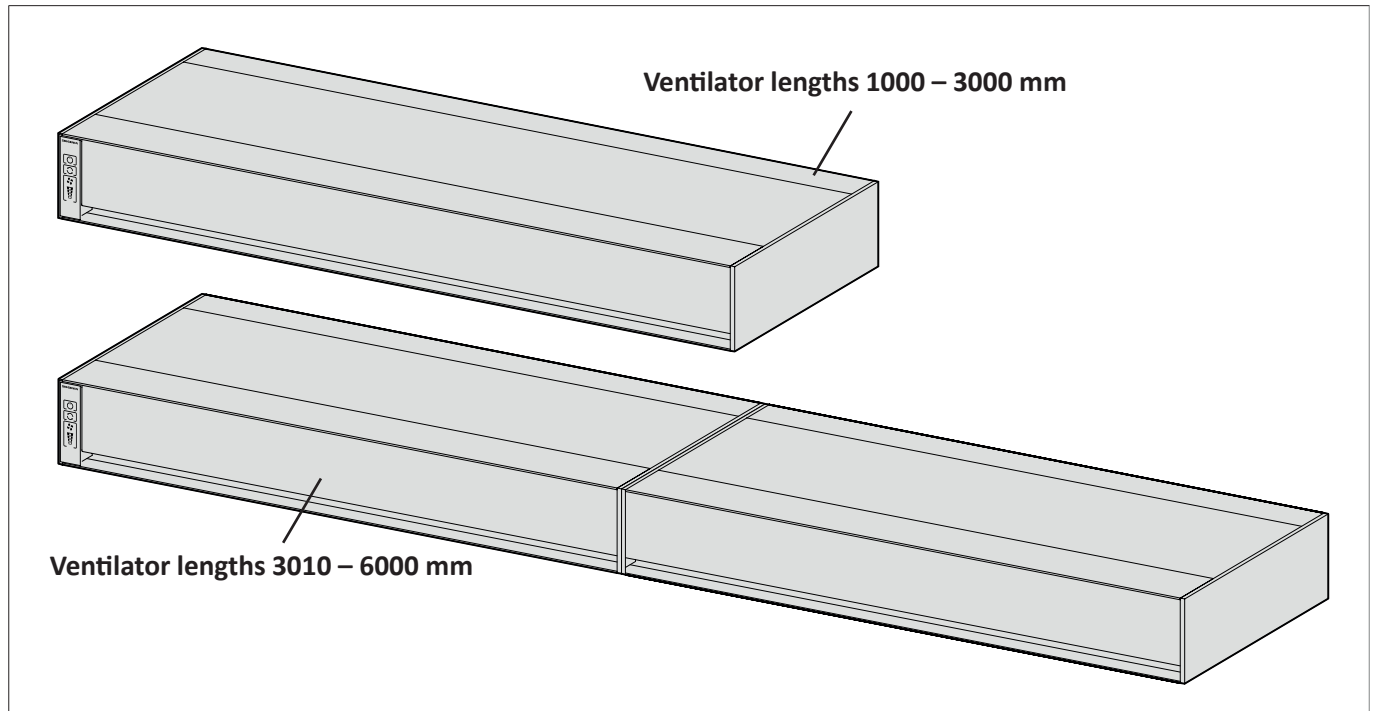


## 1 Features and functions



### 1.1 Features

- AEROMAT VT WRG is a bidirectional ventilation unit (including heat recovery) for ventilation of closed rooms. The exchange of air is accomplished using supply air fans and exhaust air blowers with heat recovery.
- AEROMAT VT WRG is part of the AEROMAT VT systems, which consists of different device types. These different device types can be combined with each other. Separate data sheets must be taken into consideration.
- Installation variants:
  - reveal
  - reveal concealed (with vent duct)
  - lintel
  - lintel concealed (with lintel duct)
  - wall
  - concealed in the wall (with wall duct)

### 1.2 Functions

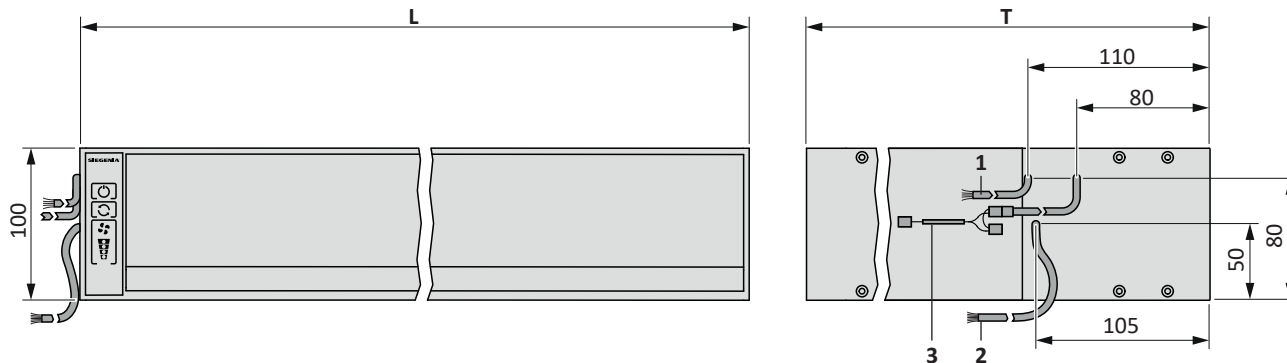
| Versions                                                              |   |
|-----------------------------------------------------------------------|---|
| Outside air filter ISO Coarse $\geq 45\%$                             | • |
| Outside air filter ISO ePM1 $\geq 50\%$                               | ○ |
| Outside air filter NOx                                                | ○ |
| Exhaust air filter ISO Coarse $\geq 30\%$                             | • |
| Locking plug (room side)                                              | • |
| Electric lock                                                         | ○ |
| Touch control                                                         | • |
| Inside temperature and humidity sensor                                | • |
| Outside temperature and humidity sensor                               | • |
| Air quality sensor with CO <sub>2</sub> regulation                    | ○ |
| Air quality sensor with CO <sub>2</sub> and TVOC regulation           | ○ |
| Wifi                                                                  | ○ |
| Preheating register (additional ventilator length 200 mm)             | ○ |
| Halogen-free cable                                                    | ○ |
| Digital outputs                                                       | ○ |
| External inputs (e. g night or cross ventilation or bathroom control) | ○ |
| Configurable software                                                 | ○ |
| SI-BUS                                                                | ○ |

- *Serial version*
- *optional or alternative version*

## 2 Dimensions

### 2.1 Dimensions AEROMAT VT WRG

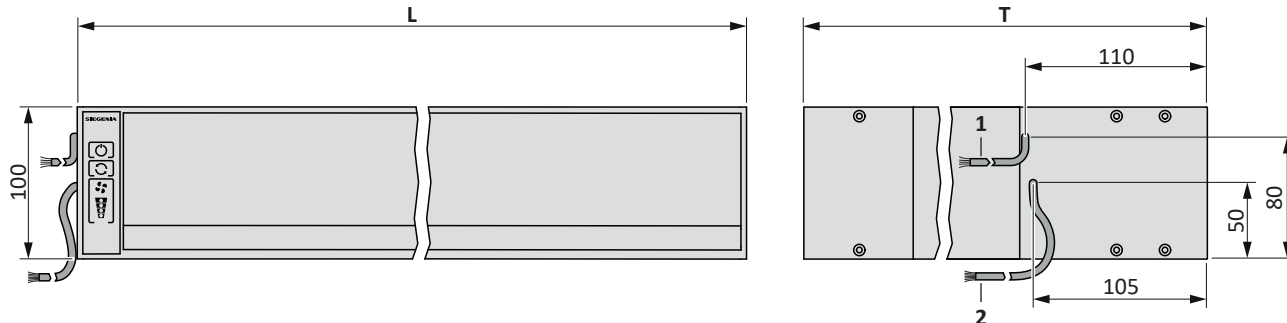
#### Units with standard cables



Measurements in mm

|          |                                                            |                                    |
|----------|------------------------------------------------------------|------------------------------------|
| <b>L</b> | Ventilator length                                          | Can be ordered in 10 mm increments |
| <b>T</b> | Ventilator depth                                           | Can be ordered in 1 mm increments  |
| <b>1</b> | Control cable 5 x 0.75 mm <sup>2</sup> for digital outputs | optional                           |
| <b>2</b> | Control cable 7 x 0.75 mm <sup>2</sup> for supply voltage  |                                    |
| <b>3</b> | SI-BUS cable with Y-cable                                  | optional                           |

