5 Natural Ventilation Control Units
FEATURES OF NATURAL VENTILATION – CONTROL UNITS AND POWER SUPPLIES

- Control units with accessories like weather sensors and control panels for the control of drives
- 24 V DC for natural ventilation purpose within rooms or buildings
- Low residual ripple output voltage (<2 Vpp)
- Inputs of two or more control units may be switched in parallel
- Connection of various control units in one ventilation group
- Ventilation button inputs with OPEN-STOP-CLOSE function and 2 or 3 priorities
- Vent. push button inputs configurable in dead-man or jog-switch mode
- All drive line outputs are fused
- Input for higher-ranked e.g. volt free wind and rain signals
- Suitable for the use in controlled natural ventilation systems
- Various display and control elements
- Flat surface mounted housings, suitable for the installation in false floor or suspended ceilings
- Optional BUS interface for integration into GLT systems via LON and KNX
- Digital interface for Aumüller S12 drives

For this product series, a Type III Environmental Product Declaration (EPD) was issued according to ISO 14025 and EN 15804. The LCA results of the different product types are listed at the end of this product catalogue. The EPD documents can be viewed or downloaded from our homepage www.aumue1er-gmbh.de.
Simulated Diagram – LZ6

The running direction of the drives has to be conform with the indicated direction.

Otherwise exchange the leads:
BN (brown) and BU (blue)

Using ↑OPEN and ↓CLOSE button on the board, all the lines can be opened and closed together.

On the BUS slot, depending on the configuration of the control unit, a KNX or LON field BUS-Module can be plugged, to bind the ventilation control unit LZ6 to a building management system.

WM connection or external DM

On the DIP switch can be set for each ventilation groups, if the button in latching (ON) or in dead-man (OFF) operation works.

The USB port can using LZ6 configuration software various functions for the respective ventilation groups are set.

P1 - Input
common control

H (P2) = HIGH - higher priority
L (P3) = LOW - lower priority
for switching process

Plug in of ventilation button, as well as weather, time and temperature controls or signals of building management system.
**ORDER DATA**

<table>
<thead>
<tr>
<th>LZ1 2,5 A – Natural ventilation control unit 24 V DC</th>
<th>Part.-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application: Natural ventilation control panel with power supply for the controlling of 24 V DC drives in one ventilation group.</td>
<td></td>
</tr>
</tbody>
</table>

**TECHNICAL DATA (Rated values)**

- Operating voltage: 230 V AC (195 – 253 V AC, 50/60 Hz)
- Max. power consumption: 506 W / 805 W / 1518 W
- Output voltage: 24 V DC (20 – 28 V DC / 2 Vpp)
- Output current: 2,5 A

- Inputs: 1x Ventilation button line with 3 priorities
- Outputs: 1x Drive line
- Display: Power, output voltage switched in OPEN/CLOSE direction
- Slot: BUS-Module (LON, KNX)
- Connections: 512 drives (for communication with BUS-Modules)
- Housing: Surface mounting, steel sheet, RAL 7035 (light grey)
- Dimensions (WxHxD): 180 x 130 x 60 mm
- Connection terminals: Screw terminals 2,5 mm² (rigid wire)
- Protection rating: IP54

**Feature / Equipment**

- DIP switch for the configuration of the inputs with low priority in jog-switch or dead-man mode
- Inputs of various LZ1 and/or LZ6 are switchable in parallel
- With the BUS-Module it is possible to control drives with internal intelligent cut-off switch S12 for controlled natural ventilation via the bus protocol

**VERSIONS**

<table>
<thead>
<tr>
<th>LZ1 2,5 A without BI-K - KNX-Interface-Module</th>
<th>660027</th>
</tr>
</thead>
<tbody>
<tr>
<td>LZ1 2,5 A including BI-K - KNX-Interface-Module (Part.-No.: 683999)</td>
<td>660028</td>
</tr>
</tbody>
</table>

**LZ6 – Natural ventilation control unit 24 V DC**

| Application: Natural ventilation control panel with power supply for the controlling of 24 V DC drives in 6 ventilation groups. |  |

**TECHNICAL DATA (Rated values)**

- Operating voltage: 230 V AC (195 – 253 V AC, 50/60 Hz)
- Max. power consumption: 506 W / 805 W / 1518 W
- Output voltage: 24 V DC (20 – 28 V DC / 2 Vpp)
- Output current: 10 A / 24 A / 30 A

