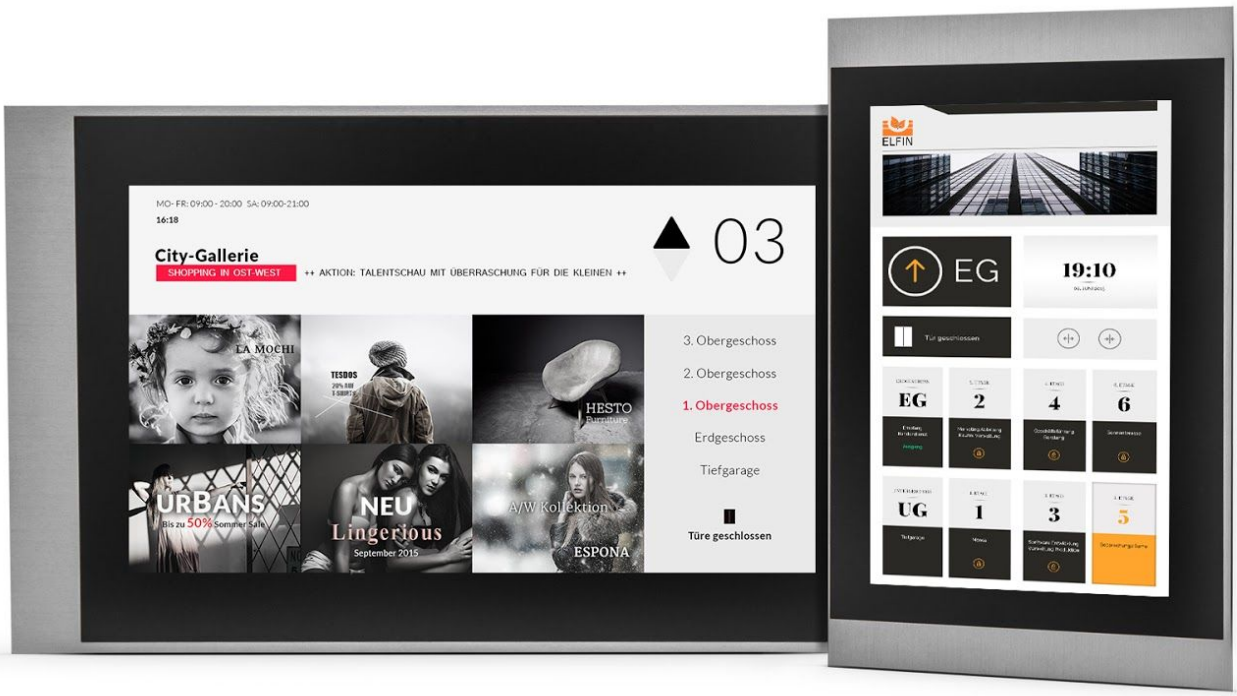
flexyPage

innovative display solutions

Product datasheet flexyPage displays

TME3 Line

sizes 10,1” (25,6 cm), 15,6” (39,6 cm) and 21,5” (54,5 cm).



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Introduction

flexyPage is a modern, flexible system for the simultaneous display of lift information and multimedial presentations in a lift car and in the floors of a building.

The flexyPage displays of the TME3 Line are suitable for a front assembly in panels of a lift or in wall boxes. The front consists of milled aluminium and is therefore a high quality product. The safety glass has been installed flush fitting. The TME3 Line displays are available in three different sizes and various colours. Optionally, a capacitive touch sensor (PTC) for the input of calls or commands is available.

By using the integrated CAN interface, external sensors, in and output modules as well as controllers which support the CANopen standard CiA 417 CANopen-Lift can be connected. An audio signal is provided by a line-out interface and an optionally loudspeaker connection. Configuration and access to the internet is provided by the LAN interface. If no internet access is available, software updates can be uploaded if needed and configurations imported or exported through the USB interface.

The TME3 Line displays can be used in any lift and for various applications, in new installations as well as for retrofitting.

