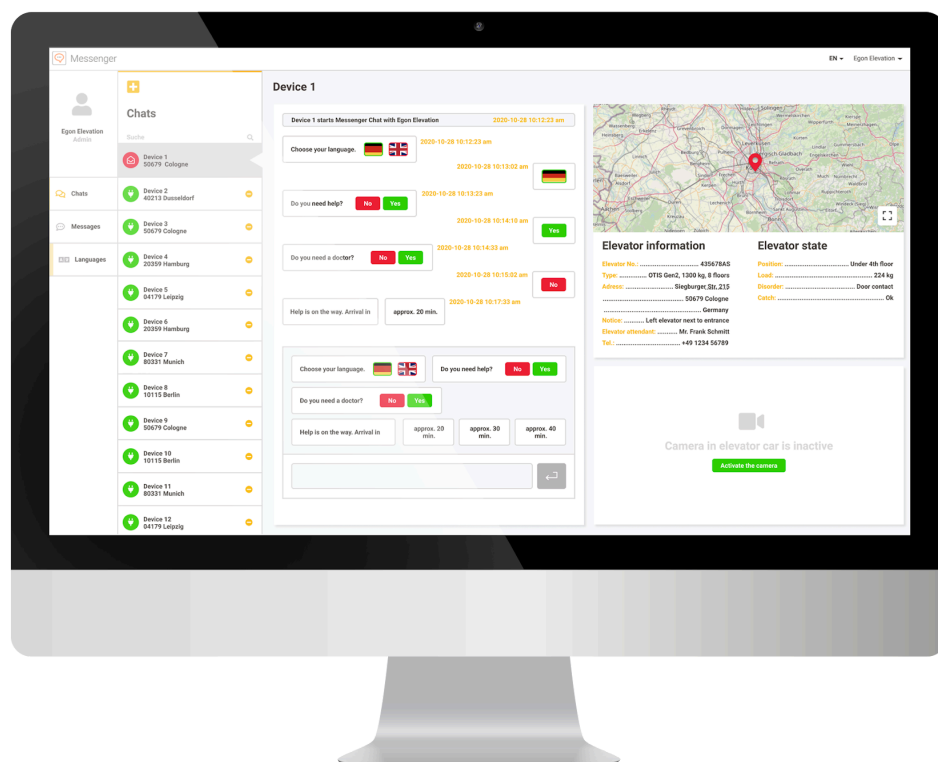


User manual

flexyPage Messenger

for the hearing impaired emergency call (2SC)

Version 1.3



Content

[A brief overview](#)

[Notes on flexyPage documentation](#)

[Safety Instructions](#)

[Safety instructions and restrictions](#)

[Application area of the flexyPage Messenger](#)

[Principle of operation](#)

[Requirements](#)

[Commissioning the display](#)

[Assembly](#)

[Electrical connection](#)

[Setting up the Messenger Widget](#)

[Trigger \(Timer/Event\)](#)

[Emergency call active](#)

[Emergency call device disturbed](#)

[Messenger chat completed](#)

[Application-oriented configuration example](#)

[Special configuration](#)

[Leitronic](#)

[MSAG](#)

[Functional test](#)

[Connection check](#)

[Checking communication between the display and the emergency call center](#)

[Adding a video camera](#)

[Network camera](#)

[USB camera](#)

[flexyPage Messenger Server](#)

[Overview](#)

[Installation](#)

[SaaS or local installation](#)

[External service provider \(via the Internet\)](#)

[User setup](#)

[Adding devices](#)

[Definition of languages](#)

[Definition of predefined messages](#)

[Interface description for integration as an I-frame](#)

[Interface description via the lift chat protocol](#)

[Privacy FAQ](#)

[Document history](#)

[Your contact persons](#)

A brief overview

flexyPage is a modern, flexible system for the simultaneous display of lift information and multimedia presentations inside and outside of elevators.

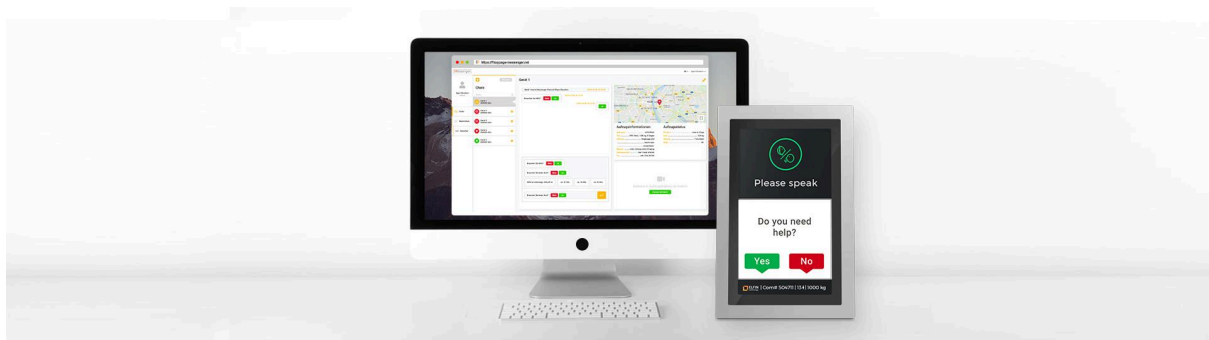
The flexyPage displays are available in different sizes (from 7" to 65") and designs. With the media players in the boxed version, standard monitors and TVs can also be controlled via a DVI/HDMI interface. External sensors, input/output modules and controllers that support the CANopen CiA 417 - CANopen-Lift standard can be connected via the integrated CAN interface. The audio signal is available via a line-out interface or a loudspeaker connection. Various touch sensors can be connected for the input of commands by the user. Configuration and connection to the Internet is done via the LAN interface.