- Inputs: 6x Ventilation button lines with 2 priorities
  (P3: LOW; P2: HIGH)
- Outputs: 6x Drive output lines
  24 V DC / 500 mA (e.g. rain sensor)
- Display: Power, output voltage switched in OPEN/CLOSE direction
- Slot: for optional BUS-Module (LON / KNX)
- Housing: Surface mounting, steel sheet, RAL 7035 (light grey)
- Dimensions (WxHxD): 420 x 300 x 144 mm
- Connection terminals: Screw terminals 2,5 mm² (rigid wire)
- Protection rating: IP30

**Feature / Equipment**

- DIP switch for the configuration of the inputs with low priority in jog-switch or dead-man mode
- Inputs of various LZ1 and/or LZ6 are switchable in parallel
- All outputs are fused

**VERSIONS**

<table>
<thead>
<tr>
<th>LZ6 10 A</th>
<th>Output current: 6 x 1,6 A</th>
<th>660070</th>
</tr>
</thead>
<tbody>
<tr>
<td>LZ6 24 A</td>
<td>Output current: 6 x 4,0 A</td>
<td>660071</td>
</tr>
<tr>
<td>LZ6 30 A</td>
<td>Output current: 6 x 5,0 A</td>
<td>660072</td>
</tr>
</tbody>
</table>
## ORDER DATA

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>660009</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NT-S-6,5 – Power supply 230 V AC / 24 V DC, 6,5 A</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Application:</strong></td>
<td>Power supply with transformer for the controlling of 24 V DC drives in one ventilation group.</td>
</tr>
<tr>
<td><strong>TECHNICAL DATA (Rated values)</strong></td>
<td></td>
</tr>
<tr>
<td>Operating voltage:</td>
<td>230 V AC (195 – 253 V AC, 50/60 Hz)</td>
</tr>
<tr>
<td>Power consumption:</td>
<td>460 W</td>
</tr>
<tr>
<td>Output voltage:</td>
<td>24 V DC (2 Vpp)</td>
</tr>
<tr>
<td>Output current:</td>
<td><strong>6,5 A</strong></td>
</tr>
<tr>
<td>Duty cycle:</td>
<td>ED80% (10 min)</td>
</tr>
<tr>
<td>Ambient temperature range:</td>
<td>-5 °C ... +40 °C</td>
</tr>
<tr>
<td>Housing:</td>
<td>Surface mounting, plastic (ABS)</td>
</tr>
<tr>
<td>Dimensions (WxHxD):</td>
<td>160 x 250 x 55 mm</td>
</tr>
<tr>
<td>Connection terminals:</td>
<td>Screw terminals 4 mm² (rigid wire)</td>
</tr>
<tr>
<td>Protection rating:</td>
<td>IP54</td>
</tr>
</tbody>
</table>

### Feature / Equipment
- Control of OPEN/CLOSE with the 230 V AC power supply voltage

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>660009</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NT-T-2,5 – Power supply 230 V AC / 24 V DC, 2,5 A</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Application:</strong></td>
<td>Power supply with transformer for the controlling of 24 V DC drives in one ventilation group.</td>
</tr>
<tr>
<td><strong>TECHNICAL DATA (Rated values)</strong></td>
<td></td>
</tr>
<tr>
<td>Operating voltage:</td>
<td>230 V AC (+/-10%)</td>
</tr>
<tr>
<td>Power consumption:</td>
<td>60 W</td>
</tr>
<tr>
<td>Output voltage:</td>
<td>24 V DC (21 – 28 V DC)</td>
</tr>
<tr>
<td>Output current:</td>
<td><strong>2,5 A</strong></td>
</tr>
<tr>
<td>Duty cycle:</td>
<td>ED20% (10 min)</td>
</tr>
<tr>
<td>Ambient temperature range:</td>
<td>-5 °C ... +40 °C</td>
</tr>
<tr>
<td>Housing:</td>
<td>Surface mounting, plastic (ABS)</td>
</tr>
<tr>
<td>Dimensions (WxHxD):</td>
<td>94 x 180 x 81 mm</td>
</tr>
<tr>
<td>Connection terminals:</td>
<td>Screw terminals 2,5 mm² (230 V) / 4 mm² (24 V) (rigid wire)</td>
</tr>
<tr>
<td>Protection rating:</td>
<td>IP54</td>
</tr>
</tbody>
</table>

