



# Device Series enCore

## FC1, MC1

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Manual  
Notification AFB

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# 1 About this manual

The manual for the enCore device series has a modular design. For an overview of the enCore/enSuite concept and the structure of the manual for your device type, please refer to section ↔ [5.9 Relevant operating instructions](#) (p. 21).

The present volume describes the basic functionality and operation of the Notification AFB.



## The Notification AFB in the enCore device series

Please note that not every AFB is available for every device type of the enCore device series. Which functions a device supports is described in detail in the online help.

Even if the AFB is supported by your device type, it is not always included in the delivery state. If this is the case with your device, then first add the AFB in enSuite with the action [Software configuration](#) and transfer the additional software to the device. In addition, some AFBs are subject to a charge. Follow the ↔ enCore manual “Update of the Device Software“.

Please contact our technical support if you need assistance.  
↔ [5.4 Technical support Flow Computers and Gas analyzers](#) (p. 19)

The meaning of the individual parameters is documented in detail in the online help of enSuite, which is why the parameterization in this document is only described as an example. The examples used may be slightly different for your particular device. Unless otherwise mentioned, the instructions refer to the expert mode.



## Online help

In enSuite, you can call the general help via the menu item **Help – ? Show online help**. Open the context-sensitive help directly from the desired branch in the parameterization window with [F1].

This part of documentation is intended for specialist personnel who are responsible for the service activities of the following tasks after the successful assembly of the device and installation of the current enSuite version on PC:

- adaptation of device parameterization to the measuring task
- test of all data points and commissioning
- other service activities

The illustrations in these instructions serve to depict the facts that are being explained, and therefore deviate depending on the configuration of your device and enSuite.



#### **Safety information in the operating instructions only**

This manual does not contain any safety information. All safety information is contained in the operating instructions for your device type.

⇔ [5.9 Relevant operating instructions](#) (p. 21)

Read the operating instructions carefully before you start working on the enCore device.

## **1.1 Device types**

This manual is applicable for the following device types:

### **Flow Computer**

enCore FC1, enCore MC1

## 1.2 Expert and normal mode in enSuite

enSuite distinguishes between two parameterization modes, the expert and the normal mode.

### Expert mode

The parameterization window displays all functions, parameters and export values, and all editing possibilities are enabled. This mode is available for all enCore device types.


### Normal mode (for some device types only)

This mode enables you to easily create and configure a parameterization for *standard* applications. The parameterization window is displayed in a simplified view that guides you through the most important settings, step by step.

If necessary, you can switch to the expert mode, which again offers all functions, parameters and export values available for your device.



#### Certain changes in the expert mode lock the normal mode.

As soon as you open a normal mode parameterization in the expert mode, the expert lock symbol  signals that a change in this section or this parameter locks the normal mode.

Parameters that are not marked with this symbol can be changed without further ado and switching back to normal mode is possible.

Use the following menu item to switch between expert and normal mode:<sup>1</sup>

### Tools – Expert mode

Details ↔ enSuite online help

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<sup>1</sup> The menu item is available only for parameterizations of enCore devices that support the normal mode.

## 2 Functional description

In enCore devices, all important information of the device is available at all times, in particular unexpected events like malfunctions. The purpose of the Notification AFB is to immediately inform you by email about critical events related to the enCore device. In this way, you are always informed about the current state of the enCore device and you can take action at an early stage in the event of a malfunction. An email can be sent to various recipients.

The AFB operates as an email client and supports the Simple Mail Transfer Protocol (SMTP). It sends notifications via emails to an SMTP server (it is not possible to receive emails). The SMTP server can send outgoing emails within the network in which the enCore device is active. The network administrator of this network determines which additional permissions these emails will have, e.g., forwarding onto the Internet.

The AFB lets you manage up to four SMTP servers and enables up to four notification rules for each SMTP server.

A notification rule consists of:

- a recipient list with a maximum of eight
- between one and four application sources that trigger sending an email. In addition, you specify the priority level during parameterization, where an application source generates an email. The AFB currently supports the Error List as application source.

In most applications, an SMTP server with a notification rule is sufficient. For this reason, enSuite already creates a basic empty structure for parameterizing an SMTP server with a notification rule as soon as you add new Notification AFB in enSuite. The basic structure is displayed in red writing (invalid parameterization).

