



Output Relay Card Model FDR 0508-01 User's Manual

Description – Installation – Technical Data

Hardware Revision: 1.0.0

Software Revision: 2.0.0

Manual Revision: 1.0.0

Technical specifications of the Output Relay Card

General	
Model	FDR0508-01
Dimensions	10 cm (length) × 5.6 cm (height) × 18.5 cm (depth)
Weight	0.3 Kg
Operating Temperature	-10°C to 45°C
Storage Temperature	-20°C to 60°C
Operating Humidity	0% to 60%
Operating Voltage	12 V
Guaranty	2 years
Hardware	
Communication Type	Digital
Number of Input Channels	8 Channels
API Data Interchange Formats	CAN
Architecture	ARM 32-bit
CPU Speed	32 MHz

SAFETY PRECAUTIONS

(Before using this product, read the precautions)

Please carefully read this manual before using the product and pay full attention to the mentioned points to use the product correctly. In this guide, safety measures are classified into two levels: ' ⚠ Warning' and " ⚠ Caution"

 Warning	Indicates that incorrect handling may cause hazardous conditions, resulting in death or severe injury.
 Caution	Indicates that incorrect handling may cause hazardous conditions, resulting in minor or moderate injury or property damage

Follow the safety measures at both levels as they are crucial for personal and system safety. Ensure that users read this manual and then keep it in a safe place for future reference.

(Installation precautions)

Warning

- If you install or remove the output relay card from the FIDAQUIRE data logger, be sure to disconnect the device's power supply. Failure to do so may result in electric shock or damage to the card and data logger.
- Before starting the FIDAQUIRE data logger, make sure to verify the quality of the incoming power voltage. Failure to do so may cause damage to the Analog card.

Caution

- If additional output relay cards need to be installed, fully insert the card into the card slot. After installation, check to ensure it is properly seated. Failure to do so may lead to poor contact and result in malfunction of the card.
- Use the output relay card in an environment that complies with the general specifications provided in this manual. Using the output relay card in any other

operating environment may result in electric shock, fire, malfunction, or damage, and degrade the quality of the module.

- Never directly touch the conductive parts or electronic components of the output relay card. Doing so may cause malfunction or failure of the data logger.

Note: Never insert or remove cards while the device is powered on.

(Wiring precautions)

Warning

- Before wiring, be sure to check the integrity and quality of all input and output cables. Failure to do so may result in damage to the product.

(Disposal precautions)

Caution

- Dispose of the Analog card as industrial waste.
- When discarding the card, separate it from other waste in accordance with local regulations. In European Union member countries, a separate collection system exists for waste batteries.

1. Introduction

The Output Relay Card Model FDR0508-01 is a key component in industrial automation systems for controlling electrical equipment. The output relay card has the capability to control eight relays simultaneously, allowing for the management of various equipment such as motors, pumps, solenoid valves, and lighting through small control signals.

