

# ADRIATIC

Active climate beam with cooling, heating and ventilation



## QUICK FACTS

- ADRIATIC is a climate beam with integrated recirculated air opening in the bottom.
- Climate beam with cooling, heating and ventilation
- Designed for suspended installation from hangers or mounting directly against the ceiling.
- Stylish design section in two versions
- Obtain variants with high output that can cope with varying needs
- Factory-fitted steering control and accessory (optional).
- Adjustable k-factor for wide range of air flows.
- Service-friendly with hinged design section for easy accessibility.
- A connection casing is available as an option to hide ventilation ducts and water pipes.
- Simple adjustment on site
- Equipped with ADC and adjustable slot control with a knob for simple adjustment on site.
- Standard colour White RAL 9003
  - 5 alternative standard colours
  - Other colours upon request

Variant		Supply air			Performance	
Size	Air connection	Pa*	l/s	m <sup>3</sup> /h	Total cooling capacity [W]**	Sound level [dB(A)] ***
1.2	125	50	14	50.4	518	<20
1.2	125	50	21	75.6	596	24
1.8	125	50	10	36	539	<20
1.8	125	50	20	72	796	<20
1.8	125	50	31	111.6	934	25
2.4	125	50	14	50.4	788	<20
2.4	125	50	30	108	1101	21
2.4	125	50	44	158.4	1236	28
3.0	125	50	17	61.2	946	<20
3.0	125	50	34	122.4	1298	20
3.0	125	50	52	187.2	1467	30

\*Total pressure duct (Pa)

\*\*Air:  $\Delta T_{air}=7K$ , Water:  $\Delta T_{mk}=8.5K$ , water flow=0.05 l/s for 1.2 m and 1.8 m, water flow=0.1 l/s for 2.4 m and 3.0 m

\*\*\*Including -4dB room attenuation

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# Technical description

## Version

The new generation of Adriatic is a closed, active climate beam with two-way air discharge. It has variable air flow control, which makes sizing easier. The new Adriatic also delivers greater flexibility and simplicity during future refurbishments and customisations.

The increased cooling capacity enables a lower duct pressure or that a higher cooling water temperature can be used, which saves energy and also improves room comfort further.

The products are equipped with ADC air deflectors and Swegon's unique slot adjustment.

## Variants

### Sizes:

- 1.2, 1.8, 2.4 and 3.0 m

With its high capacity, the new Adriatic can often replace another, larger product.

### Versions:

- Prisma, design section with a more traditional shape
- Ellips, design section with a softer, rounder shape

### Functions:

- Cooling and ventilation
- Cooling, heating and ventilation

## Installation

The ADRIATIC is designed for suspended installation from hangers or mounting directly against the ceiling. A connection casing is also available as an accessory in cases where you want to hide ventilation ducts and water pipes.

## Material

The casing is made of pre-painted sheet metal.

The design plate on the Prisma is pre-painted sheet metal, and for the Ellips it is aluminium and sheet metal.

The coil is made of copper and aluminium.

The connection casing is made of pre-painted sheet metal.

## Applications

The ADRIATIC is well-suited for use in all types of rooms with waterborne climate cooling, such as:

- Offices and conference rooms
- Hotels
- Classrooms
- Data processing rooms
- Bank premises
- Restaurants
- Shops



Figure 1. ADRIATIC with design section Prisma.

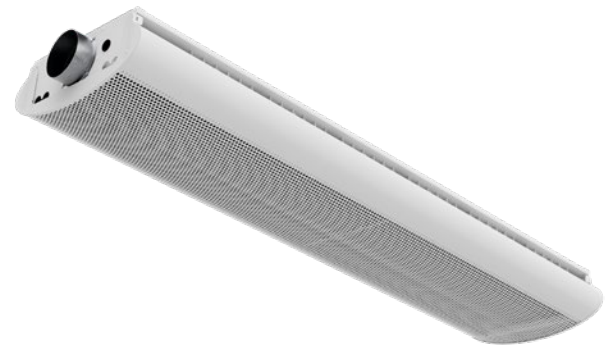


Figure 2. ADRIATIC with design section Ellips.



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## Advantages of the ADRIATIC

- The ADRIATIC has an attractive design and extremely low installation height that fits in well in all types of room decor.
- Since the ADRIATIC is a closed climate beam with integrated recirculated air opening in the face plate, it can be mounted directly against the ceiling without regard to circulation air slots.
- The ADRIATIC combines the superior air discharge properties of ceiling units with the stringent design requirements of suspended climate beams. The discharge of air provides the optimal Coanda effect that is always the objective when it is desirable to maintain low air velocities in the occupied zone.
- The connection components are concealed in a simple manner by an attractive connection casing. The casing is installed after the climate beam has been suspended and connected.
- The product provides a unique opportunity to check and adjust the air discharge thanks to ADC and Swegon's slot adjustment as standard.

## Design

ADRIATIC is available in two designs, Prisma and Ellips. The different designs provide a choice to fit in with the interior design in the room. The covers for concealing water and air pipes, if required, are available as optional accessories.

## Range of products held in stock

As Adriatic is always supplied with a cooling/heating coil, even in cases when only a cooling coil has been ordered, the stocked product covers both cooling and cooling/heating.

ADRIATIC d 1.8-A/B-P-STOCK

ADRIATIC d 2.4-A/B-P-STOCK

ADRIATIC d 3.0-A/B-P-STOCK

## Colour

The product, the connection casing and the surface mounted assembly piece are painted as standard in RAL 9003 standard colour, white, gloss ratio  $30 \pm 6\%$ , but can also be ordered in the following colours.

RAL 7037 Grey, gloss ratio 30-40%

RAL 9010 White, gloss ratio 30-40%

RAL 9005 Black, gloss ratio 30-40%

RAL 9006 White, gloss ratio 70-80%

RAL 9007 Grey, gloss ratio 70-80%

## Special types

On request, the product, the connection casing and the surface mounted assembly piece can also be supplied painted in an optional colour or relief finish paint.

