



CAD COMPACT

5153136700 - CAD-COMPACT 900 ADVANCED N8



Heat recovery units with high-efficiency counterflow aluminium plate heat exchanger (up to 88%) certified by Eurovent mounted in a galvanised steel double-walled enclosure with internal thermo-acoustic fireproof insulation (A1/M0) made of mineral wool 25mm mm. thickness.

Round inlet and outlet couplings. Only available in horizontal version.

Minimum outdoor air temperature -10°C. For lower temperatures it is necessary to use preheating batteries located in the suction of the outside air.

Plug fans with backward impeller blades. Single-phase EC motors with integrated electronic protection. IP44, Class B Low pressure drop F7 filters (ePM1 70%) in supply air side and M5 filters (ePM10 50%) in extract air side. It is possible to mount a second filter inside the unit (Delivered as accessory).

Control

Integrated control, located inside the electrical box and wired to all the components (fans, bypass, filter clogging detectors, temperature probes, etc.). Includes remote touch panel (wired). Main functionalities: Manual and automatic fan control (VAV, COP and CAV modes), by-pass management (free-cooling and defrost), control of external coils, weekly timer, alarm supervision. Modbus communication.

Applications

Air renewal in commercial premises, offices, hotels, public buildings, schools.

Requested working points

	Supply	Extract
Airflow	483 m ³ /h	483 m ³ /h
External static pressure	150 Pa	150 Pa
Altitude	0 m	
Air density	1,2 kg/m ³	
Inlet temperature/%RH in winter	-10/90 °C/%	20/50 °C/%
Inlet temperature/%RH in summer	32/45 °C/%	26/50 °C/%

Working points

	Supply	Extract
Airflow	483 m ³ /h	483 m ³ /h
External static pressures	150 Pa	150 Pa
	Unit	
SFP EN 13779	1,43 W/l/s	
Weight	85,5 kg	

Filter

	Supply	Extract
Airflow	483 m ³ /h	483 m ³ /h
EN 779 Filter class	F7	M5
ISO 16890 class	ISO ePM1 55%	ISO ePM10 50%
energy class	A	B
Height	315 mm	315 mm
Width	391 mm	391 mm
Depth	48 mm	48 mm
Quantity	1	1
Initial pressure drop	24 Pa	19 Pa
Mid-life pressure drop	48 Pa	38 Pa
Max. for replacement pressure drop	72 Pa	57 Pa
Front speed	1,1 m/s	1,1 m/s

Filters Summary

	Supply	Extract
Total Design Filters Pressure Drop	24 Pa	19 Pa



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Heat exchanger

	Supply	Extract
Airflow	483 m ³ /h	483 m ³ /h
Type of heat exchanger	plate heat exchanger	

Winter - Air Inlet

Temperature	-10 °C	20 °C
Relative humidity	90 %	50 %

Winter - Air Outlet

Temperature	15,5 °C	0,2 °C
Relative humidity	13 %	99 %
Pressure drop	68 Pa	68 Pa
Thermal Efficiency	85 %	
Dry efficiency (EN308 / Balanced massflows)	76 %	
Sensible Heat	4,61 kW	
Latent Heat	0 kW	
Total power	4,61 kW	
Condensation	2 kg/h	

SUMMER

Summer - Air Inlet

Temperature	32 °C	26 °C
Relative humidity	45 %	50 %

Summer - Air Outlet

Temperature	27,3 °C	30,6 °C
Relative humidity	59 %	38 %
Pressure drop	68 Pa	68 Pa
Thermal Efficiency	78 %	
Dry efficiency (EN308 / Balanced massflows)	77 %	
Sensible Heat	0,72 kW	
Latent Heat	0 kW	
Total power	0,72 kW	
Condensation	0 kg/h	

Fan

	Supply	Extract
Airflow	483 m ³ /h	483 m ³ /h
Motor type	EC	EC
External static pressure (unit)	150 Pa	150 Pa
Total static pressure (fan)	242 Pa	237 Pa
Fan speeds	1960 rpm	2021 rpm
Control voltage	6,6 V	6,9 V
Frecuencia control ventilador	0 Hz	0 Hz
Absorbed power per fan	0,090 kW	0,100 kW
Absorbed current per fan	0 A	0 A
Total absorbed current	0 A	0 A
Total absorbed power	0,090 kW	0,100 kW
SFPv	0,69 W/l/s	0,74 W/l/s

Observations

The unit system effect is taken into account in the fans performances



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Acoustic data

Supply - Lw

63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz	dB(A)	
56	56	50	44	43	39	35	35	49	Outdoor air
67	73	66	57	59	60	57	53	66	Supply

Supply - LpA @ 1m

63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz	dB(A)	
19	29	30	30	32	29	25	22	38	Outdoor air
30	46	46	43	48	50	47	41	55	Supply

