



VISIX VH-DIO-1204

USB DIO Board

User Manual

This manual applies to the following device models:

| Hardware Type | Model |
|----------------|-------------|
| USB DI/O Board | VH-DIO-1204 |

Thank you for purchasing our product. If there are any questions, or requests, please do not hesitate to contact the dealer.

This manual may contain technical inaccuracies or printing errors. The content is subject to change without notice. The manual will be amended if there are any hardware updates or changes.

DISCLAIMER STATEMENT

To the maximum extent permitted by applicable law, the product described, with its hardware, software and firmware, is provided “as is”, with all faults and errors, and our company makes no warranties, express or implied, including without limitation, merchantability, satisfactory quality, fitness for a particular purpose, and non-infringement of third party. In no event will our company, its directors, officers, employees, or agents be liable to you for any special, consequential, incidental, or indirect damages, including, among others, damages for loss of business profits, business interruption, or loss of data or documentation, in connection with the use of this product, even if our company has been advised of the possibility of such damages.

Use of product shall be wholly at your own risks. Our company shall not take any responsibilities for abnormal operation, privacy leakage or other damages resulting from cyber attack, hacker attack, virus inspection, or other internet security risks; however, our company will provide timely technical support if required.

Surveillance laws vary by jurisdiction. Please check all relevant laws in your jurisdiction before using this product in order to ensure that your use conforms the applicable law. Our company shall not be liable in the event that this product is used with illegitimate purposes.

In the event of any conflicts between this manual and the applicable law, the later prevails.

Regulatory information

FCC Information

FCC Compliance: This equipment has been tested and found to comply with the limits for a digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC Conditions

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- 1). This device may not cause harmful interference.
- 2). This device must accept any interference received, including interference that may cause undesired operation.

EU Conformity Statement



This product and - if applicable - the supplied accessories too are marked with "CE" and comply therefore with the applicable harmonized European standards listed under the Low Voltage Directive 2006/95/EC, the EMC Directive 2004/108/EC, the RoHS Directive 2011/65/EU.



2012/19/EU (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points. For more information see: www.recyclethis.info.

Preventive and Cautionary Tips

Before connecting and operating your device, be advised of the following tips:

- Ensure unit is installed in a well-ventilated, dust-free environment.
- Unit is designed for indoor use only.
- Keep all liquids away from the device.
- Ensure environmental conditions meet factory specifications.
- Ensure unit is properly secured to within tower/rack/enclosure Major shocks or jolts to the unit as a result of dropping it may cause damage to the sensitive electronics on the board.
- Use the device in conjunction with a system utilizing a UPS if possible.
- Power down the board's host unit before connecting and disconnecting accessories and peripherals.

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1 Overview

The VISIX VH-DIO-1204 offers VIGIL Server users affordable environment control and monitoring, acting as a platform for data interaction between VIGIL Server and a physical control set. The 12-ch alarm inputs and 4-ch alarm outputs available on the board coupled with its affordability and low power consumption (powered by USB connection; no external power supply required) position this device as the perfect solution for small-business environments and applications.

Communication between the VIGIL Server and alarm board is processed via USB interface. The VH-DIO-1204 offers a standard I2C interface, so it can easily support peripheral equipment which also supports the I2C communication protocol (i.e. intrusion panel, access panel, etc...)

On a properly configured system, operation VIGIL Server side is as follows:

- 1). A VIGIL Server user needs to send a command to a central control system to close a door. The appropriate action is taken within VIGIL Server to send the command.
- 2). The command is sent first, via USB to the VH-DIO-1204 board's MCU.
- 3). The MCU will convey the command to the Central Control system via I2C bus.

Please read through the remainder of this user manual for technical specifications, labelling diagrams and VIGIL Server integration information.

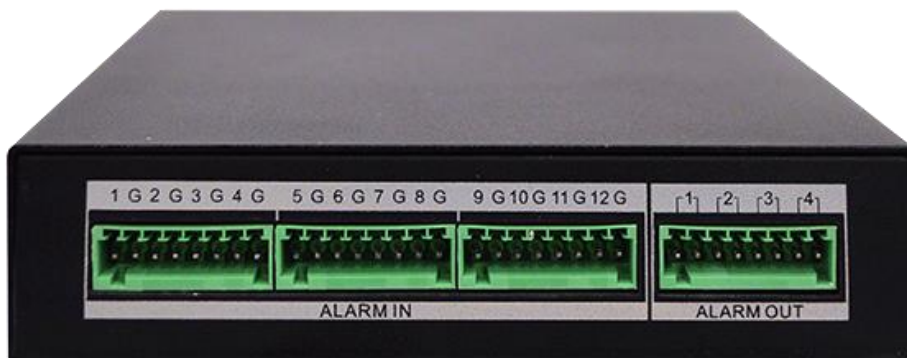
2 Technical Parameters

| Component | Specification |
|----------------------|--|
| Alarm Input | 12-ch |
| Alarm Output | 4-ch |
| Usb Interface | 1 USB 2.0 interface (4-pin) |
| I2C Interface | 1-ch |
| Power Supply | DC5V, 500mA, powered by USB interface |
| Power Output | DC3.3V, 500mA, powered by I2C interface |
| Consumption: | ≤1W (with load≤2.5W) |
| Working Temperature: | -10°C-- +55°C |
| Working Humidity: | 10%--90% |
| Dimensions: | 126mm x 112mm x 29mm (4.96' x 4.41' x 1.14') |
| Weight: | <150g |
| Operating System | None |