#### Units with halogen-free cables



Measurements in mm

|          |                                                             |                                    |
|----------|-------------------------------------------------------------|------------------------------------|
| <b>L</b> | Ventilator length                                           | Can be ordered in 10 mm increments |
| <b>T</b> | Ventilator depth                                            | Can be ordered in 1 mm increments  |
| <b>1</b> | Control cable 2 x 1.5 mm <sup>2</sup> for supply voltage    |                                    |
| <b>2</b> | Control cable 7 x 0.75 mm <sup>2</sup> for external outputs |                                    |

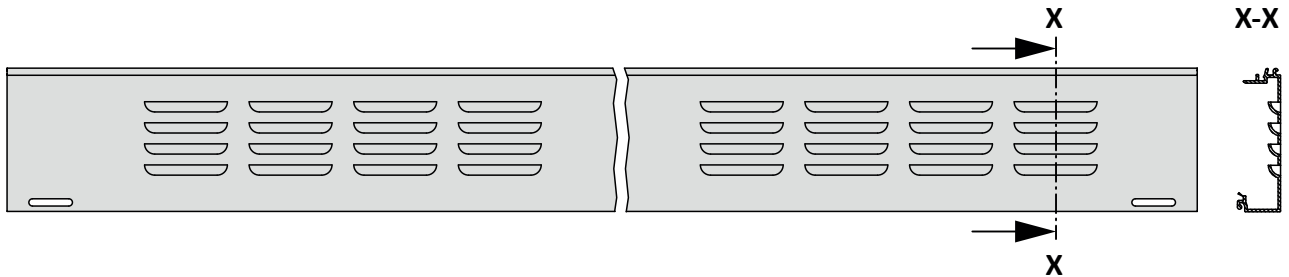
| Device type    | Dimension L (mm) | T (mm)    |
|----------------|------------------|-----------|
| AEROMAT VT WRG | 1000 – 6000      | 320 – 500 |

## 2.2 Dimensions of outer panel without extension parts

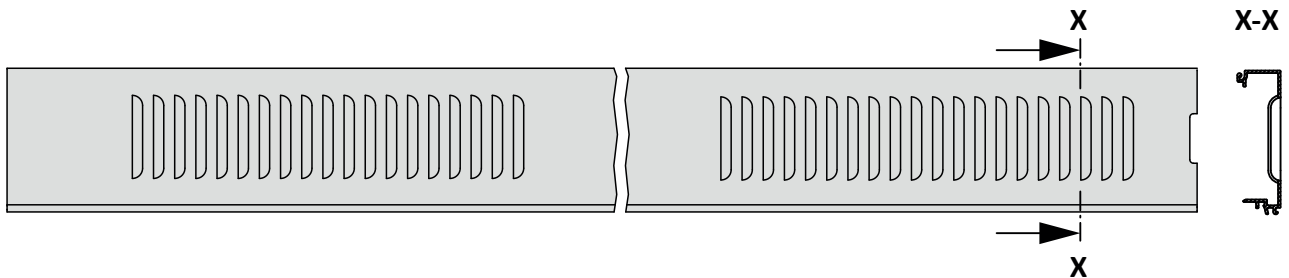
The dimensions of the outside panels are dependent on the device equipment level and the ventilator length. You can find more detailed information about the outside panels in the media centre or via the following link:

[link.si/td/fens021/1024](https://link.si/td/fens021/1024)