Extract - Lw

63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz	dB(A)	
56	56	50	44	44	40	36	35	49	Extract
68	73	66	58	60	60	58	54	67	Exhaust

Extract - LpA @ 1m

63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz	dB(A)	
19	29	31	30	33	30	26	23	38	Extract
31	46	47	44	49	51	48	42	56	Exhaust

Surrounding - Lw

63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz	dB(A)	
63	65	58	43	36	34	35	33	53	Surrounding

Surrounding - LpA @ 1m

63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz	dB(A)	
26	38	38	29	26	24	25	21	42	Surrounding

Sound pressure at 1m. 42 dB(A), isolated source / spherical field (Q=1)



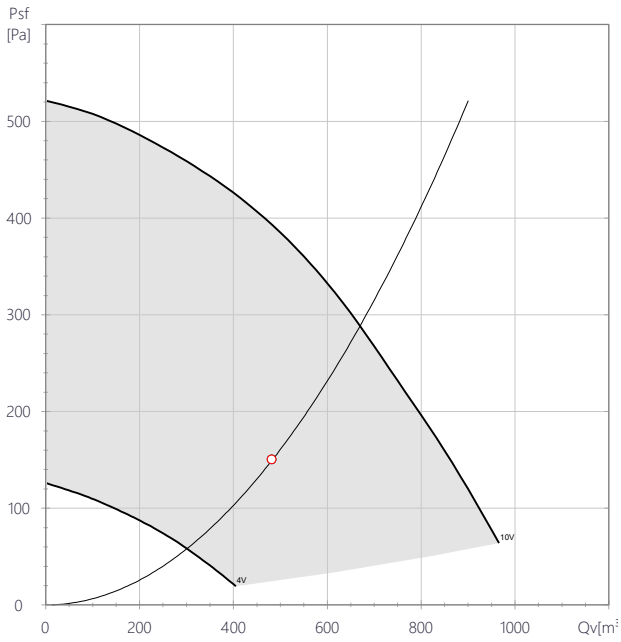
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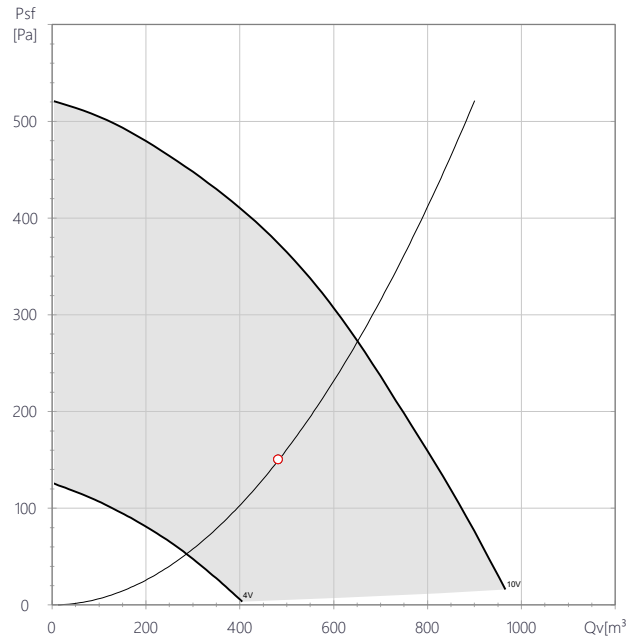


