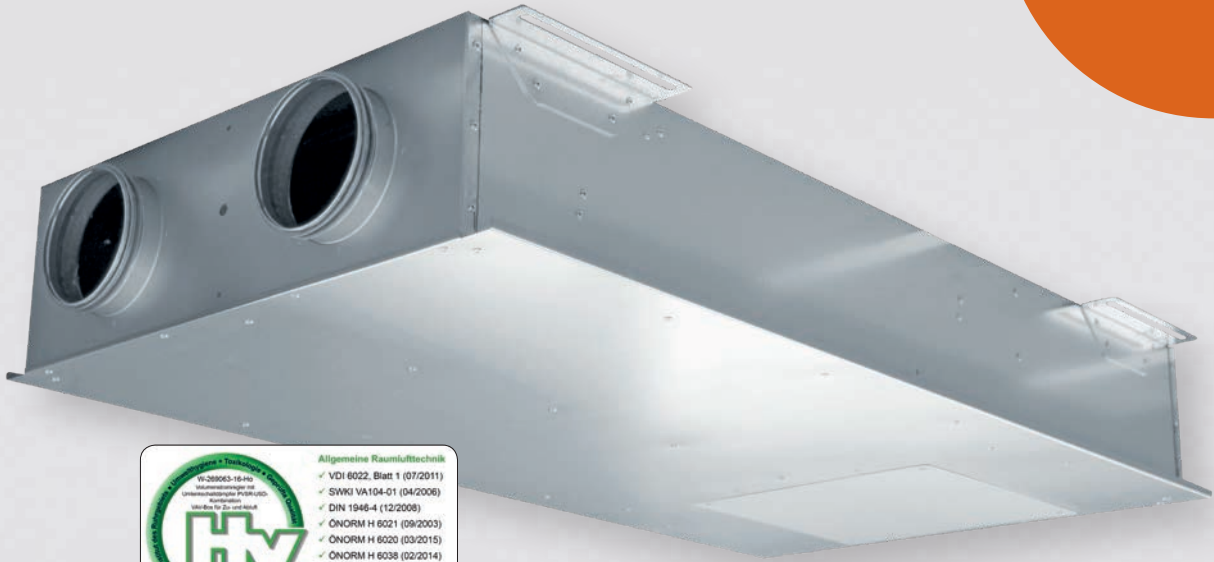


# VAV USD BOX FOR SUPPLY AND EXTRACT AIR

WITH OR WITHOUT ADDITIONAL  
CROSS-TALK-SOUND SILENCER

**COMFORT  
VENTILATION**



 **PICHLER**

*Systematic ventilation.*

## Product description

### Combined supply and exhaust air box with two integrated VAV / CAV compact controllers and integrated deflection silencers, in left- or right-handed version

Square housing made of galvanized sheet steel, with integrated VAV / CAV compact controllers and an integrated acoustic insulation. Can be used for variable or constant volume flow systems.

Compact controllers consisting of control dampers or airtight butterfly valves, readings recorder with averaging differential pressure sensor and control components. Dynamic differential pressure sensor for normal indoor air with an electronic controller.

Optional connection of active/passive sensors or switches. Connection socket for room heating controls. Diagnostic socket for control and adjustment units on the drive.

For cleaning as well as for maintenance and service work, the VAV / CAV compact controllers can be removed through a bolted inspection cover. The VAV / CAV compact controllers are mounted via removable connection collars.

The materials used are non-combustible and feature a high-strength, abrasion-resistant and moisture-repellent surface of glass silk.

The housing is provided with connectors with double lip seals for plug-in fitting (SAFE system).

10VAVB\* versions with an integrated MP bus interface for communication with the Pichler System Optimizer or with other MP System Optimizer controllers.

Delivered with protective covers on the connectors to protect against soiling and dust.

Height-adjustable mounting rail for connecting the drywall ceiling.