For further details about special types, get in touch with your nearest Swegon representative.

## Function

The climate beam uses the supply air to operate the cooling and heating function of a central air handling unit and therefore does not include an integrated fan. This gives very quiet operation and minimal maintenance requirements.

The distribution air is distributed from two sides of the unit and uses a large part of the ceiling to spread the air and ensure comfort in the occupied zone.

Adriatic has variable k-factor setting and a large air flow range. The product is available as a CAV product with fixed k-factor. It can also be ordered as a VAV and DCV variant from the factory, fitted with control or actuator for air flow control (0-10 V) (see ADRIATIC VAV and WISE Adriatic).

The Adriatic has variable control with a knob for rapid setting of the CAV product. It is also possible to set an asymmetrical air flow in order to adapt to different room types and refurbishments.

The integrated slot control of the air flow means that the product can retain a pressure internally and at the same time supply air with the correct throw lengths, even at low flows.

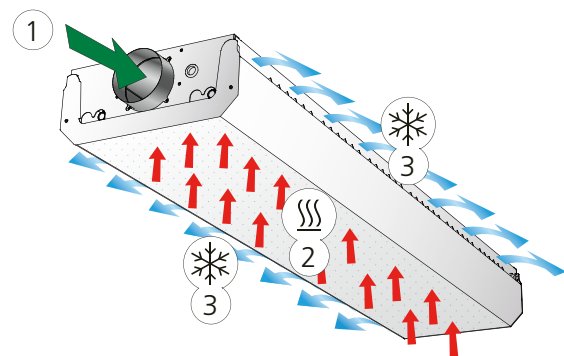


Figure 3. Cooling and supply air function.

1 = Primary air

2 = Induced room air

3 = Primary air mixed with cooled room air

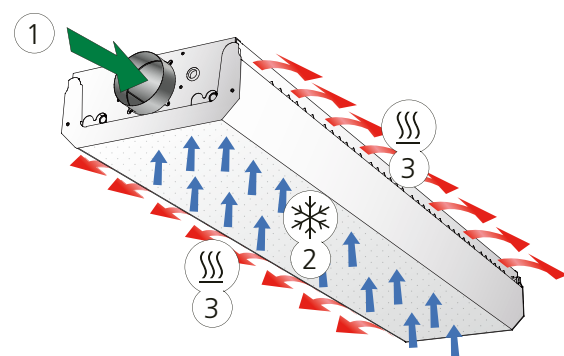


Figure 4. Heating and supply air function.

1 = Primary air

2 = Induced room air

3 = Primary air mixed with heated room air

## Flow distribution

Swegon's built-in airflow distributor can be set to three different positions and makes it possible to check the airflow.

- ADRIATIC provides many opportunities with air settings.
- shorter delivery time because the stocked products have a substantial working range.
- it is simple to change the air flow if changes are made in the installation.
- asymmetrical air flow (e.g. 70/30%) is simple to set on the product during installation.
- with ADC air deflectors, there is very good potential to affect air distribution patterns and air motion.

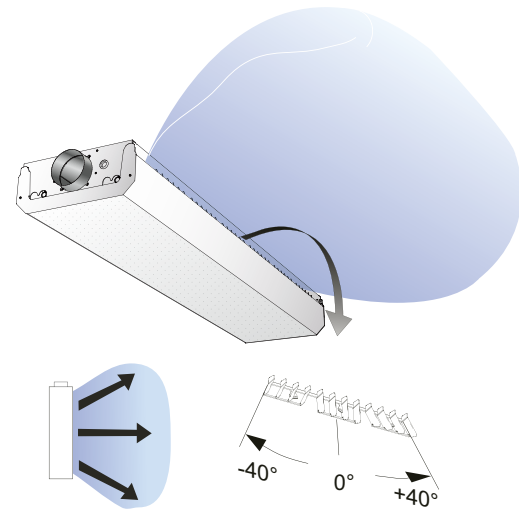


Figure 6. Possible settings for the ADC, Fan-shape.

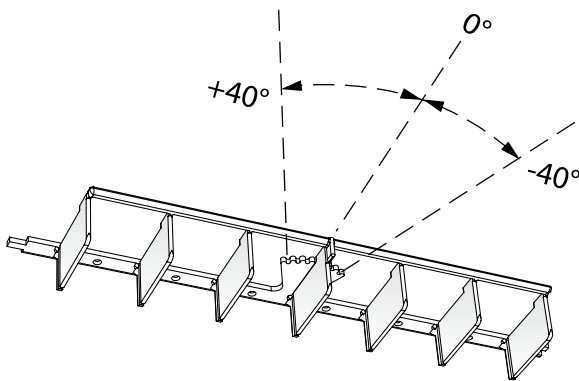


Figure 5. Swegon ADC air deflectors.

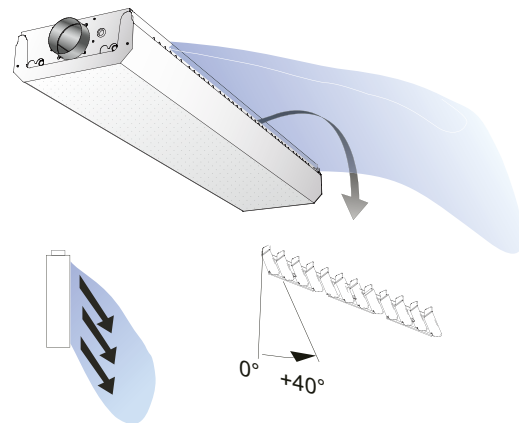


Figure 7. Possible settings for the ADC, X-shape.