Performance Chart

Supply



Extract



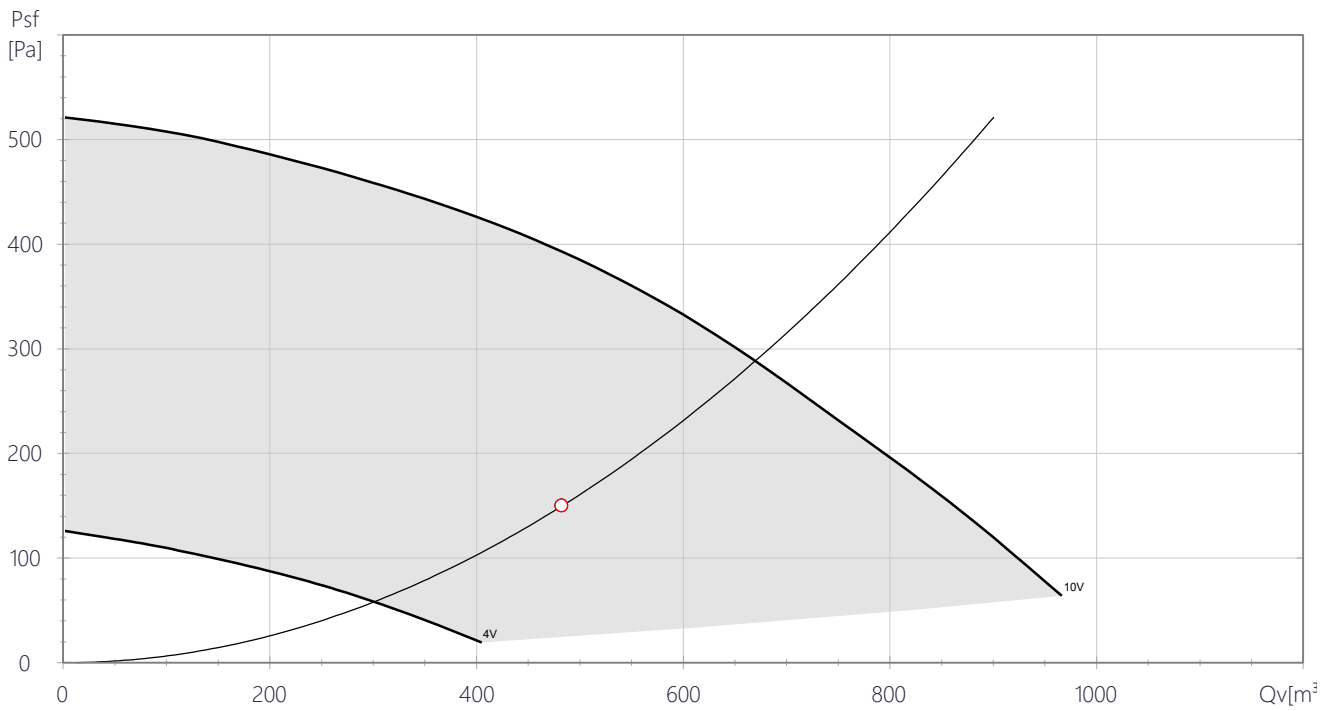
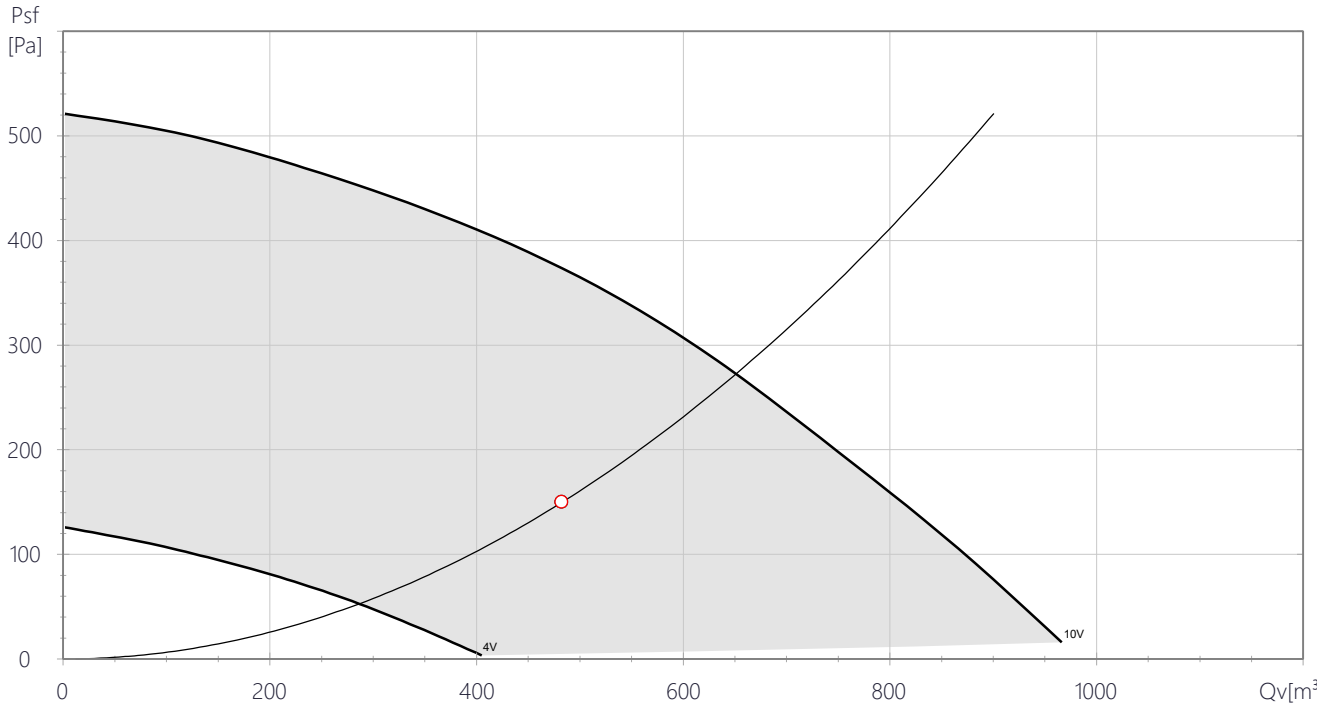