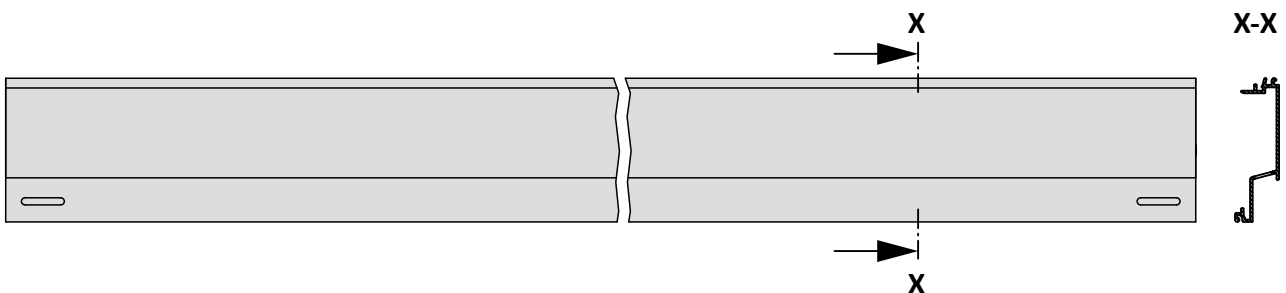
Outer panel for horizontal installation



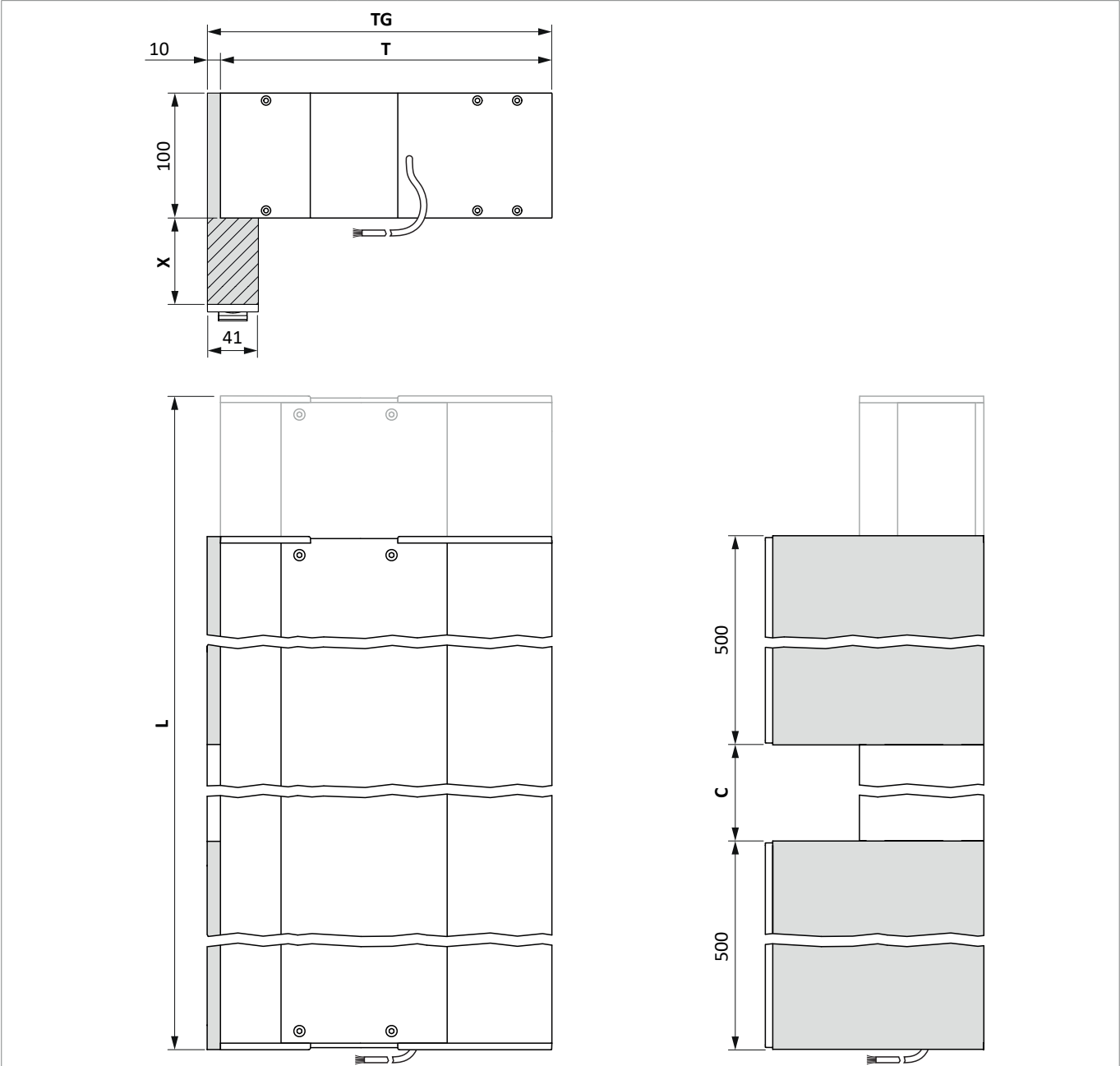
Outer panel for vertical installation



Outer panel for shadow gap



2.3 Dimensions of reveal and lintel duct EPP

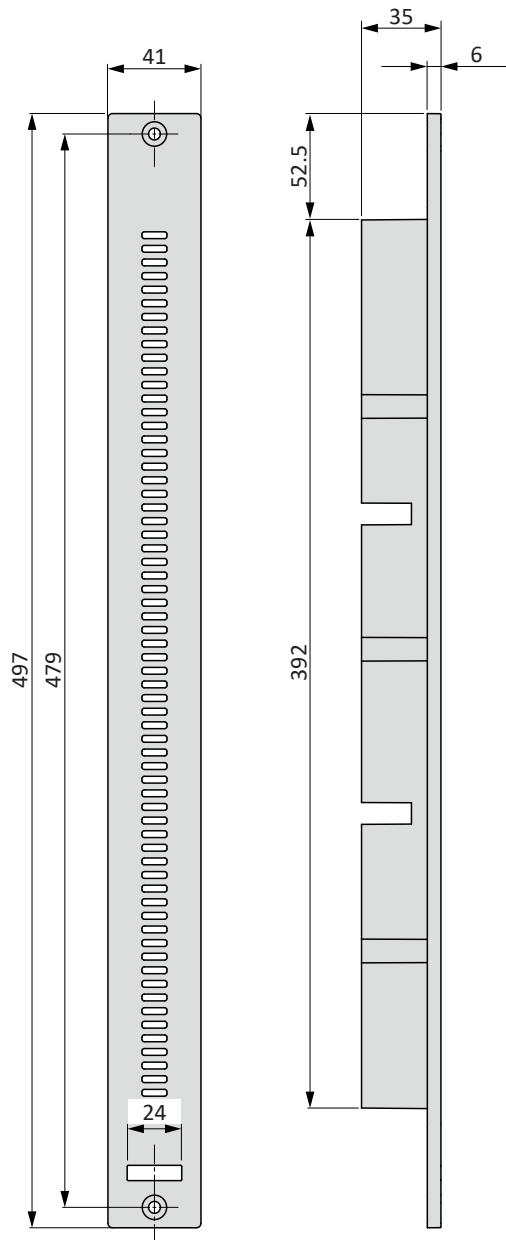


|                                                                                     |                   |                                                                                                                                                                          |
|-------------------------------------------------------------------------------------|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Measurements in mm                                                                  |                   |                                                                                                                                                                          |
| L                                                                                   | Ventilator length | Can be ordered in 10 mm increments                                                                                                                                       |
| T                                                                                   | Ventilator depth  | Can be ordered in 1 mm increments                                                                                                                                        |
| TG                                                                                  | Total depth       | Ventilator depth T + 10 mm                                                                                                                                               |
| X                                                                                   | Height of ducts   | The height of the ducts can be expanded by duct extensions (see accessories) in 100 mm increments. The ducts can be cropped on site to the final dimension (min. 25 mm). |
| C                                                                                   | Duct interval     |                                                                                                                                                                          |
|  | Cropping area     |                                                                                                                                                                          |

| Device type                                | Dimension L (mm) | Dimension D (mm) | Dimension X (mm) | Dimension C (mm) |
|--------------------------------------------|------------------|------------------|------------------|------------------|
| AEROMAT VT WRG without preheating register | 1000 – 1190      | 320 – 500        | 0 – 570          | 0                |
|                                            | 1200 – 6000      | 320 – 500        | 0 – 570          | 200              |
| AEROMAT VT WRG with preheating register    | 1200 – 1390      | 320 – 500        | 0 – 570          | 200              |
|                                            | 1400 – 6000      | 320 – 500        | 0 – 570          | 400              |

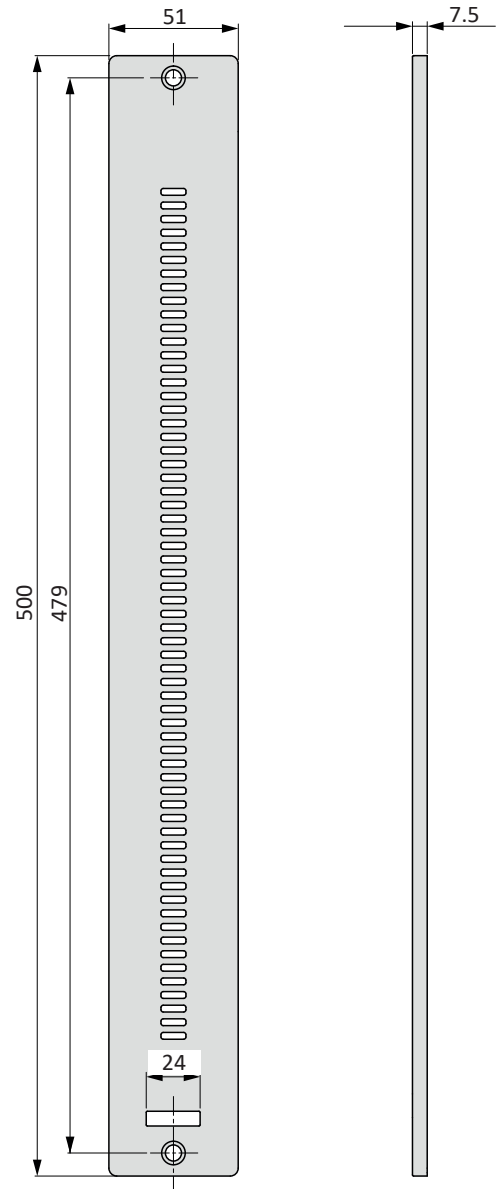
## 2.4 Dimensions of reveal and lintel duct outside panels EPP