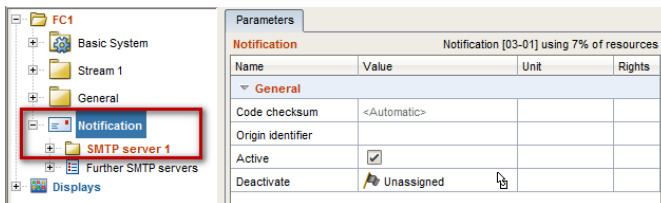


Fig. 2-1: Notifications – empty structure

This parameterization is only valid if you store the connection data for SMTP server 1 and define the notification rule.

## 2.1 Enable notifications

### Configure general AFB settings in enSuite

- 01 Go to the 🇪🇺 **Notification** folder, which contains the general parameters for the AFB.
- 02 Assign a short and meaningful identifier to this AFB.  
Note: This identifier is used in the subject line of each email together with the system time of the enCore device:  
Subject: <Origin identifier> <System time>
- 03 (Optional) To prevent an undesirable flood of emails while commissioning a device, switch off the AFB by deactivating the **Active** checkbox.



#### Activate the AFB during commissioning only!

We recommend disabling the AFB during commissioning until activation makes sense in order to avoid a possible flood of emails.

- 04 Optionally, you can specifically disable the AFB when an event message arrives, and when the message ends, sending messages is enabled again.

🔑 **Open the security switch** or 🔑 **Maintenance mode**


The further parameterization is done in 2 steps:

- ↔ [2.2 Parameterizing the connection settings of an SMTP server](#) (p. 9)
- ↔ [2.3 Define the notification rule with a recipient list and message](#) (p. 11)



## 2.2 Parameterizing the connection settings of an SMTP server

### Set the connection settings of the SMTP server

- 01 To parameterize the first SMTP server, open the branch **<Device>** –  **Notifications – SMTP server 1.**
- 02 In the **Servename/IP** parameter, specify the host name or the IP address of the SMTP server:  
**<smtp.your-server.com>**
- 03 In the **Security** drop-down list, select the encryption technology to be used to prevent the unwanted reading of emails during transmission. Note that recipients (SMTP servers) must be able to “understand” the same encryption technology.
  - **SSL/TLS**  
by default via port 465/TCP
  - **STARTTLS**  
by default via port 587/TCP
  - **keine (default)**  
setting for unencrypted SMTP by default via port 587/TCP
- 04 If this outgoing mail server is not used for SMTP associated ports (⇔ parameter **Security**) enter the **Alternative port** number.
- 05 If the SMTP server requires authentication, enter the **User name** and **Password** for SMTP authentication.
- 06 For the **Sender** parameter, set the email address that the SMTP server will use to send email notifications:  
**<name>@<domain of the SMTP server>**

### Avoid SMTP server overload

- 01 Set the maximum number of emails in **Overload limit** parameter that the AFB is allowed to send to the SMTP server within 10 seconds. Default is **100**.
- ✓ The AFB monitors this upper limit. Behavior in the event of an error:

- The message 🚩 **Overload exceeded** is displayed.
- The AFB informs the recipient list about the error by means of an email. The subject line is:  

```
<Origin identifier> <System time> LOST NOTIFICATIONS
```
- As long as the parameterized **Overload limit** is exceeded, the AFB does not generate any further notifications for this server.

The message 🚩 **Overload exceeded** ends, if the number of emails within the last 10 seconds drops below half of the upper limit. Only in this case the AFB generate new emails for this server.



### Monitor email queue

To prevent too many emails from accumulating and blocking the queue, enCore devices are able to monitor the pending email limit.

- 01 In the **Pending limit** parameter, specify the maximum number of emails that are allowed to be queued in the enCore device and have not (yet) been submitted to the SMTP server. The default setting is **50**.
- ✓ The AFB monitors the parameterized upper limit. Behavior in the event of an error:
    - The message 🚩 **Pending exceeded** is displayed.
    - The AFB informs the recipient list about the error by means of an email: The subject line is:  

```
<Origin identifier> <System time> LOST NOTIFICATIONS
```
    - The AFB deletes all emails that are currently in the queue, except the last ones.
    - As long as the parameterized **Pending limit** is exceeded, the AFB does not generate any further notifications for this server.
  - ✓ The message 🚩 **Pending limit exceeded** does end when the email has been successfully sent. Only then does the AFB generate new emails for this server.