#### Including the following installation parts:

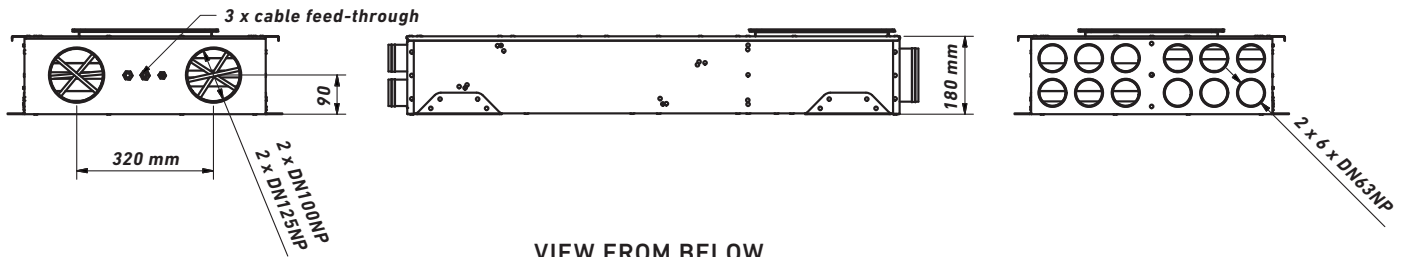
- Diagnostic socket on the housing of the drive for control and adjustment units
- Removable inspection cover
- Easily removable VAV / CAV compact controllers
- Cable feed-throughs and terminals for power supply and, for example, for room heating controls
- Connectors with double lip seals for easy tube plug-in fitting (SAFE system)
- Integrated transformer 230 / 24 V

#### Design types:

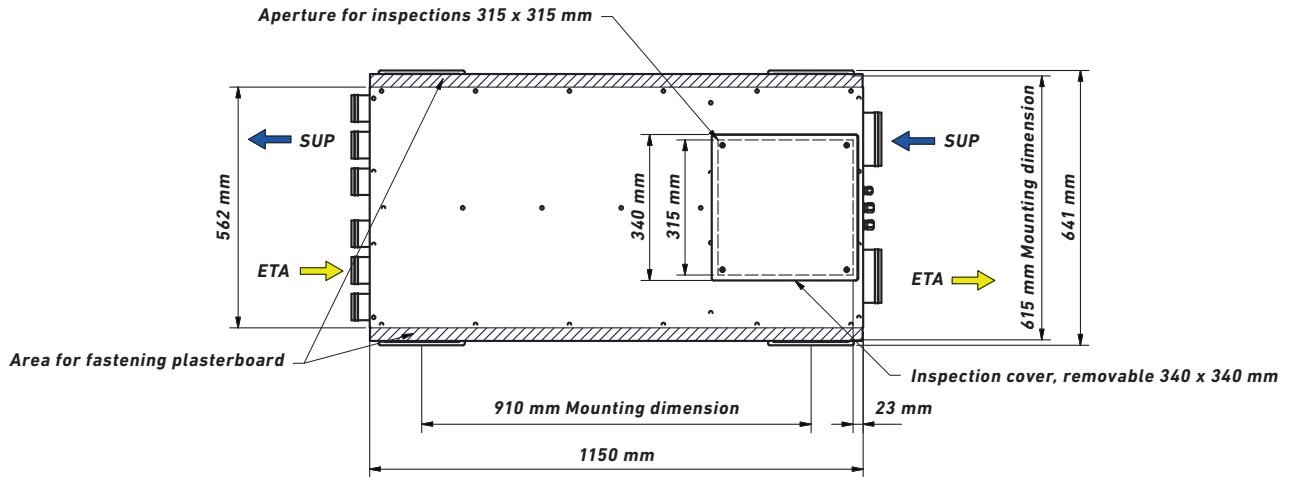
For Spiro/Spiro with deflection silencer or for Spiro/Komflex with deflection & cross-talk sound silencer.

