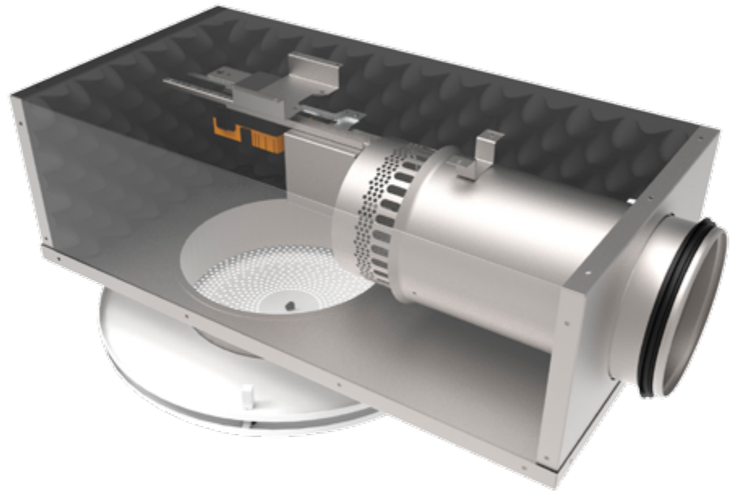
4/S6

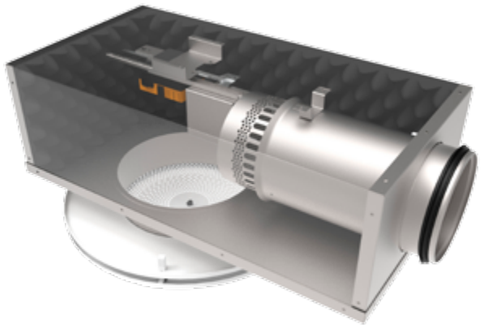
v 3.3 (en)

KLIMAOPREMA VAV SYSTEM

SmartVAV



klimaoprema



Application

Smart VAV box is designed for easy commisioning and integration with other systems. It consists of diffuser, plenum box and VAV damper. Klimaoprema's Smart VAV system features a wide variety of available diffuser types and sizes. In a combination with KOER Codis controller it becomes a powerful tool for modern, precise and energy efficient ventilation.

Features

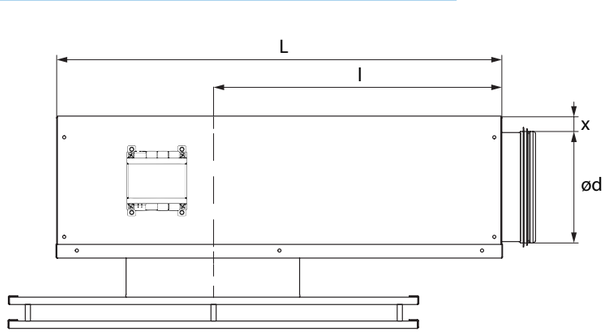
Every Smart VAV box is available with highly efficient acoustic foam insulation.

Available connection diameters: 125, 160, 200, 250mm

Compatible with diffuser plate types:
KDP/ODP, DEV/DEV/DEU, DVF/DVS

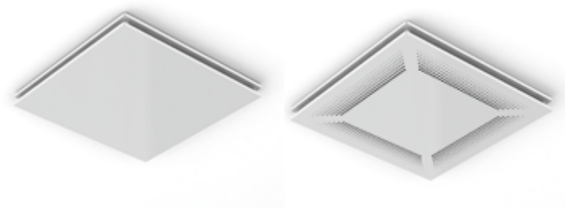
Accurate and reliable measurement of airflow. Removable filter for extended life and simpified maintenance.

Dimensions



Model	D	d	L	l	B	H	h	x
125-160	160	123	643	420	312	175	70	25
160-200	200	158	643	420	337	210	70	25
200-250	250	198	643	420	377	250	70	25
250-315	315	248	643	420	427	300	70	25

Design changes reserved

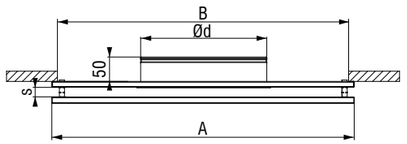


Diffusor plates

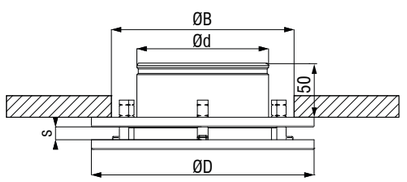
Smart VAV box is designed for standard use with KDP/ ODP diffusers. However, a wide range of Klimaoprema diffuser plates can be installed with additional compact plenum box.