### Use up to 4 outgoing mail servers

- 01 Switch to branch <Device> –  **Notifications – Further SMTP servers**.
- 02 With the plus sign **+** in the right pane, add an SMTP server – with a maximum of 4 outgoing mail servers.
  - ✓ In the new **SMTP server <x>** folder, a basic empty structure is created for a further notification rule.
- 03 Switch to branch <Device> –  **Notifications – Further SMTP servers – SMTP –server <x>**.
- 04 Enter the required data as described in section [↔ Set the connection settings of the SMTP server](#) (p. 9).

## 2.3 Define the notification rule with a recipient list and message

A notification rule consists of at least one recipient and one application source.

### Parameterize the first recipient for this rule

- 01 Switch to branch <Device> –  **Notifications – <Servername/IP> – Notification <x>**.
- 02 Assign a **Name** to this notification rule.
- 03 Choose from the **Recipient type** drop-down list how this recipient will be addressed:
  - **To** as the main addressee
  - **CC** (Carbon Copy) for informational purposes, visible for all other recipients
  - **BCC** (Blind Carbon Copy) blind copy for informational purposes, invisible for all other recipients
- 04 Save the email address of the recipient, e.g.,:
  - < **f i r s t n a m e . l a s t n a m e @ c o m p a n y . c o m** >



### Set the first application source for this rule

- 01 From the drop-down list, select the **Source** that provides the information. The AFB currently supports the alarms and warnings of the **Error list**.
- 02 Set the **Priority level** by activating the desired **Alarm, Warning** and/or **Hint** checkboxes.
  - ✓ As soon as new information with the specified priority level is available for the parameterized application source, the AFB generates a new message and sends it to the stored recipient list by email. The subject line is:
 

```
<Origin identifier> <System time> <New entry text>
<Time> <Alarm | Warning>
```

If necessary, you can define further recipients and application sources for this notification rule.

### Parameterize more application sources (example)

- 01 Switch to branch **<Device>** –  **Notification** – **<Servername/IP>** – **Further notifications**.
- 02 Add a notification service with the plus sign **+** in the right pane – maximum 8 notifications are possible.
  - ✓ In the new **Notification <x>** folder, a basic empty structure is created for a further notification service.
- 03 Switch to branch **<Device>** –  **Notification** – **<Servername/IP>** – **Further notifications** – **Notification <x>**.
- 04 Enter the required recipient list and application source(s) as described.

## 3 Display and operation

### 3.1 Displays at a glance

The following figure shows the hierarchical structure and the navigation through the displays of the Notification AFB:

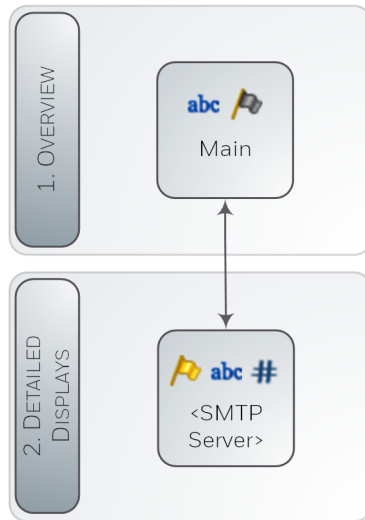


Fig. 3-1: Display – hierarchical structure



#### Display and Navigation with enCore Devices

The general layout of displays for enCore devices and the basic navigation options are documented in detail in section [↔ 5.9 Relevant operating instructions](#) (p. 21).

Generally, a distinction is made between hyperlinks and actions when operating enCore devices – both are shown with [blue](#) underline on the device and in the manual. Navigate through the device displays using hyperlinks; carry out a specific functionality with actions.

## 3.2 Displays in detail

The initial display of the AFB is the **Main**.

