WISE-7560M

IoTstar Supported

WISE I/O Module 6-channels Relay, 6-channels DI and 2-port Ethernet Switch

🅐 Features

■ No more programming, Web pages provided for system and logic rule setting.

■ IF-THEN-ELSE logic rules execution ability.

■ Built-in I/O
  Relay: 6 Channels; DI: 6 Channels

■ Support I/O Monitoring/Control, Counter, Schedule, Timer, Email sending and CGI Command sending operations.

■ Modbus TCP Protocol for SCADA System Integration.

■ IEEE 802.3af-compliant Power over Ethernet (PoE).

■ 2-port Ethernet Switch for Daisy-Chain Topology.

■ MQTT Protocol for IT & IoT (Internet of Things) System Integration.

■ Support connection with IoTstar Cloud Management Software

■ 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. By integrating with IF-THEN-ELSE rule engine, WISE-7560M provides more powerful functions such as I/O Monitoring/Control, Counter, Timer, Schedule, E-mail sending, CGI Command sending and Modbus TCP and MQTT protocol, and allows users to implement control logic on controllers just a few clicks away; no programming is required. WISE-7560M also can connect with ICP DAS IoTstar cloud management software for the services such as Remote Access and Sensor Data Collection.

WISE-7560M is a module with 6-channel digital inputs, and 6-channel relay outputs. It follows IEEE 802.3af-compliant Power over Ethernet (PoE) specification, and has a built-in two-port Ethernet switch to implement daisy-chain topology.

■ I/O Specifications

Digital Input		
Channels	6	
Contact	Wet Contact	
Sink/Source (NPN/PNP)	Sink/Source	
On Voltage Level	+10 VDC to +50 VDC	
Off Voltage Level	+4 VDC Max.	
Input Impedance	10 kΩ	
Counters	Channels	6
	Max. Counts	16-bit (65535)
	Max. Input Frequency	50 Hz
	Min. Pulse Width	10 ms
Overvoltage Protection	+70 VDC	
Power Relay		
Channels	6	
Type	Power Relay, Form A (SPST N.O.)	
Contact Rating	5 A @ 250 VAC/24 VDC (Resistive Load)	
Operate Time	10 ms (max.)	
Release Time	5 ms (max.)	
Mechanical Endurance	2×10^7 ops.	
Electrical Endurance	10^5 ops.	

■ System Specifications

Communication	
Ethernet Port	2 x RJ-45, 10/100 Base-TX, Swtich Ports
PoE	Yes
Protocol	Modbus TCP, MQTT
LED Indicators	
for System Running	Yes
for Ethernet Link/Act	Yes
for I/O Channel Status	Yes
for PoE Power	Yes
2-Way Isolation	
I/O	2500 VDC
EMS Protection	
ESD (IEC 61000-4-2)	±4 kV Contact for Each Terminal and ±8 kV Air for Random Point
EFT (IEC 61000-4-4)	±2 kV for Power Line
Surge (IEC 61000-4-5)	±2 kV for Power Line
Power	
Reverse Polarity Protection	Yes
Powered from Terminal Block	12 to 48 VDC
Powered from PoE	Yes, IEEE 802.3af, Class1
Consumption	3.8 W (Max.)
Mechanical	
Dimensions (L x W x H)	120mm x 97mm x 42mm
Installation	Wall mounting
Environment	
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.
72 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
24 Timers	Delay / Timing functions.
24 Schedules	Setup prescheduled routine tasks.
24 Emails	Send Email messages to pre-set Email receivers.
24 CGI Commands	Send pre-set CGI commands.
24 Recipes	Set up THEN/ELSE action groups.
8 P2P remote modules	Set up the connection information for the remote WISE modules.
Integration with SCADA/IT/IoT Systems	Support Modbus TCP and MQTT protocols for the integration with SCADA/IT/IoT systems. Support connection with ICP DAS IoTstar Cloud Management Software.

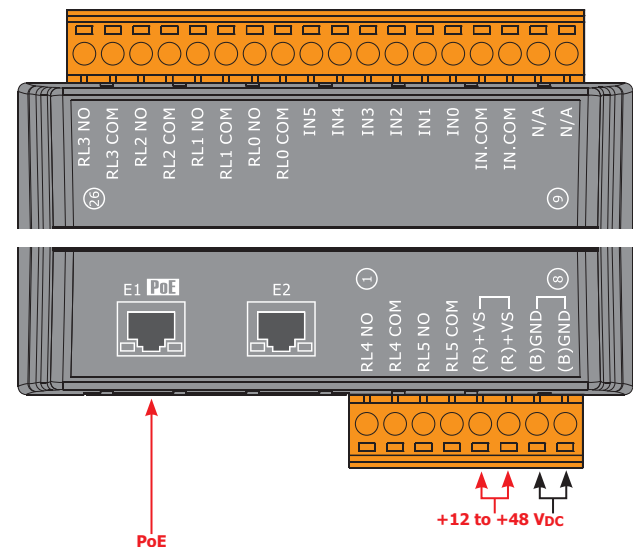| IF Conditions	
DI Channel	ON, OFF, ON to OFF, OFF to ON, Change
Internal Register	=, >, <, >=, <= (value)
DI Counter	=, >, <, >=, <= (value), Change
DO Counter	
Timer	Timeout, Not Timeout
Schedule	In Range, Out of Range
P2P	DI, AI, DI counter, DO counter, IR
Rule Status	Enable, Disable

WISE
IF-THEN-ELSE
Rule Engine
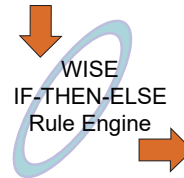
THEN / ELSE Actions	
DO Channel	ON, OFF, Pulse Output
Internal Register	Change the value
DI Counter	Reset
DO Counter	
Timer	Start, Reset
Schedule	Enable, Disable
Email	Send
MQTT message	
CGI Command	
Recipe	Execute
P2P	DO(On/Off), AO, IR
Rule Status	Enable, Disable

■ Wire Connections

■ Pin Assignments

+12 to +48 V$_{DC}$

PoE

■ Ordering Information

WISE-7560M CR	WISE I/O Module with 6-channels Relay, 6-channels DI and 2-port Ethernet Switch. (RoHS)

■ Accessories

GPSU06U-6	24V/0.25A, 6 W Power Supply
MDR-20-24	24V/1A, 24 W Power Supply with DIN-Rail Mounting
NS-205 CR	Unmanaged 5-Port Industrial Ethernet Switch (RoHS)
NS-205PSE CR	Unmanaged 5-Port Industrial PoE Ethernet Switch (RoHS)