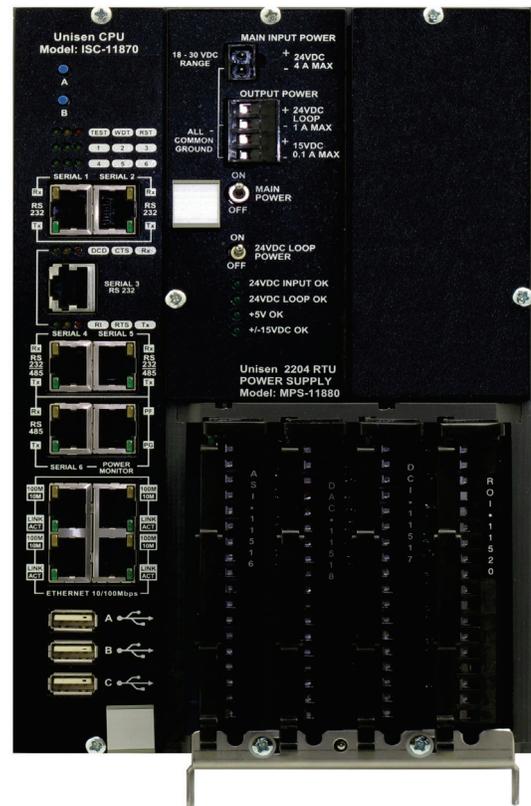


General Description

Willowglen's Unisen Flow Computers outperform the competition - with standard and advanced features, and unparalleled platform configuration:

- Available in different sizes to accommodate small to large numbers of flow meters (1 – 20+ flow meters)
- Ideal for measuring liquid or gas flow; for liquids measurement, Unisen also has features to support pipeline batching
- Flexible enough to deal with different configurations of headers and meters.
- Sample Arrangements:
 - 1 header with 3 meters
 - Mix of 7 headers with some runs of 2 meters, one with 8 meters.

The Unisen Flow Computer is your most advanced, scalable, and cost effective choice.



Willowglen and the Industry

For over 20 years, Willowglen Systems has been at the forefront of the custody transfer flow computer business - with innovative products that incorporate new technologies to push the limits of what is possible in a flow computer.

Willowglen was among the first companies to offer a microprocessor-based flow computer. The innovation continues with the **Unisen Flow Computer**.

Willowglen worked closely with the pipeline industry throughout the development and initial deployment of the Unisen custody transfer flow computer.

Services

- Software configuration
- Factory acceptance testing
- Panel Wiring
- Supervision of on-site installation
- On-site configuration
- On-site commissioning
- Ongoing servicing and support

8 Key Features of the Unisen Flow Computer

1) Metering and Proving

The Unisen Flow Computer interfaces to standard liquids or gas flow meters, and functions in a variety of configurations - from a single flow meter up to 25 meters arranged in a header - an achievement that can only be reached by competitive solutions by using multiple flow computers.

The Unisen accepts flow meter outputs as 4-20 mA signals or, for greater accuracy, can accept a digital pulse frequency directly from the flow meter. Unisen uses the raw pulse count to calculate the flow rate directly.

The Unisen Flow Computer can calculate corrective meter factors through volumetric proving.

2) Electronic Ticketing

Through our 45 years of experience, Willowglen knows that each customer operates differently and as such can have different expectations - especially when it comes to Electronic Ticketing for accounting and auditing. For that reason the Unisen's electronic ticketing can be easily adapted to the needs of your business.

3) Sampling

The Unisen Flow Computer has sophisticated user customizable algorithms to control the sampling apparatus, as well as logic to determine when to take samples (according to the batch size, current flow rate and current sample volumes.)

4) Audit Logs

Every maintenance, configuration, or operator action performed on a Willowglen Unisen Flow Computer is recorded in an audit log. Each entry contains a time stamp, the change issuer, along with the old and new value.

5) Intuitive User Interface

Standard web browser can be connected to the Ethernet port on the Unisen Flow Computer to configure or view its database. No special software, hardware, or licenses needed.

6) Configurable Reports

The Unisen Flow Computer maintains a database from which configurable reports can be generated. By using one of the four Ethernet ports on the Unisen's CPU card, these reports can be set to automatically print directly from the flow computer itself (no need for an intermediate PC to do the printing). Alternatively, reports can be saved as files in PostScript or CSV file format.

7) IEC Programming Environment

The Unisen Flow Computer allows customers to create their own programs. These programs can be written in any of the five IEC 61131-3 languages. The Unisen's high performance CPU and large memory capacity allows these programs to be large and complex.

8) Dual Redundant

When system reliability is paramount two Unisen flow computers can be connected to the same field I/O and operate together. Both units operate simultaneously yet record I/O and do calculations independently. They share relevant data through our dual sync software. This ensures a smooth transition when control switches between the main and backup units.

A changeover switch mediates which flow computer controls analog outputs. The dual sync software ensures both units have the same analog output setpoints in the event that control switches from one unit to the other.

Technical Specifications

Double precision floating point math; 400 MHz 32-bit processor; Linux operating system; power saving modes; 256 MB memory.

Standards

The Unisen Flow Computer is compliant with API chapter 11 measurement standards, as well as AGA 3, AGA 7, and AGA 8.

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