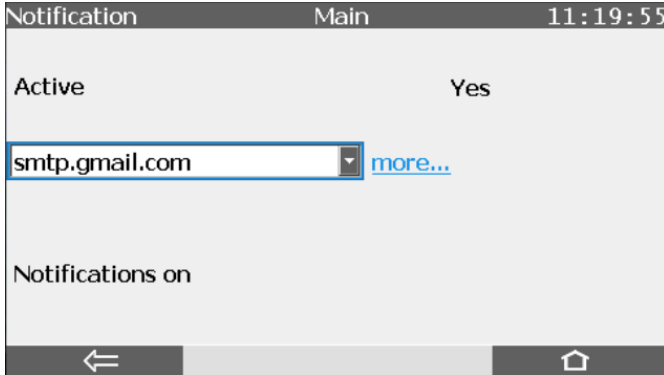


Fig. 3-2: Display **Main** – example

The **Main display** of the Notification AFB informs whether the AFB and the notification function are currently activated. With the appropriate user authorization, you can manually activate or deactivate the AFB in this display.

All parameterized SMTP servers are shown in a drop-down list. As soon as you have selected the desired entry, use **[more...]** to switch to the detailed display of the SMTP server.

Main display	
<b>Active</b>	<yes   no>
AFB status: indicates whether the AFB is activated ( <b>yes</b> ) or deactivated ( <b>no</b> ).	
As soon as a user with the <b>Change general system settings</b> right is logged on to the device, a drop-down list is displayed and you can change the AFB status directly in the control panel.	
<SMTP Server drop-down list>	<b>[more...]</b>
List with parameterized outgoing mail servers	⇔ <SMTP server> (p. 15) switches to the detailed display
<b>Notifications</b>	<on   off>
The email function was deactivated ( <b>off</b> ) when the parameterized message (parameter <b>Deactivated</b> began or activated when this message ended ( <b>on</b> ).	

Table 3-1: Main display

<SMTP server>	
<b>Overload exceeded</b>	<on   off>
The warning 🚩 <b>Overload exceeded</b> is pending ( <b>on</b> ) or not pending ( <b>off</b> ). This warning signals that the parameterized number of emails (↔ parameter <b>Pending limit</b> ) exceeded within the last 10 seconds.	
<b>Pending exceeded</b>	<on   off>
The warning 🚩 <b>Pending exceeded</b> is pending ( <b>on</b> ) or not pending ( <b>off</b> ). This warning signals that the parameterized number of emails pending in the queue (↔ parameter <b>Pending limit</b> ) exceeded.	
<b>Sent notifications</b>	<Number of emails>
Number of emails sent since the last reboot of device	
<b>Last connection</b>	<Timestamp>
Timestamp of the last connection to the SMTP server	
<b>[&lt;current connection status&gt;]</b>	
following connection statuses are possible:	
<ul style="list-style-type: none"> <li>• <b>Connecting</b> The AFB is currently connecting to the SMTP server. Possible cause: Initialization phase after reboot or activation of the AFB</li> <li>• <b>Idle</b> Currently there are no emails pending in the SMTP server. Possible cause: There are no events for the parametrized <b>priority level</b> of the <b>application source(s)</b>.</li> <li>• <b>online</b> Currently there is a connection to the SMTP server.</li> <li>• <b>Authentication failure</b> Logon to the outgoing mail server failed. Possible cause: Parameterized access data incorrect (parameter <b>Username/Password</b>)</li> <li>• <b>Unable to connect</b> Possible causes: Network problem; parameterized SMTP connection settings incorrect</li> </ul>	

**<SMTP server>**

- **Fatal connection error**

Possible cause:

There was a fatal error while sending emails with SSL encryption.

Warning! Emails will no longer be sent. Reboot the enCore device.

**[<SMTP server error message>]**

In case of an SMTP error, the error message reported by the SMTP server is displayed here (if necessary on several lines, the lines remain empty if the connection is error-free).





Table 3-2: Target display **<SMTP server>**



## 4 Technical data

### 4.1 Nomenclature

Following symbols and names are used in the enCore FC and in enSuite for counters and values in the context of Notification AFB:

Symbol	Description
	Notification AFB
	message of type "alarm"
	message of type "warning"
	message of type "hint"

## 5 Notices

### 5.1 Third-party trademarks

All used or mentioned brand names are the property of their respective owners. A possible mention of brands is done in good faith and without any intention to derive a claim.

### 5.2 Third-party licenses

This product may contain or be derived from materials, including software, of third parties. The third party materials may be subject to licenses, notices, restrictions and obligations imposed by the licensor.

