



innovative display solutions

flexyPage Mediaplayer

Boxed V4

Product Datasheet



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Introduction

flexyPage is a modern and flexible system for the simultaneous display of lift data and multimedia presentations in and outside of lifts.

The flexyPage **Mediaplayer** Boxed V4 was developed to control displays and TVs in lifts using a DVI interface. Due to integrated CAN interface external sensors, in- and output modules and controllers can be connected when supporting the standard CANopen CiA 417 - CANopen-Lift. The audio signal is provided by an internal audio amplifier. Using the USB interfaces, different touch sensors can be connected. The configuration and connection to the Internet is provided by the LAN interface or via the optional integrated 4G card.

flexyPage Mediaplayer Boxed V4 can control several monitors with sizes from 25,6 cm (10,1") up to 240 cm (95"). They can be used in all lifts and for various use cases, in both newly constructed buildings or for retrofitting.

The flexyPage's layout and functions are freely configurable, which can be also done via Internet. Therefore, no specific software is needed the configuration is done using your usual browser.



Do you have questions or suggestions? Contact us on sales@flexyPage.de.

About flexyPage documentation

This document provides an overview of possibilities of what can be realised with the flexyPage system. It constitutes only a small part of the whole documentation and is undergoing continual improvement.



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This documentation is continuously revised and updated with the greatest of care. Nevertheless, errors cannot be excluded. We are pleased to hear your comments, helpful references and suggestions about this documentation. Please contact our sales department or support for that.

The ELFIN GmbH will not accept any liability for errors or any potential damage and their consequences in conjunction with delivery or usage of this document.

Please carefully read the user manuals, product data sheets, safety instructions and mounting instructions before using!



The actual user manual as well as other documents and application cases can be found at the product website:

Introduction to the flexyPage system

Quick starting guide

Video tutorials

flexyPage user manual

Widget descriptions

Product data sheets

Frequently asked questions

Sales contact

Support contact

flexypage.de/en/documentation

flexypage.de/en/documentation

flexypage.de/en/tags/video-tutorials

flexypage.de/en/documentation

flexypage.de/en/doc/widget-descriptions

flexypage.de/en/documentation

flexypage.de/en/faq

flexypage.de/en/sales

flexypage.de/en/support

Area of application for flexyPage Mediaplayer

The flexyPage displays were designed for use in lifts. They can be installed in new constructed buildings and in context of modernisation measures for lifts of all manufacturers. The displays can be used in both the lift's cabin and on the buildings floors. Several interfaces, modules and sensors can be used for controlling.

The flexyPage Mediaplayer Boxed V4 was developed to control external displays or TVs using a DVI interface. It supports different sizes, models and resolutions. You can find the requests concerning the environmental conditions and power supply in the attachment.

Safety instructions and restrictions



Precisely follow this document's instructions, as well as the ones you will find on the device. An exclamation mark inside a warning triangle points out that warnings and hints are available, whose disregard may lead to danger or material damage.



The flash with an arrow leads your attention to dangerous voltage. Disregarding this warning can be life- endangering.

Installation and startup is limited to professionals after having read the whole product documentation! Restoration of damaged assemblies is only permitted for the ELFIN support. An autonomous opening of the encasement may damage the device which automatically leads to the loss of the warranty claim. If the device is already damaged when delivered, do not connect it to the power supply and contact the ELFIN support!

Do not use any caustic cleaning material and avoid installing sharp devices to the glass.

Heat accumulation may cause an overheating of the flexyPage Mediaplayer and displays, which may lead to damages. The internal electricity is cooled passively using the enclosure. If this includes louvers, ensure that these are always unobstructed, so that a sufficient air circulation is provided.

Wetness and liquids can also cause bypasses or electrical shocks. Therefore, only make use of and connect the device inside a building. Ensure that liquids and carrying elements do not come in touch with the device.

Installation and maintenance



Danger: Electrical Shock

Danger to life.

This product operates with 12..24 V DC SELV power supply. Do not connect this product to an improper power supply.



Danger: Electrical Shock

Danger to life.

The input and output interfaces (connectors) of the product are only suited to be connected to SELV circuits. Use interfaces (connectors) for their intended use only.



Caution: Explosive Risk

The installed computer board is equipped with a Lithium battery.

Danger of explosion if battery is incorrectly replaced. Replace only with battery of the same or equivalent type.



Warning: Burns Hazard

The product generates considerable amount of heat. The housing transports this heat to the environment and therefore gets hot. Caution when touching the housing, burns hazard!

Ambient conditions



Caution: Damage

Do not operate the product beyond the specified ambient conditions



Danger: Explosive Risk

Do not operate the product in potentially explosive atmosphere.

Installation

Assembling

The flexyPage Mediaplayer Boxed V4 is intended for wall mount, but can as well be used on the desktop. For fixing to a wall, fixing holes 4x6 mm are available in the housing.