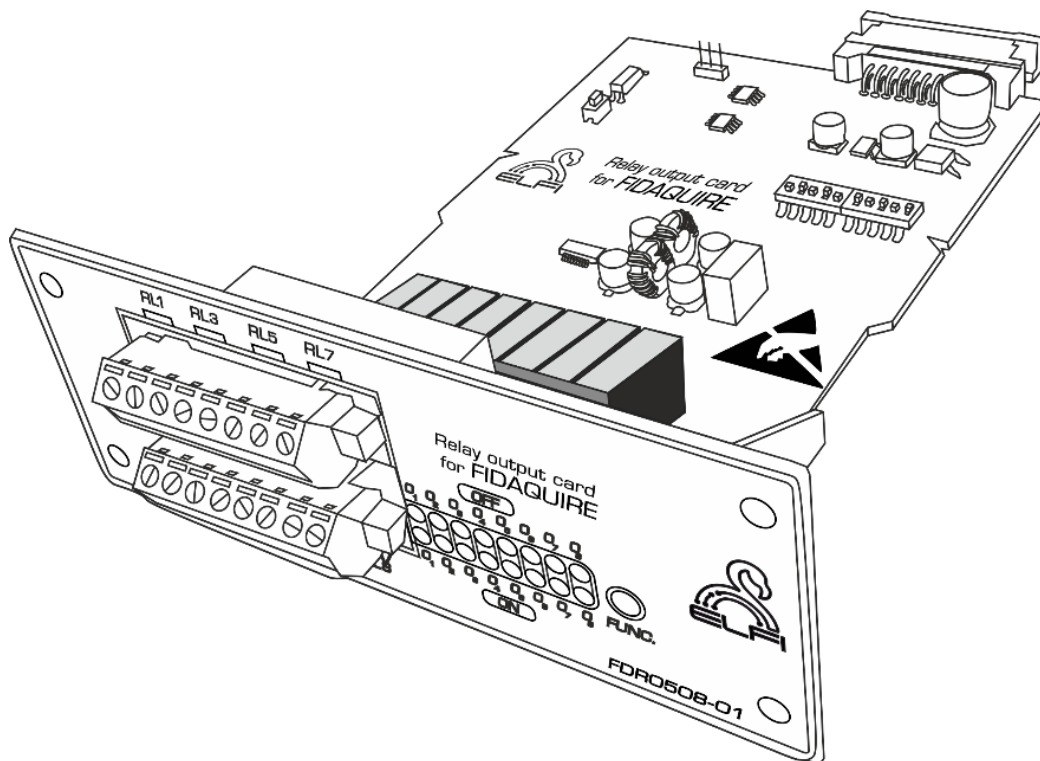


Figure 1: Output Relay Card

2. Settings

The eight switches on the right side of the card are used to activate or deactivate channels, allowing the user to enable or disable any desired channel as needed.

Note: To make any changes to the card settings, be sure to completely power off the device and disconnect its main power supply. Then, by unscrewing the panel screws, remove the card and make the necessary changes. After ensuring the card is correctly connected to the device, you can turn on the data logger.