The displays can be used in all elevators for a wide range of applications, both in new buildings and in retrofitting.

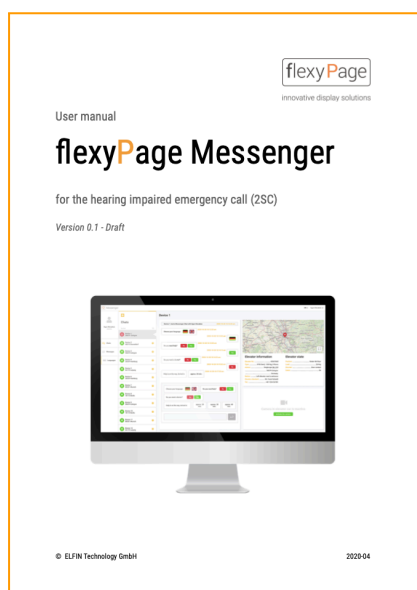
The **flexyPage Messenger** is a component of the flexyPage displays. It enables visual communication with the people trapped in an elevator and thus extends the functions of the acoustic emergency call devices for users with a hearing impairment. The functionality of the displays and the control panel are described in this user manual.



Do you have any questions or suggestions? Please contact us
sales@flexyPage.de.



Notes on flexyPage documentation



This user manual describes the features of the Messenger widget and Messenger Server software, how to set it up and configure it, and how to use and interface it. This guide is only a part of the complete product documentation and is subject to constant updates.

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ELFIN Technology GmbH is not liable for damages, possible errors and their consequences which occur in connection with the delivery or use of this user manual.

Please read the documents carefully before use!



The current version of the manuals, product data sheets and other documents and application examples can be found on the product homepage at:

Introduction to the flexyPage system

Quick start guide

Video and tutorials

flexyPage user manual

Widget descriptions

Product datasheets

Frequently asked questions

Sales contact

Support contact

flexypage.de/en/doc/documentation

flexypage.de/en/doc/documentation

flexypage.de/en/videos-and-tutorials

flexypage.de/en/doc/documentation

flexypage.de/en/doc/widget-descriptions

flexypage.de/en/doc/documentation

flexypage.de/en/faq

flexypage.de/en/sales

flexypage.de/en/support

Safety Instructions

Safety instructions and restrictions



Follow all instructions in this manual and on the device.

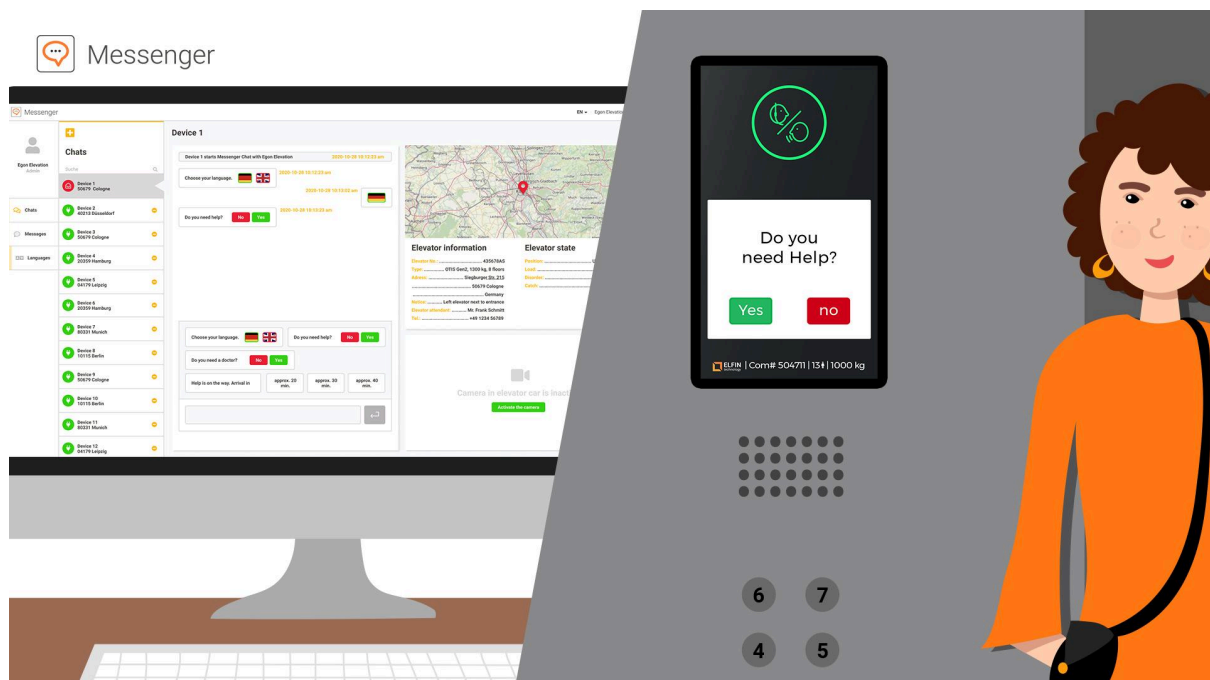
An exclamation point within a warning triangle alerts you to special instructions on the product.

Installation and commissioning may only be carried out by qualified personnel! The repair of defective displays may only be carried out by ELFIN support. Independent opening of the housing can damage the display and leads to immediate loss of warranty claims. If the unit is already damaged at delivery, do not connect it to the power supply! Please contact the ELFIN support.

Do not use caustic, sharp cleaning agents when maintaining the unit and do not attach sharp objects to the glass.