Figure: LEDs, interfaces and connectors of flexyPage Mediaplayer Boxed V4 (front)

Electrical connectors, interfaces and LEDs

USB

The device provides two USB 2.0 (high speed) interfaces. They can be used for both, connecting touch sensors or USB sticks.

Note: Load

Although each port can deliver supply current of 500 mA, the overall load on USB0 to USB1 interfaces must be limited to 1000 mA to prevent power supply from overheating.

If you draw excessive power from USB ports or short circuit USB power supply outputs, then the mediaplayer will temporarily shut off the USB power supply.



Graphics connector DVI

You can connect an external monitor using the integrated DVI-D interface. This provides the video signals digitally (as with HDMI). Analog VGA signals are no longer supported by interface.

Antenna connection

If the mediaplayer is equipped with a 4G card or a WiFi module, an antenna socket for connecting an external antenna is available next to the DVI socket.

User LED

In addition to the connection terminals there are three user LEDs - LPC, PCI and CPU. These are used to output internal status states.

SIM card

In addition to the user LEDs, there is a SIM card holder that can hold a SIM card for an optional 4G module (LTE) (Art. No. fel4A-02a-opt-lte).

Ethernet interface

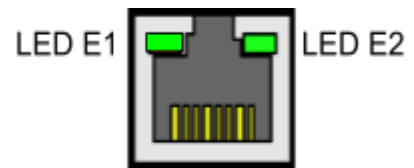
For configuration and internet connection the device provides an Ethernet interface 10/100 MBit. The standard interface parameter you can find at the label on top of it.

The two LEDs indicate Ethernet status as follows:

LED E1 on: internal voltage on

 flashing: Data flow Rx / Tx

LED E2 flashing: connection to external device



Notice: Cable Length

If your Ethernet cable is long (normative limit = 30 m) or leaves a building, then an additional protection against surges is required.

Add an external surge protector in such cases. E.g. ground the Ethernet cable shield where it enters the building or your cabinet.

If you just connect to a nearby switch, such countermeasures are not required.

Discrete inputs

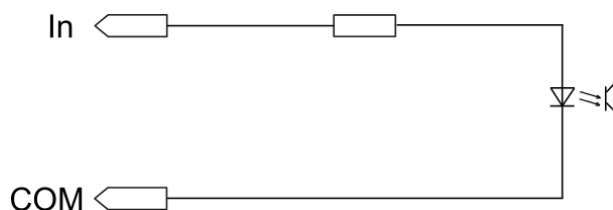
4 inputs for discrete signals are available on the media player.

The following connector can be used here.

ELFIN ArtNr. bl-dn35-5-11-COM

1	I1	2	I2
3	I3	4	I4
5	COM		

The inputs are galvanically isolated from the other signals of the device and refer to the COM signal.



++ The impedance of the inputs is 5 kOhm. The input signals are recognized as high from 6 VDC.

Speaker

The media player has an internal 6W amplifier for the output of audio signals. Speakers (4-8 ohms) for voice announcement, gong, video sound or background music can be connected to a 2-pin output terminal.

The following connectors can be used here.

ELFIN ArtNr. bl-dn35-2-SP

Switch

The media player has two micro switches OPT, Term. The switch OPT is used to activate special functions. The Term switch activates the internal termination of the CAN interface with a 120 ohm resistor.

CAN + Power supply

The terminals for the CAN interface and the power supply of the device are located on the CAN / Power connector. The CAN interface is compatible with ISO 11898-2 (high speed) and galvanically isolated. The displays support the standard 'CANopen CiA-417 CANopen-Lift' as master and as client. The CAN bus is terminated via an internal switch. If the 'switch contact 2' is in the "ON" position, the connection of the CAN termination (120 Ω) takes place.

The following connectors can be used here.

ELFIN ArtNr. bl-dn35-4-CL-VIN

1	CAN-L (CL)	2	CAN-H (CH)
3	Power 12..24 VDC	4	Power GND



Danger: Electrical Shock

Danger to life.

This product operates with 12..24 V DC SELV power supply. Do not connect this product to an improper power supply.



NOTICE: Power GND

The Power GND is internal connect

Label

Label with product information

Serial Nr.

IP address

Termination

Principle drawing

The following illustration shows a usual cable system used in an elevator.

