

WISE (Web Inside, Smart Engine)



WISE-7105

8-channel Thermistor Input and 4-channel Isolated Output PoE Modu

Analog Input & Digital Output

Features

- Built-in Web Server for IF-THEN-ELSE rule setting
- Built-in IF-THEN-ELSE rule enigne for logic operation
- No more programming. Just click and get done!
- Support IO, Counter, Timer, Email operations
- Modbus/TCP Protocol for SCADA Software Seamless Integration
- IEEE 802.3af-compliant Power over Ethernet (PoE)
- 10/100 Base-TX Ethernet
- Support Thermistor Input
- Individual Channel Configuration
- 4-channel Digital Outputs
- 2-way Isolation/ESD Protection









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-TEN-ELSE control logic on controllers just of refer class valves on programming is required. With its powerful and easy-fo-use features, it will minimize the learning curve, shorten time to market and detainatically reduce the effort and cost sport on system development.

WISE-7105 follows IEEE 802.3af-compliant (classification, Class 1) Power over Ethernet (PoE) specification. It allows receiving power from PoE enabled network by Ethernet pairs (Category 5 Ethernet cable). This feature provides greater flexibility and higher efficiency therefore simplifying systems design, saving space, reducing cables and eliminating the requirement for dedicated electrical dutlets. Nearwhile, in case under a non-PdE environment, WISE-7108 will still be able to receive power from audiliary power sources like AC adapters or battery, etc.

This multi-function module WISE-7105 supports Moditus/TCP protocol to make seamless integration with SCADA software available. It features 16-bit, 8-channel Thermistor inputs and 4-channel digital outputs. Each analog channel is allowed to configure an individual range.

Applications

Analog Innut

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

■ I/O Specifications -

Analog Input	
Input Channels	8 (Differential)
Input Type	Precon ST-A3, Fenwell U, YSI L100, YSI L300,
	YSI L1000, YSI B2252, YSI B3000, YSI B5000,
	YSI B6000, YSI B10000, YSI H10000,
	YSI H30000
Resolution	16-bit
Sampling Rate	8 Sample/Sec. (Total)
Accuracy	+/-0.1% or better
Zero Drift	+/-10 μV/°C
Span Drift	+/-25 ppm/°C
Over voltage Protection	110 Vpc/Vac
Common Mode Rejection	86 dB min.
Normal Mode Rejection	100 dB
Open Wire Detection	Yes
Individual Channel Configuration	Yes
ESD Protection	+/-4 kV (Contact for each channal) +/-8KV air for random point
EFT Protection	+/-4 kV for Power
Digital Output	
Output Channels	4 (Sink)
Output Type	Isolated Open Collector
Max. Load Current	700 mA/Channel
Load Voltage	5 Vpc ~ 50 Vpc

Z System Specifications

System		
CPU	16-bit CPU	
SRAM	512 KB	
Flash Memory	512 KB	
EEPROM	16 KB	
Dual Watchdog	Yes	
Communication		
PoE Ethernet Port	10/100 Base-TX (With Link, Activity LED Indicator) and automatic MDI/MDI-X	
2-Way Isolation		
Ethernet	1500 Vpc	
AI and DO	2500 V _{rms}	
LED Indicators		
PoE	PoE On	
L1	Run	
L2	Link/Act	
L3	10/100M	
Power Requirements		
IEEE 802.3af	Class 1	
Required Supply Voltage	Powered by Power over Ethernet (PoE) o auxiliary power +12 V _{DC} ~ +48 V _{DC} (non-regulated)	
LED Indicator	Yes	
Power Consumption	0.12 A @ 24 Voc Max.	
Mechanical		
Dimensions (W x H x D)	72 mm x 123 mm x 35 mm	
Installation	DIN-Rail or Wall mounting	
Environment		
Operating Temperature	-25 °C ~ +75 °C	
Storage Temperature	-30 °C ~ +80 °C	
Humidity	5 ~ 90% RH, non-condensing	

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■ Software Specifications

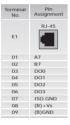
Functions	
Rule Configuration Website	Access Web server on WISE controllers to edit and upload logic rules through web browser.
36 IF-THEN-ELSE Logic Rules	3 IF conditions with AND or OR operators 3 THEN actions and 3 ELSE actions
48 Internal Registers	Hold temporary variables and read/write data via Modbus/TCP address.
12 Timers	Delay / Timing functions.
12 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.
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.

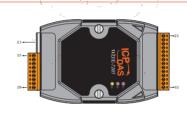
IF Conditions		
Al Channel	= ` > ` < ` >= ` <=(value)	
Internal Register		
DO Counter	= ` > ` < ` >= ` <=(value) ` Change	
Timer	Timeout · Not Timeout	
P2P	DI · AI · DI counter · DO counter · IR	
Rule Status	Enable · Disable	



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

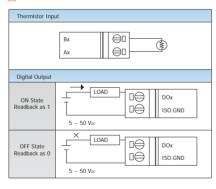
Pin Assignment _



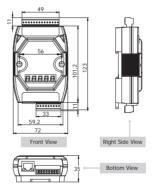


Terminal No.	Pin Assignment
23	B6
22	A6
21	B5
20	A5
19	B4
18	A4
17	B3
16	A3
15	B2
14	A2
13	B1
12	A1
11	B0
10	AO

Wire Connection.



■ Dimensions (Unit: mm) _



Ordering Information —

WISE-7105 8-channel Thermistor Input and 4-channel Isolated Output PoE Module (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)		

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