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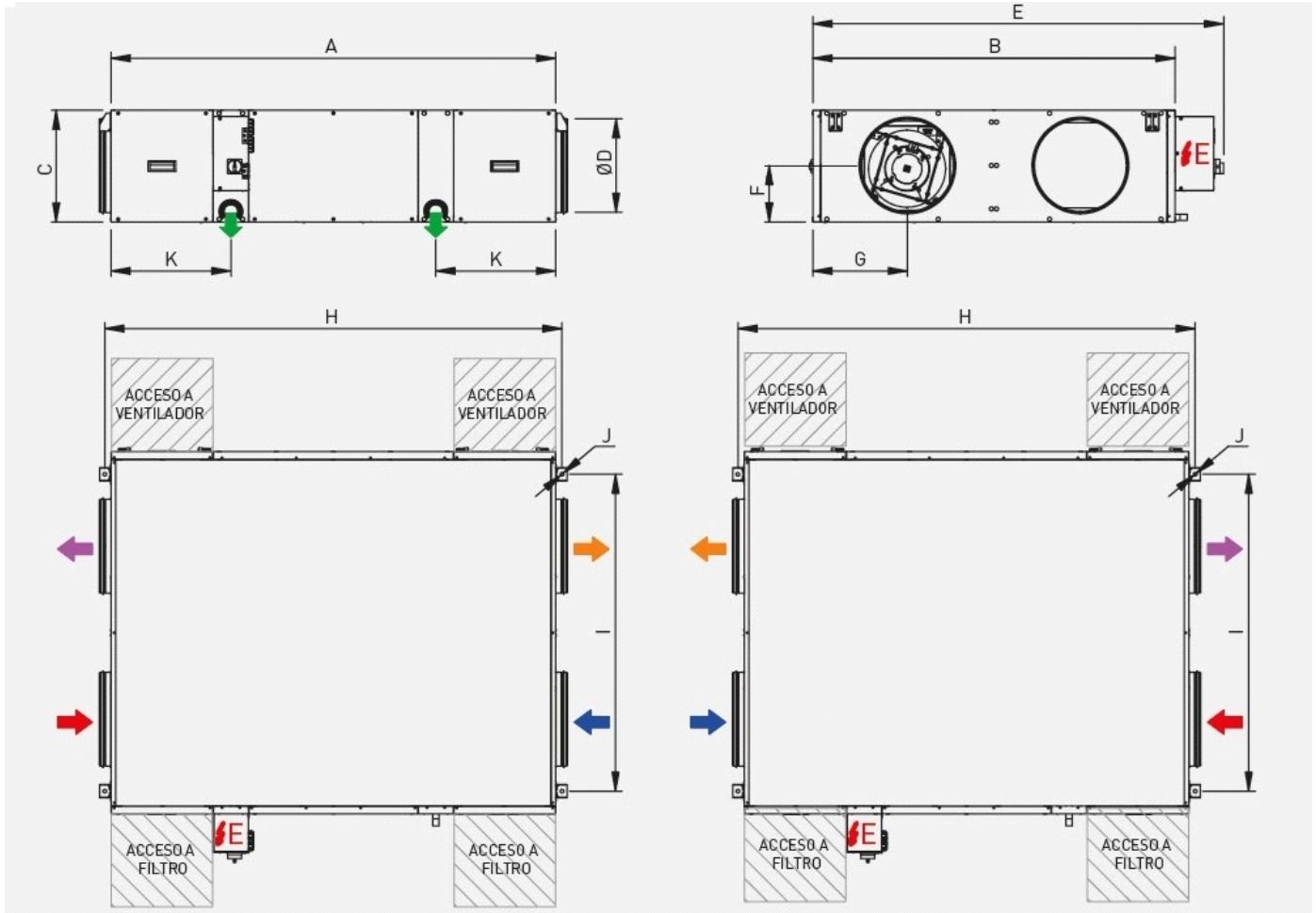
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Performance Chart



Dimensions and weights



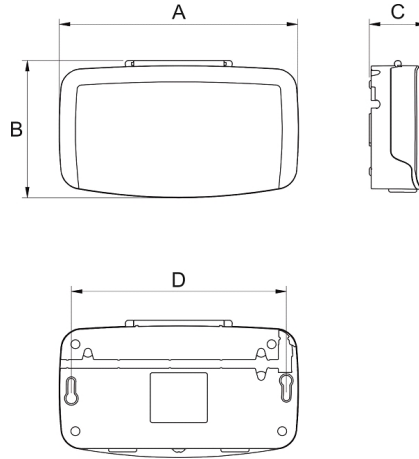
A	B	C	D	E	F	G	H	I	J	K
1345	843	376	315	1007	190	225	1388	691	12	328

Accessories

5800015600 - REC.AIRSENS RF



Intelligent radiofrequency receiver that can be paired up to 4 AIRSENS RF emitter devices. Relay and analog 0-10V output signal to control ventilation units. The receiver output will be the most unfavorable control signal received among the paired AIRSENS RF emitters.