3 Alarm Input/Output Labelling Diagram

Alarm peripheral labelling is pictured below:



- **ALARM IN:** Offers 12 input channels.
- **ALARM OUT:** Offers 4 output channels.

4 VIGIL Server Integration

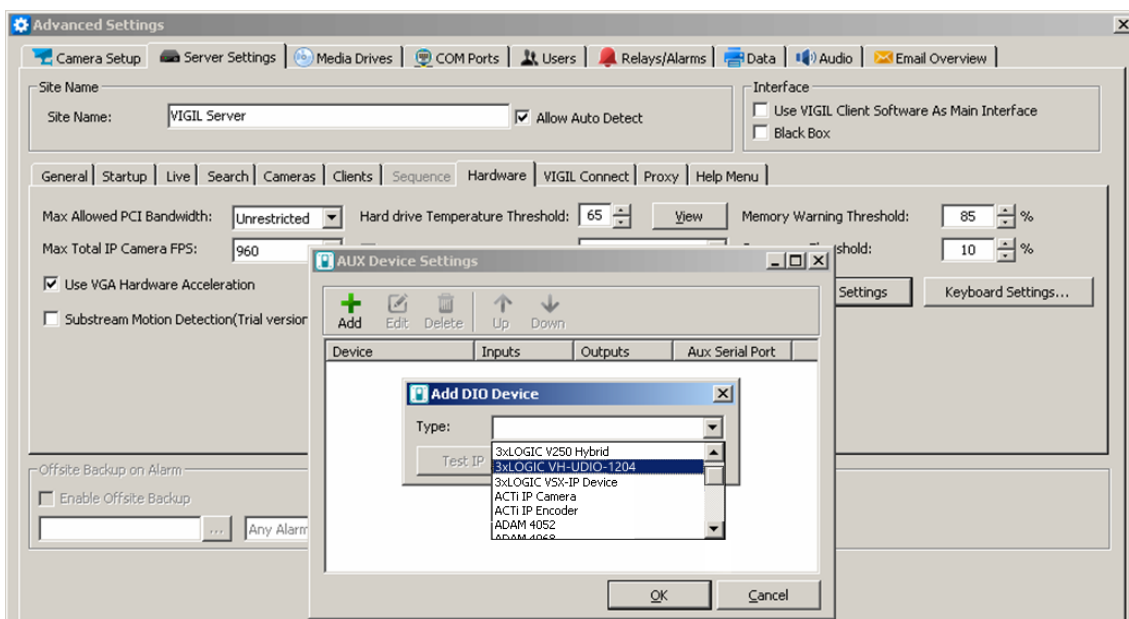
4.1 VIGIL Integration via USB Interface

To integrate the VH-UDIO-1204 with VIGIL Server, physically connect the board to VIGIL Server system and follow the below steps:

VIGIL Server version requirements for operation of the VH-UDIO-1204 are as follows:

- NOTE:**
- **VIGIL 8 Series** - VIGIL Server 8.00.0900 with *VIGILServerDLLPatch v8_00_1050.vgl* patch is required.
 - **VIGIL 9 Series or Newer:** VIGIL Server 9.00.0400 or later is required.

- 1). Download and install *VH-UDIO-1204 Driver v9_00_0000.exe* or later (contact 3xLOGIC Support for the latest copy of the driver package) on the VIGIL Server system. This will install the necessary drivers for successful operation of the VH-DIO-1204.
- 2). Login to the VIGIL Server and click **Settings** in the Icon Menu toolbar.
- 3). Select the **Server Settings** tab.
- 4). Select the **Hardware** tab.
- 5). Click the **AUX Device Settings** button. The AUX Device Settings window will deploy.
- 6). Click **Add**.
- 7). Select **VH-UDIO-1204** from the drop-down menu.



- 8). Click **OK** on all remaining windows to save the new DIO device.

For information on configuring DIO relays/alarms in VIGIL Server, please see the VIGIL Server user guide.

5 REVISION HISTORY

| MAN# | DATE(M/D/Y) | Comments |
|-------------|--------------------|---|
| 03-2016-1 | 03/16/2016 | Styled, finalized initial draft. |
| 07-2016-1 | 07/19/2013 | Added new product images, removed unnecessary configuration steps |