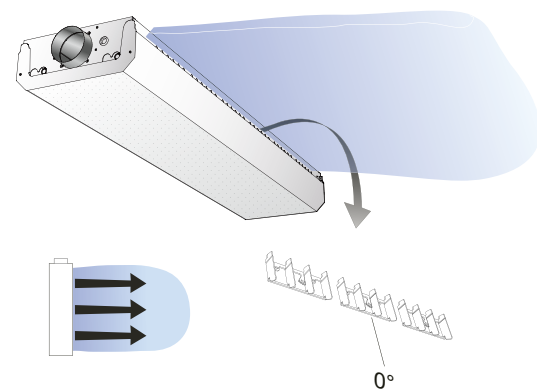


Figure 8. Possible settings for the ADC, straight shape.

# Installation

## Suspension:

The new Adriatic is fitted with a threaded blind rivet in each corner for simple installation with threaded rods in the ceiling.

The units are delivered without installation accessories. If installation accessories are required, they can be ordered separately.

Installation accessories:

SYST MS-M8 is available for suspended installation from hangers.

ADRIATIC d-T-MD-4S is available for installing the beam directly against the ceiling.

## Folding the design section

The unit is supplied with a lever at each end of one long side for simple folding of the design section and to access e.g. control equipment. When folding, one long side is opened and the design section is then suspended from the opposite long side.

## Connection casing

The connection casings are available in several lengths and several selectable colours, and are ordered separately (ceiling brackets included).

### Connection to wall

Connection casing that is mounted in the extended section of the climate beam and beyond to a wall designed for concealing pipe and duct connections.

### Connection to ceiling

Connection casing with end connection panel is mounted in the extended section of the climate beam and beyond to a ceiling designed for concealing pipe and duct connections.

Note: Min. 3xØ before elbow.

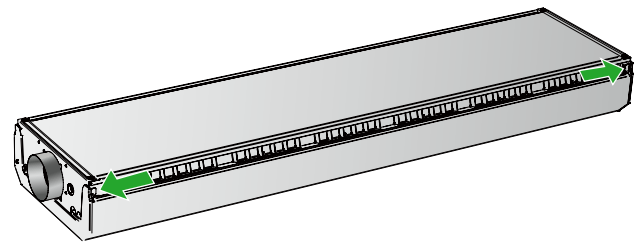


Figure 9. ADRIATIC Prisma with levers for simple folding of the design section.

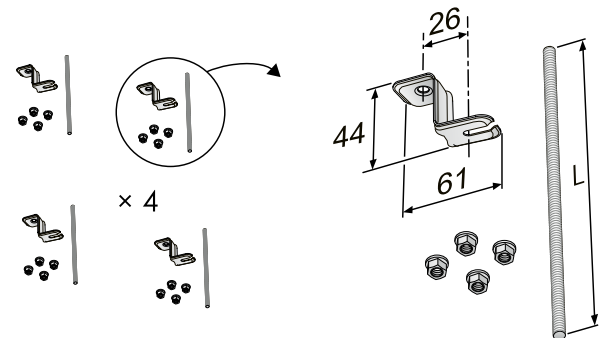


Figure 10. Installation accessory SYST MS M8-1, ceiling mount and threaded rod.

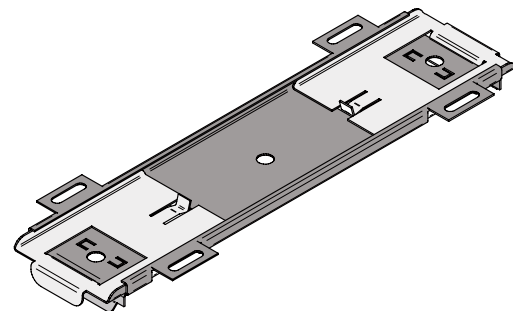


Figure 11. Installation accessory ADRIATIC d-T-MD-4S, for mounting directly against the ceiling.

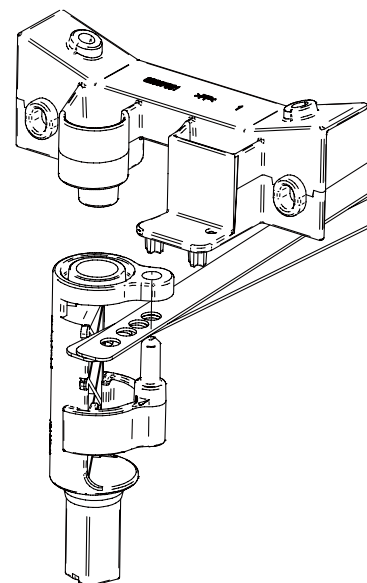


Figure 12. It is also possible to e.g. lock one side.

## K-factor setting

The k-factor can easily be set or adjusted using the knob, which is located on the underside of the product and which can be accessed when the design section is opened.

**Example: To achieve the required flow of 30 l/s at 100 Pa, requires k-factor 3**

- A:** Find the product's length from the left-hand side of the k-factor table.
- B:** Read the required k-factor on the row in question.
- C:** Follow the vertical row and read the number of degrees at the bottom.
- D:** Loosen the screw located in the knob's groove. Turn the knob until the marking "D" reaches the required number of degrees.
- E:** In the example from the table for an ADRIATIC d with length 1.8, k-factor 2, turn the knob to 62°.

### K-factor table

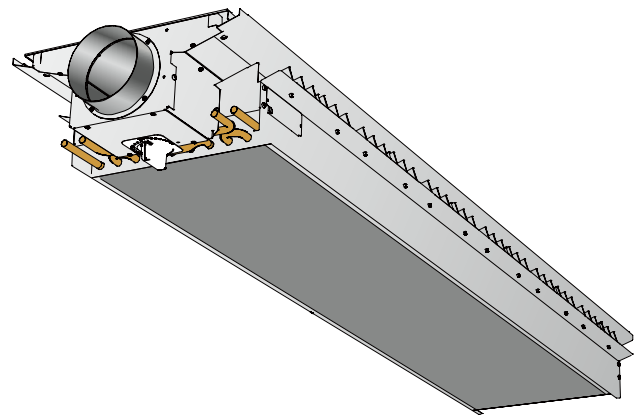
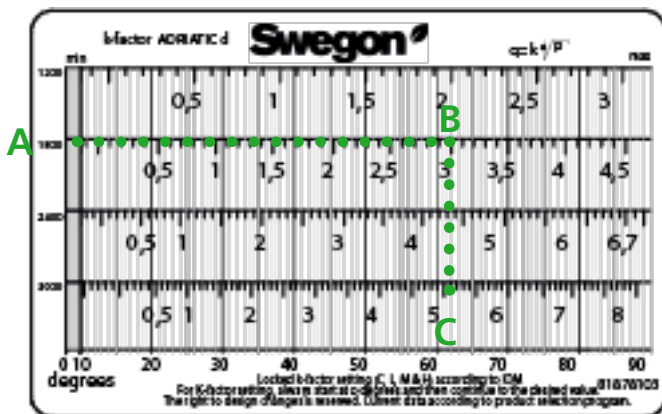


Figure 13. The knob is located on the base module.