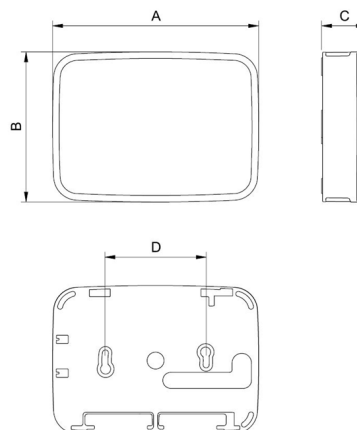
Dimensions

A	B	C	D
134	77	32	121

5416071400 - AIRSENS RF TEMP



Intelligent sensor that makes temperature readings and sends a wireless radiofrequency signal to the REC.AIRSENS RF receiver (required). Designed to create direct demand control ventilation systems without intermediate control installation. AirSens can be linked with AC, ECOWATT (EC) fans or VFTM frequency drive. Main features: • 4 working modes: - Relay output - 0-10V output - 2-10V output - Full Modbus communication control (wired) • Adjustable set point. • IAQ level indicator (3-LED light diffuser). • Adjustable 3-LED light diffuser intensity.



Dimensions

A	B	C	D
122	89	26	60



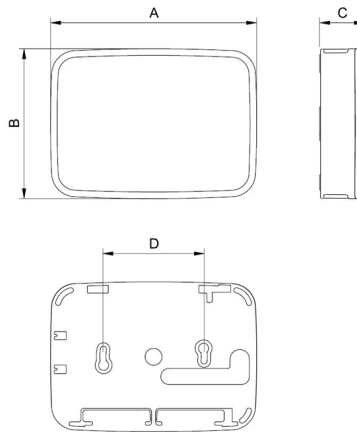
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5416071300 - AIRSENS TEMP



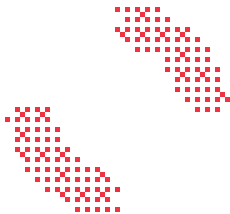
Intelligent sensor that makes temperature readings and sends a wired control signal. Designed to create direct demand control ventilation systems without intermediate control installation. AirSens can be linked with AC, ECOWATT (EC) fans or VFTM frequency drive. Main features: • 4 working modes: - Relay output - 0-10V output - 2-10V output - Full Modbus communication control • Adjustable set point • IAQ level indicator (3-LED light diffuser) • Adjustable 3-LED light diffuser intensity.



Dimensions

A	B	C	D
122	89	26	60

5407035000 - KIT PIES CAD-COMPACT



WEB

Accessory code

PRODUCTOACCESORIOCOMERICAL

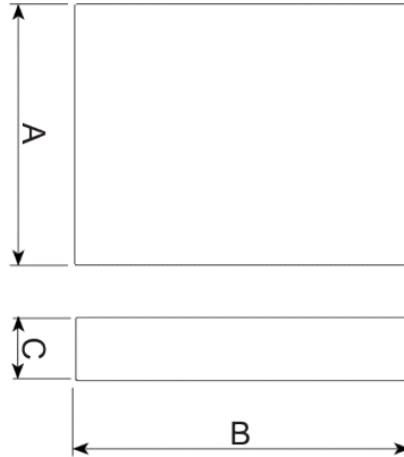


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5401221000 - SCO2-A 0/10V

SCO2-A: Ambient CO2 and temperature sensor.



Dimensions

B	H	T
11	130	65

5401221100 - SCO2-G 0/10V

Sensors for the duct that, combining with a control, allow optimizing the energy of the ventilation system .



5416731200 - SHT-G 0/10V



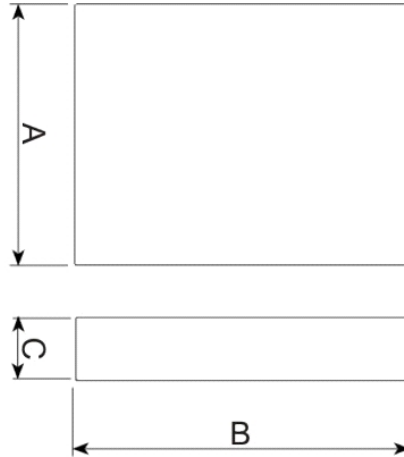


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5407004100 - PRESOSTATO DPS 2-30

Differential pressure switch to control the fan running and the filter clogging up. Protection class: IP54. Can be used outside. From 20 to 300 Pa.



