



## Features

- Built-in Web Server for IF-THEN-ELSE rule setting
- Built-in IF-THEN-ELSE rule engine for logic operation
- No more programming. Click and get done!
- Support I/O, Counter, Timer, 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 10)
- SNTP Time Synchronization Supported



## Introduction

WISE (Web Inside, Smart Engine) is a product series developed by ICP DAS that functions 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 just a few clicks away; 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 labor 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 according to the XW-Board. In addition, WISE-5800 also support ICP DAS I-7000/M-7000 remote I/O modules and Modbus RTU slave devices. Based on the variety I/O module of I-7000/M-7000 and the connection ability with Modbus RTU slave devices, WISE-5800 can provide user more flexibility in application field.

WISE-5800 supports Modbus TCP/RTU protocol to make seamless integration with SCADA software available. It include all advantages which WISE series controllers can provide. In addition, WISE-5800 provide 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 setting can be completed through browser.

## Applications

Building Automation, Factory Automation, Machine Automation, Remote Maintenance, Remote Diagnosis, Testing Equipment, etc.

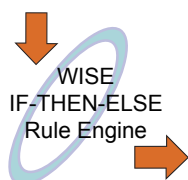
## System Specifications

System	
CPU	16-bit CPU
SRAM	768KB
Flash Memory	512KB
EEPROM	16 KB
NVRAM	31 Bytes
microSD Expansion	Support 1G/2G/4G/8G/16G/32G microSD card
RTC (Real Time Clock)	Provide second, minute, hour, date of week, month and year
Watchdog	Yes
Communication	
Ethernet	RJ-45 x 1, 10/100 Base-TX (Auto-negotiating, Auto MDI/MDI-X)
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.
LED Indicators	
System LED	L1 (Flash Red: System is in normal status); L2 (Green: The microSD card is in normal status and the connection to WISE is OK (for firmware v2.5.5 or later version only))
Ethernet Link LED	Yes (Green: Ethernet link detected, Flashing Green: Ethernet packet received)
Hardware Expansion	
I/O Expansion Bus	Yes
Power Requirements	
Protection	Power Reverse Polarity Protection
Frame Ground	Yes (for ESD Protection)
Input Range	12 to 48 V <sub>dc</sub>
Redundant Power Input	Yes
Power Consumption	2.0 W
Mechanical	
Dimensions (W x H x D)	91 mm x 132 mm x 52 mm
Installation	DIN-Rail
Environmental	
Operating Temperature	-25 °C to +75 °C
Storage Temperature	-30 °C to +80 °C
Humidity	10 to 90% RH, non-condensing

## Software Specifications

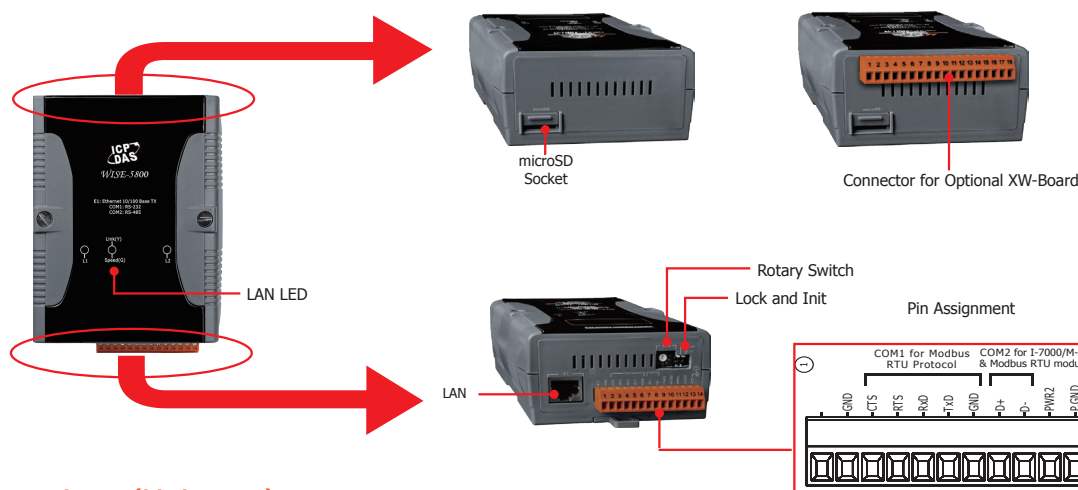
Functions	
Rule Configuration Website	Access Web server on WISE controllers to edit and upload logic rules through web browser.
36 IF-THEN-ELSE Logic Rules	3 IF conditions with AND or OR operators 3 THEN actions and 3 ELSE actions
48 Internal Registers	Hold temporary variables and read/write data via 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 data record format, and data file sending operation.
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

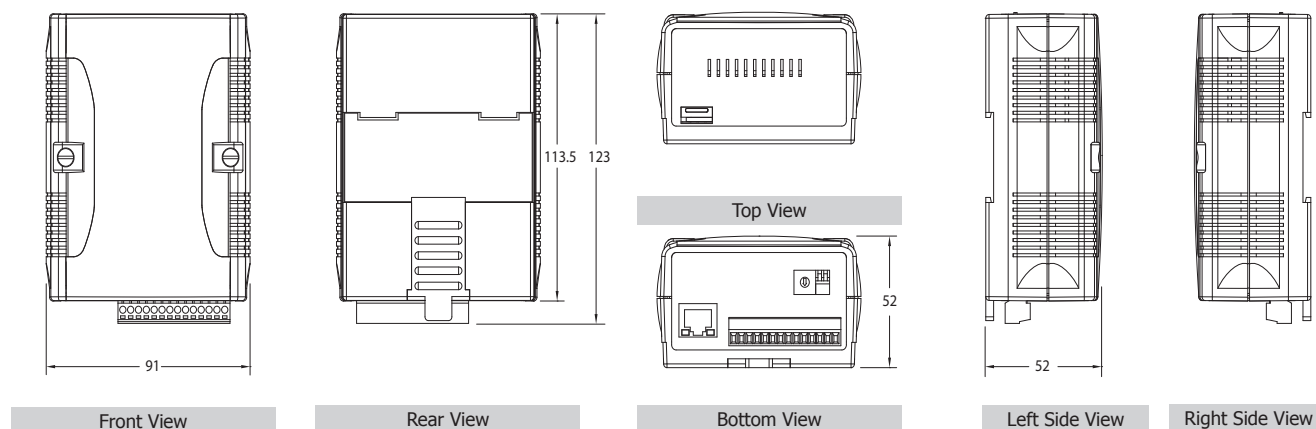


THEN / ELSE Actions	
DO Channel	ON, OFF, Pulse Output( apply to XW-Board only)
AO Channel Internal Register	Change the value
DI Counter	Reset
Timer	Start, Reset
Schedule	Enable, Disable
Email CGI Commands	Send
Recipe	Execute
Data Logger	Start, Stop, One-Time Log
Rule Status	Enable, Disable

## Appearance



### 📁 Dimensions (Unit:mm)



## Ordering Information

<b>WISE-5800 CR</b>	User-defined I/O & Data Logger Module for Modbus RTU or DCON Devices
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## Accessories

<b>NS-205 CR</b>	Unmanaged 5-Port Industrial Ethernet Switch (RoHS)
<b>MDR-20-24 CR</b>	24V/1A, 24 W Power Supply with DIN-Rail Mounting (RoHS)
<b>DIN-KA52F CR</b>	24V/1.04A, 25 W Power Supply with DIN-Rail Mounting (RoHS)
<b>3LMSD-4000 CR</b>	4 GB microSD card (RoHS)