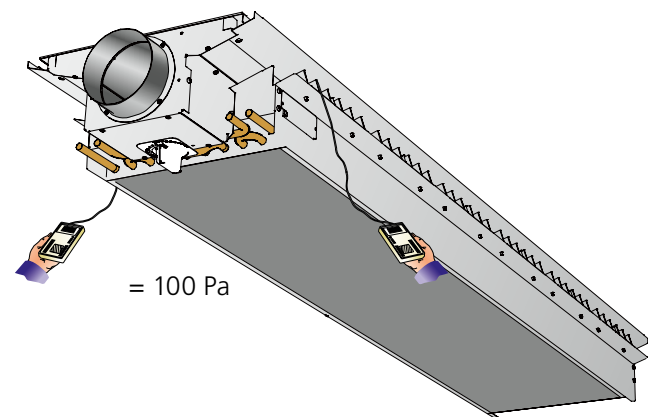
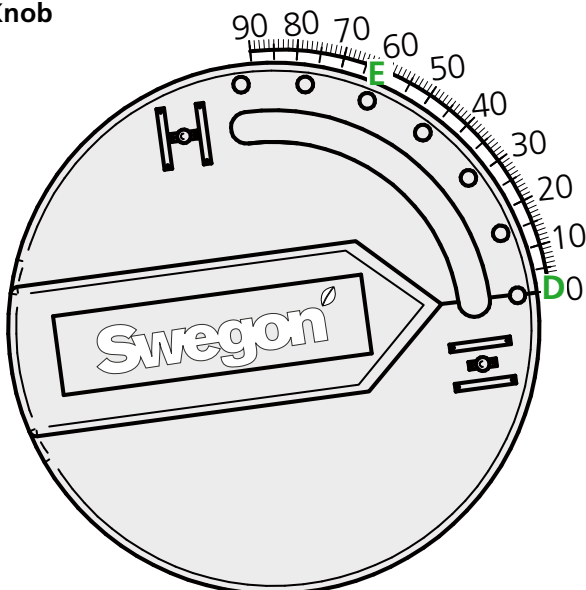


Figure 14. Measuring tubes can be found on the product's two long sides.

### Knob



$$p_i = \left(\frac{q}{k}\right)^2 \text{ [Pa]}$$

$$q = k \cdot \sqrt{p_i} \text{ [l/s]}$$

$$\frac{q}{\sqrt{p_i}} = k$$

$$p_i \text{ [Pa]}$$

$$q \text{ [l/s]}$$

$$k = \text{k-factor}$$

## Connection

### Water

#### Connection dimensions

Unit	Cooling and heating
(m)	Supply and return
1.2, 1.8, 2.4, 3.0	plain pipe end (Cu) Ø 12 x 1.0 mm

Alternative to factory-fitted valves

Unit	Cooling and heating
(m)	Return
1.2, 1.8, 2.4, 3.0	DN15 male thread

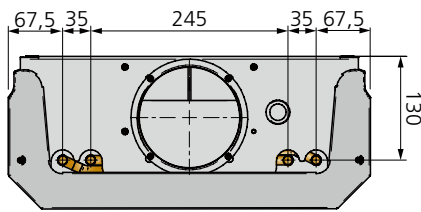


Figure 15. Dimensions ADRIATIC Prisma, end view water connection.

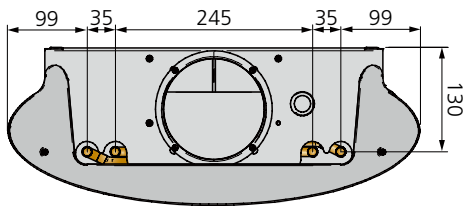


Figure 16. Dimensions ADRIATIC Ellips, end view water connection.

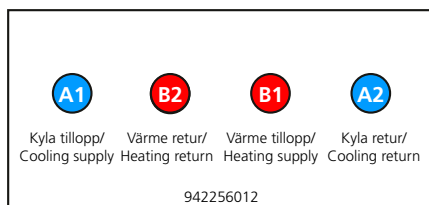


Figure 17. Water connection.

A1 = Supply cooling water Ø12x1.0 mm (Cu)

A2 = Return cooling water Ø12x1.0 mm (Cu)

B1 = Supply heating water Ø12x1.0 mm (Cu)

B2 = Return heating water Ø12x1.0 mm (Cu)

### Connecting water

By default, the water pipes are placed on the same side as the air connection on one of the product's short sides.

Connect the water pipes using push-on couplings or compression ring couplings when the product is ordered without valves. Note that compression ring couplings require support sleeves inside the pipes.

Do not use solder couplings to connect the water pipes. High temperatures can damage the unit's existing soldered joints.

Flexible connecting hoses for water are available for flat-end pipes and valves, and can be ordered separately.

### Air

Unit	Air connection, diameter
(m)	Ø
1.2, 1.8, 2.4, 3.0	125

#### To connect the air

ADRIATIC is supplied with an open air connection on one short side. The spigot is connected to the primary air duct.