Heat build-up can cause the flexyPage display to overheat. This can cause damage to the display. The internal electronics are passively cooled by the housing. Ensure sufficient air circulation around the flexyPage display. If the housing is equipped with ventilation slots, make sure that the ventilation slots are always free. Moisture and liquids entering the flexyPage display can cause electric shock or short circuits. Only use the displays inside buildings. Do not allow liquids to enter the inside of the display.

Application area of the flexyPage Messenger



Modern elevators are equipped with an emergency call system that establishes a two-way voice connection to a permanently occupied location. The employees in the control center can speak to the trapped persons via this connection.

Persons with impaired hearing cannot hear the questions from the switchboard and therefore cannot communicate with the employees. They do not know if their alarm has been registered and if help is on the way.

The situation is also unsatisfactory at the control center. When an emergency call is made, the employee speaks to the trapped persons and does not receive an answer. A technician has to be sent to the system, even if there is a possibility that it was an operating error.

The flexyPage Messenger offers the possibility of a visual two-way communication from a control center to the lift car, as a supplement to the acoustic emergency call.

The system can be used with all emergency call devices that provide the signals of the alarm button, 'Please wait' and 'Please speak' as discrete signals or have a CANopen Lift interface. The functionality of the acoustic emergency call does not change by using the flexyPage 2-sense communication (2SC) and cannot be replaced by it.

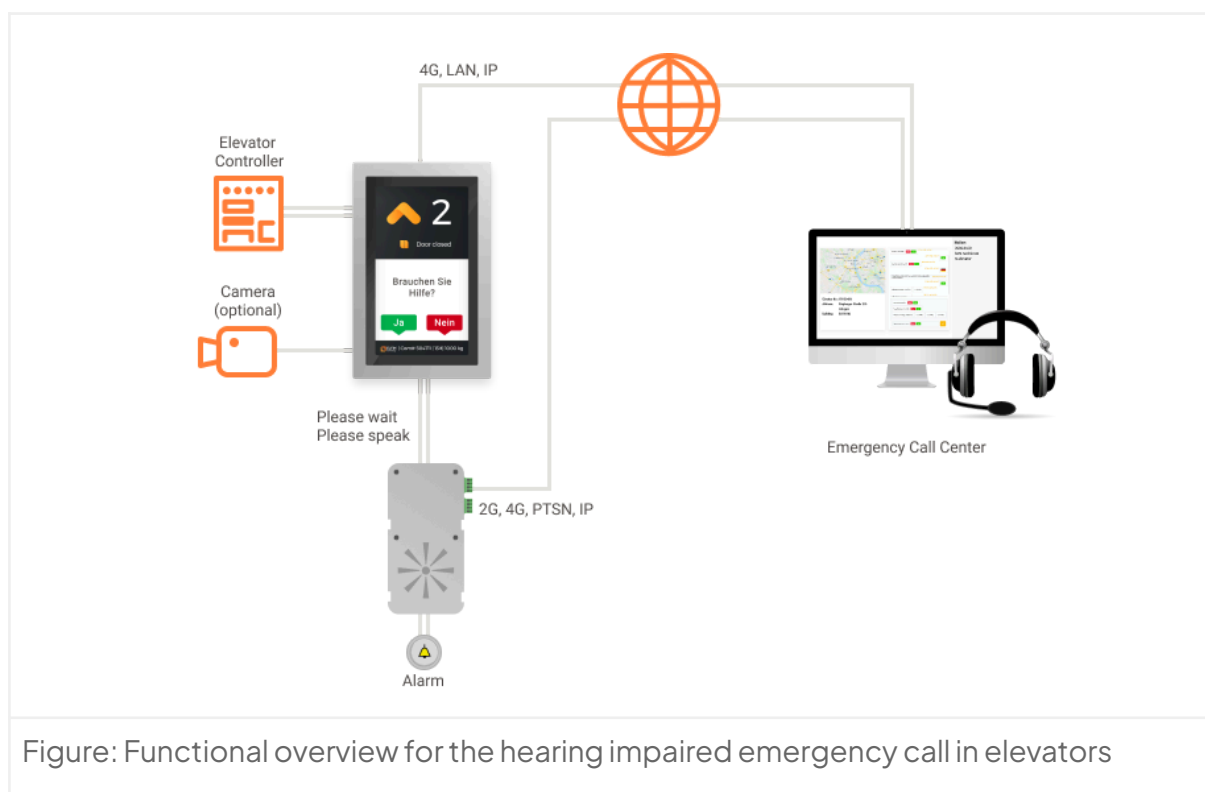
The flexyPage displays with the 2SC function are connected to the same permanently manned location that also receives the acoustic emergency call. The employees can then communicate with the trapped persons via both ways. The connection to the

control center is made via the Internet or Intranet redundant to the acoustic emergency call system.

Principle of operation

The emergency call in the elevator is realized autonomously by the emergency call device according to EN81–28. The emergency call device is connected to a permanently manned location.

The flexyPage display with the Messenger Widget is installed in the car operating panel and connected to the emergency call device and the elevator control via discrete signals or CANOpen. The display communicates with the emergency call center IP-based via the local network or the Internet.