Dimensions		
A	B	C
80	110	57

5416049800 - TG-K NTC 4M



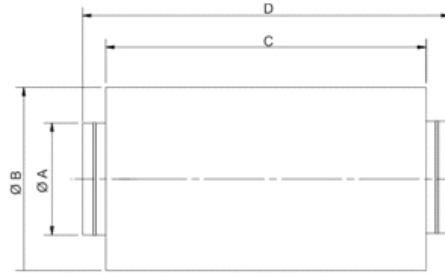


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5211813000 - SIL-315

Silencer to be installed either at the inlet or outlet of the fan.

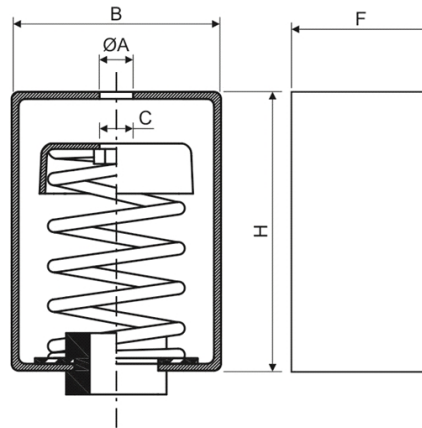


Corrections							
63	125	250	500	1k	2k	4k	8k
-0	-1	-4	-10	-12	-7	-4	-4

Dimensions			
A	B	C	D
315	415	600	700

5130864300 - TM-75

Metallic anti-vibration hangers with open holes for affixing to ceiling



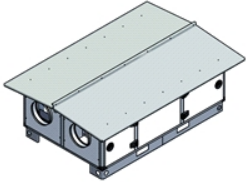
Dimensions				
B	F	H	A	C
75	55	100	12	M8



CAD COMPACT

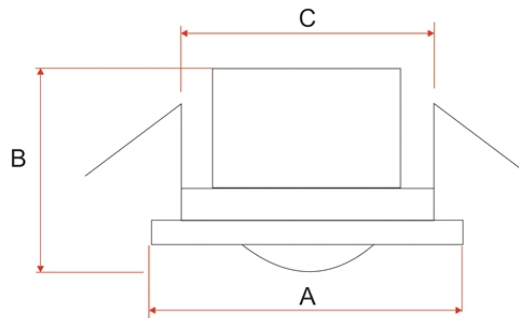
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5407034400 - TPP CAD-COMPACT 900



5416130200 - CPTA-E N

Presence sensor for ventilation control.



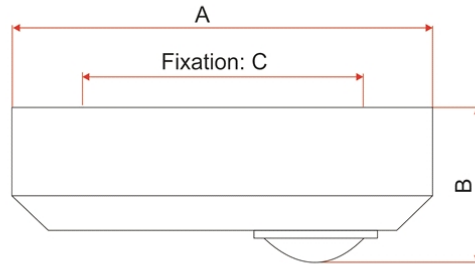
Dimensions

A	B	C
80	62	80

5416130100 - CPTA-S N



Presence sensor for ventilation control.



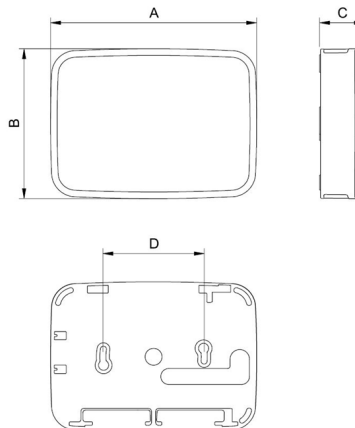
Dimensions

A	B	C
94	40.5	60/80

5416025200 - AIRSENS RF CO2



Intelligent sensor that detects CO2 concentration (NDIR) and sends a wireless radiofrequency signal to the REC.AIRSENS RF receiver (required). Designed to create direct demand control ventilation systems without intermediate control installation. AirSens can be linked with AC, ECOWATT (EC) fans or VFTM frequency drive. Main features: • 4 working modes: - Relay output - 0-10V output - 2-10V output - Full Modbus communication control (wired) • Adjustable set point. • IAQ level indicator (3-LED light diffuser). • Adjustable 3-LED light diffuser intensity.



Dimensions

A	B	C	D
122	89	26	60



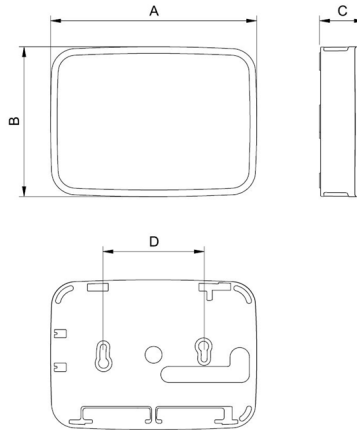
CAD COMPACT

5153136700 - CAD-COMPACT 900 ADVANCED N8

5416025400 - AIRSENS RF RH



Intelligent sensor that detects relative humidity concentration and sends a wireless radiofrequency signal to the REC.AIRSENS RF receiver (required). Designed to create direct demand control ventilation systems without intermediate control installation. AirSens can be linked with AC, ECOWATT (EC) fans or VFTM frequency drive. Main features: • 4 working modes: - Relay output - 0-10V output - 2-10V output - Full Modbus communication control (wired) • Adjustable set point. • IAQ level indicator (3-LED light diffuser). • Adjustable 3-LED light diffuser intensity.