PVC outer panel for vent duct and lintel duct EPP



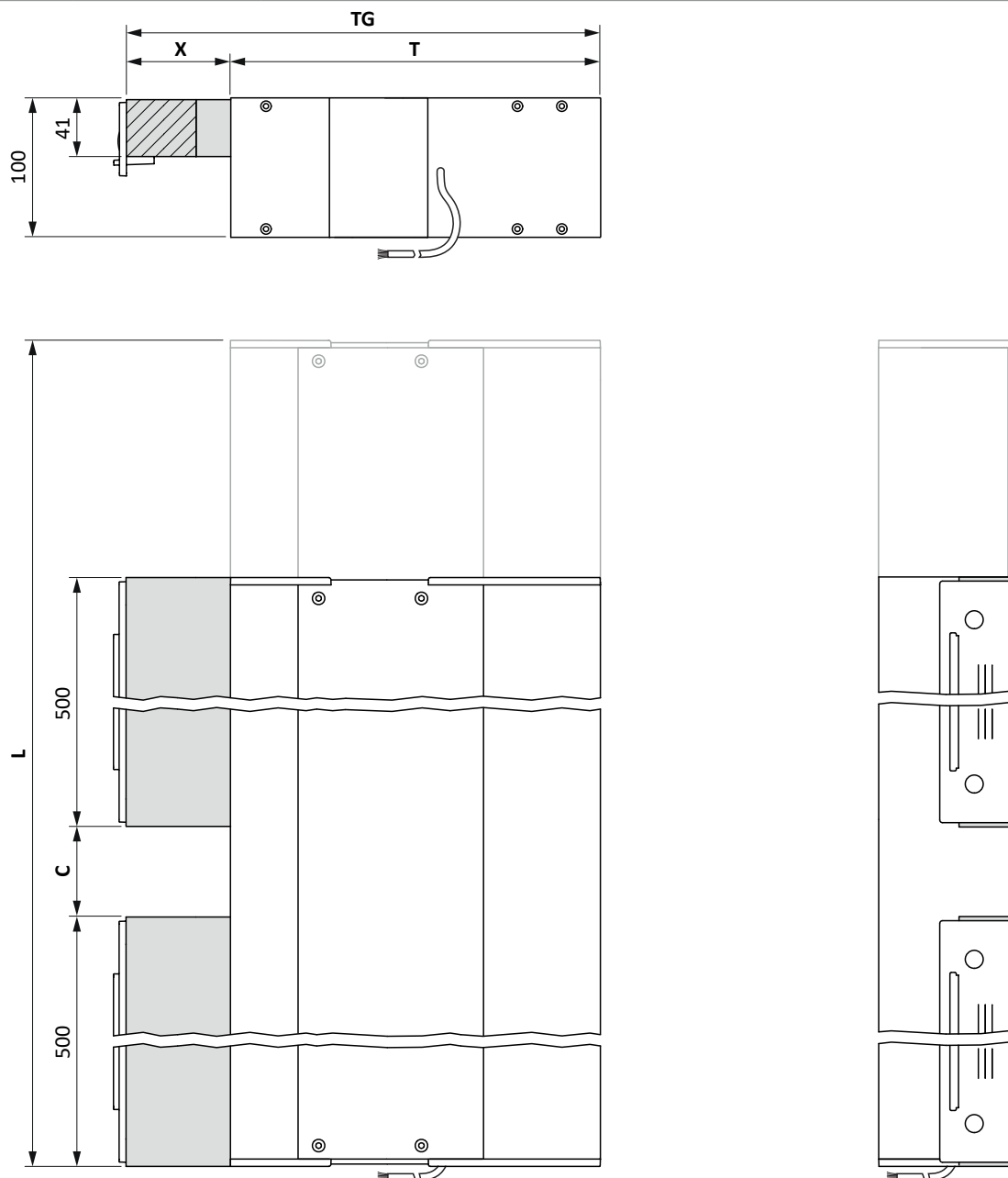
Measurements in mm

Aluminium outer panel for vent duct and lintel duct EPP



Measurements in mm

## 2.5 Dimensions of wall duct EPP

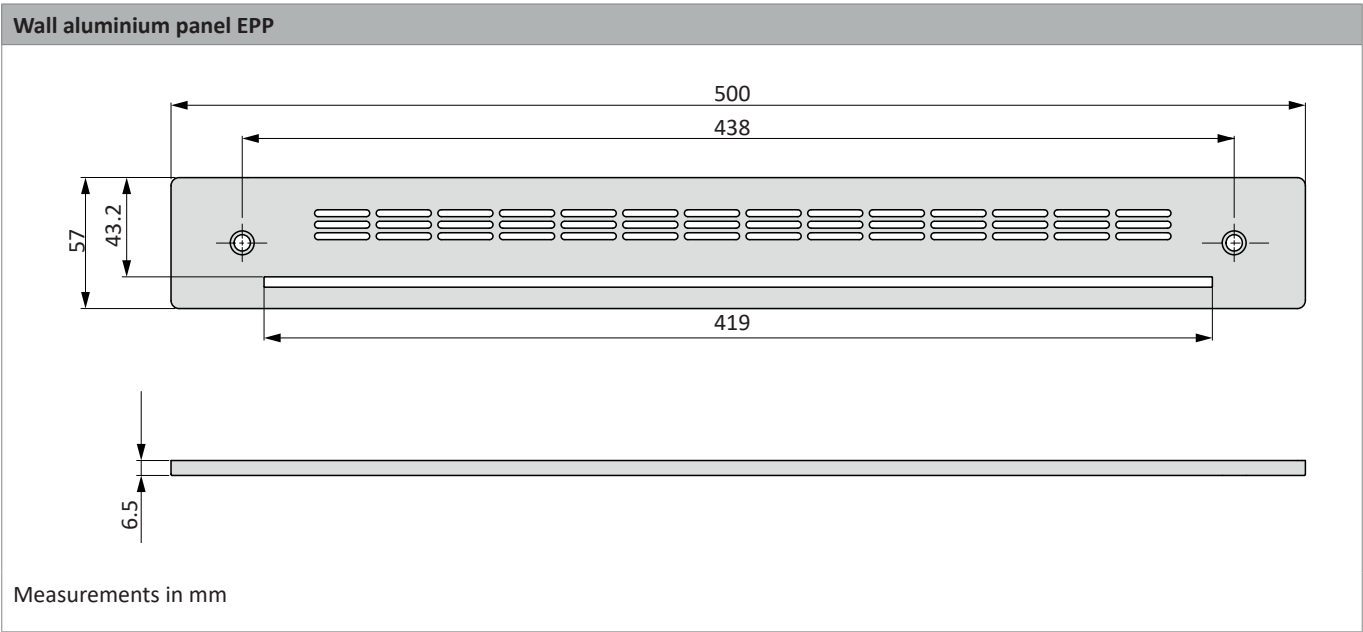
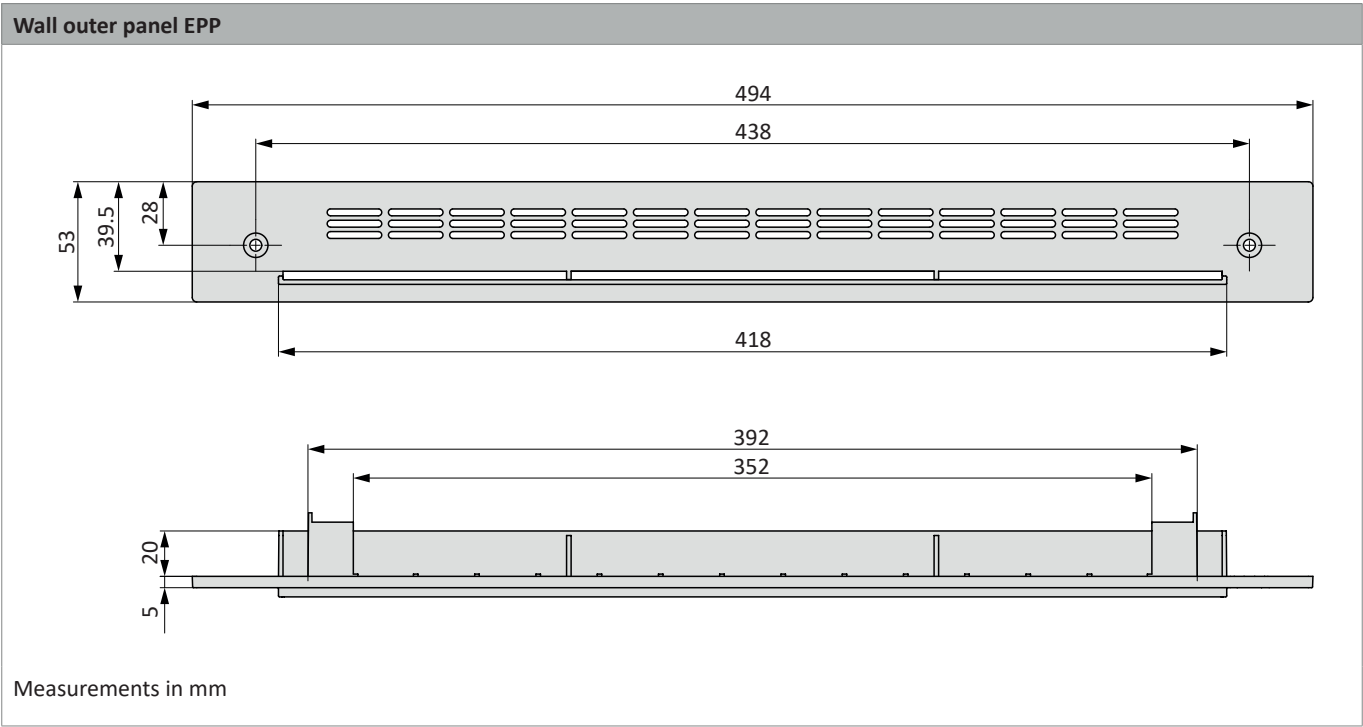