# Design drawing

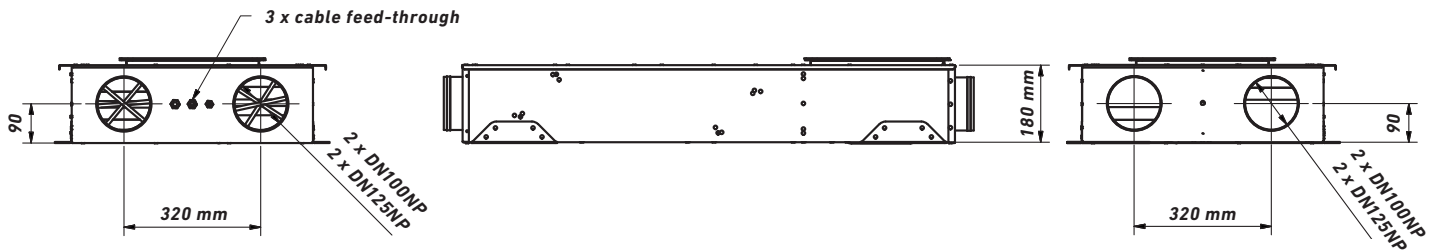
## VERSION SPIRO/KOMFLEX



### VIEW FROM BELOW

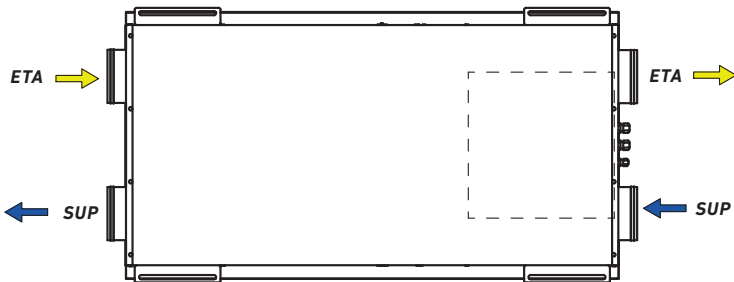


## VERSION SPIRO/SPIRO

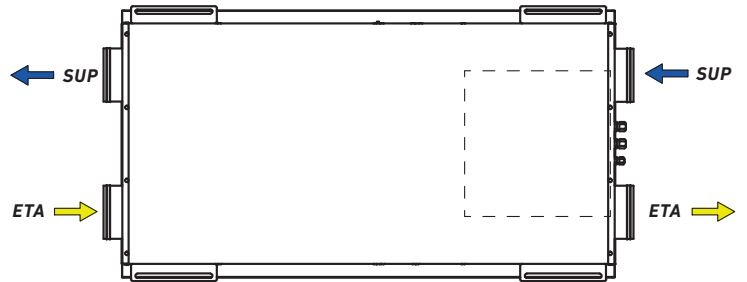


### VIEW FROM ABOVE

#### LEFT-HAND VERSION



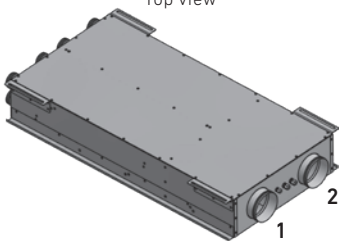
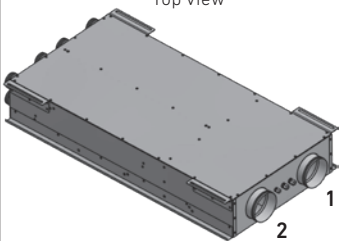
#### RIGHT-HAND VERSION



## Design types

The VAV USD BOX is available in different designs:

- Right or left, depending on position of supply air connection
- With or without MP bus interface
- For Spiro/Spiro with deflection silencer or for Spiro/Komflex with deflection & cross-talk sound silencer

| Version  |  | Left-handed version   | Right-handed version   |
|--|--|---|--|
| SPIRO/KOMFLEX version<br>(with deflection & cross-talk sound silencer) | Without MP bus (type: VAV-USD-SLU box) | 10VAVSL1001263<br>10VAVSL1251263  | 10VAVSR1001263<br>10VAVSR1251263   |
|  | With MP bus (type: VAVB-USD-SLU box)   | 10VAVBSL1001263<br>10VAVBSL1251263  | 10VAVBSR1001263<br>10VAVBSR1251263   |
| SPIRO/SPIRO version<br>(with deflection silencer)                      | Without MP bus (type: VAV-TR box)      | 10VAVL100100<br>10VAVL125125  | 10VAVR100100<br>10VAVR125125   |
|  | With MP bus (type: VAVB-TR box)        | 10VAVBL100100<br>10VAVBL125125  | 10VAVBR100100<br>10VAVBR125125   |
|  |  | <p>Top view</p>  | <p>Top view</p>  |
|  |  | <p>1 Supply air<br/>2 Extract air</p>   |  |

## Details regarding the versions:

### 1. SPIRO/SPIRO: VAV-USD box with deflection silencers for insertion attenuation. With or without MP bus interface, in left- or right-handed version.

Integrated deflection silencers for supply and exhaust air, with efficient and flow-optimised as well as acoustically optimised deflection silencers with absorption and response elements for optimum sound insulation.

#### EXTERNAL INSPECTION

##### (Hygieneinstitut des Ruhrgebiets)

The construction design complies with hygiene requirements as stipulated in the guidelines contained in VDI 6022 Blatt 1 (07/2011), SWKI VA104-01 (04/2006), DIN 1946-4 (12/2008), ÖNORM H 6021 (09/2003), ÖNORM H 6020 (03/2015) and ÖNORM H 6038 (02/2014), and is in accordance with performed expert appraisals on hygiene.



### 2. SPIRO/KOMFLEX: VAV-USD-SLU box with deflection silencers for insertion attenuation and integrated duct silencers for cross-talk attenuation. With or without MP bus interface, in left- or right-handed version.

In addition to the integrated deflection silencers for supply and exhaust air, integrated duct silencers, additionally providing for acoustic cross-talk attenuation between the individual rooms of a flat.

#### EXTERNAL INSPECTION

##### (Hygieneinstitut des Ruhrgebiets)

The construction design complies with hygiene requirements as stipulated in the guidelines contained in VDI 6022 Blatt 1 (01/2018), SWKI VA104-01 (04/2006), DIN 1946-6 (05/2009), ÖNORM H 6021 (08/2016), ÖNORM H 6020 (03/2015) and ÖNORM H 6038 (02/2014), and is in accordance with performed expert appraisals on hygiene.



## Technical data

**Dimensions:** W x H x L = 560 x 180 x 1150 mm

**Nominal voltage:** 230 V AC 50 / 60 Hz

**Operating mode:** DC 2 - 10 V (option: DC 0 - 10 V)

**Power consumption:** 6 W

**Manual adjustment:** with pushbutton

**Button:** Adaption / addressing / service

**LED display:** 24 V supply / status / service function

**Angle of rotation:** 95 degrees, mechanically or electronically adjustable

**Volume flows:** The control parameters (e.g.: Vmin, Vmax and Vmit) are preset by the factory according to the table and, in the course of the commissioning process, can be easily adjusted by means of the adjustment and diagnostic unit.

| Volume flows | Vnom [m <sup>3</sup> /h] | Vmin [m <sup>3</sup> /h] | Vmax [m <sup>3</sup> /h] |
|--------------|--------------------------|--------------------------|--------------------------|
| DN 100       | 150                      | 30                       | 80                       |
| DN 125       | 250                      | 40                       | 120                      |

