



## Features

- Runs on browsers, no extra software tool is required.
- No more programming, Web pages provided for control logic editing.
- IF-THEN-ELSE logic rules execution ability.
- Built-in I/O  
AI: 6 Channels; AO: 2 Channels; DI: 2 Channels; DO: 2 Channels
- Support I/O Monitoring/Control, Counter, 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.
- Support Schedule operation
- MQTT Protocol for IT & IoT (Internet of Things) System Integration.



## 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-7526M is a multi-function module with 6-channel analog inputs, 2-channel analog outputs, 2-channel digital inputs and 2-channel digital outputs. It provides various programmable analog inputs, and analog outputs. Each analog input is allowed to configure a proper range with 240 Vrms high voltage protection. WISE-7526M follows IEEE 802.3af-compliant Power over Ethernet (PoE) specification. It allows receiving power from PoE enabled network by Ethernet pairs. In addition to this, WISE-7526M also has a built-in two-port Ethernet switch to implement daisy-chain topology. The cabling is much easier and total costs of cable and switch are significantly reduced.

By integrating with IF-THEN-ELSE rule engine, WISE-7526M provides more powerful functions such as I/O Monitoring/Control, Counter, Timer, Schedule, E-mail sending & CGI Command sending for use in various industrial applications. WISE-7526M also supports Modbus TCP and MQTT protocol to make seamless integration with SCADA, IT and IoT (Internet of Things) system.

## I/O Specifications

Analog Input		
Channels	6 (Differential)	
Input Type	+/-500 mV, +/-1 V, +/-5 V, +/-10 V, +/-20 mA, 0 to 20 mA, 4 to 20 mA (jumper selectable)	
Resolution	16-bit	
Sampling Rate	10 Sample/Sec. (Total)	
Accuracy	+/-0.1%	
Zero Drift	+/-20 $\mu$ V/ $^{\circ}$ C	
Span Drift	+/-25 ppm/ $^{\circ}$ C	
Overvoltage Protection	240 Vrms	
Input Impedance	Voltage 2 M $\Omega$	
	Current 125 $\Omega$	
Common Mode Rejection	86 dB Min.	
Normal Mode Rejection	100 dB	
Individual Channel Configuration	Yes	
Analog Output		
Channels	2	
Output Type	0 to 5 Vdc, +/- 5 Vdc, 0 to 10 Vdc, +/- 10 Vdc, 0 to 20 mA, 4 to 20 mA (jumper selectable)	
Individual Channel Configuration	Yes	
Resolution	12-bit	
Accuracy	+/- 0.1% of FSR	
Voltage Output Capability	20 mA @ 10 V	
Current Load Resistance	500 $\Omega$	
Open Wire Detection	Yes, for 4 to 20mA only	
Digital Input		
Channels	2	
Dry Contact (Source)	On Voltage Level	Close to GND
	Off Voltage Level	Open
	Effective Distance for Dry Contact	500M Max.
Wet Contact (Sink/Source)	On Voltage Level	+ 1Vdc Max.
	Off Voltage Level	+ 3.5 Vdc to + 30 Vdc
Counters	Channels	2
	Max. Counts	16-bit (65535)
	Max. Input Frequency	50 Hz
	Min. Pulse Width	10 ms
Open Wire Detection	30 Vdc	
Digital Output		
Channels	2	
Output Type	Isolated Open Collector (Sink)	
Max. Load Current	700 mA/Channel	
Load Voltage	+5 Vdc to +50 Vdc	
Overvoltage Protection	60 Vdc	
Overload Protection	1.4 A	
Short-circuit Protection	Yes	

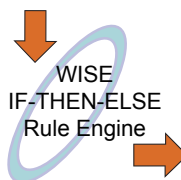
## System Specifications

Communication	
Ethernet Port	2 x RJ-45, 10/100 Base-TX, Switch 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)	$\pm$ 4 kV Contact for Each Terminal and $\pm$ 8 kV Air for Random Point
EFT (IEC 61000-4-4)	$\pm$ 2 kV for Power Line
Surge (IEC 61000-4-5)	$\pm$ 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	4.4 W (Max.)
Mechanical	
Dimensions (L x W x H)	120mm x 97mm x 42mm
Installation	Wall mounting
Environment	
Operating Temperature	-25 $^{\circ}$ C to +75 $^{\circ}$ C
Storage Temperature	-30 $^{\circ}$ C to +80 $^{\circ}$ 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.
Modbus TCP Protocol	Real time control and monitoring I/O channels and system status of controllers via SCADA software.
MQTT Protocol	Real time message publish/subscribe mechanism for I/O channels and system status via IT/IoT software.

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

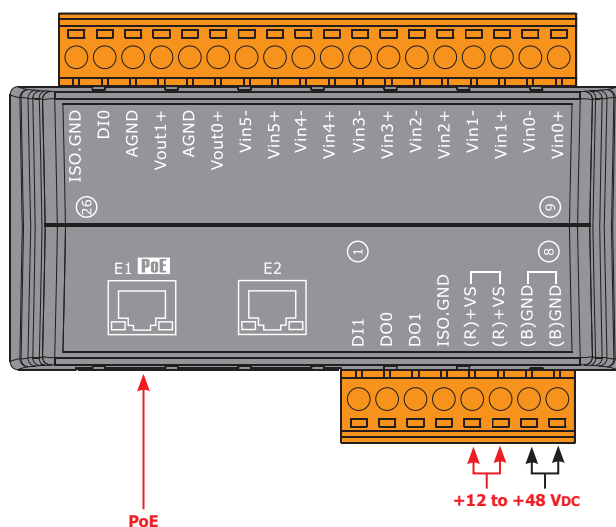


THEN / ELSE Actions	
DO Channel	ON, OFF, Pulse Output
AO Channel	
Internal Register	Change the value
DI Counter	Reset
DO Counter	Reset
Timer	Start, Reset
Schedule	Enable, Disable
Email	
MQTT message	Send
CGI Commands	
Recipe	Execute
P2P	DO(On/Off), AO, IR
Rule Status	Enable, Disable

## Wire Connections

<b>Voltage Input (Default)</b>		
	Vinx+	Vinx-
<b>Current Input</b>		
	Vinx+	Vinx-
<b>Voltage Output (Default)</b>		
	Vout+	AGND
<b>Current Output</b>		
	Vout+	AGND
<b>Digital Input/Counter</b>	<b>ON State Readback as 1</b>	<b>OFF State Readback as 0</b>
Dry Contact		
<b>Digital Output</b>	<b>ON State Readback as 1</b>	<b>OFF State Readback as 0</b>
Open Collector (Sink)		

## Pin Assignments



## Ordering Information

<b>WISE-7526M CR</b>	WISE I/O Module with 6-channels AI, 2-channels AO, 2-channels DI, 2-channels DO and 2-port Ethernet Switch (RoHS)
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## Accessories

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