

DATA ACQUISITION SYSTEM



GENERAL DESCRIPTION

IOlog is a reliable and low cost distributed data acquisition system, based on SS3000 I/O modules and SCADA Winlog Pro software. SS3000 I/O modules provide different types of input (digital, 20mA, 10V, Pt100, TC) and output (digital, relay, 10V, 20 mA) channels. SS3000 I/O modules and supervisory PC can be linked together by a RS485 network with a Modbus ASCII/RTU protocol or by an Ethernet network (using a gateway TCP/RTU module) with a Modbus TCP protocol. Winlog Pro software provides an operator interface in a Windows environment for real-time supervision, historical trend analysis or alarm management; an integrated development environment allows a quick and easy creation of complete multilanguage applications. Thanks to its characteristics of modularity, reliability, flexibility and low cost, IOlog system is widely used for quality control in many industrial and civil applications (pasteurization process in food industry, cold storage of animal tissues in hospital facilities, dust pollution level in environmental control, etc.).

MAIN FEATURES

- COMPLETE AND MODULAR SOLUTIONS
- MULTIDROP RS485 INDUSTRIAL NETWORK
- MODBUS PROTOCOL ASCII - RTU - TCP
- WIDE RANGE OF INPUT SIGNALS
- ANALOG, DIGITAL AND RELAY OUTPUTS
- DUAL WATCHDOG TIMER AND SELF-DIAGNOSTIC
- WINLOG PRO SCADA SOFTWARE

SS3000 MODULES

SS3000 modules are suited for DIN rail mounting and provide a RS485 serial interface with a Modbus ASCII/RTU protocol. RS485 communication interface can be converted in a ethernet interface with Modbus TCP using SS3580 MBTCP converter. All modules of the SS3000 family are equipped with a dual hardware/software watchdog; the hardware watchdog is designed to automatically reset the microcontroller in case of CPU error; the software watchdog checks communication and automatically sets outputs to safety values in case of communication failure. Modules can be powered by a not steady voltage (from 10Vcc to 30Vcc) and are protected against inversion of power supply polarity.

COMMON FEATURES

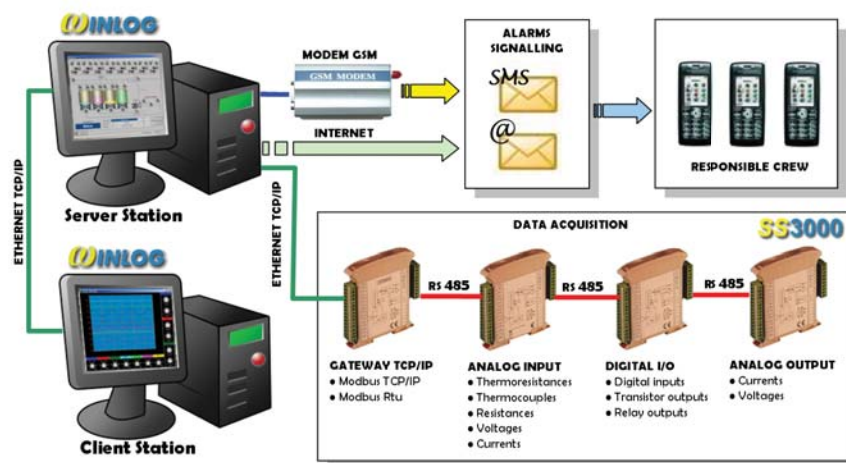
Communication protocol	- ModBus RTU - ModBus ASCII - ModBus TCP (using SS3580 MBTCP converter)
Data transmission (asynchronous serial)	Maximum Baud Rate 115,2 Kbps Maximum distance 1,2 Km
Insulation voltage	2000 Vca 50 Hz, 1 min. (Input / Output / RS485 / Supply)
EMC	Immunity EN 61000-6-2 Emission EN 61000-6-4
Power Supply	Supply voltage 10 .. 30 Vcc Current consumption max 45 mA @ 24 Vcc Polarity inversion protection 60 Vcc max
Temperature & Humidity	Operating temperature -10°C .. +60°C Storage temperature -40°C .. +85°C Humidity (non condensing) 0 .. 90 %
Housing	Material Self-extinguishing plastic Mounting EN-50022 DIN rail Weight about 150 g.

SCADA SOFTWARE

Simple, flexible and low cost, Winlog Pro is a real-time SCADA software package for supervision of industrial and civil plants. An integrated development environment provides different tools for an easy and intuitive creation of multilanguage applications. SCADA applications can be automatically created by Application Builder, a powerful tool that allows a dramatic reduction of development time; applications can be created by simply taking up from a library and putting together the software objects that refer to SS3000 data acquisition modules.

Software objects include tags, protocols, templates and all necessary information for supervision and configuration of related devices (front view, configuration templates, alarms, etc.). Data read from I/O modules can be recorded and displayed as graphical trends or processed for management of alarms, generation of quality and production reports, etc.; standard format (DBF, CSV) of history files and ODBC (SQL) support ensure interface with most Windows applications such as Excel or Access.

Winlog Pro makes it possible to set up a distributed Client/Server architecture with a TCP/IP protocol or to create web applications accessible from Internet Clients with a standard browser (Internet Explorer); both fix and mobile (GSM, GPRS) telephone networks can be used to communicate with remote devices or to send SMS.



MODEL	DESCRIPTION	RS485	RS232
SS 3014	Analog module with 4 RTD inputs, with 3-way galvanic isolation	yes	yes
SS 3015	Analog module with 4 voltage or current inputs, with 3-way galvanic isolation	yes	yes
SS 3016	Analog module with 4 thermocouple inputs, with 3-way galvanic isolation	yes	yes
SS 3017	Analog module with 8 voltage or current inputs, with 3-way galvanic isolation	yes	yes
SS 3018	Analog module with 8 thermocouple inputs, with 3-way galvanic isolation	yes	yes
SS 3024	Analog module with 4 voltage or current outputs, with 3-way galvanic isolation	yes	yes
SS 3130	Digital module with 4 digital inputs and 4 relay outputs, with 3-way galvanic	yes	no
SS 3148	Digital module with 12 digital inputs, with 3-way galvanic isolation	yes	no
SS 3188	Digital module with 8 digital inputs and 8 open-collector outputs, with 3-way galvanic isolation	yes	yes
SS 3580 SERIAL	SERIAL Converter from RS232 to RS-485/RS-422, with 3-way galvanic isolation	yes	yes
SS 3580 USB	USB Converter from USB to RS-485/RS-422, with 3-way galvanic isolation	yes	no
SS 3580 MBTCP	Converter from Modbus TCP Ethernet to Modbus RTU RS485, with 3-way galvanic isolation	yes	yes