## DRIVE

**Nominal voltage:** 24 V AC / DC 50 / 60 Hz

**Protection class:** III Safety extra-low voltage

**Degree of protection:** IP54

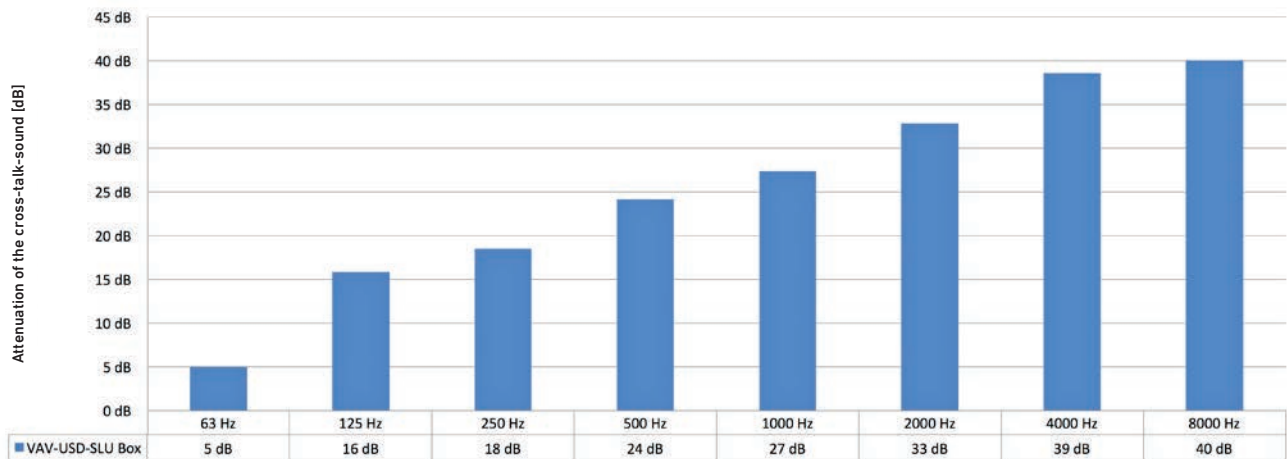
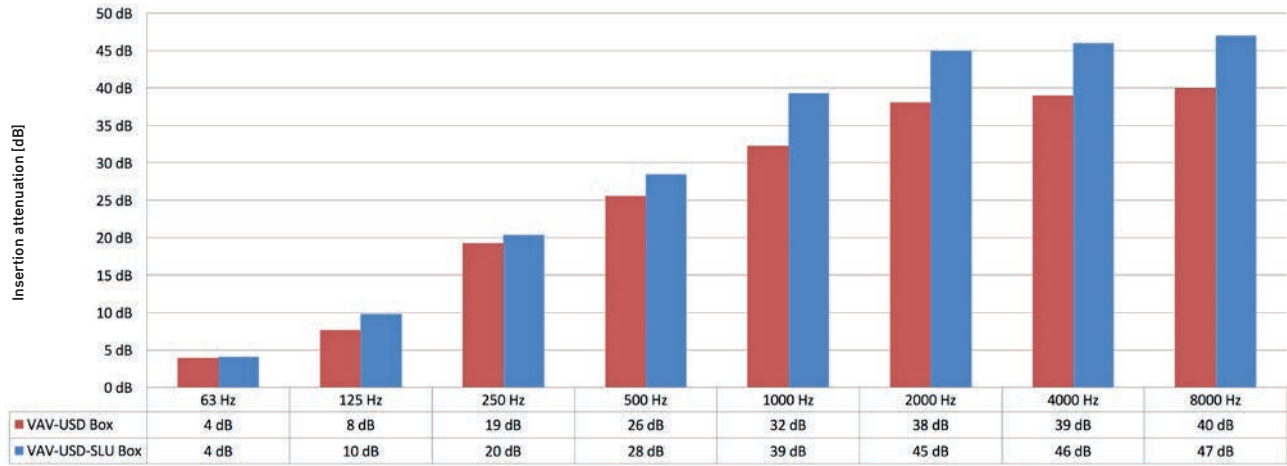
**Operating temperature:** + 0 °C bis + 50 °C