The flexyPage functions and layout can be flexible configured, also by using the internet. Therefore, a configuration software is not required, as every up-to-date internet browser can be used.

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

Advice for this flexyPage documentation

This product datasheet describes the technical properties of the flexyPage TME3 Line displays 10,1”, 15,6” and 21,5”. It constitutes only a small part of the whole documentation and is undergoing continual improvement.

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Please carefully read the user manuals, product datasheets and safety 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	flexypage.de/en/doc/documentation
Quick start guide	flexypage.de/en/doc/documentation
Video tutorials	flexypage.de/en/tags/video-tutorials
flexyPage user manual	flexypage.de/en/doc/documentation
Widget descriptions	flexypage.de/en/doc/widget-descriptions
Product datasheets	flexypage.de/en/doc/technical-documentation
Frequently asked questions	flexypage.de/en/faq
Sales contact	flexypage.de/en/sales
Support contact	flexypage.de/en/support

Area of application

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 landings.

The flexyPage TME3 Line displays are designed for the front wall mounting into indicator boards or panels. It is available in different sizes, colours and optionally with a capacitive touch sensor. Please find the requirements concerning power supply and environmental conditions at the end of the document in the chapter 'technical data'.

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 setup 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 housing 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 monitor controller and displays, which may lead to damages. The internal electricity is cooled passively using the housing. 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 20..28 VDC safety extra-low voltage (SELV) power supply. Do not use incompatible adapter.

Danger: Electrical Shock
Danger to life
Inputs and outputs of this device are only suitable for low voltage signals.
Do only use the intended signals.

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 TME3 Line flexyPage displays are designed for frontal wall mounting or installation in a wall. The mechanical drawings for the installation you can find the the document ‘Mechanical Drawings’.

Caution: Damage
The display and pieces of glass are very sensitive. Pay attention that you do not scrape or pollute them.

If it is necessary to consider a specific mounting direction, a sticker at the back of the device indicates this.

Electrical connection, interfaces and LED

After having installed the device mechanically, you can connect the required interfaces using the connections portrayed in the illustration below.

Terminals of a TME3 flexyPage display

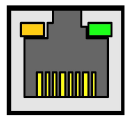
The flexyPage displays provide the following connecting possibilities:

USB0

The device includes a USB 2.0 (high speed) interface. It is possible to use USB port, e.g. to install a firmware update or to load configurations.

Note: Load
The interface max. provides 500 mA. If the load exceeds this, the internal controller may cause a reset or the interface is blocked until the next reset! In this case, use an external USB port with an own power supply.

Ethernet interfaces ETH0.0/ETH0.1



To configure and to connect to the internet, two ethernet interfaces 10/100 MBit are provided. They are equally and internally connected by a switch. The default network parameter can be taken from the sticker.

The LEDs at the ethernet socket have the following function:

LED1	
	No activity
	Activity

LED2	
	No Link
	10/100 MBit Link

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 is 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.

Line-out - Audio

The line-out signal is provided by a 3,5 mm jag plug. It is possible to connect loudspeakers for the voice announcement, a gong or background music.

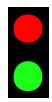
CAN

The CAN bus interface enables the connection to a high speed CAN bus. The displays support the standard 'CANopen CiA-417 CANopen-Lift' as master and as client. The Weidmüller plug, art. no. 1954480000 (3pol.) can be used.

- Terminals of the CAN interface:
  - CH → CAN-High
  - CL → CAN-Low
  - CG → CAN-GND (mass)

The interface is compatible with ISO 11898-2 (high speed) and is galvanically isolated. The termination of the CAN bus is controlled by an internal switch. The CAN bus is terminated (120 Ω), if the switch is in position "ON".

CAN LEDs

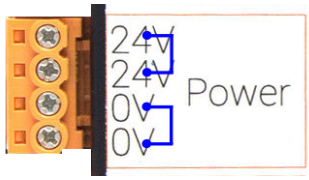


Between the switch for the termination and the CAN connection, two CAN LEDs are available. They signal the internal status and inform about the CAN bus status.

