

Your equipment takes elevators right to the top Our connection system ensures smooth operation

Connectivity for elevator electronics devices

Find your
connection solutions
with the AppGuide:
[www.weidmueller.com/
appguide](http://www.weidmueller.com/appguide)



Weidmüller 

Flexible connection technology for efficient elevator systems

Whether used in private or industrial environments – elevators and escalators simplify the task of transporting people and goods. In the elevator industry, standardisation and modularisation already play a vital role in manufacturing, but the issue of safety and energy efficiency are also becoming increasingly important.

You rely for your entire elevator electronics on connection components that optimise the functionality and efficiency of your system – from the redesign of devices and their installation on site through to maintenance and renovation during the life cycle. Reducing maintenance times, simplifying work equipment and minimising risks, in particular, provide potential for optimising the electronics in use.

As an Industrial Connectivity partner, we provide solutions in the industrial sectors of power, signals and data – globally and flexibly thanks to our worldwide manufacturing and distribution network in over 80 countries. Whether you need PCB components for the single-core wiring of the various controllers in the electrical cabinet, the elevator car, the floor panel or the elevator inverter – Weidmüller components meet all the latest standards and provide the best connections.

The Power, Signal and Data ranges of our OMNIMATE program offer the best recommendations for the reliable operation of your elevator electronics equipment. Furthermore with FieldPower® Elevator Weidmüller offers an innovative solution for shaft wiring. You also have excellent services at your disposal, such as 3D-CAD Download, online data sheets and our unique 72-hour sample service (www.sample-service.com).

Let's connect.

Your ideas need the right connections

Ours are simply brilliant



OMNIMATE® Power – PCB terminals, PCB plug-in connectors and feed-through terminals for use in power electronics such as inverters, frequency converters, servo drives, heavy-duty power supplies and motor starters.



OMNIMATE® Signal – PCB terminals and PCB plug-in connectors for automation and systems engineering equipment, as well for as sensor-actuator interfaces and power supplies.



OMNIMATE® Data – Device jacks for secure data transmission and as part of a future-proof design of devices for industrial demands.



OMNIMATE® Services – Take advantage of our global 72-hour sample service free-of-charge in our online catalogue or at www.sample-service.com. For the best design-in-processes – from the specification stage through to component integration.

1. Elevator Drive

Compactly and logically connected

In the confined spaces of elevators, there is an increasing trend to not only arrange converters and controller PCBs separately but to combine them in a single device. This allows the elevator systems and motor functions to be logically combined, thereby reducing space requirements and installation / wiring costs. This trend is driving the development of more and more complex and compact controllers.

We are familiar the extreme conditions you work with. Voltages from 400 V to 690 V (IEC) or 600 V (UL) are not uncommon. Conformity with standards, ease of handling and secure locking options are also vitally important.

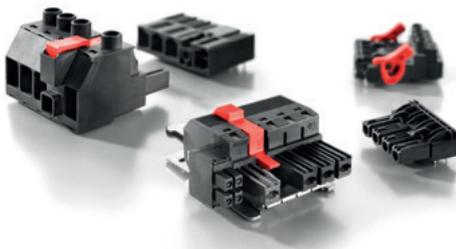
We support you in this challenging task with our know-how and customised connection technology for decentralised automation and drive systems.

OMNIMATE Power device connectivity

- One-hand tool-free locking system
- Touch safety in accordance with IEC 61800-5-1
- UL approval for 600 V through optimised clearances and creepage distances

OMNIMATE Signal device connectivity

- High contact density in a small area and large cable cross-sections
- Tool-free locking and unlocking via lock & release lever
- PUSH IN connection technology



OMNIMATE Power plug-in connector - connectivity for power electronics

2. Main Controller

Quickly and conveniently to your destination

Control PCBs in the main controller manage numerous applications in the elevator, such as the lighting controls or floor selection panel. Information on the speed, direction and position of the elevator is collected that not only enables doors to be operated or the direction of travel of multiple elevators in the same building to be logically controlled, but also for the creation of a speed profile. This ensures that passengers have a smooth and comfortable ride to their destination.

If multiple functions are combined on a central board, the respective connectors and cables need to be clearly identified. This not only simplifies maintenance: the rapid identification and assignment of cables also reduces the time required to carry out any necessary repairs. For maximum safety, we provide a range of different front markers and direct printing of our PCB components.