The licenses, notices, restrictions and obligations, if any, may be found in the materials accompanying the product, in the documents or files accompanying such third party materials, in a file named `Third_Party_Licenses_enCore.pdf` at:

[process.honeywell.com/us/en/site/elster-instromet/about-us](https://process.honeywell.com/us/en/site/elster-instromet/about-us)

### 5.3 Warranty Conditions

You will find our current warranty conditions in the General Terms and Conditions, for example, on our website:

[process.honeywell.com/us/en/site/elster-instromet/about-us](https://process.honeywell.com/us/en/site/elster-instromet/about-us)

## 5.4 Technical support Flow Computers and Gas analyzers

Our support of Elster Gas is available for technical advice as well as repairs.

To find further information visit our support site of Elster Gas:

[process.honeywell.com/us/en/site/elster-instromet/support](https://process.honeywell.com/us/en/site/elster-instromet/support)



### Use secure communication!

Use secure communication, such as email encryption, to send confidential data.

## 5.5 Spare parts and repairs

For spare parts and repairs please write an email to our service.

[PMT-Reparatur@Honeywell.com](mailto:PMT-Reparatur@Honeywell.com)

## 5.6 How to report a security vulnerability

A security vulnerability is defined as an error or weakness in the software that can be exploited to impair the operation or security of the parameterization or device software or to access sensitive data.

Honeywell investigates all reports of security vulnerabilities affecting Honeywell products and services. For details on Honeywell security policy, visit:

[www.honeywell.com/us/en/product-security](https://www.honeywell.com/us/en/product-security)

To report a potential security vulnerability against any Honeywell product, please follow the instructions at:

[www.honeywell.com/us/en/product-security#vulnerability-reporting](https://www.honeywell.com/us/en/product-security#vulnerability-reporting)

To view information on current malware threats please visit:

[www.honeywell.com/us/en/news](https://www.honeywell.com/us/en/news)

OR

Contact your local Honeywell Process Solutions Customer Contact Center (CCC) or our technical support of Elster Gas.

## 5.7 How to give feedback to user documentation

We are always interested in your comments, corrections or suggestions for improvement regarding the Elster Gas Flow Computers and Gasanalyzers documentation. Please send your feedback to our technical support of Elster Gas.

[ElsterSupport@Honeywell.com](mailto:ElsterSupport@Honeywell.com)

Use this email address to provide feedback, or to report errors and omissions in the documentation.

## 5.8 Knowledge base articles on Honeywell Support Portal

Elster Gas provides problem-solving approaches and answers to frequently asked questions, as well as tips and tricks in short articles for various product series in our technical knowledge base.

[process.honeywell.com/us/en/services-and-support/support-center/technical-support](https://process.honeywell.com/us/en/services-and-support/support-center/technical-support)

The knowledge articles are constantly being expanded.

## 5.9 Relevant operating instructions

Only the operating instructions for the individual device types are listed below. In each of these instructions you will find the complete list of other applicable manuals for the respective device type.

### Flow Computer, Gateways

- ZM1, BM1, MC1, FC1, DC1  
“Operating Instructions“ (order no.: NFC-OI-EN)
- ZM1, BM1, MC1, FC1, DC1  
“Basic System with SFBs“

### Gas Analyzers

- EnCal 3000 proChain GC  
“Information for General Use“ (order no.: 73024637)
- GasLab Q2  
“Information for General Use“ (order no.: 73023638)

### Q.Sonic Series 6

- Q.Sonic-plus  
“Operation and Maintenance“ (order no.: 73023467)
- Q.Sonic-max8  
“Operation and Maintenance“ (order no.: 73023477)

### 5.9.1 Download latest manuals on Docuthek

Elster Gas provides the user documentation such as manuals, certificates, data sheets, technical information for different device types (in different languages) on the Docuthek. The documents are regularly updated.

[www.docuthek.com](http://www.docuthek.com)

Use the device type as search term, for example,

**enCore FC1**



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The target value of the SHA-1 checksum for a PDF can be found on our Docuthek in the details in section **Remarks**, or – if you have downloaded the PDF from Honeywell website – in brackets next to the download link.



### Which manuals are relevant for previous product releases?

Only the latest manuals are available on the Docuthek. If you are using an older software version, you can look up these manuals for each version in the software history on the Honeywell website. The software history is available as a PDF file for product releases since 2020 in the download area of the respective device type.

[process.honeywell.com/us/en/site/elster-instromet/support#software-downloads](https://process.honeywell.com/us/en/site/elster-instromet/support#software-downloads)

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