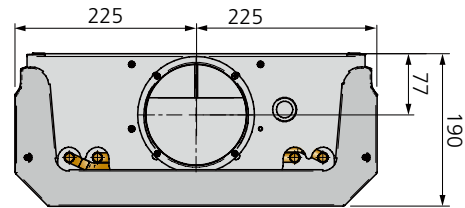


Figure 18. Dimensions ADRIATIC Prisma, end view air connection.

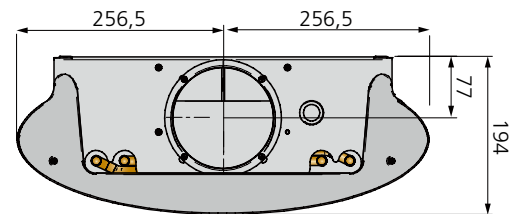


Figure 19. Dimensions ADRIATIC Ellips, end view air connection.

### Control equipment

See under the section "Accessories" to supplement the product with various control equipment.

ADRIATIC can also be ordered as a VAV and DCV product. See ADRIATIC VAV and WISE Adriatic.



# Technical data

The following tables are only examples. For an exact calculation of the product, use RUD or SPC, which can be accessed from our website. [www.swegon.com](http://www.swegon.com)

## Key figures

Air flow range	min.	max.	
	0	98	l/s
	0	353	m <sup>3</sup> /h
Pressure range	min.	max.	
	20	150	Pa

Cooling capacity total: \* Up to 3620 W

\* $\Delta t_{air} = 10\text{ K}$ ,  $\Delta t_{mk} = 12\text{ K}$

Heating capacity, water: \* Up to 6833 W

\*At  $\Delta t_{mk} = 30\text{ K}$ , water flow = 0.08 l/s, changeover system

## Designations

$\Delta T_m$ :	Temperature difference [ $t_r - t_m$ ] K
$t_r$ :	Room temperature
$t_m$ :	Average temperature of the water in the beam
$\Delta T$ :	Temperature difference between inlet - return K
$\Delta T_{mk}$ :	Temperature difference, cooling
$\Delta T_{mv}$ :	Temperature difference, heating

Supplementary index: v = heating, k = cooling, l = air, i = commissioning

## Water quality

Swegon recommends water quality according to VDI 2035-2 for both the heating and cooling systems. In order to maintain the oxygen content in the water below the levels (<0.1 mg/l) prescribed in VDI 2035-2, it is recommended to install a vacuum degasser, particularly in the cooling system where it's more challenging to dissolve gas. It is also important that the pre-pressure in the expansion vessel is dimensioned according to EN-12828 for both the heating and cooling systems and that regular checks are made of the pre-pressure. The cooling and heating systems must be designed to prevent oxygen from entering the system. This is particularly important to consider when selecting flex hoses, pipes and expansion vessels.

When the system is filled with fresh water, it has an oxygen content of approximately 8 mg/l. However, this oxygen is consumed quickly through corrosion processes and within a few days the oxygen in the water should be consumed. Nevertheless, it is important to avoid filling the system with fresh water unnecessarily.

Automatic deaerators are often installed to facilitate filling of the system. It is recommended that the automatic deaerators are turned off once the system has been fully vented to avoid these drawing air into the system if the pre-pressure in the expansion vessel should drop.

## Recommended limit values

### Pressure levels

Coil working pressure, max. 1600 kPa \*

Coil test pressure, max. 2400 kPa \*

\*Applies without valves or other extra equipment mounted on the coil

### Commissioning pressure

Recommended lowest commissioning pressure, cooling	Air flow (l/s)	Commissioning pressure (Pa)
	<10	50
	10-25	30
	>25	20

### Water flow

Min. water flow ensures evacuation of any air pockets in the coil.

Size	Cooling water, min. (l/s)	Heating water, min. (l/s)
1.2, 1.8	0.025	0.015
2.4, 3.0	0.05	0.015

Recommended max. water flow ensures that the pressure drop in the coil is not larger than max. 20 kPa

Size	Cooling water, max. (l/s)	Heating water, max. (l/s)
1.2, 1.8	0.1	0.11
2.4	0.14	0.11
3.0	0.2	0.11

### Supply flow temperature

Cooling water, min. \*\*

Heating water, max. 60°C

\*\* Cooling water must always be kept at a level that ensures that no condensation is formed.

## Cooling

Cooling capacities are measured in conformity with EN 15116.

Note: The total cooling capacity is the sum of the airborne and waterborne cooling capacities.

ADRIATIC d is always supplied with cooling/heating, even if only cooling is required.

## Heating

A beam that also has integrated heating is good because it is energy-efficient heating, as well as because it is one system rather than having to add another system, e.g. radiators.

The heat is conducted along the ceiling which, in order to work properly, requires a low supply flow temperature and a certain impulse. A temperature gradient of 3 K is normally obtained between floor and ceiling.

### Recommendations for excess heat operation

Max. permissible supply flow temperature:	60°C
Min. permissible heating water flow:	0.013 l/s
Nozzle pressure, $p_i$ :	>30 Pa

**Table 1 – data – cooling. Sizing Guide for Adriatic d at total pressure 30 Pa**

Unit	Air flow		Sound level	Cooling capacity, primary air at $\Delta T_1$ (K)				Cooling capacity, water at $\Delta T_{mk}$ (K)					Pressure drop constant, air
	l/s	m3/h		6	8	10	12	6	7	8	9	10	
1.2	11	40	<20	79	106	132	158	223	262	301	340	379	2,02
1.2	16	58	<20	115	154	192	230	243	283	323	363	404	2,96
1.8	16	58	<20	115	154	192	230	353	416	474	537	595	2,96
1.8	24	86	<20	173	230	288	346	388	455	516	582	643	4,50
1.8	11	40	<20	79	106	132	158	363	424	485	546	602	2,02
2.4	23	83	<20	166	221	276	331	487	567	647	727	806	4,31
2.4	34	122	21	245	326	408	490	503	586	669	752	834	6,57
2.4	13	47	<20	94	125	156	187	426	497	568	638	702	2,39
3.0	27	97	<20	194	259	324	389	580	673	767	860	954	5,10
3.0	40	144	23	288	384	480	576	594	691	787	892	987	7,91