Power supply

The terminals "Power 24V + 0V" provide the power supply of the display. The Weidmüller plug, art. no. 1954470000 (4pol.) can be used.

The internal contacts of the terminals are connected by the same signal.
Nominal data of the power supply: 24 VDC ± 10%, max. 5A



Terminal block: “Power 24V + 0V”

Danger: Electrical shock
Danger to life
This product operates with 20...28 VDC safety extra-low voltage.
Do not use incompatible adapter.

To protect the device against EMI, the terminal 0V should be connected with PE.

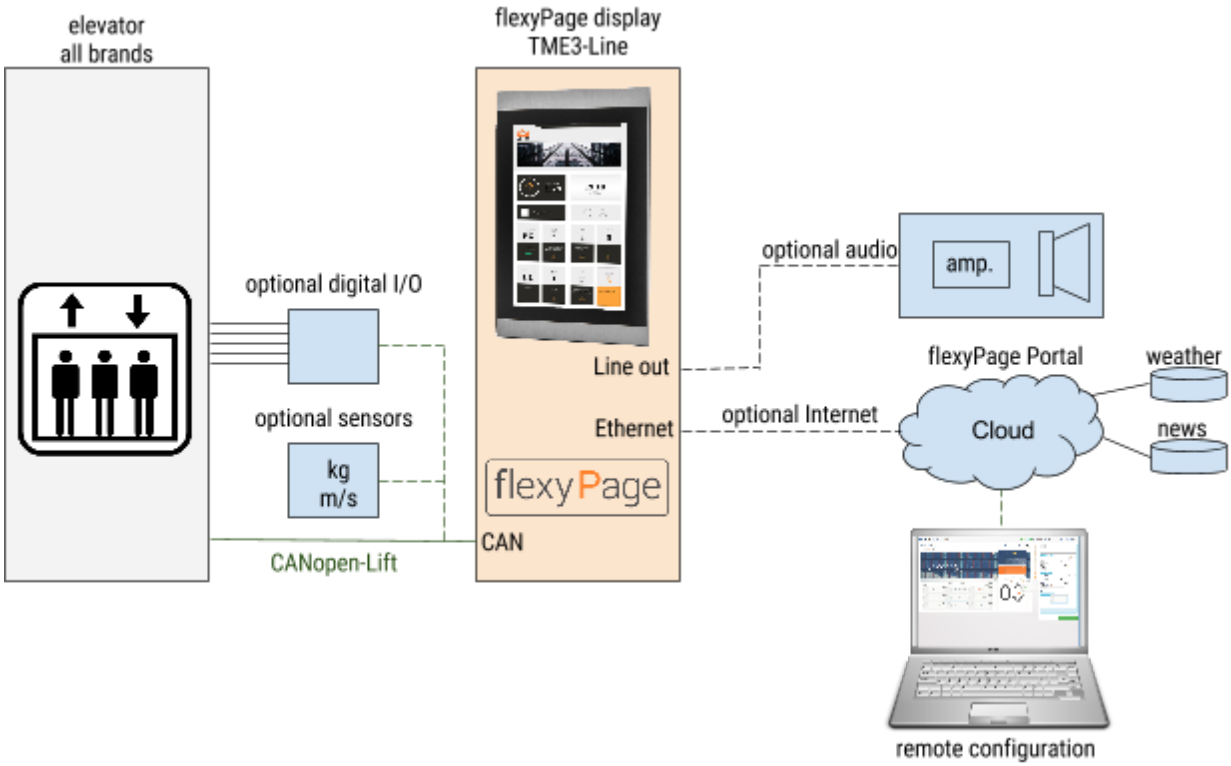
Digital input and output IO1-IO4

The display provides four programmable input and output terminals, which can also be used as calls. The Weidmüller plug, art. no. 1954470000 (4pol.) can be used.
The signal levels are 24 VDC, positive logic (high side switch).
The inputs and outputs are not galvanically isolated.
The inputs’ impedance is 5 kOhm.