Measurements in mm

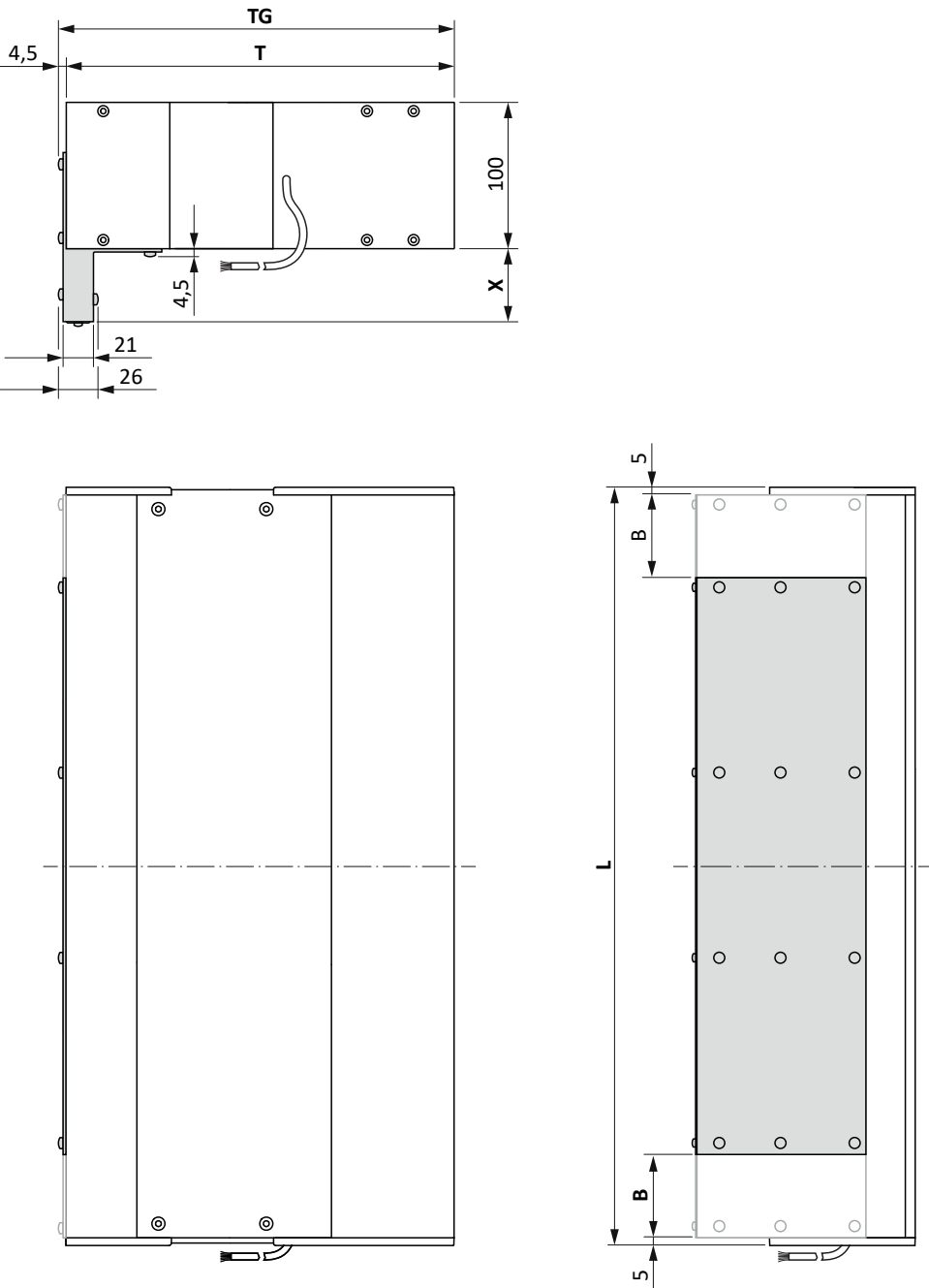
|                                                                                     |                   |                                                                                                                                                                         |
|-------------------------------------------------------------------------------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>L</b>                                                                            | Ventilator length | Can be ordered in 10 mm increments                                                                                                                                      |
| <b>T</b>                                                                            | Ventilator depth  | Can be ordered in 1 mm increments                                                                                                                                       |
| <b>TG</b>                                                                           | Total depth       | Ventilator depth <b>T</b> + depth of ducts <b>X</b>                                                                                                                     |
| <b>X</b>                                                                            | Depth of ducts    | The depth of the ducts can be extended by duct extensions (see accessories) in 100 mm increments. The ducts can be cropped on site to the final dimension (min. 25 mm). |
| <b>C</b>                                                                            | Duct interval     |                                                                                                                                                                         |
|  | Cropping area     |                                                                                                                                                                         |

| Device type                                | Dimension L (mm) | Dimension D (mm) | Dimension X (mm) | Dimension C (mm) |
|--------------------------------------------|------------------|------------------|------------------|------------------|
| AEROMAT VT WRG without preheating register | 1000 – 1190      | 320 – 500        | 25 – 500         | 0                |
|                                            | 1200 – 6000      | 320 – 500        | 25 – 500         | 200              |
| AEROMAT VT WRG with preheating register    | 1200 – 1390      | 320 – 500        | 25 – 500         | 200              |
|                                            | 1400 – 6000      | 320 – 500        | 25 – 500         | 400              |