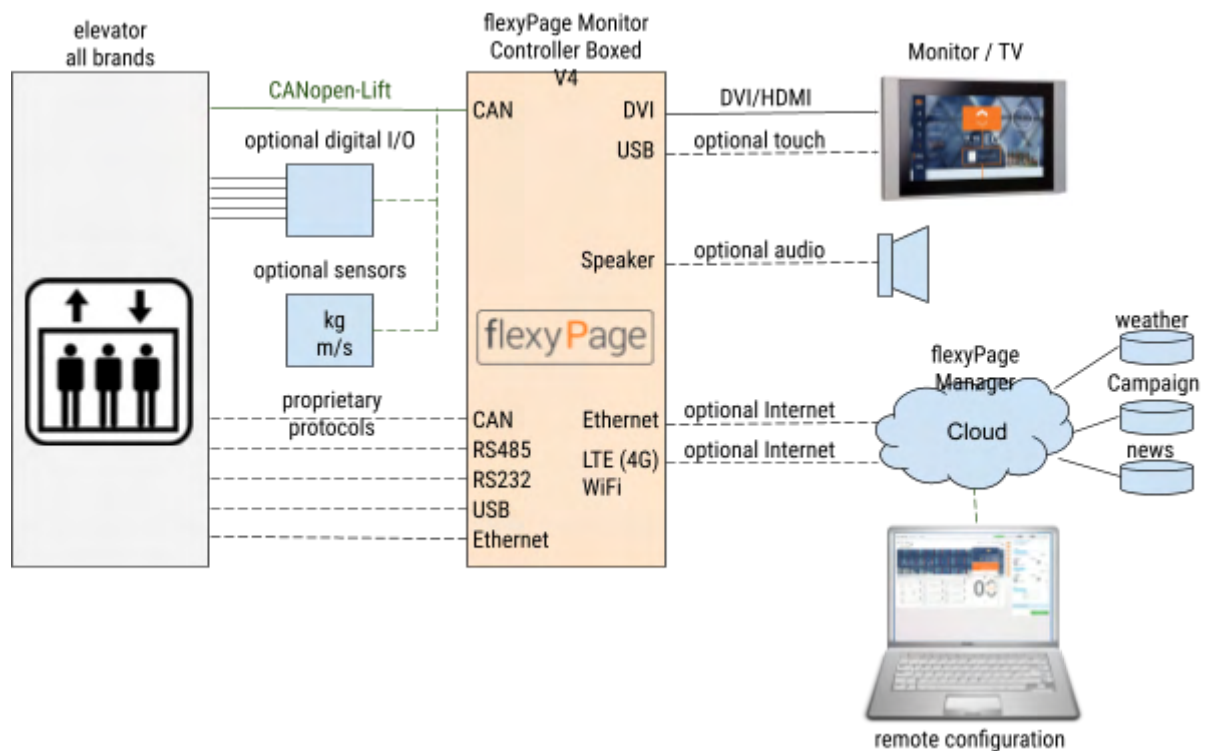


Figure: Principle drawing

Maintenance

NOTICE: ESD Protection

Always follow common ESD practice when you service the product!

Dust

When maintaining the device, ensure that no dust is in there and clean, if necessary.

Humidity

When maintaining, ensure that the device is dry. If not, adopt protective measures.

Security software updates

Security updates may appear to devices connected to the internet. After your log-in, search the category maintenance, check if new updates are available and install them. Further information is available in the user manual. You can also contact our support.