**Table 2 – data – cooling. Sizing Guide for Adriatic d at total pressure 50 Pa**

Unit	Air flow		Sound level	Cooling capacity, primary air at $\Delta T_1$ (K)				Cooling capacity, water at $\Delta T_{mk}$ (K)					Pressure drop constant, air
	l/s	m3/h		6	8	10	12	6	7	8	9	10	
1.2	14	50	<20	101	134	168	202	280	327	374	422	469	1,99
1.2	21	76	24	151	202	252	302	295	344	393	447	496	3,01
1.8	10	36	<20	72	96	120	144	320	373	426	479	537	1,42
1.8	20	72	<20	144	192	240	288	438	514	590	666	743	2,86
1.8	31	112	25	223	298	372	446	472	553	634	714	795	4,50
2.4	14	50	<20	101	134	168	202	477	556	627	706	784	1,99
2.4	30	108	21	216	288	360	432	601	698	805	902	999	4,35
2.4	44	158	28	317	422	528	634	607	709	820	923	1025	6,59
3.0	17	61	<20	122	163	204	245	569	661	753	846	938	2,42
3.0	34	122	20	245	326	408	490	722	836	950	1075	1189	4,97
3.0	52	187	30	374	499	624	749	729	847	976	1095	1214	7,98

**Table 3 – data – cooling. Sizing Guide for Adriatic d at total pressure 70 Pa**

Unit	Air flow		Sound level	Cooling capacity, primary air at $\Delta T_1$ (K)				Cooling capacity, water at $\Delta T_{mk}$ (K)					Pressure drop constant, air
	l/s	m3/h		6	8	10	12	6	7	8	9	10	
1.2	16	58	<20	115	154	192	230	308	365	417	469	521	1,92
1.2	24	86	28	173	230	288	346	329	384	439	499	554	2,90
1.8	12	43	<20	86	115	144	173	374	441	502	569	631	1,44
1.8	24	86	21	173	230	288	346	501	586	672	757	843	2,90
1.8	36	130	30	259	346	432	518	532	621	710	800	890	4,42
2.4	17	61	<20	122	163	204	245	560	651	742	834	925	2,04
2.4	35	126	25	252	336	420	504	677	785	904	1012	1121	4,29
2.4	52	187	33	374	499	624	749	679	793	917	1032	1157	6,58
3.0	20	72	<20	144	192	240	288	657	762	868	983	1088	2,41
3.0	40	144	25	288	384	480	576	813	940	1079	1207	1346	4,94
3.0	61	220	35	439	586	732	878	815	947	1091	1236	1369	7,90

Water flow = 0.05 l/s for 1.2 m and 1.8 m, water flow = 0.1 l/s for 2.4 m and 3.0 m, temperature supply pipe +14°C.  
 The specified sound level applies to straight connection without damper or with fully open damper. Room attenuation = 4 dB.

**Table 4 – data – heating. Sizing Guide for Adriatic d at 30 Pa**

Unit	Air flow		Sound level	Heating capacity, water at $\Delta T_{mv}$ (K)					Pressure drop constant, air
	m	l/s		m3/h	dB(A)	15	20	25	
1.2	11	40	<20	263	367	473	584	697	2,02
1.2	16	58	<20	284	394	509	628	749	2,96
1.8	16	58	<20	422	587	759	935	1118	2,96
1.8	24	86	<20	456	634	821	1009	1205	4,50
2.4	11	40	<20	476	658	842	1033	1222	2,02
2.4	23	83	<20	564	783	1004	1229	1462	4,31
2.4	34	122	21	619	850	1091	1337	1586	6,57
3.0	13	47	<20	572	787	1009	1234	1467	2,39
3.0	27	97	<20	672	928	1192	1466	1744	5,10
3.0	40	144	23	739	1014	1302	1594	1889	7,91

**Table 5 – data – heating. Sizing Guide for Adriatic d at 50 Pa**

Unit	Air flow		Sound level	Heating capacity, water at $\Delta T_{mv}$ (K)					Pressure drop constant, air
	m	l/s		m3/h	dB(A)	15	20	25	
1.2	14	50	<20	284	394	509	628	749	1,99
1.2	21	76	24	326	453	584	719	856	3,01
1.8	10	36	<20	399	550	709	871	1036	1,42
1.8	20	72	<20	483	669	866	1064	1268	2,86
1.8	31	112	25	522	727	939	1160	1381	4,50
2.4	14	50	<20	551	759	973	1191	1416	1,99
2.4	30	108	21	660	909	1166	1426	1690	4,35
2.4	44	158	28	717	990	1265	1551	1839	6,59
3.0	17	61	<20	665	917	1175	1438	1709	2,42
3.0	34	122	20	779	1076	1380	1690	2010	4,97
3.0	52	187	30	855	1181	1514	1853	2195	7,98

**Table 6 – data – heating. Sizing Guide for Adriatic d at 80 Pa**

Unit	Air flow		Sound level	Heating capacity, water at $\Delta T_{mv}$ (K)					Pressure drop constant, air
	m	l/s		m3/h	dB(A)	15	20	25	
1.2	16	58	<20	322	447	576	709	845	1,92
1.2	24	86	28	352	491	632	779	927	2,90
1.8	12	43	<20	435	602	774	954	1132	1,44
1.8	24	86	21	526	728	940	1162	1383	2,90
1.8	36	130	30	570	790	1018	1256	1497	4,42
2.4	17	61	<20	609	836	1073	1310	1554	2,04
2.4	35	126	25	716	989	1264	1550	1838	4,29
2.4	52	187	33	784	1079	1382	1689	2005	6,58
3.0	20	72	<20	723	1000	1284	1573	1860	2,41
3.0	40	144	25	847	1172	1505	1845	2187	4,94
3.0	61	220	35	934	1290	1650	2021	2395	7,90

Water flow = 0.05 l/s, room temperature 20°C

The specified sound level applies to straight connection without damper or with fully open damper. Room attenuation = 4 dB

# Optional extras and accessories

## Factory-fitted accessories

The accessories below can be ordered fitted on the product, and will then be connected to the terminal block.