Attention: Inductive load
If inductive loads are plugged in parallel to the outputs, an additional protection (freewheeling diode, varistor) is needed to protect the device from destroyal.

Principle sketch

The following illustration shows a usual cabling inside a lift.



Principle sketch of the integration inside a lift

Maintenance

NOTICE: ESD Protection
Always follow common ESD practice when you service the product!

Dust

When maintaining, ensure that the device is dust free. Clean if necessary.

Humidity

When maintaining, check if the device is dry. If not, take necessary actions to protect it.

Security updates

Security updates may appear to devices connected to the internet. After your login, 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

General data of the TME3 Line displays

Designation

Art. no.:	fel1A-03A-xxxy-KEL 03A = TME3 Line xxx = approx. diagonal in inch y (variation) A=standard, B=PTC-Touch

Display

Lifespan:	>50.000 h (backlight 100% on)
Continuous operation:	24/7
Colours:	16,7 million

Touch (optional)

Typ:	PTC, single

Display controller

Processor:	CPU: ARM Cortex-A9 (32-bit Quad Core, 1,0 GHz)
GPU:	NEON™ Media Processing Engine; GC2000 (3D), GC320 (2D), GC355 (vector), IPUv3
Main memory:	1 GB RAM DDR3
Flash:	4 GB NAND
Ethernet:	2 x LAN 10/100 Mbps (internal switch)
USB:	1 x USB 2.0
Data storage:	1 x internal microSD- card (8..32 GB) optionally
CAN:	ISO/DIS 11898-2 (galvanically isolated) termination switch 120 Ohm
Digitale I/O:	galvanically isolated 4 x digital inputs/outputs/calls 17..26 VDC outputs short circuit protected
Signal indication:	2 x user LED (red, green)

Power supply

Power (min..max):	18 .. 28 VDC
Reverse pole protection:	yes, internal
Fuse:	none
Electrical isolation:	no, GND is connected to the interfaces and the PE contact
Current capacity	USB +5V: 500 mA
Energy requirements:	2,9 W (hibernation, backlight off, no external load)

Case

Material:	solid aluminum shaped

Ambient conditions

Storage temperature: -20..+75°C
relative humidity: 5% .. 95%, no condensation
Protection class: IP20

The displays comply with the current RoHS guidelines.

Size specific data of the TME3 Line displays

Product	TME3 Line 10,1	TME3 Line 15,6	TME3 Line 21,5
Art. no.:	fel1A-03A-101x-KEL	fel1A-03A-156x-KEL	fel1A-03A-215x-KEL
Display			
Diagonal:	256 mm (10,1”)	396 mm (15,6”)	546 mm (21,5”)
Visible surface:	217 x 135 mm	344 x 194 mm	476 x 268 mm
Resolution:	1280 x 800 px	1366 x 768 px	1920 x 1080 px
Angle of vision:	v 170° / h 170°	v 170° / h 170°	v 178° / h 178°
Brightness:	300 cd/m2	300 cd/m2	300 cd/m2
Contrast (static):	1300 : 1	500 : 1	5000 : 1
Size and weight			
Size (LxWxH):	278 x 176 x 48 mm	462 x 272 x 48 mm	589 x 324 x 48 mm
Weight:	0,95 kg	1,3 kg	
Ambient conditions			
Ambient air temperature:	-20..+60°C	0..+60°C	0..+60°C
	at sea level, derated by 1°C per 300 m above sea level to a maximum of 2000 m.		
Power supply			
Starting current (max):	1,5 A	1,8 A	2,6 A
Energy requirements: (active, brightness 100 %, no external load)	12 W	21 W	33 W

Mechanical drawings

The mechanical drawings of the TME3 Line products can be found on our homepage under https://flexypage.de/en/technical-documentation

Product history hardware

Version	Release Date	Changes
1.0	2015-08-08	Serial 15,6” with touch

Product history software

Have a look at flexypage.de/en/firmware-historie

Document history

Version	Release Date	Changes
1.0	2016-11-04	finale translation

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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