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ICP DAS X508

ICP DAS X508 Module User Manual

Model: X508

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of the ICP DAS X508 module. The X508 is a versatile I/O module designed for industrial applications, featuring a 1-Port RS-232 interface (5-Pin), 4 Digital Input (D/I) channels, and 4 Digital Output (D/O) channels. It is engineered for reliable performance in various control and monitoring systems.



Figure 1: The ICP DAS X508 module, showcasing its green circuit board with integrated components and connection points. This image provides a visual reference for the physical appearance of the module.

2. FEATURES

- 1-Port RS-232 Communication Interface (5-Pin)
- 4-Channel Digital Input (D/I)
- 4-Channel Digital Output (D/O)
- Designed for industrial control and data acquisition
- Compact and robust design

3. SETUP AND INSTALLATION

Follow these steps to properly set up and install your ICP DAS X508 module:

1. **Power Connection:** Connect a stable DC power supply to the module's power input terminals. Ensure the voltage and current ratings match the module's requirements to prevent damage.
2. **RS-232 Connection:** Connect the 5-pin RS-232 port to your host controller or PC using a compatible serial cable. Verify pin assignments for proper communication.
3. **Digital Input Wiring:** Wire your digital input devices (e.g., sensors, switches) to the D/I channels. Refer to the module's wiring diagram for correct polarity and connection type (e.g., sink/source).

4. **Digital Output Wiring:** Connect your digital output devices (e.g., relays, indicators) to the D/O channels. Ensure that the load current does not exceed the module's specifications.
5. **Software Configuration:** Install any necessary drivers or configuration software on your host system. Configure communication parameters (baud rate, data bits, parity, stop bits) to match the module's settings.
6. **Mounting:** Securely mount the X508 module in a suitable enclosure or panel, ensuring adequate ventilation and protection from environmental factors.

4. OPERATING INSTRUCTIONS

Once the X508 module is installed and configured, you can begin operation:

- **Communication:** Establish communication with the module via the RS-232 interface using your chosen software or programming language.
- **Reading Digital Inputs:** Use the appropriate commands or functions to read the status of the 4 digital input channels. The module will report whether each input is ON or OFF (high or low).
- **Controlling Digital Outputs:** Send commands to set the state of the 4 digital output channels. You can turn individual outputs ON or OFF as required by your application.
- **Monitoring:** Continuously monitor the status of inputs and outputs to ensure proper system operation. Implement error handling routines in your software for robust control.

5. MAINTENANCE

Regular maintenance helps ensure the longevity and reliable operation of your X508 module:

- **Cleaning:** Periodically clean the module and its connectors with a soft, dry cloth. Avoid using liquid cleaners or solvents.
- **Firmware Updates:** Check the ICP DAS website for any available firmware updates. Apply updates as recommended to improve performance or address known issues.
- **Connection Inspection:** Regularly inspect all wiring and connections for looseness, corrosion, or damage. Tighten connections as needed.
- **Environmental Check:** Ensure the operating environment remains within the specified temperature and humidity ranges.

6. TROUBLESHOOTING

If you encounter issues with your X508 module, refer to the following troubleshooting tips:

- **No Power:**
 - Verify the power supply is connected correctly and providing the specified voltage.
 - Check power cables and fuses.
- **Communication Failure:**
 - Ensure the RS-232 cable is securely connected at both ends.
 - Verify that communication parameters (baud rate, data bits, parity, stop bits) in your software match the module's settings.
 - Check for correct RS-232 pin assignments.
 - Confirm that the correct COM port is selected on your host system.
- **Digital Input Not Responding:**
 - Check the wiring of the input device to the module.
 - Verify the input device is functioning correctly.
 - Ensure the input signal voltage levels are within the module's specifications.

- **Digital Output Not Activating:**

- Check the wiring of the output device to the module.
- Verify the output device (e.g., relay) is functioning correctly and its load current does not exceed the module's rating.
- Confirm that the command to activate the output is being sent correctly by the host system.

7. SPECIFICATIONS

Feature	Detail
Model Number	X508
Brand	ICP DAS
Description	1 Port RS-232 (5-Pin), 4 Channel D/I, and 4 Channel D/O Module
Item Weight	3 Pounds
Date First Available	August 14, 2014
ASIN	B014K1JNRK
Style	Classic

8. WARRANTY INFORMATION

Specific warranty details for the ICP DAS X508 module are not provided in this document. Please refer to the official ICP DAS website or contact ICP DAS customer support for comprehensive warranty information.

9. SUPPORT AND CONTACT

For technical assistance, additional documentation, or support regarding your ICP DAS X508 module, please visit the official ICP DAS website or contact their customer service department.

- **Manufacturer:** ICP DAS
- **Website:** www.icpdas.com (General link, specific support page not provided in input)



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This manual is for informational purposes only. Specifications are subject to change without notice.

Related Documents - X508



[ICP DAS I-7530A-MR Modbus RTU CAN](#)
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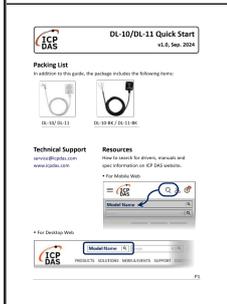
[ICP DAS I-756xU Series USB to Serial Converters User Manual](#)
This user manual from ICP DAS details the I-7560U, I-7561U, and I-7563U series USB to serial converters. It covers essential hardware specifications, software installation procedures, and testing methods for connecting industrial serial devices (RS-232, RS-422, RS-485) to USB-equipped computers.



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Detailed overview of ICP DAS TPD-432F and TPD-433F 4.3-inch Touch HMI devices, including features, specifications, applications, and ordering information for building and home automation.



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[ICP DAS DL-10/DL-11 Quick Start Guide](#)
A quick start guide for ICP DAS DL-10 and DL-11 devices, detailing packing contents, technical support, resources for finding product information, and device appearance with pin assignments for RS-485 communication.



[ICP DAS tSL-P4R1/tSL-PA4R1 Stack Light Monitoring Module Datasheet](#)

Datasheet for ICP DAS tSL-P4R1 and tSL-PA4R1 Single Stack Light Monitoring Modules, featuring Ethernet/RS-485, PoE, 4-channel digital input, and 1-channel relay output for factory automation and MES integration.