### Controller, URC1

ADRIATIC can be ordered with factory-fitted controller URC1



### Controller, WISE CU

ADRIATIC can be ordered with factory-fitted controller WISE CU

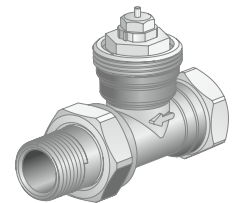


### Valve (Straight)

ADRIATIC can be ordered with factory fitted valves for cooling and heating.

The valve is mounted on the product and preset fully open.

Length	Function	Type	Dim.	$K_v$ (m <sup>3</sup> /h)
1.2, 1.8 2.4, 3.0	Cooling/heating	VDN215	DN15 (1/2")	0.07-0.89



For more information about the valve, see the separate product data sheet on [www.swegon.com](http://www.swegon.com).

### Valve actuator, ACTUATORc

ADRIATIC can be ordered with factory fitted valve actuators for cooling and heating.

24V AC/DC, NC (Normally Closed).

For more information about the valve actuator, see the separate product data sheet on [www.swegon.com](http://www.swegon.com).

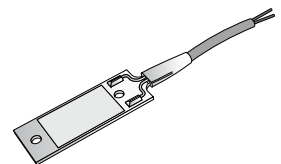


### Condensation sensor CG-IV

CG-IV is a condensation sensor with sensor element, consisting of a circuit board with gold plated conductive paths that react when condensation occurs between the paths.

When condensation arises, the cooling valve closes the incoming water flow to the product. The cooling valve is permitted to open again when the condensation on the conductive paths has been wiped off.

Compatible with LUNA and WISEII

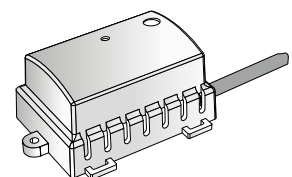


### Condensation sensor WCD2

The detector operates at the dew point temperature rather than a fixed relative humidity value.

The dew point is calculated from a temperature-compensated RH element and an extremely accurate sensor element that are thermally bound to the metal plate on the detector.

Compatible with LUNA



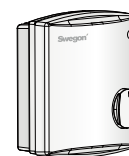
## Loose accessories

### Controller LUNA RE

To control the room temperature. Set point value is set on the controller, which is mounted on the wall.

- Four outputs to control heating and cooling actuators.
- Built-in temperature sensor and possibility to connect an external temperature sensor.
- Four inputs for condensation sensor or presence sensor.

Controller LUNA RE for installation on a wall is ordered separately.



### Controller LUNA RC

Versatile room controller for temperature control of air, heating and cooling. Available in standard version with built-in CO<sub>2</sub> sensor.

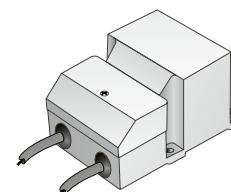
- Built-in temperature sensor and possibility to connect an external temperature sensor.
- Built-in communication port for connection to a communication bus for reading values from a computer.
- Four outputs to control heating and cooling actuators.
- Inputs for condensation sensor or presence sensor.

Controller LUNA RC for installation on a wall is ordered separately.



### Transformer SYST TS-1 72 VA

Double-insulated protective transformer 230 V AC/24 V AC  
See separate product datasheet on [www.swegon.com](http://www.swegon.com).

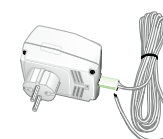


### Transformer, Power Adapt 20 VA

Double insulated protective transformer with plug type F.

Input voltage: 230 V. Output voltage 24 V AC

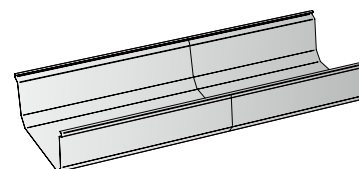
See the separate product data sheet on [www.swegon.com](http://www.swegon.com).



### Connection casing, connection to wall, ADRIATIC d KA

Connection casing in two parts to be mounted in the extended section of the climate beam and beyond to a wall designed for concealing pipe and duct connections.

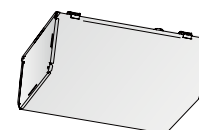
The casing is available in eleven different length ranges.



### Connection casing, connection to ceiling, ADRIATIC d KA-G

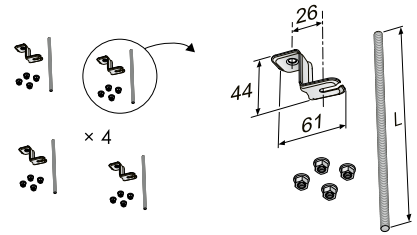
Connection casing with end connection panel designed for concealing pipe and duct connections when connecting to a ceiling.

The casing is available in six different lengths.



## Installation accessory, SYST MS M8

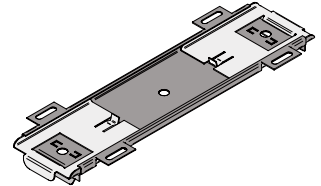
For installation, use the installation accessory containing threaded rods, ceiling brackets and nuts for all four mounting brackets. Also available with double threaded rods and thread locks.



## Assembly piece, ADRIATIC d-T-MD-4S

Special assembly piece for installation directly against the ceiling.

Available in 2-packs and 3-packs.



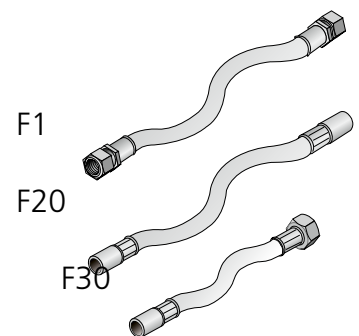
## Flexible connection hoses, SYST FH

Flexible hoses are available with quick-fit, push-on couplings as well as clamping ring couplings for quick and simply connection. The hoses are also available in various lengths. Note that compression ring couplings require support sleeves inside the pipes. Examples of hoses:

F1 = Flexible hose with clamping ring couplings.