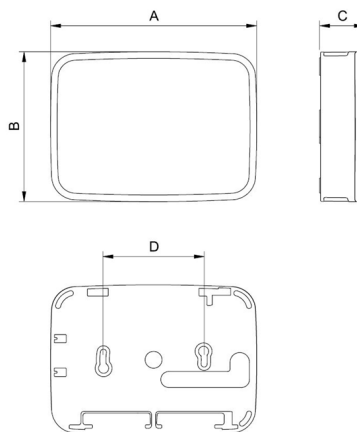
Dimensions

A	B	C	D
122	89	26	60

5416025300 - AIRSENS RF VOC



Intelligent sensor that detects volatile organic compounds (VOC) concentration and sends a wireless radiofrequency signal to the REC.AIRSENS RF receiver (required). Designed to create direct demand control ventilation systems without intermediate control installation. AirSens can be linked with AC, ECOWATT (EC) fans or VFTM frequency drive. Main features: • 4 working modes: - Relay output - 0-10V output - 2-10V output - Full Modbus communication control (wired) • Adjustable set point. • IAQ level indicator (3-LED light diffuser). • Adjustable 3-LED light diffuser intensity.



Dimensions

A	B	C	D
122	89	26	60



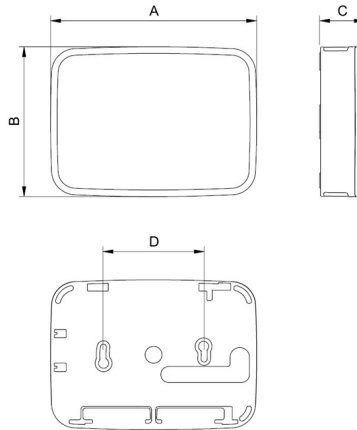
CAD COMPACT

5153136700 - CAD-COMPACT 900 ADVANCED N8

5416845500 - AIRSENS RH



Intelligent sensor that detects relative humidity and sends a wired control signal. Designed to create direct demand control ventilation systems without intermediate control installation. AirSens can be linked with AC, ECOWATT (EC) fans or VFTM frequency drive. Main features: • 4 working modes: - Relay output - 0-10V output - 2-10V output - Full Modbus communication control • Adjustable set point • IAQ level indicator (3-LED light diffuser) • Adjustable 3-LED light diffuser intensity.



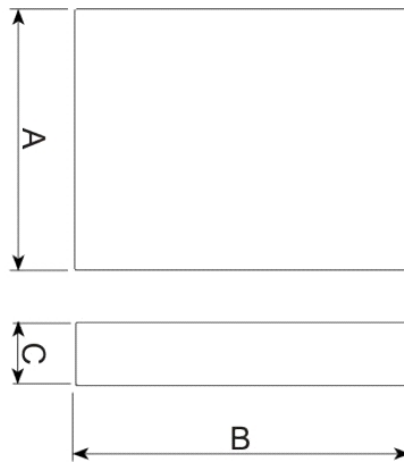
Dimensions

A	B	C	D
122	89	26	60

5416844700 - TDP-PI



TDP-D: Pressure sensor, with display. Enables you to control the pressure in the fan inlet.