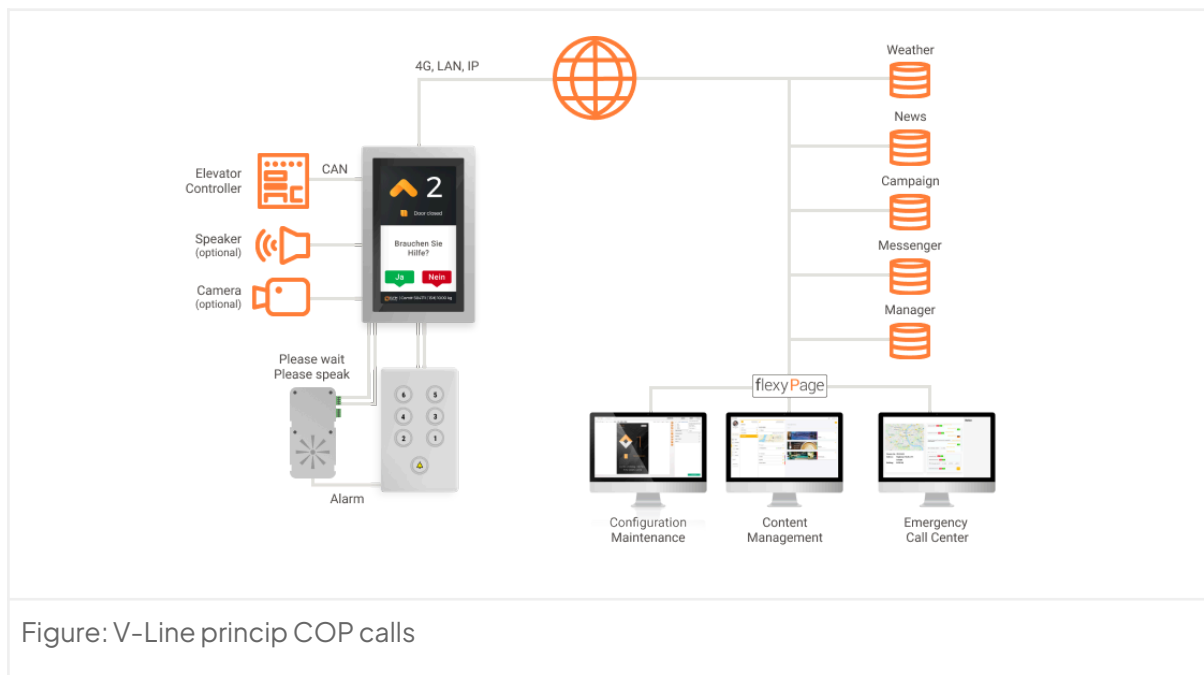


Figure: V-Line princip COP calls

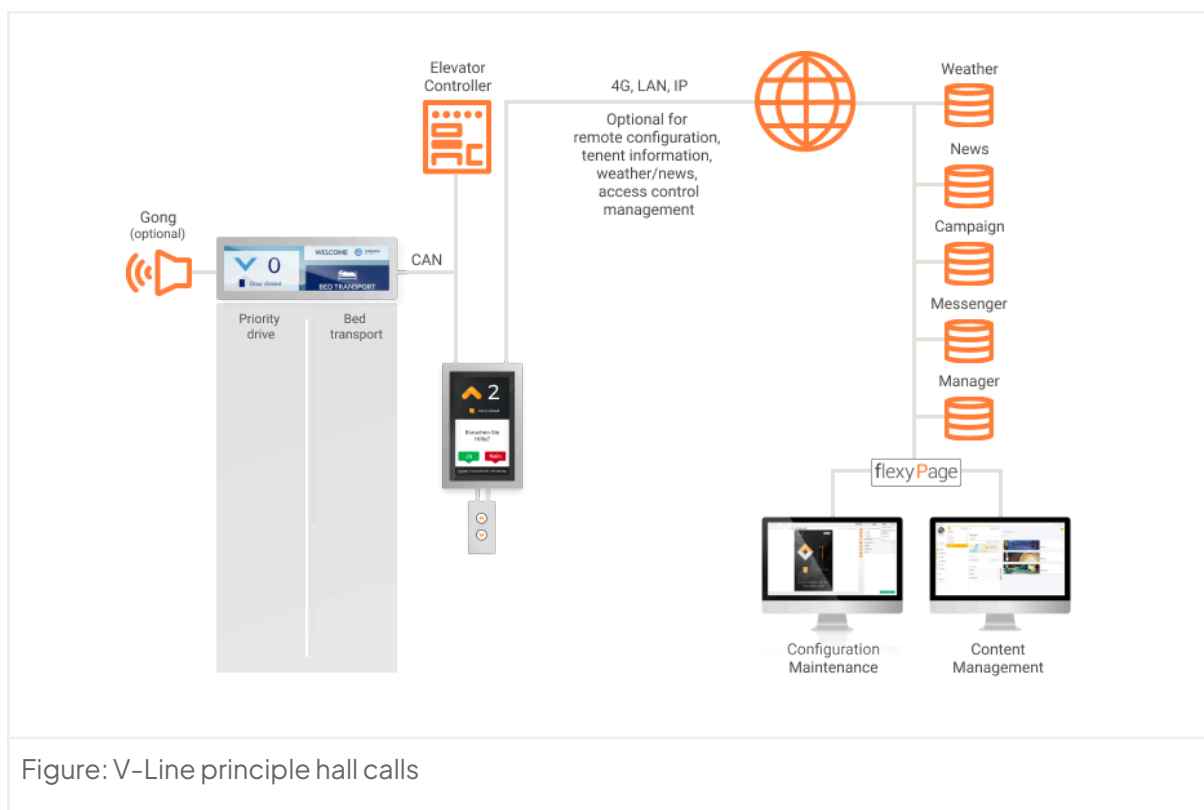


Figure: V-Line principle hall calls

Optionally, the display can be extended with a camera that is only active during an emergency call and shows the situation in the cabin.

In the emergency call center there is a workstation at which the acoustic and visual emergency calls are received and logged.

The user input by the trapped person can be done by touch screen (standard) or by two additional buttons 'Yes', 'No'. Only language selection and simple yes/no questions can be realized via the buttons, and questions with several answers can also be sent by touch.

The display with the 2SC can also be retrofitted in existing lifts of all brands.