### Feature / Equipment
- Control of OPEN/CLOSE with the 230 V AC power supply voltage
- Max. 8 power supplies may be switched in parallel
**ORDER DATA**

**Universal Control Relay for 1 drive 230 V AC**

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>400130</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Application:</strong></td>
<td>Control Relay for the single or group-wise control of 1 drive 230 V AC, suitable for the installation in a flush-mounted junction box behind the ventilation button.</td>
</tr>
</tbody>
</table>

**TECHNICAL DATA (Rated values)**

- Operating voltage: 230 V AC (+/-10%), 50 Hz
- Output voltage: 230 V AC
- Current consumption relay: 10 mA
- Operating capacity: 5 A
- Duty cycle: ED30% (10 min)
- Ambient temperature range: 0 °C ... +60 °C
- Connections:
  1. Ventilation button 230 V AC
  1. Central OPEN/CLOSE (input / output)
  1. Drive 230 V AC / 5 A
- Operating mode: Dead-man mode
- Housing: Plastic (ABS), for flush mounting junction box ∅60 mm
- Dimensions (WxHxD): 46 x 52 x 30 mm
- Connection terminals: Screw terminal 1,5 mm² (rigid wire)
- Protection rating: IP20

**Feature / Equipment**

- Every Control Relay has an inputs and outputs for looping through of a higher priority command (i.e. from ventilation buttons or time switch) and the power supply
- The ventilation input controls the modul-own drive output only

**Relay Interface for 2 drives 230 V AC**

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>400120</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Application:</strong></td>
<td>Relay Interface for the single or group-wise control of 2 drives 230 V AC, suitable for the installation in a flush-mounted junction box behind the ventilation button.</td>
</tr>
</tbody>
</table>

**TECHNICAL DATA (Rated values)**

- Operating voltage: 230 V AC (+/-10%), 50 Hz
- Output voltage: 230 V AC
- Current consumption relay: 10 mA
- Operating capacity: 5 A per output
- Duty cycle: ED30% (10 min)
- Ambient temperature range: 0 °C ... +60 °C
- Connections:
  2. Ventilation buttons 230 V AC
  1. Central OPEN/CLOSE (input / output)
  2. Drives 230 V AC / 5 A
- Operating mode: Dead-man mode
- Housing: Plastic (ABS), for flush mounting junction box ∅70 mm
- Dimensions (WxHxD): 46 x 50 x 30 mm
- Connection terminals: Screw terminal 1,5 mm² (rigid wire)
- Protection rating: IP20

**Feature / Equipment**

- Every Relay Interface has an inputs and outputs for looping through of a higher priority command (i.e. from ventilation buttons or time switch) and the power supply
- Each ventilation input controls its own drive output only
ORDER DATA

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Application: Plug-in card for communication between the controllers AUMÜLLER LZ1, LZ6 and EMB 7300 to the KNX BUS system.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BI-K - KNX Interface LZ1 / LZ6 / EMB 7300</td>
<td></td>
</tr>
</tbody>
</table>

TECHNICAL DATA
- Rated voltage: 24 V DC
- Ambient temperature range: -5°C ... + 40°C
- Relative humidity: (no condensate) 5% ... 90%
- Data points: up to 16 pieces per drive line
- BUS current: 9mA
- Housing: without (assembled PCB)
- Dimensions (WxH): 51 x 42 mm
- Connection terminals: 2 x 2 x 0,8 mm (KNX-BUS-Terminal)

VERSIONS

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Delivery in parcel</th>
<th>for customer self-installation</th>
</tr>
</thead>
<tbody>
<tr>
<td>683999</td>
<td>Module factory fitted</td>
<td>factory fitted and fully wired</td>
</tr>
</tbody>
</table>

FEATURE/EQUIPMENT
- Data of the control (e.g. drive position) are sent on the KNX-BUS.
- The controls received direct orders from the KNX-BUS (e.g. position information, weather data).
- The licensed version of the „EMB compact configurator“ required - for commissioning.