2.6 Dimensions of wall duct outside panels EPP



2.7 Dimensions of aluminium reveal and lintel duct

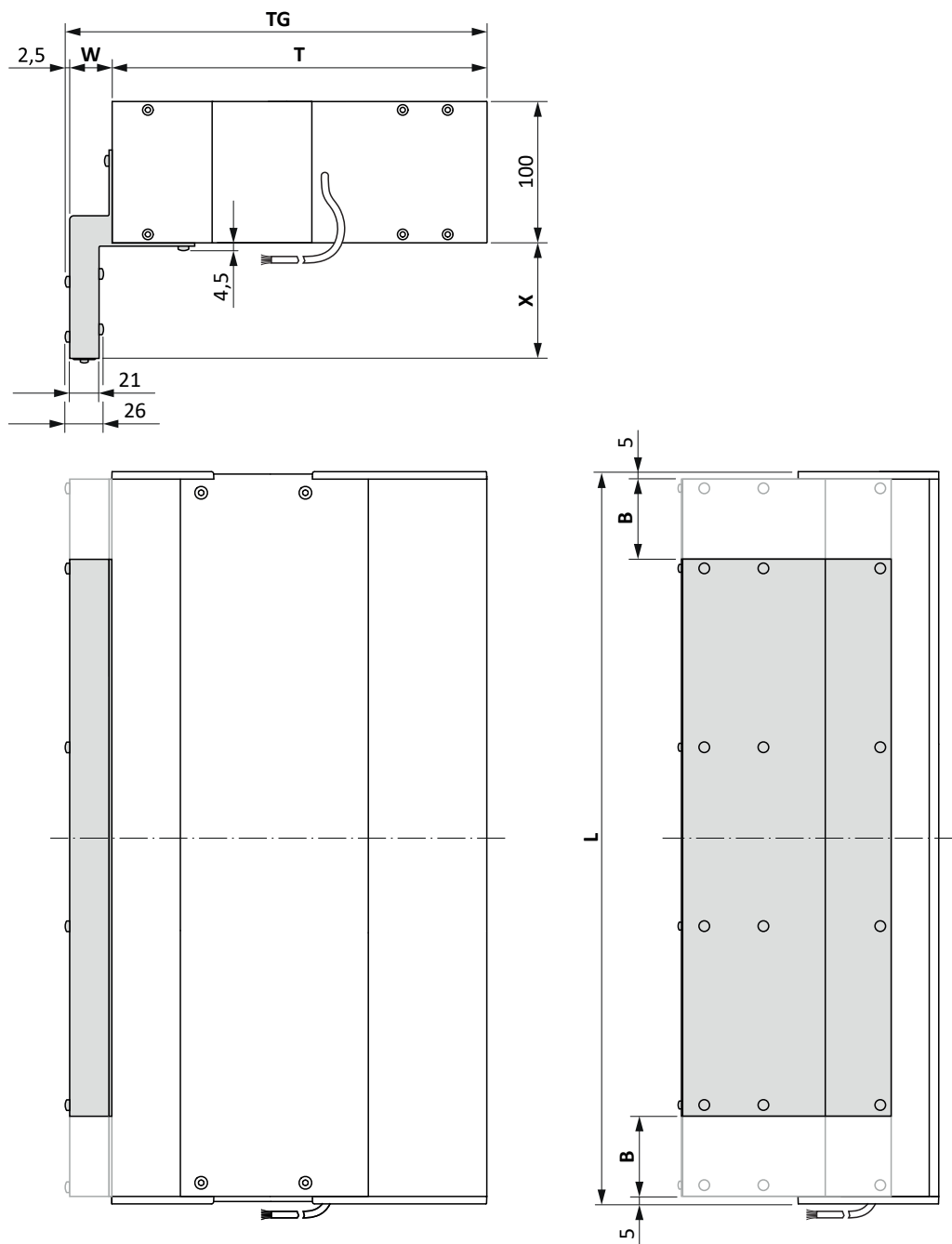


Measurements in mm

|           |                             |                                    |
|-----------|-----------------------------|------------------------------------|
| <b>B</b>  | Dimension for indented duct | Can be ordered in 1 mm increments  |
| <b>L</b>  | Ventilator length           | Can be ordered in 10 mm increments |
| <b>T</b>  | Ventilator depth            | Can be ordered in 1 mm increments  |
| <b>TG</b> | Total depth                 | Ventilator depth <b>T</b> + 4.5 mm |
| <b>X</b>  | Height of duct              | Can be ordered in 1 mm increments  |

| Device type                  | Dimension L (mm) | Dimension D (mm) | Dimension X (mm) | Dimension B (mm) |
|------------------------------|------------------|------------------|------------------|------------------|
| WRG                          | 1000 – 1340      | 320 – 500        | 25 – 1100        | 0 – 45           |
|                              | 1350 – 3000      |                  |                  | 0 – 145          |
|                              | 3010 – 6000      |                  |                  | 0                |
| WRG with preheating register | 1200 – 1540      | 320 – 500        | 25 – 1100        | 0 – 45           |
|                              | 1550 – 3000      |                  |                  | 0 – 145          |
|                              | 3010 – 6000      |                  |                  | 0                |

## 2.8 Dimensions of aluminium reveal and lintel duct angled



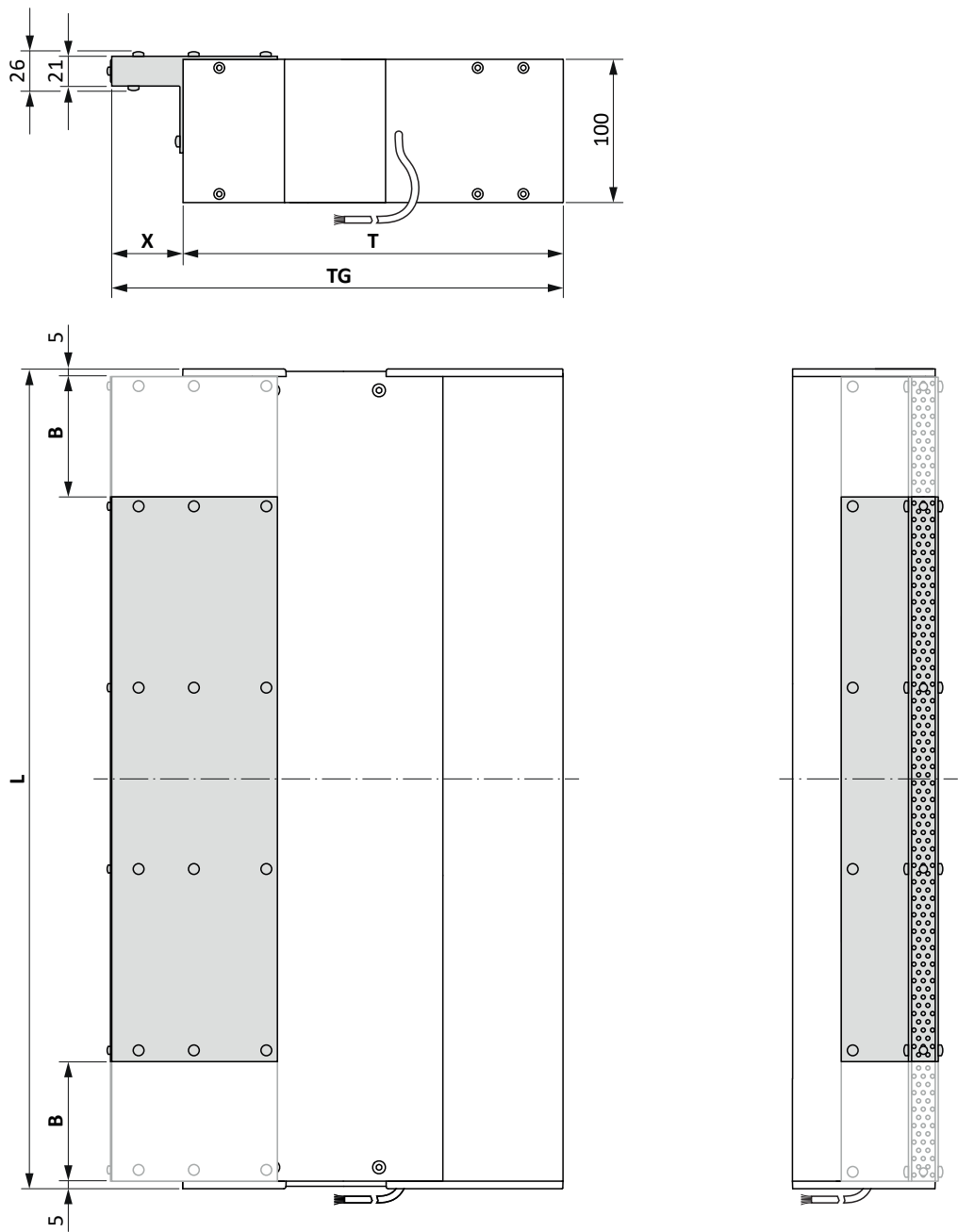
Measurements in mm

|           |                             |                                                             |
|-----------|-----------------------------|-------------------------------------------------------------|
| <b>B</b>  | Dimension for indented duct | Can be ordered in 1 mm increments                           |
| <b>L</b>  | Ventilator length           | Can be ordered in 10 mm increments                          |
| <b>T</b>  | Ventilator depth            | Can be ordered in 1 mm increments                           |
| <b>TG</b> | Total depth                 | Ventilator depth <b>T</b> + depth of duct <b>W</b> + 2.5 mm |
| <b>W</b>  | Depth of duct               | Can be ordered in 1 mm increments                           |
| <b>X</b>  | Height of duct              | Can be ordered in 1 mm increments                           |