Optionally, the display can also be used to display tenant information or advertising, e.g. via flexyPage Campaign.

Requirements

For the two-sense communication (2SC) an emergency call device for lifts is necessary that can provide at least the signals 'Alarm', 'Please wait', 'Please speak' as discrete signals or via CANopen-Lift.

An IP connection is required for communication with the control center. This can be done via a 4G router, the local network or an Internet connection.

The central office must have access to the flexyPage server software. This can be done as SaaS web service or as local installation. The operation of the software is web based. Only a PC with a current browser is required.

Optionally, a USB or network camera can be connected to the display, which allows a view into the cabin in case of an emergency.

Commissioning the display

Assembly

Instructions for mounting the displays in an elevator can be found in the product data sheet of the display.

Electrical connection

Instructions for the electrical connection of the displays in an elevator can be found in the product data sheet of the display.

Setting up the Messenger Widget

The basic setup of the flexyPage displays is described in the flexyPage Displays user manual.

In addition to the widgets for displaying lift information, weather, tenant information or advertising, the flexyPage Messenger Widget must be activated and set up for 2SC communication.

To do this, drag the widget from the widget library onto the screen and place it in the display area intended for visual communication.

Set the following parameters for the communication with the central office:

URL

- URL (SaaS: messenger.flexypage.net; On-premises: Service-domain-name)
- Optional: Number of buttons

Preset: 2; this value can be adjusted according to the number of possible physical buttons; a linear arrangement of the buttons is currently assumed. The layout should include a legend or information for the passenger to clarify the relationship between the respective buttons and the response options for non-touch solutions.

Trigger (Timer/Event)

The triggers can be used to configure the conditions under which the widget should be displayed. There are various trigger events that are relevant and/or particularly useful in the context of the messenger:

- Emergency call active
- Emergency call device disturbed
- Messenger chat completed
- Special function acknowledgment
 - Emergency call device green icon
 - Emergency call device yellow icon

The signals “Emergency call active”, “Emergency call device disturbed” and “Messenger chat completed” are generated signals based on inputs and status of the messenger widget.

Emergency call active

The “Emergency call active” signal is generated if one of the inputs for the green or yellow icon is present for longer than 5 seconds permanently. That means the yellow OR green LED of the emergency call device is permanently on.

Emergency call device disturbed

The “Emergency call device disturbed” signal is generated if the input for the green or yellow icon will go on MORE than 3 times within 5s.

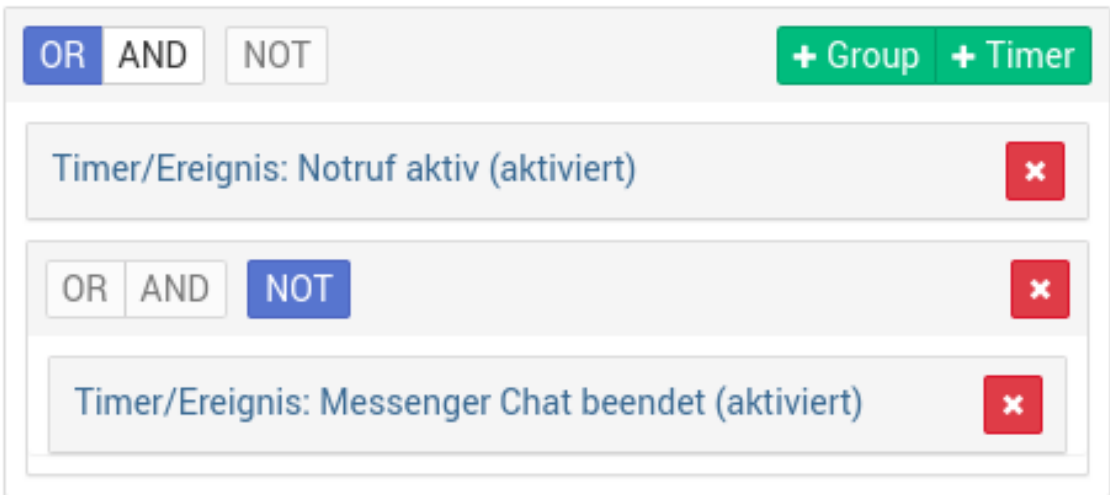
Messenger chat completed

The "Messenger chat completed" signal is issued if the chat was active for 30 minutes, which means that no message was sent, or the chat was completed by an employee of the emergency call center.

Application-oriented configuration example

An application-oriented configuration example is based on the idea that the messenger is indicated by signals, i.e. pressing the emergency button or the activity of the emergency call device, but the termination of the messenger is controlled by the activity of the chat. This configuration is oriented on the idea that the working process of an emergency call center often does not keep up the voice connection and that the verification of the hearing impaired emergency call takes place with a delay.

The best way to do this is to "or" (OR) the emergency call active signal with the negation (NOT) of the "end messenger chat" signal.



The screenshot shows a configuration window for a timer. At the top, there are buttons for logical operations: OR, AND, and NOT. To the right are buttons for '+ Group' and '+ Timer'. The main area contains two conditions stacked vertically, connected by an OR gate. The first condition is 'Timer/Ereignis: Notruf aktiv (aktiviert)' with a red 'X' button. The second condition is 'Timer/Ereignis: Messenger Chat beendet (aktiviert)' with a red 'X' button. The text 'Konfiguration zur Anzeige des Messenger Widgets im Timer-Editor' is at the bottom.

Special configuration

Since EN81-20 leaves room for interpretation in some areas, it may be necessary to set other configurations for certain emergency call devices than the one described above. The following describes the recommended signals to configure in order to display the Messenger widget at an appropriate time during the emergency call sequence.

