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Ethernet I/O Modules



## I/O Expansion & Data Logger Module

### Features

- Built-in Web Server for IF-THEN-ELSE rule setting
- Built-in IF-THEN-ELSE rule engine for logic operation
- No more programming. Just click and get done!
- Support IO, Counter, Timer, Schedule, Email, Recipe operations
- Data logger and data files send back function supported
- Modbus TCP/RTU Protocol for SCADA Software Seamless Integration
- Support XW-Board
- Support I-7000 Remote I/O Modules(Up to 16)
- Support Modbus RTU Slave Devices(Up to 4)
- SNTP Time Synchronization Supported



### Introduction

WISE (Web Inside, Smart Engine) is a product series that function as control units for use in remote logic control and monitoring in various industrial applications. WISE offers a user-friendly and intuitive web site interface that allows users to implement IF-THEN-ELSE control logic on controllers with just a few clicks; no programming is required. With its powerful and easy-to-use features, it will minimize the learning curve, shorten time to market and dramatically reduce the effort and cost spent on system development.

WISE-5800 supports an I/O expansion bus to implement various I/O functions such as D/I, D/O, A/D and D/A via use of the XW-Board daughter boards. In addition, it also supports I-7000 remote I/O modules and Modbus RTU slave devices. Given the variety of I/O modules available in the I-7000 range and the connection ability with Modbus RTU slave devices, WISE-5800 can provide user with incredible flexibility for their applications. The WISE-5800 also supports Modbus TCP/RTU protocol to achieve seamless integration with SCADA software packages, such as our Orchestrator package. Additionally, the WISE-5800 provides a data logger function with microSD card. It can record I/O channel value by event trigger or regular time period. The data files can be sent back by Email or FTP. All settings can be made through a web browser.

### Applications

Building Automation, Factory Automation, Machine Automation, Remote Maintenance, Remote diagnosis and Testing Equipment, etc.

### Specifications

Models	WISE-5800
<b>CPU Module</b>	
CPU	16-bit CPU
SRAM	768 KB
Flash	512 KB
EEPROM	16 KB
NVRAM	31 Bytes
microSD Expansion	Yes, can support 1 or 2 GB microSD
RTC (Real Time Clock)	RTC Provide seconds, minutes, hours, date of week/month; month and year
Watchdog Timers	Yes (0.8 second)
<b>Communication Ports</b>	
Ethernet	RJ-45 x 1, 10/100 Base-TX (Auto-negotiating, Auto MDI/MDI-X, LED indicators)
COM 1	RS-232 (Tx/D, Rx/D, RTS, CTS, GND), non-isolated, Speed: 115200 bps max.
COM 2	RS-485 (D2+, D2-), self-tuner ASIC inside, non-isolated, Speed : 115200 bps max.
<b>LED Indicator</b>	
System LED	Yes (Red)
Ethernet Link LED	Yes (Green : Ethernet link detected, Flashing Green : Ethernet packet received)
LED Display	-
<b>Hardware Expansion</b>	
I/O Expansion Bus	Yes
<b>Mechanical</b>	
Dimensions (W x H x D)	91 mm x 123 mm x 52 mm
Installation	DIN-Rail
<b>Environmental</b>	
Operating Temperature	-25 ~ +75 °C
Storage Temperature	-30 ~ +80 °C
Ambient Relative Humidity	10 ~ 90% RH (non-condensing)
<b>Power</b>	
Protection	Power reverse polarity protection
Frame Ground	Yes (for ESD Protection)
Input Range	+12 ~ +48 V <sub>oc</sub>
Redundant Power Input	Yes
Power Consumption	2.0 W

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WISE-5800 Series (Web based)



WISE-5800

## Software Specifications

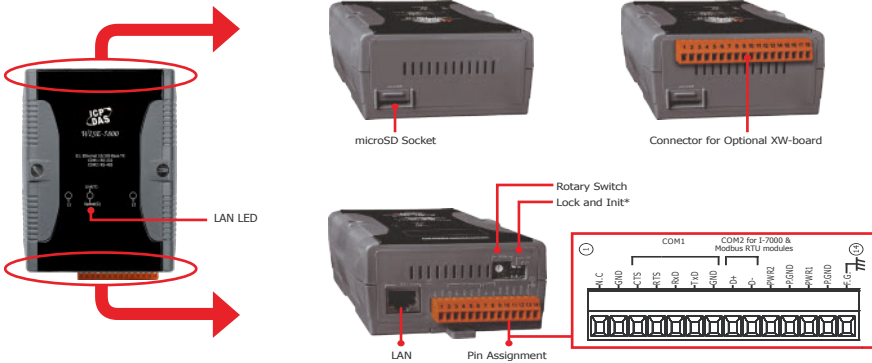
Functions	
Rule Configuration Website	Access Web server on WISE controllers to edit and upload logic rules through web browser.
36 IF-THEN-ELSE Logic Rules	3 IF conditions with AND or OR operators 3 THEN actions and 3 ELSE actions
48 Internal Registers	Hold temporary variables and read/write data via Modbus TCP address.
12 Timers	Delay / Timing functions.
12 Schedules	Setup prescheduled routine tasks.
12 Emails	Send Email messages to pre-set Email receivers.
12 CGI Commands	Send pre-set CGI commands.
12 Recipes	Set up THEN/ELSE action groups.
Data Logger	Set up the Data Logger configuration, include the
Modbus TCP/RTU Protocol	Real time control and monitoring I/O channels and system status of controllers via SCADA software.

IF Conditions	
DI Channel	ON, OFF, ON to OFF, OFF to ON, Change
AI Channel	=, >, <, >=, <= (value)
Internal Register	
DI Counter	=, >, <, >=, <= (value), Change
Timer	Timeout, Not Timeout
Schedule	In Range, Out of Range
Rule Status	Enable, Disable

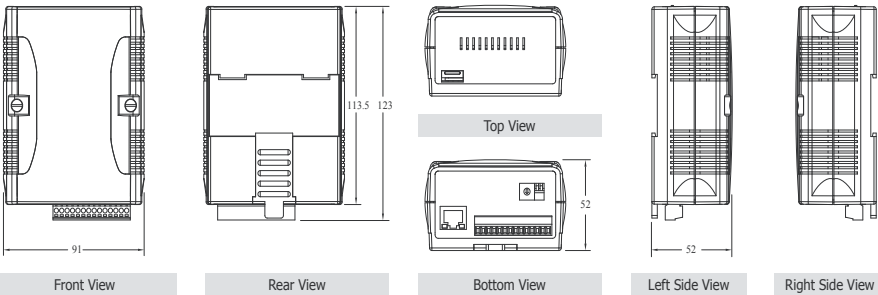


THEN / ELSE Actions	
DO Channel	ON, OFF, Pulse Output (Just for XW-Board)
AO Channel	Change the value
Internal Register	Reset
DI Counter	Start, Reset
Timer	Enable, Disable
Schedule	Send
Email	Execute
CGI Commands	Start, Stop, One-Time Log
Recipe	Enable, Disable
Data Logger	
Rule Status	

## Appearance



## Dimension(Units: mm)



## Ordering Information

WISE-5800	User-defined I/O & Data Logger Module
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## Accessories

NS-205 CR	Unmanaged 5-Port Industrial Ethernet Switch (RoHS)
MDR-20-24 CR	24V/1A, 24 W Power Supply with DIN-Rail Mounting (RoHS)
DIN-KA52F CR	24V/1.04A, 25 W Power Supply with DIN-Rail Mounting (RoHS)
3LMSD-2000 CR	2 GB microSD card (RoHS)