SHEV-Module LZ6

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Application: SHEV-Module for connecting of one or more smoke detectors (max. 10) to a LZ6 ventilation control unit.</th>
</tr>
</thead>
<tbody>
<tr>
<td>660066</td>
<td></td>
</tr>
</tbody>
</table>

TECHNICAL DATA
- Rated voltage: 24 V DC
- Housing: without (assembled PCB)
- Dimensions (WxH): 45 x 42 mm
- Ambient temperature range: -5 °C ... +60 °C
- Relative humidity: (no condensate) 5% ... 90%

FEATURE/EQUIPMENT
- The smoke detector is triggered with the highest priority and leads to the complete opening of the drives connected to the LZ6.
- All other ventilation commands are locked. This condition is indicated by the alarm LED.
ORDER DATA

<table>
<thead>
<tr>
<th>Natural Ventilation Control Units</th>
<th>Part.-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radio Ventilation Control FLS 24 V</td>
<td>623000</td>
</tr>
</tbody>
</table>

**Application:** Room automation control unit for one drive 24 V DC or one SHEV Control Unit, including a weather station with rain, temperature, sun and wind sensor and a radio control with indoor temperature sensor.

**TECHNICAL DATA**

**Control Panel**
- Radio control frequency: 868,2 MHz
- Housing: plastic material
- Total weight: approx. 170 gr. (including batteries)
- Colour: matt white (similar to RAL 9016)
- Mounting: surface mounted (aP)
- Dimensions (W x H x D): approx. 103 x 98 x 28
- Ambient temperature range: operation 0...+50°C, storage -10...+50°C
- Ambient air humidity: max. 80% rf, avoid bedewing
- Operating voltage: 2 x 1,5V (2 batteries, AA / mignon / LR6) or 2 x 1,2V (2 rechargeable batteries, AA / mignon / LR6)

**Weather Station**
- Housing: plastic material
- Total weight: approx. 200 gr.
- Colour: white / translucent
- Mounting: surface mounted (aP)
- Protection rating: IP 44
- Dimensions (W x H x D): approx. 96 x 77 x 118
- Ambient temperature range: operation -30...+60°C, storage -30...+70°C
- Operating voltage: 12 - 40 V DC
- Power consumption: approx. 2,2 W (at 24 V), standby approx. 2 W (at 24 V)
- Switching capacity relay: (OPEN / CLOSE / COM) volt free contacts
- Rain sensor heating: approx. 1,2 W
- Temperature measurement range: -40...+80°C
- Wind measurement range: 0...35 m / sec
- Brightness measurement range: 0...150 kLux

**Feature / Equipment**
- Radio connection between weather station and control panel.
- Control panel for basic setting, setting of the automatic function and for manual operation.
- Opening position adjustable for automatic mode (e.g. open only halfway).

Radio controlled motor control unit RF-MSG

**Application:** Radio controlled motor control unit with 1 drive output 230 V AC for electric motor driven windows or awnings, blinds and rolling shutters.

**TECHNICAL DATA**

**Operating voltage:** 230 V AC, 50 Hz
- Radio control frequency: 868,2 MHz
- Outputs: 1x drives 230 V AC
- Switching capacity Version 230 V: max. 230 V AC / 4 A (PE / N / Off / On)
- Switching capacity Version PF: volt frei output (On / Off / L)
- Housing: without, for mounting in flush or surface mounted box
- Dimensions (W x H x D): 38 x 47 x 29 mm
- Protection rating: IP20
- Ambient temperature range: -20...+70°C
- Ambient air humidity range: max. 95% rf (avoid bedewing)

**Feature / Equipment**
- Radio communication with of building Control Unit WS1® Style, WS1000® Style or directly controlled by radio remote control Remo® 8

**VERSIONS**

<table>
<thead>
<tr>
<th>RF-MSG</th>
<th>E560532</th>
</tr>
</thead>
<tbody>
<tr>
<td>RF-MSG PF</td>
<td>E560533</td>
</tr>
</tbody>
</table>
Remote control Remo® 8

**Application:** Radio controlled hand-held transmitter with display for the manual control of WS1 Style, WS1000 Style, Arexa® or radio controlled motor control unit RF-MSG, RF-REL up.

<table>
<thead>
<tr>
<th>Feature/Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnetic wall holder included</td>
</tr>
</tbody>
</table>

**TECHNICAL DATA**

- **Operating voltage:** 1x battery 3 V DC type CR2032
- **Radio control frequency:** 868.2 MHz
- **Number of radio channels:** max. 8
- **Total weight:** ~95 g
- **Housing:** plastic, white / light gray
- **Dimensions of transmitter (WxHxD):** 41 x 140 x 21 mm
- **Dimensions of wall holder (WxHxD):** 54 x 150 x 11 mm
- **Protection rating:** IP40
- **Ambient temperature range:** 0 ... +50°C
- **Ambient air humidity range:** max. 95% rF (avoid bedewing)