

WISE-5800-MTCP

User-defined I/O & Data Logger Module for Modbus TCP Devices

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 Modbus TCP Slave Devices(Up to 7)
- 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-MTCP 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-MTCP also supports Modbus TCP slave devices. Based on the connection ability with Modbus TCP slave devices, WISE-5800-MTCP can provide user more flexibility in application field.

WISE-5800-MTCP supports Modbus TCP/RTU protocol to make seamless integration with SCADA software available. It includes all advantages which WISE series controllers can provide. In addition, WISE-5800-MTCP provides 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 (TxD, RxD, 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. (Reserved)
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 v2.9.0 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_{DC}
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

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Software Specifications

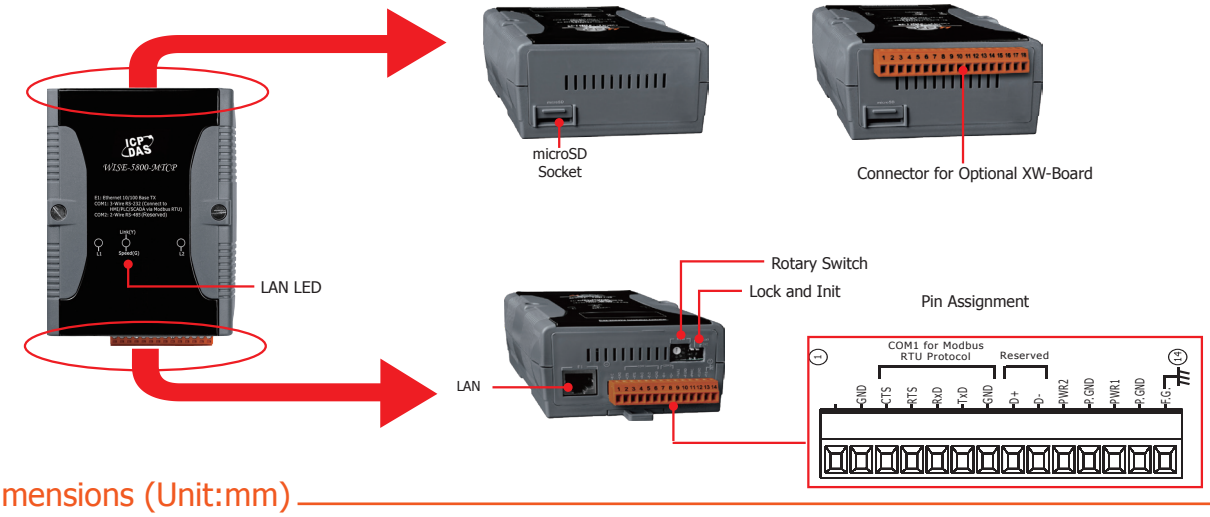
Functions	
Rule Configuration Website	Access Web server on WISE controllers to edit and upload logic rules through web browser.
36 IF-THEN-ELSE Logic Rules	3 IF conditions with AND or OR operators 3 THEN actions and 3 ELSE actions
48 Internal Registers	Hold temporary variables and read/write data via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

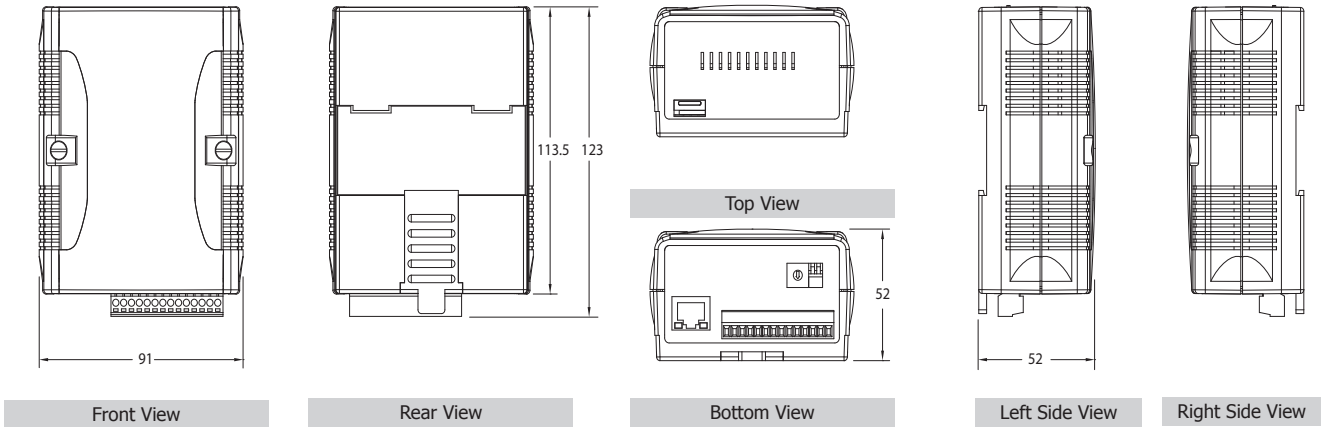
WISE IF-THEN-ELSE Rule Engine

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

Appearance



Dimensions (Unit:mm)



Front View | Rear View | Top View | Bottom View | Left Side View | Right Side View

Ordering Information

WISE-5800-MTCP CR	User-defined I/O & Data Logger Module for Modbus TCP Devices

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-4000 CR	4 GB microSD card (RoHS)

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