Advantages of our OMNIMATE Signal components:

- Reflow solderable male connectors
- PUSH IN connection technology
- Secure locking by means of a lock & release lever
- More design freedom thanks to variable plug-in and conductor outlet directions
- Individual labelling possible

Advantages of our OMNIMATE Data components:

- Fulfill Cat. 5 to 6 standard for data transmission rates up to 1 Gbit/s
- Electromagnetic compatibility and protection thanks to 360° shielding
- In SMD or THR soldering version available



OMNIMATE offers enhanced design flexibility, efficient processing and safe, intuitive handling



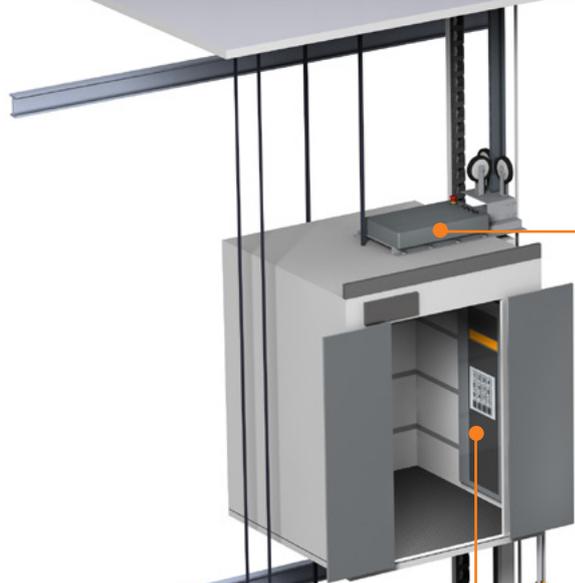
1.

Elevator Drive



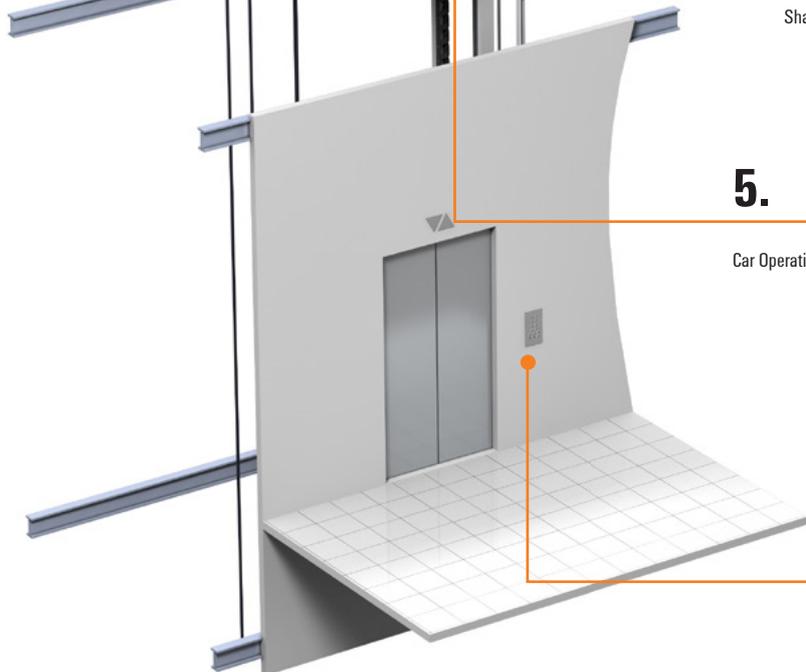
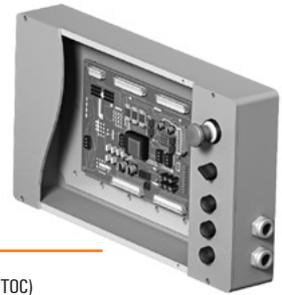
2.

Main Controller



3.

Top Of Car Box (TOC)



4.

Shaft Wiring



5.

Car Operating Panel (COP)



5.

Landing Operating Panel (LOP)

3. Top Of Car Box (TOC)

Reliable in application

A device installed on top of the elevator car acts as an interface between the motor room and car operation, control, monitoring and communication. For reliable data connectivity you require industrial-quality data connections. The subassemblies for connecting to a higher-level fieldbus system such as B. CANBUS, INTERBUS, PROFIBUS, PROFINET or EtherCAT, place particularly high demands on communication quality.

Based on our Industrial Ethernet components, we offer connection solutions in IP67 and IP65 for network connectivity.

For the signal or power connection you can choose between a PUSH IN or screw connection depending on the application in question. The excellent spring properties of our hybrid contacts in particular offer maintenance-free and vibration-proof contact technology. Incorrect connection protection, a lock & release lever and the universal screws of our OMNIMATE device connection system ensure that the screw connection provides error-free wiring, even under the most demanding operating conditions.