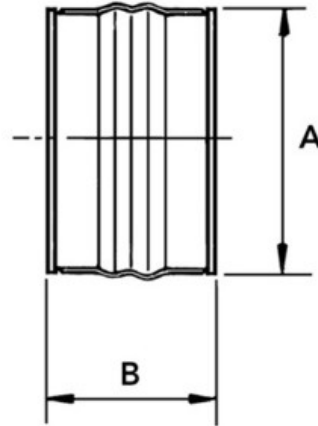


Dimensions

B	H	T
11	130	65

5138920900 - ACOPEL F400-315/160 N

FLEXIBLE CONNECTOR



Dimensions

A	B
323	160

5211783300 - MBE-315/30T-R 2/400V

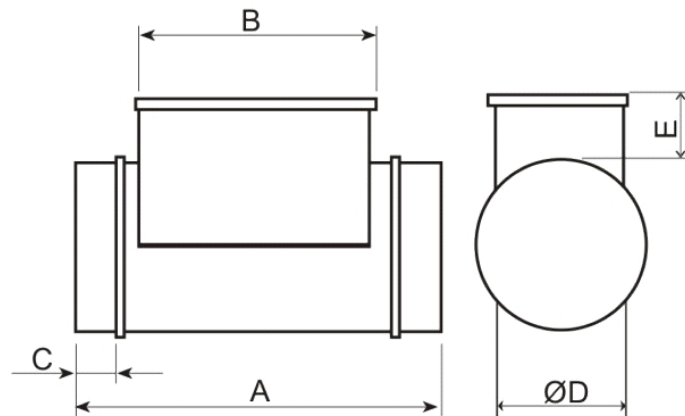
Electric Heater Battery



WEB

Accessory code

PRODUCTOACCESORIOCOMERICAL

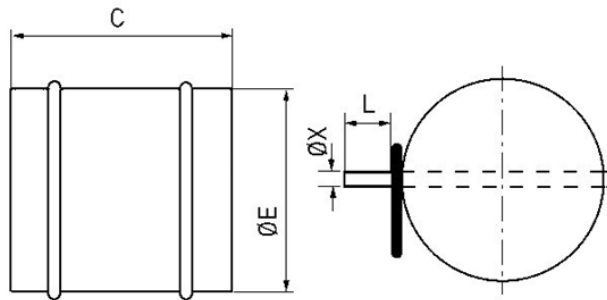


Dimensions

A	B	C	D	E
400	285	50	315	105

5416834400 - REMV-315

Damper for either manual or actuator control.

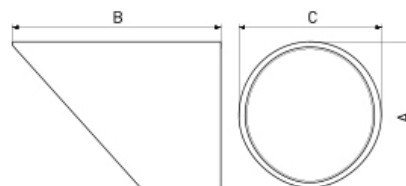
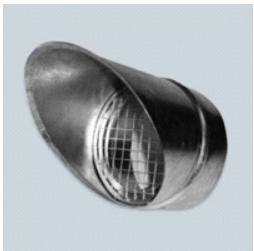


Dimensions

E	C	X	L
315	300	12	100

5137910600 - APC-315

Protection guards for direct connection to the inlet-outlet fan flange connector.



Dimensions

A	B
315	342



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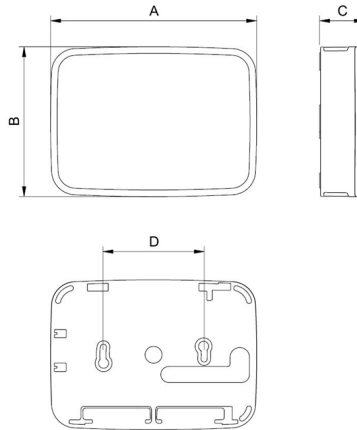
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5416845300 - AIRSENS CO2



Intelligent sensor that detects CO₂ concentration (NDIR) and sends a wired control signal. Designed to create direct demand control ventilation systems without intermediate control installation. AirSens can be linked with AC, ECOWATT (EC) fans or VFTM frequency drive. Main features: • 4 working modes: - Relay output - 0-10V output - 2-10V output - Full Modbus communication control • Adjustable set point. • IAQ level indicator (3-LED light diffuser). • Adjustable 3-LED light diffuser intensity.



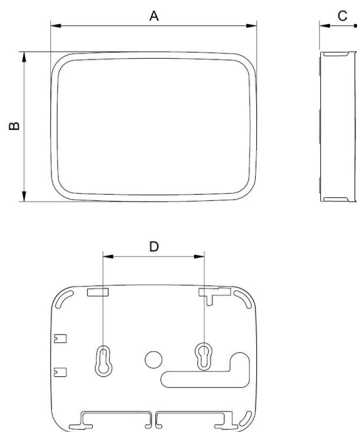
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5416845400 - AIRSENS VOC



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Dimensions

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ErP Data

Ecodesign

Commission regulation (EU) No. 1253/2014 of July 2014

CAD COMPACT

Information requirements (Annex V)

Ecodesign

Commission regulation (EU) N°1253/2014 of July 2014

Information requirements (Annex V)

Product description

CAD-COMPACT 900 ADVANCED N8

Manufacturer's Info

S&P

Identifier

-

Typology

NRVU bidirectional

Drive

VSD

Type of HRC

Recuperative

Thermal efficiency (%)

75,3

Qnom (m3/s)

0,22

Pelec (kW)

0,44

SFPint (W/m3/s)

1133

Face velocity (m/s)

1,8

$\Delta ps,ext$ (Pa)

150

$\Delta ps,int$ (Pa)

199

$\Delta ps,add$ (Pa)

NA

Static efficiency fans (%)

35,2

External leakage rate (%)

3

Internal leakage rate (%)

3

Filter performance

NA

Filter warning

Differential pressure switch

LWA dB(A)

58

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