Leitronic

The emergency call devices from Leitronic react as described above to the signals "Emergency call active" and "Messenger chat completed".

MS AG

For emergency call devices from MS AG, it is recommended to link the signals to display the messenger widget as follows:

- OR
 - AND
 - Special function acknowledgment → green icon
 - Special function acknowledgment → yellow icon
 - NOT
 - Messenger Chat completed

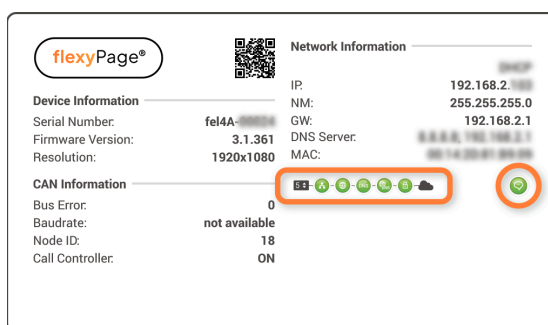
This configuration ensures that the green and yellow icons activate the widget and the widget is still visible as long as the messenger chat was not actively ended by the control center or it was inactive for more than 30 minutes.

Functional test

Connection check

After installation, it is recommended to perform a functional test to verify the internet connection and the connection to the messenger server. There are three ways to do this:

1. After powering on the display, the status of the internet connection and the messenger is shown in the **system info pop-up**.



2. In the **display's web interface** (flexyPage Editor), the online status is also shown under "Maintenance" → "About".

Adding a video camera

Many elevators are equipped with a camera that allows a view into the car in case of an emergency call or fire. The flexyPage displays can be used with USB or network cameras.

Network camera

When using a network camera with flexyPage Messenger, it must be ensured that the flexyPage Messenger server application is in the same network as the network camera. This is mostly only the case with the on-premises solution.

In this case, a URL can be stored in the web application for the display, via which the network camera sends its live stream. The camera stream can be activated and displayed using the aktivieren Activate camera 'button.

USB camera

In most other cases, using a USB camera is the only way to display images from the elevator. To do this, the camera must be connected to the display. If the camera is connected correctly, the button 'Take a snapshot' appears in the web application. The employees at the head office can now activate the camera and check that it is working. After the emergency call connection is terminated, the camera in the elevator is switched off again.

flexyPage Messenger Server

Overview

The flexyPage Messenger Server is a modern web application that can be used by many clients with a browser. The company ELFIN Technology provides the software emergency call centers as SaaS software.

If required, a local installation on a server in an emergency call center or a local network of a building complex is also possible.

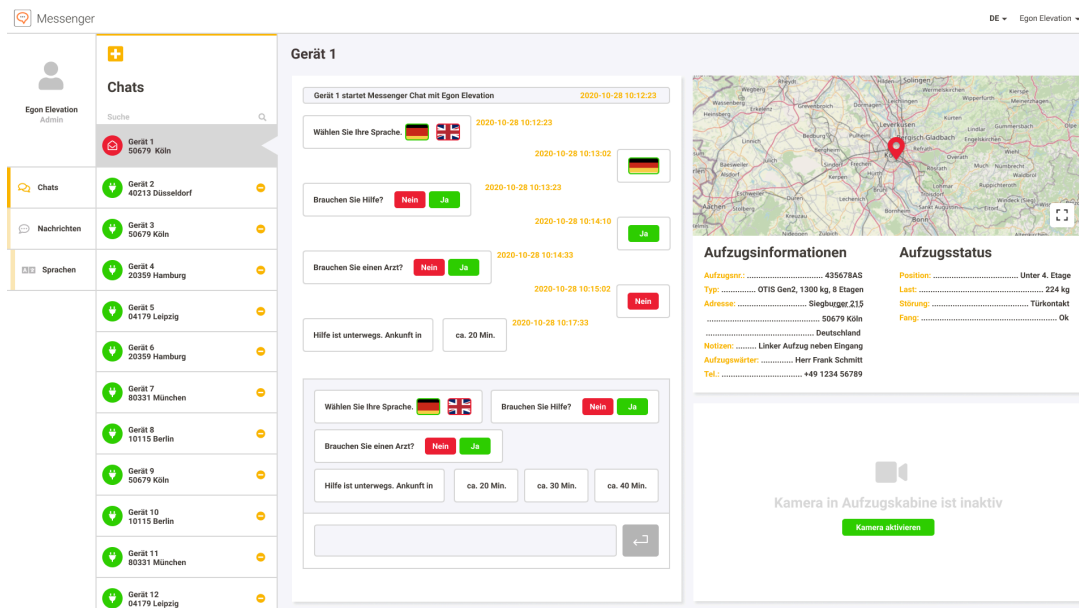
The server software establishes the encrypted connection to all connected displays and monitors the connection status in real time.

Users can be created and assigned different rights.

Administrators can add new displays, set up additional languages and set up predefined questions and text modules including translations.

The communication with the displays is logged on the server.

Via the open APIs, flexyPage Messenger can be easily integrated into the emergency call software of other companies.



Installation

SaaS or local installation

If you run a permanently manned office that manages emergency calls from elevators, you can extend it with flexyPage Messenger to also enable visual communication with hearing impaired users.

The easiest way is to use flexyPage Messenger as a SaaS service. For this you only need an account in our flexyPage portal. Then you can immediately start using the functions of flexyPage Messenger.

If you would like to host the server software in your data center yourself, we can provide the server software as a docker container or virtual machine. Please contact our sales department to discuss your requirements and to receive a non-binding offer.

External service provider (via the Internet)

If you, as a lift company, maintenance company or operator, connect the emergency calls of your lifts to an external service provider, then please contact them for information about the possibilities of connecting a display.