- Ceiling diffuser for room heights from 2,3-4m
- Made out of steel sheet, standard RAL 9010
- Suitable for horizontal supply of cooled air
- Easy face plate removal
- Easy slot width adjustment (10, 20, 30mm)

Dimensions



KDP	A [mm]	ød [mm]	øB [mm]
125	235	125	210
160	295	160	270
200	400	200	375
250	495	250	370
315	600	315	575



ODP	ØD	Ød	ØB
125	210	125	190
160	250	160	227
200	350	200	327
250	450	250	427
315	550	315	527

Ordering key

Air terminal unit	**SmartVAV**	**- MP**	**- øD - ød**	**- Z**	**- V**
Communication **MP** - MP Bus					
Outlet / Inlet diameter					
Insulation					
V* **-** volume flow, min/max [m³/h]					

Ceiling diffuser	**KDP/ODP**	**- A**	**-250**
A - round perforation **E** - without perforation **PP** - square perforation **PPA** - square perforation around perimiter **PE** - full square perforation			
Size (eqvivalent to ød)			

Design changes reserved

Codis C35 VAV

Codis 35 VAV was designed to control Variable Air Volume dampers. Its hardware platform is the same as Codis 35 FC with the addition of a CO2 sensor. Like the FC, it enables higher energy efficiency thanks to a powerful weekly scheduler, “Occupied” operating mode and a digital input for presence sensor connection or passive electromechanical switch (open window) connection.

LCD with touchscreen

Touchscreen and intuitive graphical user interface enable quick and easy adjustment of operating functions and device settings.

Temperature, humidity and CO2 measurement

Built-in sensors guarantee a cost effective solution by eliminating the need for additional installation of multiple external sensing devices.

Comunication

Support for BACNet MSTP communication protocol over RS485 enables easier system integration.

Inputs and outputs

Depending on the application, the Codis 35 can have:

- 3 x 0 - 10V outputs
- 1 x 0 - 10V input (Co2)
- 1 x resistance input for PT1000
- 1 digital input for window contact
- 1 x relay 3A
- RS485 MSTP

Timers and working modes

HVAC systems play a particularly significant role in obtaining energy efficiency in buildings. Thus, Codis’ easy week timer setup and different working modes (Comfort, Pre-comfort, Economy, Frost protection) are primarily designed to optimize the building energy consumption.

Indoor air quality

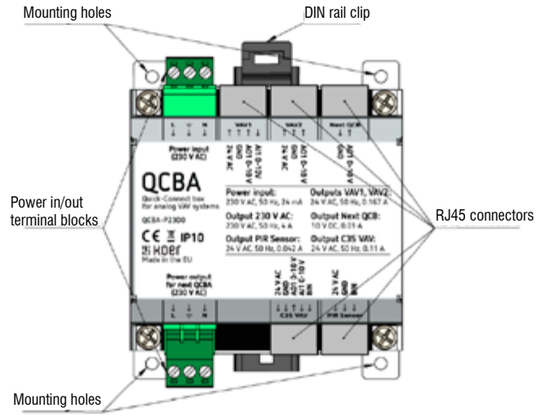
A common problem caused by poor indoor air quality control is under-ventilating or over-ventilating the user space which leads to poor indoor air quality or unnecessary increased operating costs. With a built-in VOC sensor and input for CO2 sensor, Codis 35 helps control ventilation more efficiently by demanding just the right amount of fresh air needed for optimal indoor conditions.

Ordering key

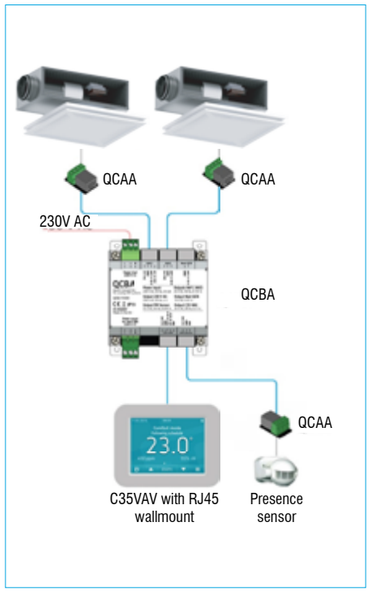
Damper type	C35 - VAV	- H	-B	-RS
Built in sensor **C** - CO2 sensor **H** - Humidity sensor				
Protocol **B** - BACNet **M** - MODBUS*				
Network interface **RS** - RS485 **W** - Wi-Fi*				

Quick Connect Box (QCB)