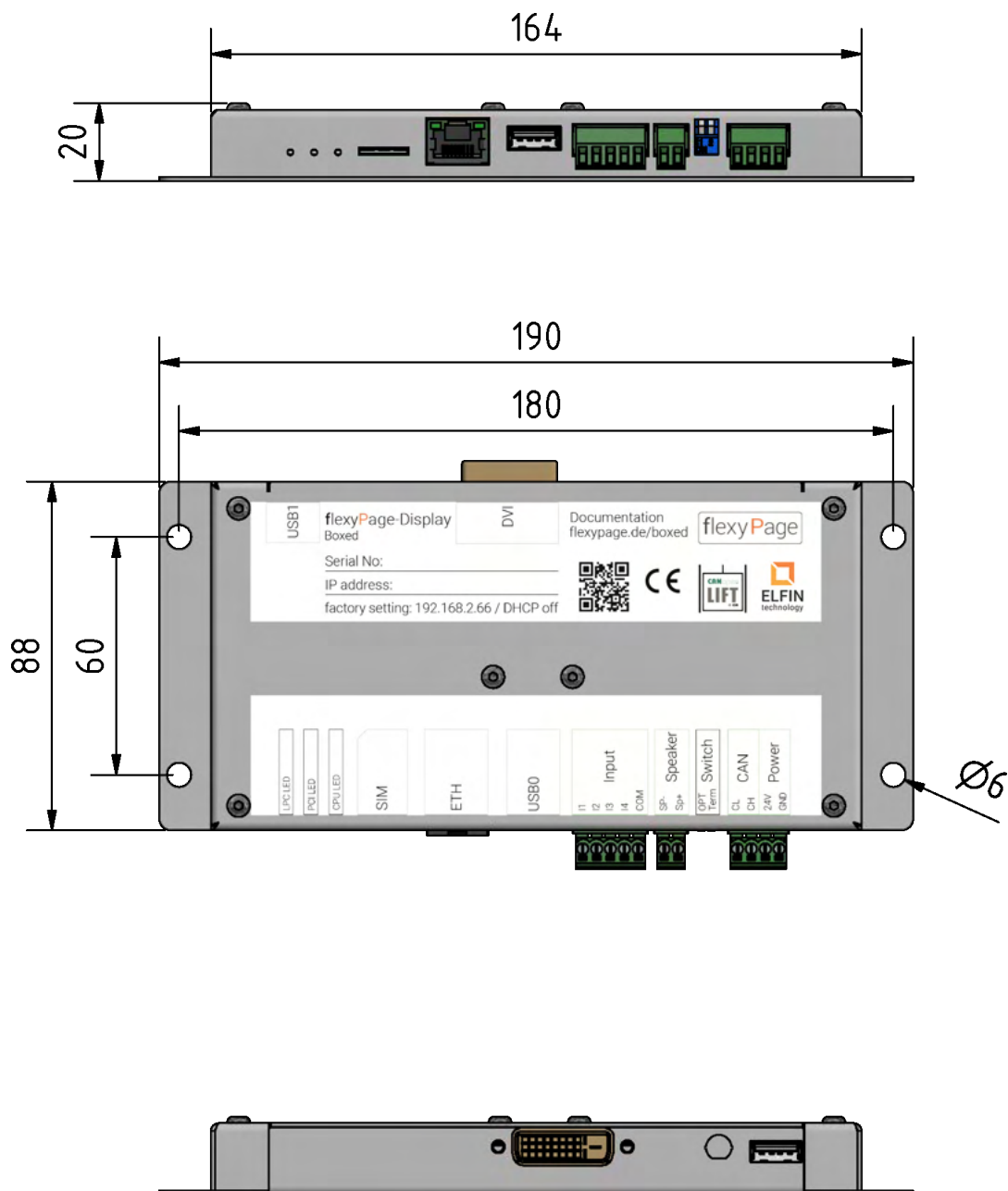
Technical data

ArticleNo.:	fel4A-01A
Description:	flexyPage Mediaplayer Boxed V4
Processor:	CPU: ARM Cortex-A9 (64-bit Quad Core, 1 GHz)
GPU:	Vivante GC2000
Main memory:	1 GB RAM DDR3 (64 Bit)
Flash:	4 GB eMMC
PCIe:	1 x intern (Gen 2)
Ethernet:	LAN 10/100 Mbps
USB:	2 x USB 2.0
DVI:	DVI-D
Storage:	1 x internal MicroSD card (8..32 GB)
CAN:	ISO/DIS 11898-2 (galvanic isolated) internal termination 120 Ohm optional on/off
Digital inputs:	4 x digital inputs 12-24 VDC (galvanically isolated)
Indicators:	3 x User LEDs (red, green)
Housing:	sheet steel, hot-dip galvanized 1 mm
Battery:	CR 1225, internal for RTC
Power requirements	
Power supply (max):	12 .. 24 V DC
Inv.-pol. protection:	yes, internal
Fuse:	no internal melting fuse
Electrical isolation:	GND and shield is connected to the housing
Inrush current (max):	2,8 A
Energy consumption:	5,1 W (in active mode, without external load or expansion cards) 2,8 W (in standby mode, without external load or expansion cards)
External load capabilities USB +5V:	
	max 500 mA per USB port, max 1000 mA for all USB ports
Environmental specifications	
Operating temperature:	0 .. +50°C at sea level, derated by 1°C per 300 m above sea level to a maximum of 2000 m.
Storage temperature:	0 .. +75°C
Humidity:	5% .. 95%, non condensing
Protection class:	IP20
Physical dimensions	
Size (WxHxD):	190 x 66 x 20 mm (without antenna; without connectors)
Weight:	0,5 kg

The device is according to the current RoHS rules.

Dimensions

The following pictures shows the housing dimensions.



Picture: housing dimensions of flexyPage Mediaplayer Boxed V4

The flexyPage Mediaplayer Boxed V4 is delivered with the following mounting options:

- Wall mount bracket (not assembled)

Product history hardware

Version	Release Date	Changes
0.9	2019-01-02	prototype
1.0	2019-01-10	serial

Product history software

Please have a look at flexypage.de/en/firmware-history

Manual history

Version	Release Date	Changes
1.0	2019-01-18	final version
1.1	2019-02-22	dimensional drawings
1.2	2019-02-27	input graphics
1.3	2020-03-18	typo
1.4	2021-03-01	update company name
1.5	2022-03-18	new address
1.6	2023-08-23	update GND signal description

Your contact persons at ELFIN

Even an extensive documentation cannot answer every question. Do you still have questions or suggestions concerning our flexyPage system? We look forward to your requests! Please don't hesitate to contact us at:

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