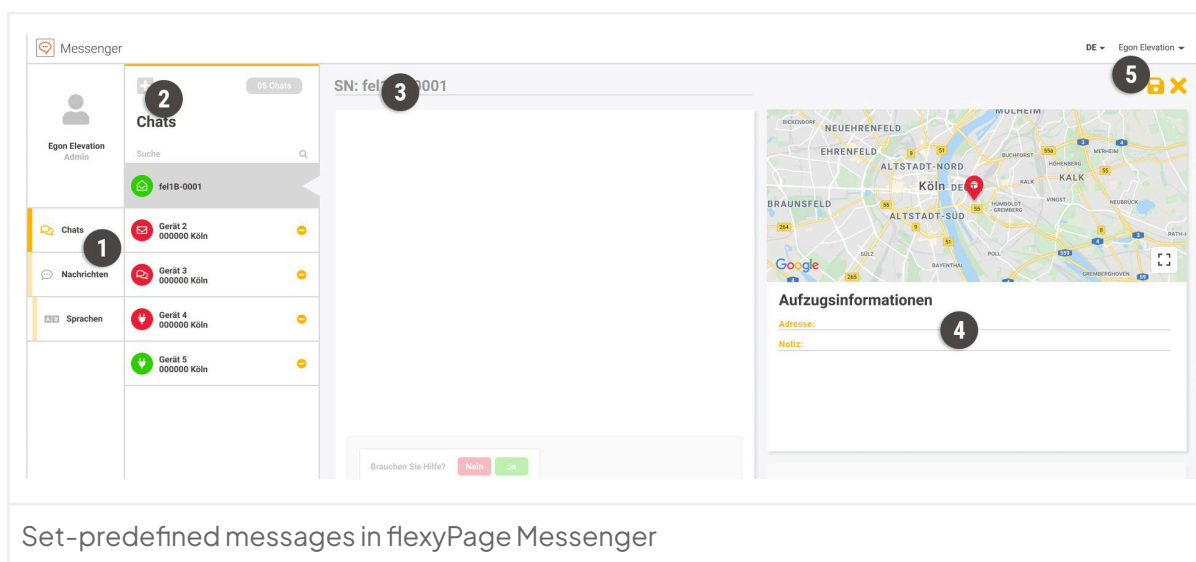
If your service provider is not yet able to offer this service, we will be happy to help you find an alternative service provider.

User setup

Note: The user role “Admin” is required for this function.

Adding devices

Note: The user role “Admin” is required for this function.

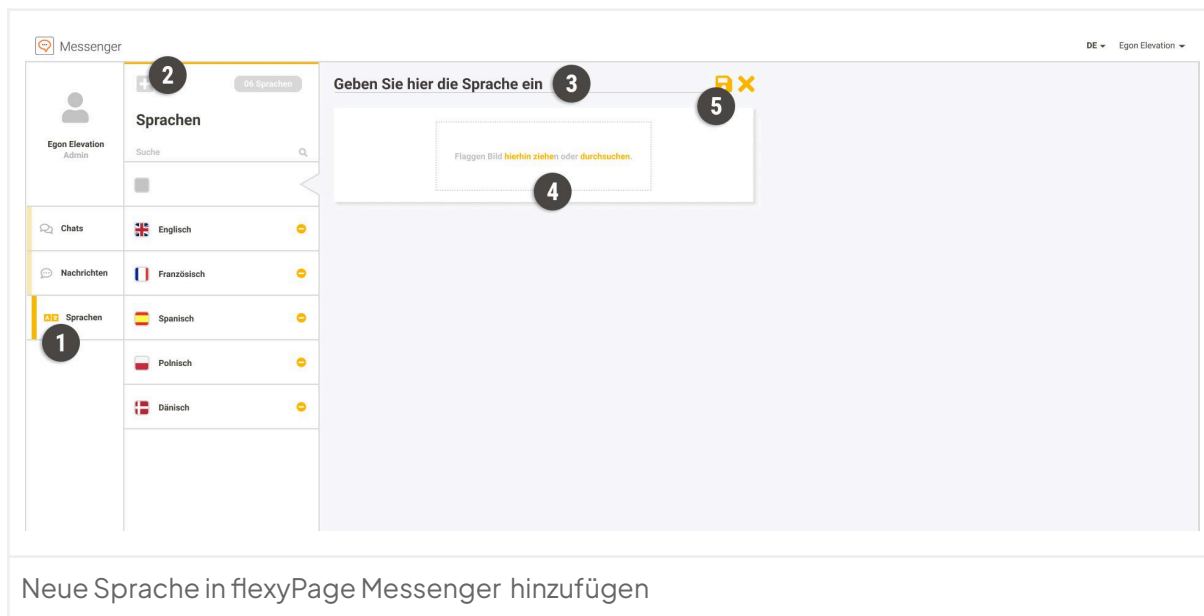


1. Select the entry **Chats** in the left sidebar menu
2. Then click on the **plus** button in the upper left corner of the loaded column.
3. Enter the serial number of the device.
4. Enter the important information about the device.
5. Save your settings with the **Save** button.

Definition of languages

Note: The user role “Admin” is required for this function.

The flexyPage Messenger offers the users/the locked persons the possibility to choose from several languages. You can determine which languages your hearing impaired emergency call supports and under the following menu item.



1. In the left sidebar menu select the entry Languages.
2. Then click the plus button in the upper left corner of the loaded column.
3. In the loaded column, enter the language above.
4. In the drag and drop area below, please upload a flag image for this language.
5. Save your settings with the Save button.