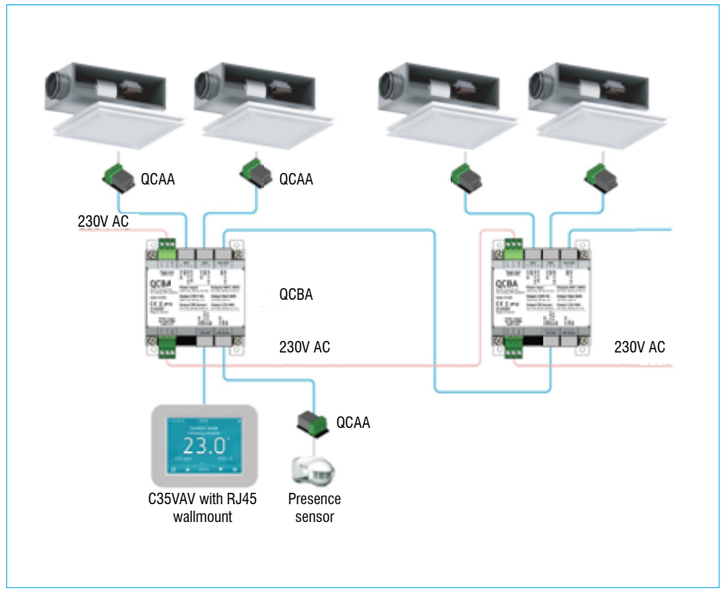
QCBA is an electronic device which dramatically reduces wiring and installation time of SmartVAV’s and the Codis C35 room controller. It supplies 24V AC power for up to two SmartVAV actuators, one C35 room controller and one PIR sensor. it enables the installer to connect to VAV actuators, C35 and PIR sensor together using standard straight CAT5 Ethernet cables instead of screw type terminal blocks. C35 communicates with VAV actuators using the analog 0-10V signal. The A01 and AI1 markings on the device casing identify the connectors over which this analog communication is taking place.



Wiring example with Quick Connect Box (QCB)



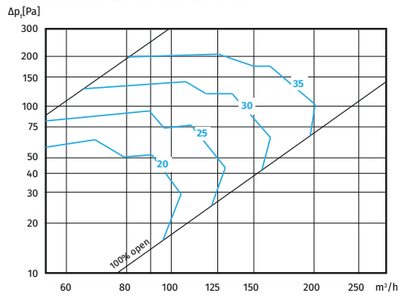
QCBA wiring example



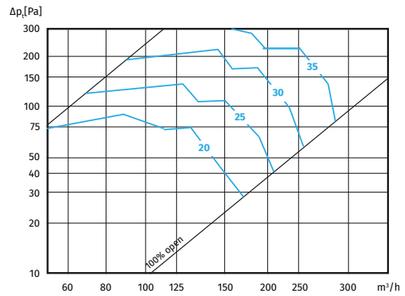
QCBA wiring example - cascading QCBAs in one zone

Pressure drop

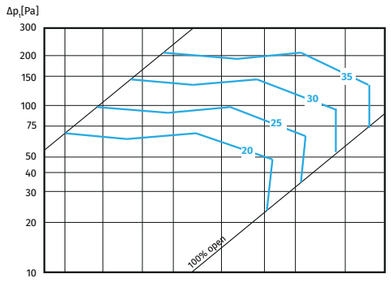
SmartVAV-125-160 with KDP-E-160



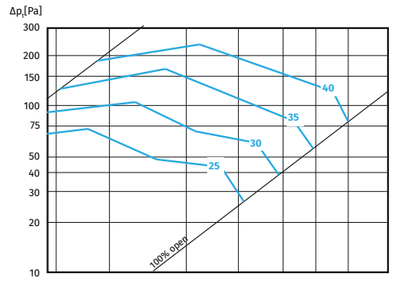
SmartVAV-160-200 with KDP-E-200



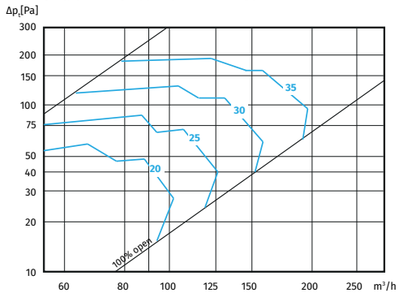
SmartVAV-200-250 with KDP-E-250



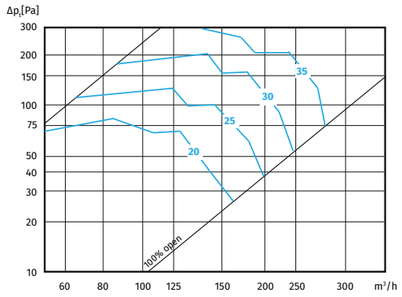
SmartVAV-250-315 with KDP-E-315



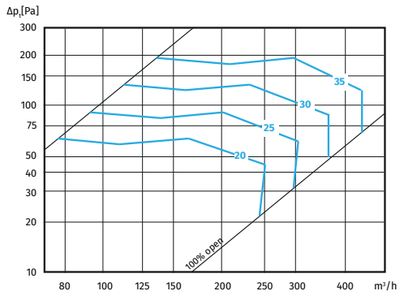
SmartVAV-125-160 with KDP-PE-160



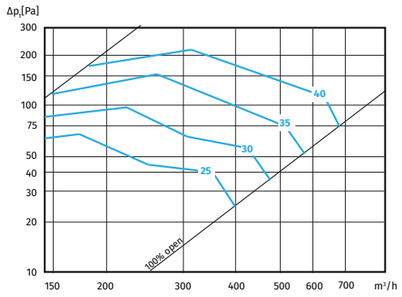
SmartVAV-160-200 with KDP-PE-200



SmartVAV-200-250 with KDP-PE-250



SmartVAV-250-315 with KDP-PE-315



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