At the signal and control level, our two-row OMNIMATE Signal B2CF provides maximum functionality in the minimum amount of space. Compared to smaller or single-row systems, you are able to reduce signal density on all circuit boards by up to 30 %. At the data level our RJ45 device jacks ensure a secure data transmission by achieving the highest industry demands.



OMNIMATE provides many alternatives for finding the right plug-in solution

4. Shaft Wiring

Smartly solved with FieldPower® Elevator

The conventional installation of electrical components in the elevator shaft is a tedious and time-consuming task. Just a few of the many considerations include the installation of cable ducts, the preparation of conductors and cables, and ensuring the reliable interruption of safety circuits.

Weidmüller has developed a smart solution that can be used to connect a continuous flat cable in each floor to provide energy, signals and data. The solution consists of the FieldPower® Elevator shaft wiring box and an 11-pole flat cable. The robust and compact shaft wiring box combines all the components. This increases efficiency and reliability, and reduces installation time as well as material complexity.

In terms of total costs, FieldPower® Elevator offers the following advantages:

- Easy and fast installation
- Reduced complexity and material expenses
- Pre-assembly for various functions



FieldPower® Elevator - shaft wiring box to connect flat cable for hoistway landing and inspection

5. Car & Landing Operating Panel (COP & LOP)

Secure connections in confined spaces

Numerous functions inside and outside the elevator car, such as a signal display and emergency function need to be installed in a confined space. This requires a particularly compact connection system. Floor selection and position indicators also make use of highly complex circuit boards; minimum electrical specifications and reduced manufacturing costs allow these to be assembled complete with SMD components.

Ease of handling and time savings are crucial factors during installation. Our OMNIMATE Signal LSF-SMD PCB terminals enable cost-effective and, above all, optimally dimensioned PCBs to be created, which provide secure connections even in confined spaces.

Advantages of our LSF-SMD PCB terminal:

- Proven PUSH IN direct connectivity enables secure contacts up to 1.5 mm² without the need for tools
- Two soldering pads per pin satisfy the most stringent mechanical fixing requirements without the need for additional mounting flanges
- The use of LCPs means that assembly can take place in the SMD process without the need for pre-drying; the low expansion coefficient prevents the subassemblies from sagging
- Automatic assembly is supported by tape-on-reel packaging in standard belt widths; pick-and-place pads enable reliable suction and set down

Would you like more detailed information?

Enter the search terms below in our online catalogue at: <http://catalogue.weidmueller.com>

1. Elevator Drive

OMNIMATE PCB plug-in connectors

- BUZ 10.16IT/180MF
- BUZ 10.16HP
- BVF 7.62HP/BCF 3.81/180
- BLL 7.62HP/90G
- BVZ 7.62HP

OMNIMATE PCB terminals

- LX 15.00
- LXXX 15.00

OMNIMATE feed-through terminals

- WGK 10
- WGK 16
- WGKV 25

2. Main Controller

OMNIMATE PCB plug-in connectors

- BLF 7.50HP
- BLF 7.62HP
- BLF 5.00HC
- BLF 5.08HC
- BLZP 5.00HC
- BLZP 5.08HC
- RJ45-SMD
- RJ45-THR

OMNIMATE PCB terminals

- LL 5.08/90
- LMFS 5.08/90
- LM 5.08/135

3. Top Of Car Box (TOC)

OMNIMATE PCB plug-in connectors

- B2CF 3.50/180LR
- BLZP 5.08/180
- BLF 5.08/90
- RJ45-SMD
- RJ45-THR

4. Shaft Wiring

FieldPower® Elevator

- FP ESWB

5. Car & Landing Operating Panel (COP & LOP)

OMNIMATE PCB plug-in connectors

- BCZ 3.81/180
- BCF 3.81/180

OMNIMATE PCB terminals

- LSF-SMD 3.50/180
- LSF-SMD 7.50/135
- LSF-SMT 5.00/90
- LSF-SMT 5.00/135
- LSF-SMT 5.08/180



OMNIMATE PCB terminals and connectors with spring connection and "PUSH IN" technology

Weidmüller – Your partner in Industrial Connectivity

As experienced experts, we support our customers and partners around the world with products, solutions and services in the industrial environment of power, signal and data. We are at home in their industries and markets and know the technological challenges of tomorrow. We are therefore continuously developing innovative, sustainable and useful solutions for their individual needs. Together we set standards in Industrial Connectivity.



Let's connect.

Simply scan the QR code and
discover our innovative
AppGuide.

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Made in Germany

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