| Device type                  | Dimension L (mm) | Dimension D (mm) | Dimension W (mm) <sup>1</sup> | Dimension X (mm) <sup>1</sup> | Dimension B (mm) |
|------------------------------|------------------|------------------|-------------------------------|-------------------------------|------------------|
| WRG                          | 1000 – 1340      | 320 – 500        | 15 – 500                      | 25 – 1085                     | 0 – 45           |
|                              | 1350 – 3000      |                  |                               |                               | 0 – 145          |
|                              | 3010 – 6000      |                  |                               |                               | 0                |
| WRG with preheating register | 1200 – 1540      | 320 – 500        | 15 – 500                      | 25 – 1085                     | 0 – 45           |
|                              | 1550 – 3000      |                  |                               |                               | 0 – 145          |
|                              | 3010 – 6000      |                  |                               |                               | 0                |

<sup>1)</sup>  $W + X \leq 1100$

2.9 Dimensions of wall duct aluminium

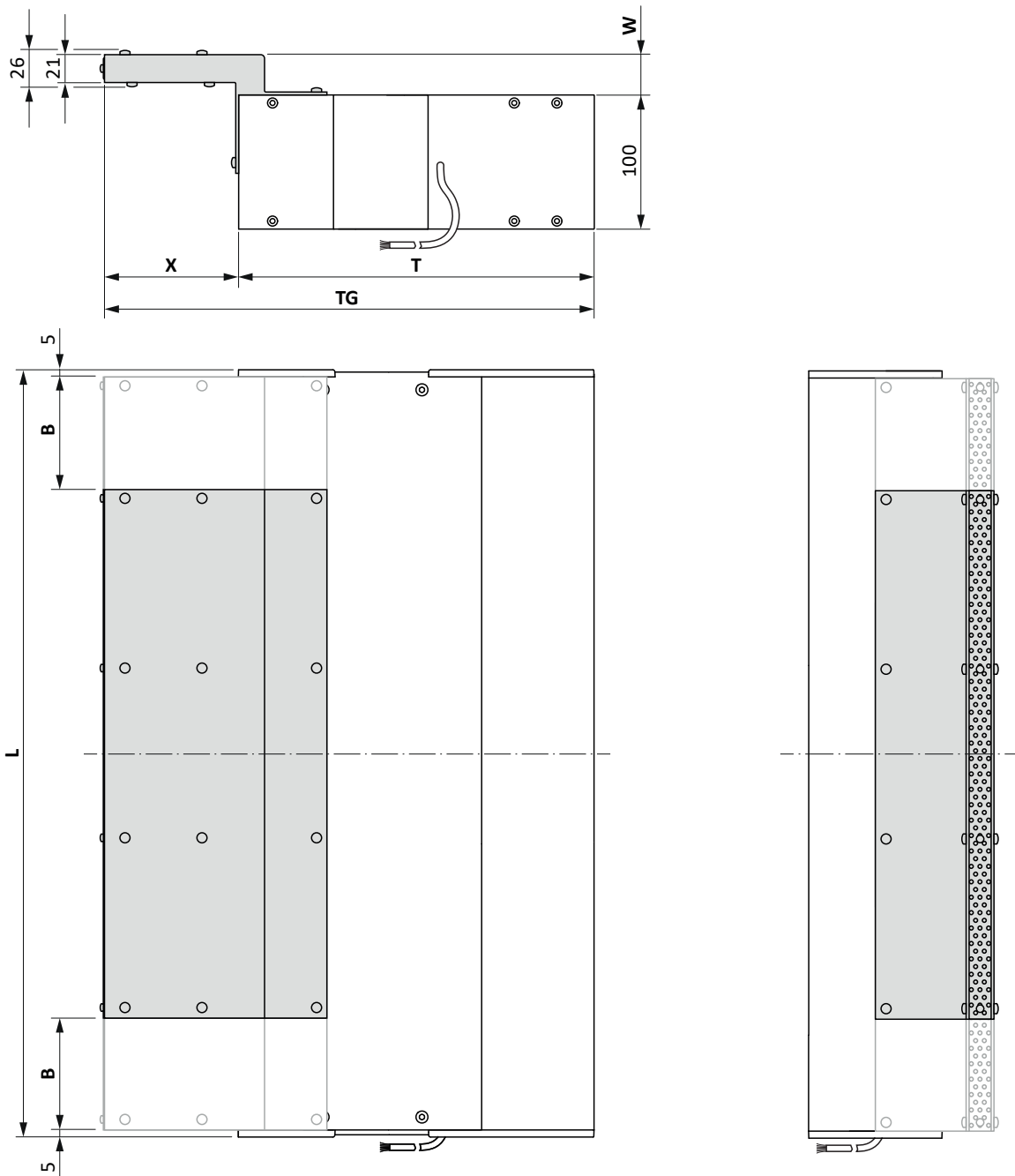


Measurements in mm

|           |                             |                                      |
|-----------|-----------------------------|--------------------------------------|
| <b>B</b>  | Dimension for indented duct | Can be ordered in 1 mm increments    |
| <b>L</b>  | Ventilator length           | Can be ordered in 10 mm increments   |
| <b>T</b>  | Ventilator depth            | Can be ordered in 1 mm increments    |
| <b>TG</b> | Total depth                 | Ventilator depth <b>T</b> + <b>X</b> |
| <b>X</b>  | Depth of duct               | Can be ordered in 1 mm increments    |

| Device type                  | Dimension L (mm) | Dimension D (mm) | Dimension X (mm) | Dimension B (mm) |
|------------------------------|------------------|------------------|------------------|------------------|
| WRG                          | 1000 – 1340      | 320 – 500        | 25 – 1100        | 0 – 45           |
|                              | 1350 – 3000      |                  |                  | 0 – 145          |
|                              | 3010 – 6000      |                  |                  | 0                |
| WRG with preheating register | 1200 – 1540      | 320 – 500        | 25 – 1100        | 0 – 45           |
|                              | 1550 – 3000      |                  |                  | 0 – 145          |
|                              | 3010 – 6000      |                  |                  | 0                |