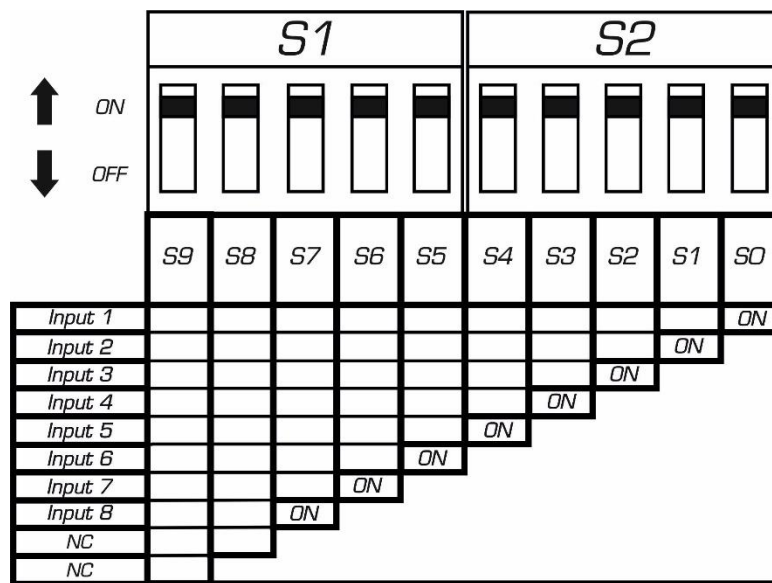


Figure 2: Image Related to Card Settings

3. Indicators on the Card

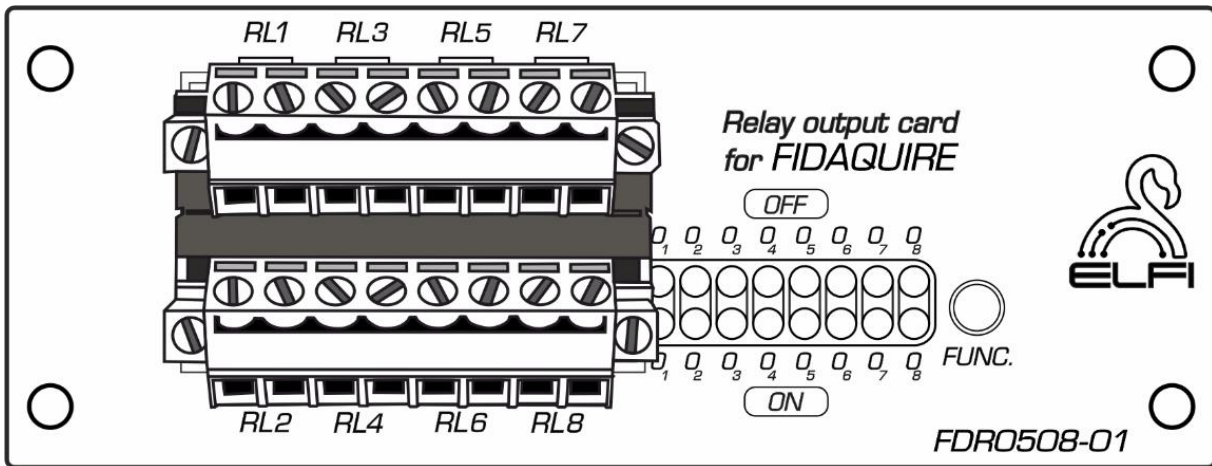


Figure 3: Image related to Card Cover

The top row of lights indicates the activation and deactivation of the channels¹, while the bottom row of lights shows whether the channel is on or off. An off channel means that the relay is active but not executing any command.

1. It is possible from the card's hardware.

4- Installing the output relay card on the FIDAQUIRE data logger

The process of identifying and initializing the card is completely automatic, and after installing and setting up the data logger device, the card will be displayed on the Cards list page. After initializing the card, the channel information will also be displayed on this page (Figure 4).



Figure 4: View of the output relay card display page in the device's user interface.

5- Card and Nodes Settings

- The Config menu of the output relay card includes the General, Active Channels, and Channels Data Map stages, which are briefly explained below:
- The General page is for the general settings of the card. Fill in the Card Name and Card Description fields ¹ (Figure 5).

The screenshot shows the 'General' configuration page for an output relay card. The top navigation bar includes icons for Device, My Dashboards, Cards, Configs, Users, Alarms, Cameras, and Access Control. Below this is a sub-navigation bar with three tabs: General (selected), Active Channels, and Channels Data Map. The General tab contains three sections: 'Card Info' with fields for 'Card Name' (containing 'Actuator') and 'Card Description'; 'Limit data Count' with a slider and a 'Limit data' toggle; and 'Enable Cloud Synchronization' and 'Activate Card' toggles. At the bottom are 'Go Back' and 'Next Step' buttons.

Figure 5: General page from Config Menu

- Active Channels displays the list of active and inactive channels (Figure 6).

Note: To deactivate any of the channels, changes must be made from the card's hardware.

1. Filling in this field is optional.

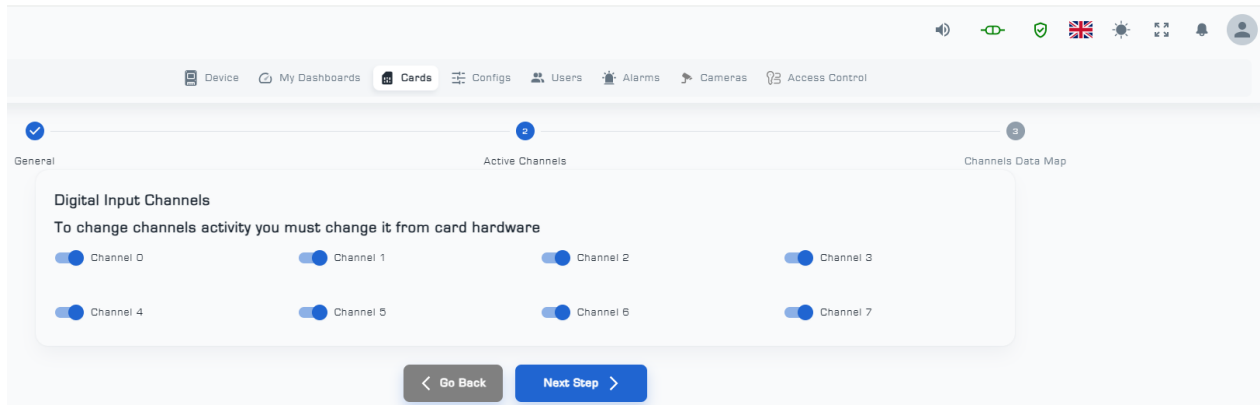


Figure 6: Active Channels Page from Config Menu

■ On the Channels Data Map page, you can name the channels and select the last state of the channel after power is connected. Open (Disconnected) means the channel will be off after power is connected, Close (Connected) means the channel will be active as soon as power is connected, and Keep Last State will maintain the last state.

Finally, by selecting the Save Config option, the applied settings will be saved (Figure 7).