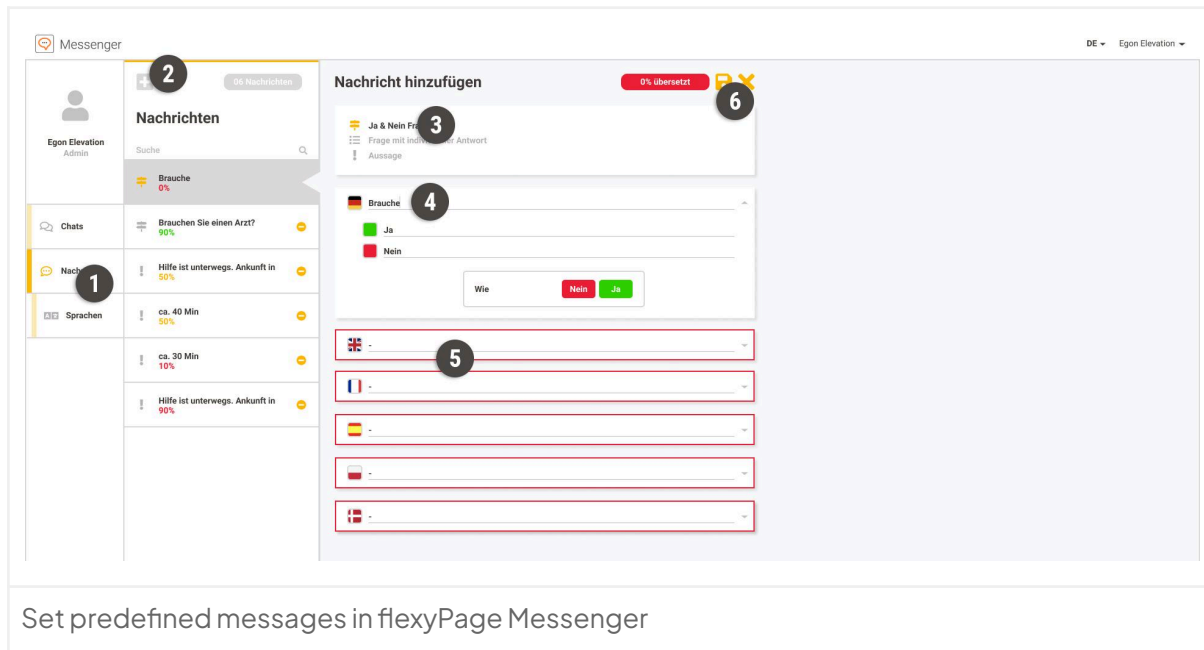
Definition of predefined messages

Note: The user role “Admin” is required for this function.

To simplify the chat process, there are predefined messages that the emergency call center employee can quickly and easily select and send to the flexyPage display.

There are three different types of messages that can be created:

	Yes-No Questions
	Questions with individual answers
	Statements



1. In the left sidebar menu select the entry **Messages**.
2. Then click on the **plus** button in the upper left corner of the loaded column.
3. First select the type of your message in the loaded column (Yes-No Questions, questions with individual answers, statements).
4. First, enter the message in your native language. If it is a question type, please also enter the answer options.
5. If you have defined your message, translate it into the predefined languages.
6. Messages that have not yet been fully translated are marked with a red border.
7. Save your settings with the **Save** button.

States of the chats/devices

In the following overview, you can see the possible chat states and their meaning.

	New message
	Active conversation (still not completed)
	Offline – Disconnection during conversation
	Offline (since)

	Online
	Selected chat

Interface description for integration as an I-frame

It can make sense to integrate the messenger's chat application into a web application that is already in use. The flexyPage Messenger offers under the URI

`/<locale>/<serial-number>/messenger`

a standalone chat to the device with the serial number `<serial-number>`. The language of the operator or the display language of the user interface can be determined via `<locale>`.

Interface description via the lift chat protocol

Are special port clearances necessary?

Device --> MQTT (SSL: 8883, unencrypted: 1883)

Frontend --> MQTT (WebSockets: WSS: 8081, WS: 9001)

Frontend (Browser) --> API (SSL: 443, unencrypted: 80, with redirect to 443)

Browser --> Frontend (SSL: 443, unencrypted: 80)

Privacy FAQ

How is communication established between the visual emergency call device, the 4G gateway, and the cloud?

Communication takes place via MQTT.

What data is transmitted, processed and, where applicable, stored in an emergency?

In the selected language of the trapped passenger

- Questions and information from the emergency call centre to the display, shown in plain text in the selected language
- Responses from the trapped passenger (“yes” or “no”) to the emergency call centre
- Timestamps of the text messages
- Optionally, a camera can be connected. In this case, camera snapshots may also be transmitted. The chat history, including the transmitted data, is stored.

Where is this data stored, and how long is it retained?

The data is stored on the server used by the emergency call centre for the service.

The retention period can be configured, for example to 30 days. After this period, the data is deleted automatically.

How is data transmission secured, for example through encryption or authentication?

Data transmission is encrypted using TLS, and authentication is performed using a pre-shared key (PSK).

Who has access to the cloud data and the emergency call communication?

The data can only be accessed by authorized users at the emergency call centre and by the administrator of the server software.

Are technical documentation, privacy information, or evidence of GDPR compliance available for this?

The systems are generally used without a camera. If users at the emergency call centre log in using anonymous usernames, no personal data is collected.

Document history

Version	Release date	Release notes
0.1	2020-04-12	pre release
1.0	2021-06-15	full version
1.1	2022-05-25	typo, address, feature descriptions added
1.2	2026-04-13	add new functional test
1.3	2026-07-22	add "Privacy FAQ"

Your contact persons

Even an extensive documentation cannot answer all questions. Do you have questions or suggestions concerning our flexyPage system? We look forward to your requests. You can contact us at:

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