2.10 Dimensions of wall duct aluminium angled



Measurements in mm

|    |                             |                                    |
|----|-----------------------------|------------------------------------|
| B  | Dimension for indented duct | Can be ordered in 1 mm increments  |
| L  | Ventilator length           | Can be ordered in 10 mm increments |
| T  | Ventilator depth            | Can be ordered in 1 mm increments  |
| TG | Total depth                 | Ventilator depth T + X             |
| W  | Height of duct              | Can be ordered in 1 mm increments  |
| X  | Depth of duct               | Can be ordered in 1 mm increments  |

| Device type                  | Dimension L (mm) | Dimension D (mm) | Dimension W (mm) <sup>1)</sup> | Dimension X (mm) <sup>1)</sup> | Dimension B (mm) |
|------------------------------|------------------|------------------|--------------------------------|--------------------------------|------------------|
| WRG                          | 1000 – 1340      | 320 – 500        | 15 – 500                       | 25 – 1085                      | 0 – 45           |
|                              | 1350 – 3000      |                  |                                |                                | 0 – 145          |
|                              | 3010 – 6000      |                  |                                |                                | 0                |
| WRG with preheating register | 1200 – 1540      | 320 – 500        | 15 – 500                       | 25 – 1085                      | 0 – 45           |
|                              | 1550 – 3000      |                  |                                |                                | 0 – 145          |
|                              | 3010 – 6000      |                  |                                |                                | 0                |

<sup>1)</sup>  $W + X \leq 1100$

### 3 Accessories

| name                                                    | Description                                                                                                | Material number  |
|---------------------------------------------------------|------------------------------------------------------------------------------------------------------------|------------------|
| Wall duct EPP                                           | Wall duct EPP (incl. assembly material)                                                                    | vL3490200-097010 |
| Vent duct and lintel duct EPP                           | Vent duct and lintel duct EPP (incl. assembly material)                                                    | vL3490180-097010 |
| Extension canal                                         | Extension duct for extension of wall duct or vent duct and lintel duct                                     | vL3490240-097010 |
| Compensation piece vent duct and lintel duct            | Compensation piece for vent duct and lintel duct EPP (incl. assembly material)                             | vL3490190-097010 |
| PVC outer panel for wall duct EPP                       | PVC outer panel for wall duct EPP (incl. assembly material) in white (similar to RAL 9016)                 | vL3490210-004010 |
| PVC outer panel for wall duct EPP                       | PVC outer panel for wall duct EPP (incl. assembly material) in black (similar to RAL 9005)                 | vL3490220-023010 |
| Aluminium outer panel for wall duct EPP                 | Aluminium outer panel for wall duct EPP to cover the PVC outer panel                                       | vL3490230-500010 |
| PVC outer panel for vent duct and lintel duct EPP       | PVC outer panel for vent duct and lintel duct EPP (incl. assembly material) in white (similar to RAL 9016) | vL3490160-004010 |
| PVC outer panel for vent duct and lintel duct EPP       | PVC outer panel for vent duct and lintel duct EPP (incl. assembly material) in black (similar to RAL 9005) | vL3490150-023010 |
| Aluminium outer panel for vent duct and lintel duct EPP | Aluminium outer panel for vent duct and lintel duct EPP to cover the PVC outer panel                       | vL3490170-500010 |
| Ventilation control unit                                | Ventilation control unit for external operation                                                            | vL7360010-004010 |
| Sensor-based ventilation control unit                   | Ventilation control unit with integrated sensors for external operation                                    | vL7360020-004010 |

## 4 Technical specifications

| Ventilator length                                                                                                        |                                 | 1000 mm      |              | 1200 mm      |              |
|--------------------------------------------------------------------------------------------------------------------------|---------------------------------|--------------|--------------|--------------|--------------|
| Ventilator depth                                                                                                         |                                 | 320 mm       | 350 mm       | 320 mm       | 350 mm       |
| Sound absorption $D_{n,e,w}$ in ventilation operation<br>(measured according to DIN EN 10140-2)                          | Without add-on parts            | 55 dB        | 57 dB        | 54 dB        | 55 dB        |
|                                                                                                                          | with wall duct EPP              | 55 dB        | 57 dB        | 56 dB        | 57 dB        |
|                                                                                                                          | with vent duct /lintel duct EPP | 56 dB        | 58 dB        | 56 dB        | 57 dB        |
| Air throughput                                                                                                           | Blower level 1                  | 10 m³/h      | 10 m³/h      | 10 m³/h      | 10 m³/h      |
|                                                                                                                          | Blower level 2                  | 20 m³/h      | 20 m³/h      | 20 m³/h      | 20 m³/h      |
|                                                                                                                          | Blower level 3                  | 30 m³/h      | 30 m³/h      | 30 m³/h      | 30 m³/h      |
|                                                                                                                          | Blower level 4                  | 45 m³/h      | 45 m³/h      | 45 m³/h      | 45 m³/h      |
|                                                                                                                          | Blower level 5                  | 60 m³/h      | 60 m³/h      | 60 m³/h      | 60 m³/h      |
| Inherent noise $L_{pA}$<br>(measured according to DIN EN ISO 13141-8, sound pressure level with room insulation of 8 dB) | Blower level 1                  | < 12 dB (A)  | < 12 dB (A)  | < 12 dB (A)  | < 12 dB (A)  |
|                                                                                                                          | Blower level 2                  | 18 dB (A)    | 18 dB (A)    | 18 dB (A)    | 18 dB (A)    |
|                                                                                                                          | Blower level 3                  | 27 dB (A)    | 27 dB (A)    | 25 dB (A)    | 25 dB (A)    |
|                                                                                                                          | Blower level 4                  | 36 dB (A)    | 36 dB (A)    | 34 dB (A)    | 34 dB (A)    |
|                                                                                                                          | Blower level 5                  | 42 dB (A)    | 42 dB (A)    | 40 dB (A)    | 40 dB (A)    |
| Max. heat recovery efficiency                                                                                            |                                 | 93 %         | 93 %         | 93 %         | 93 %         |
| Thermal efficiency in accordance with EU Directive 1254/2014                                                             |                                 | 51.1 %       | 51.1 %       | 51.1 %       | 51.1 %       |
| Energy efficiency class in accordance with EU Directive 1254/2014                                                        |                                 | B            | B            | B            | B            |
| Power consumption                                                                                                        | Blower level 1                  | 5 W          | 5 W          | 4 W          | 4 W          |
|                                                                                                                          | Blower level 2                  | 6 W          | 6 W          | 5 W          | 5 W          |
|                                                                                                                          | Blower level 3                  | 8 W          | 8 W          | 7 W          | 7 W          |
|                                                                                                                          | Blower level 4                  | 14 W         | 14 W         | 13 W         | 13 W         |
|                                                                                                                          | Blower level 5                  | 27 W         | 27 W         | 24 W         | 24 W         |
| Maximum power consumption preheating register                                                                            |                                 | 350 W        | 350 W        | 350 W        | 350 W        |
| Supply voltage                                                                                                           |                                 | 230 V AC     | 230 V AC     | 230 V AC     | 230 V AC     |
| Supply frequency                                                                                                         |                                 | 50 Hz        | 50 Hz        | 50 Hz        | 50 Hz        |
| Operating voltage                                                                                                        |                                 | 24 V DC      | 24 V DC      | 24 V DC      | 24 V DC      |
| Protection class                                                                                                         |                                 | II           | II           | II           | II           |
| Max. permissible area load                                                                                               |                                 | 1000 kg/m    | 1000 kg/m    | 1000 kg/m    | 1000 kg/m    |
| Permissible operating temperature                                                                                        |                                 | -15 – +40 °C | -15 – +40 °C | -15 – +40 °C | -15 – +40 °C |
| Permissible operating temperature (device with preheating register)                                                      |                                 | -30 – +40 °C | -30 – +40 °C | -30 – +40 °C | -30 – +40 °C |
| Length of connecting cable                                                                                               |                                 | 5 – 20 m     | 5 – 20 m     | 5 – 20 m     | 5 – 20 m     |

Ventilator length 1000 mm: technical specification measured with outside air filter ISO Coarse 45 % and exhaust air filter ISO Coarse 30 %

Ventilator length 1200 mm: technical specifications measured with outside air filter ISO Coarse 45 % and exhaust air filter ISO Coarse 30 %  
as well as outside air filter ISO ePM1 50% and exhaust air filter ISO Coarse 30 %