| Version   |   | Air connections                   | Air connections |            |             |            |
|---|---|-----------------------------------|-----------------|------------|-------------|------------|
|   |   |                                   | Supply air      |            | Extract air |            |
|   |   |                                   | Air inlet       | Air outlet | Air inlet   | Air outlet |
| SPIRO / KOMFLEX version<br>(with deflection & cross-talk<br>sound silencer) | Without MP bus (type:<br>VAV-USD-SLU box) | 2x ILU ø100, 12x ILU ø63 mm mont. | 1 x ø100        | 6 x ø63    | 6 x ø63     | 1 x ø100   |
|   |   | 2x ILU ø125, 12x ILU ø63 mm mont. | 1 x ø125        | 6 x ø63    | 6 x ø63     | 1 x ø125   |
|   | With MP bus (type:<br>VAVB-USD-SLU box)   | 2x ILU ø100, 12x ILU ø63 mm mont. | 1 x ø100        | 6 x ø63    | 6 x ø63     | 1 x ø100   |
|   |   | 2x ILU ø125, 12x ILU ø63 mm mont. | 1 x ø125        | 6 x ø63    | 6 x ø63     | 1 x ø125   |
| SPIRO / SPIRO version (with<br>deflection silencer)                         | Without MP bus (type:<br>VAV-TR box)      | 4x ILU ø100                       | 1 x ø100        | 1 x ø100   | 1 x ø100    | 1 x ø100   |
|   |   | 4x ILU ø125                       | 1 x ø125        | 1 x ø125   | 1 x ø125    | 1 x ø125   |
|   | With MP bus (type:<br>VAVB-TR box)        | 4x ILU ø100                       | 1 x ø100        | 1 x ø100   | 1 x ø100    | 1 x ø100   |
|   |   | 4x ILU ø125                       | 1 x ø125        | 1 x ø125   | 1 x ø125    | 1 x ø125   |



# Technical data

## SOUND DATA





CO<sub>2</sub> sensor



Room controller WRR3A2



Room controller WRR3SA2

## Accessories

### DEMAND-ORIENTED VENTILATION CONTROL

CO<sub>2</sub> sensors for demand-oriented ventilation control. The ventilation unit will automatically increase or reduce the air volumes depending on the quality of the air in the room. The sensors are designed for flush and surface mounting.

| Item                   | Item number |
|------------------------|-------------|
| CO <sub>2</sub> sensor | 07RCO248330 |

|                       |                 |
|-----------------------|-----------------|
| Colour                | white           |
| Dimensions H x W x D  | 85 x 85 x 35 mm |
| Ambient temperature   | 10-50° C        |
| Measuring range       | 0-2000 ppm      |
| Sensor supply voltage | 24 V AC/DC      |

### ROOM CONTROLLER

A connection socket for WRR3A2 is being provided. The room controller is a simple 3-level room controller, with or without setpoint. Three operating modes can be chosen: Max. (Party mode, push ventilation) – Comfort (operating volume flow) – Min. (Absence mode)

| Item  | Item number |
|---|-------------|
| Room controller Pichler 3-A2, with module selection, without control knob | 08WRR3A2    |
| Room controller Pichler 3S-A2, with module selection and control knob     | 08WRR3SA2   |

|                |           |
|----------------|-----------|
| Supply voltage | 24V AC/DC |
| Output signal  | 2-10V     |

### END CAP FOR THE VERSION KOMFLEX

If not all connections are required, the surplus connections may be sealed airtight using 1 x 11EPF0063

| Item   | Item number |
|--|-------------|
| EPF end cover for the KomFlex 75 version round tube with an inside diameter of 63 mm | 11EPF0063   |

