

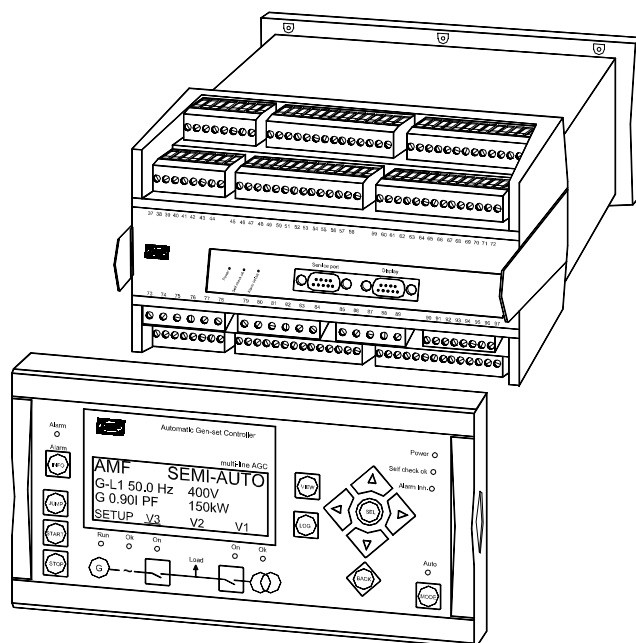
## Description of options



### Option M14, Configurable I/O extension cards 4 relay outputs Automatic Gen-set Controller

4189340392B

SW version 2.3X.X



- *Description of option*
- *Functional description*
- *Parameter list*



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## 1. Warnings and legal information

### Legal information and responsibility

DEIF takes no responsibility for installation or operation of the generator set. If there is any doubt about how to install or operate the generator set controlled by the unit, the company responsible for the installation or the operation of the set must be contacted.

**The units are not to be opened by unauthorised personnel. If opened anyway, the warranty will be lost.**

### Electrostatic discharge awareness

Sufficient care must be taken to protect the terminals against static discharges during the installation. Once the unit is installed and connected, these precautions are no longer necessary.

### Safety issues

Installing the unit implies work with dangerous currents and voltages. Therefore, the installation should only be carried out by authorised personnel who understand the risks involved in working with live electrical equipment.



**Be aware of the hazardous live currents and voltages. Do not touch any AC measurement inputs as this could lead to injury or death.**

### Definitions

Throughout this document a number of notes and warnings will be presented. To ensure that these are noticed, they will be highlighted in order to separate them from the general text.

#### Notes



**The notes provide general information which will be helpful for the reader to bear in mind.**

#### Warning



**The warnings indicate a potentially dangerous situation which could result in death, personal injury or damaged equipment, if certain guidelines are not followed.**

## 2. Description of option

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### M14 option

| Function                                                    | ANSI no. |
|-------------------------------------------------------------|----------|
| 4 x configurable relay outputs for alarms or limit switches | 74       |

### Terminal description

| Term. | Function | Technical data        | Description  |
|-------|----------|-----------------------|--------------|
| 90    | NO       | Relay 4<br>250V AC/8A | Configurable |
| 91    | Com.     |                       |              |
| 92    | NO       | Relay 3<br>250V AC/8A | Configurable |
| 93    | Com.     |                       |              |
| 94    | NO       | Relay 2<br>250V AC/8A | Configurable |
| 95    | Com.     |                       |              |
| 96    | NO       | Relay 1<br>250V AC/8A | Configurable |
| 97    | Com.     |                       |              |

The above relay numbers are to be used when selecting the specific relay.

### 3. Functional description

#### Relay setup

The relays can be configured in two different ways as illustrated below.

##### Alarm relay function

*When an alarm activates the relay, it will remain activated for as long as the alarm is present and unacknowledged.*

##### Limit function

*When an alarm activates the relay, no alarm message is displayed. After the condition activating the relay has returned to normal, the relay will deactivate, when the 'off delay' has expired.*

##### Horn relay function

*When an alarm activates, the relays configured to 'Horn' will activate and an alarm message is displayed. After the condition activating the relay has returned to normal, the relay will deactivate, when the 'off delay' has expired.*