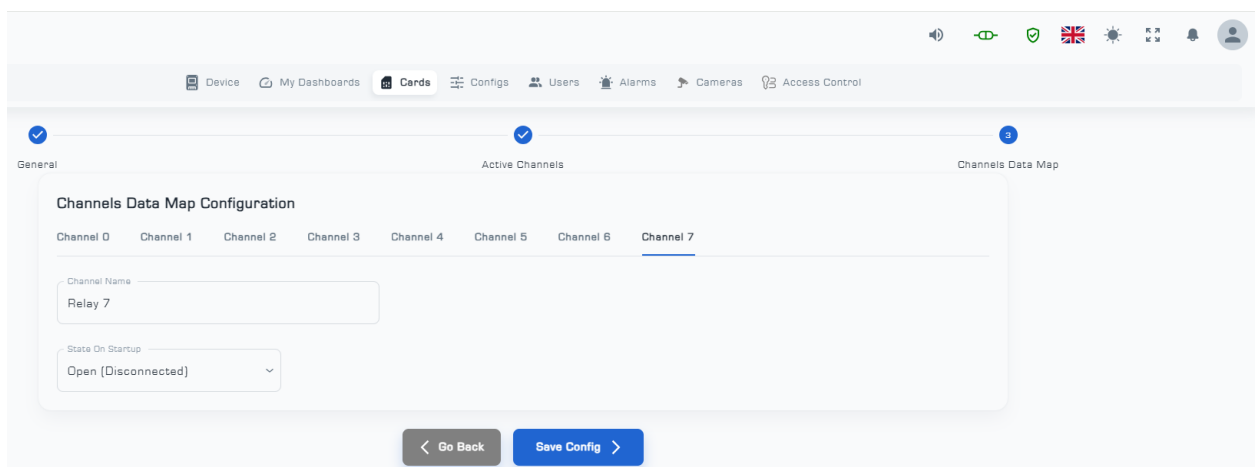
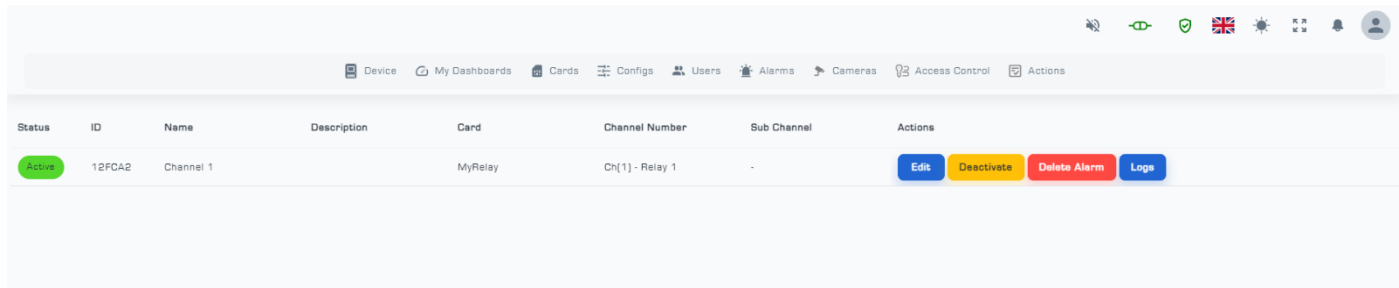


Figure 7: Channel Data Map Page from Config Menu

Note: To deactivate the card, you can do so from the General page in the Config menu.

- The Alarms menu displays the list of defined alarms for each channel. It is possible to edit, activate or deactivate, and delete the alarm, and the Logs menu provides a detailed list of alarm information and the time of occurrence (Figure 8).



The screenshot shows a web interface with a navigation bar at the top containing icons for various functions: Device, My Dashboards, Cards, Configs, Users, Alarms, Cameras, Access Control, and Actions. Below the navigation bar is a table with the following columns: Status, ID, Name, Description, Card, Channel Number, Sub Channel, and Actions. There is one row of data representing an alarm.

Status	ID	Name	Description	Card	Channel Number	Sub Channel	Actions
Active	12FCA2	Channel 1		MyRelay	Ch(1) - Relay 1	-	Edit Deactivate Delete Alarm Logs

Figure 8: Observing Defined Alarms Page for Card

- Note: The images provided in this manual from the channel settings menu are an example of a sample channel. For information on how to activate the alarm and connect the node to the relay, refer to the FIDAQUIRE data logger manual.

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