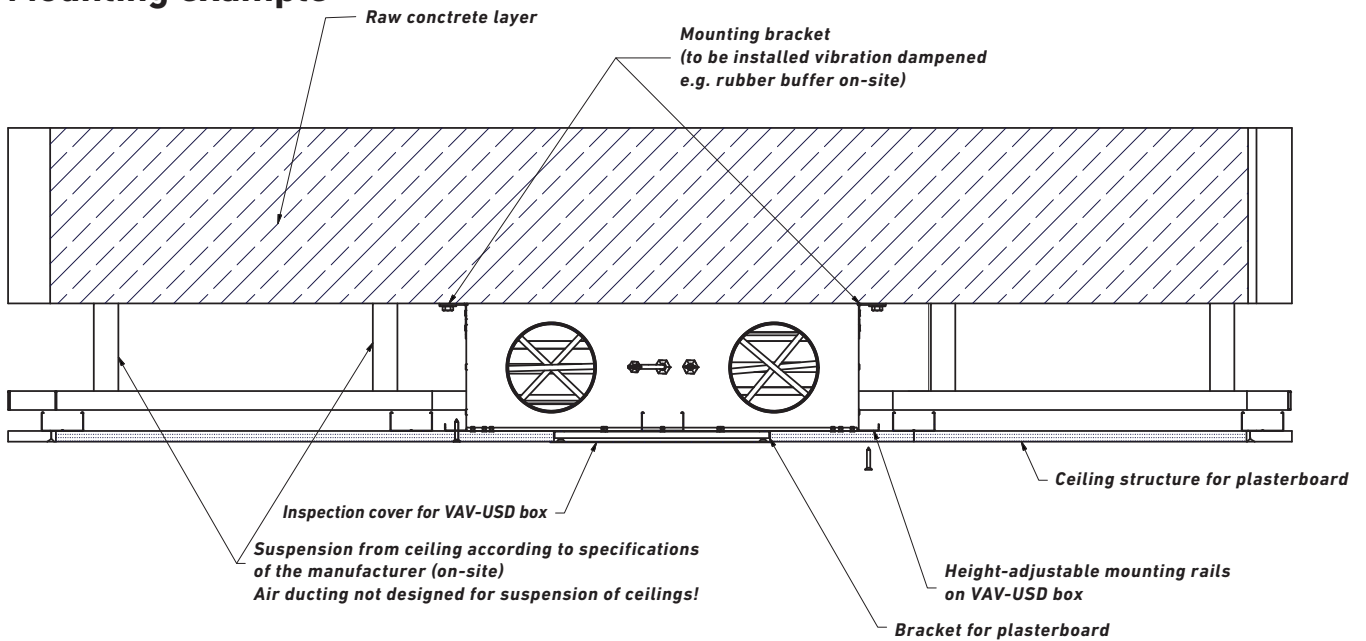
### ADJUSTMENT AND DIAGNOSTIC UNIT

Service tool for parameterisable and communicative drives and VAV controllers.

| Item                           | Item number |
|--------------------------------|-------------|
| Adjustment and diagnostic unit | 10ZTHEU     |



## Mounting example



Your partner/installer:



Responsible for the content: J. Pichler Gesellschaft m.b.H. | Graphics and layout: WERK1  
 Photos: J. Pichler Gesellschaft m.b.H. | Text: J. Pichler Gesellschaft m.b.H.  
 All rights reserved | All photos are symbolic photos | Subject to change without notice | Version: 02/2019 en/P



**J. PICHLER**  
 Gesellschaft m.b.H.  
 office@pichlerluft.at  
 www.pichlerluft.at

**AUSTRIA**  
 9021 KLAGENFURT  
 AM WÖRTHERSEE  
 Karlweg 5  
 T +43 (0)463 32769  
 F +43 (0)463 37548

**AUSTRIA**  
 1100 WIEN  
 Doerenkampgasse 5  
 T +43 (0)1 6880988  
 F +43 (0)1 6880988-13

Sales offices in  
 Slovenia and Serbia.  
 Sales partners in  
 Germany, Switzerland  
 and Italy.