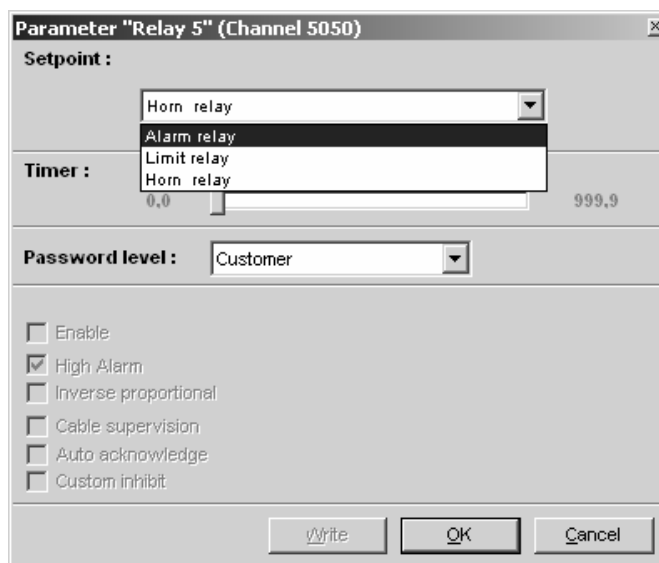
The setup of the relay is done in the I/O menu ('OUT' menu). All relays are set up in the same way. This example illustrates relay 2:

| No.  | Setting |           | First/min. setting | Second/max. setting | Third setting | Factory setting |
|------|---------|-----------|--------------------|---------------------|---------------|-----------------|
| 5021 | Relay 2 | Function  | Alarm              | Limit               | Horn          | Alarm           |
| 5022 | Relay 2 | Off delay | 0.0 s              | 999.9 s             | -             | 5.0 s           |

The 'off delay' is the time between the disappearance of the event that caused the relay to activate and the actual deactivation of the relay.

#### PC utility software

The PC utility software is a Windows® based software, which can be downloaded from our website [www.deif.com](http://www.deif.com). To adjust the inputs via the PC utility software, a computer must be connected to the controller unit. Furthermore, the unit parameters must be uploaded to the computer.



The screenshot shows a software window titled "Parameter "Relay 5" (Channel 5050)". It contains several configuration options:

- Setpoint :** A dropdown menu with "Horn relay" selected.
- Timer :** A dropdown menu with "Limit relay" selected, and a numeric input field showing "0,0" with a range up to "999,9".
- Password level :** A dropdown menu with "Customer" selected.
- Checkboxes:**
  - ☐ Enable
  - ☒ High Alarm
  - ☐ Inverse proportional
  - ☐ Cable supervision
  - ☐ Auto acknowledge
  - ☐ Custom inhibit
- Buttons:** "Write", "OK", and "Cancel" at the bottom.

## 4. Parameter list

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For further information about the structure of the parameter descriptions, please see the Designer's Reference Handbook.

### 5010 Relay 1

| No.  | Setting |           | First/min. setting | Second/max. setting | Third setting | Factory setting |
|------|---------|-----------|--------------------|---------------------|---------------|-----------------|
| 5011 | Relay 1 | Function  | Alarm              | Limit               | Horn          | Alarm           |
| 5012 | Relay 1 | Off delay | 0.0 s              | 999.9 s             | -             | 5.0 s           |

### 5020 Relay 2

| No.  | Setting |           | First/min. setting | Second/max. setting | Third setting | Factory setting |
|------|---------|-----------|--------------------|---------------------|---------------|-----------------|
| 5021 | Relay 2 | Function  | Alarm              | Limit               | Horn          | Alarm           |
| 5022 | Relay 2 | Off delay | 0.0 s              | 999.9 s             | -             | 5.0 s           |

### 5030 Relay 3

| No.  | Setting |           | First/min. setting | Second/max. setting | Third setting | Factory setting |
|------|---------|-----------|--------------------|---------------------|---------------|-----------------|
| 5031 | Relay 3 | Function  | Alarm              | Limit               | Horn          | Alarm           |
| 5032 | Relay 3 | Off delay | 0.0 s              | 999.9 s             | -             | 5.0 s           |

### 5040 Relay 4

| No.  | Setting |           | First/min. setting | Second/max. setting | Third setting | Factory setting |
|------|---------|-----------|--------------------|---------------------|---------------|-----------------|
| 5041 | Relay 4 | Function  | Alarm              | Limit               | Horn          | Alarm           |
| 5042 | Relay 4 | Off delay | 0.0 s              | 999.9 s             | -             | 5.0 s           |

DEIF A/S reserves the right to change any of the above