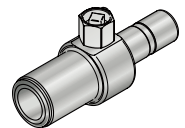
F20 = Flexible hose with quick-fit couplings (push-on).

F30 = Flexible hose with quick-fit coupling (push-on) at one end and G20ID sleeve nut at the other end.



## Bleed nipple, SYST AR-12

Nipple for venting the water circuit. Equipped with push-on connector adapted for installation with flexible connection hose F20 and F30.



## Connection piece, air – double nipple, SYST AD1

SYST AD1 is used as an insertion joint between the ADRIATIC and the duct system.

Available in size: Ø125



## Connection piece, air – 90° duct bend, SYST CA

90° duct bend for air connection. Nipple connection with seals at both ends.

Dimensions: Ø125 mm



# Dimensions and weight

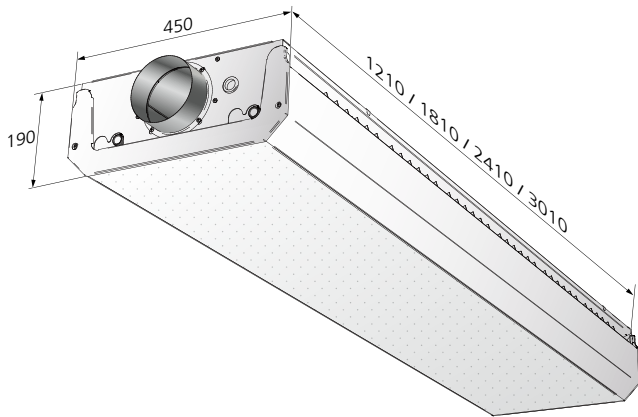


Figure 20. Dimensional drawing - ADRIATIC Prisma.

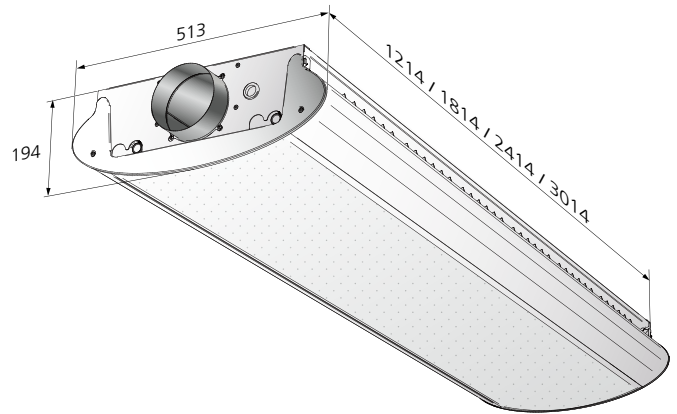


Figure 21. Dimensional drawing - ADRIATIC Ellips.

## Installation

The c-c dimensions are the same for ADRIATIC with design modules Prisma and Ellips. Prisma is shown in the example to the right.

Unit (m)	Suspended installation	
	c-c (mm) Short side	c-c (mm) Long side
1.2	392	1171
1.8	392	1771
2.4	392	2371
3.0	392	2971

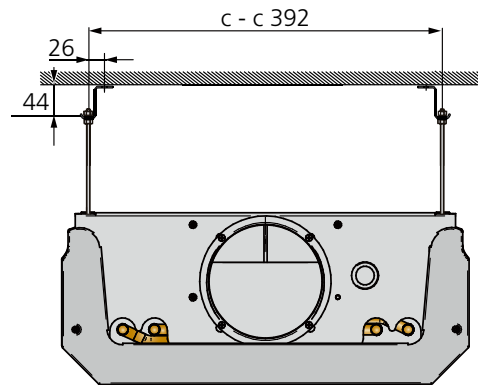


Figure 22. Installation - suspended installation with installation accessory SYST MS-M8.

## Weight

Weight excluding controller, valves, actuators and sensors.

ADRIATIC Prisma			
Unit	Dry weight	Weight with water (kg)	
(m)	(kg)	A: ☀️	A/B: ☀️/🔥
1,2	18,1	19,1	19,3
1,8	26,5	28,0	28,4
2,4	34,8	36,9	37,4
3,0	42,5	45,1	45,8
ADRIATIC Ellips			
Unit	Dry weight	Weight with water (kg)	
(m)	(kg)	A: ☀️	A/B: ☀️/🔥
1,2	18,8	19,8	20,0
1,8	27,4	28,9	29,3
2,4	36,0	38,1	38,6
3,0	44,0	46,6	47,3

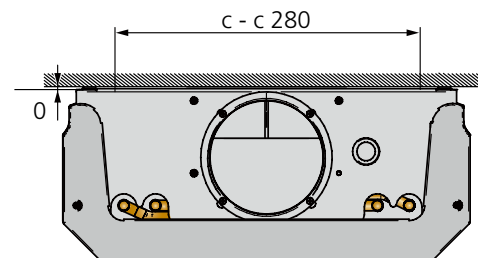


Figure 23. Installation - directly against the ceiling with installation accessory ADRIATIC d-T-MD-4S.

# Specification

Type ADRIATIC active climate beam incl. ADC air deflector for cooling and ventilation or cooling, heating and ventilation.

The units are supplied painted in Swegon's standard shade of white, RAL 9003, gloss ratio 30 ±6%.

## Product

Climate beam				
ADRIATIC		d	a-	bbb- c
Version				
Function:				
A = Cooling and supply air				
B = Cooling, heating and supply air				
Length m:				
1.2, 1.8, 2.4, 3.0				
Variant:				
P = Prisma				
E = Ellips				

Also read about our range of products held in stock on page 4.

## Colour

The product, the connection casing and the surface mounted assembly piece are painted as standard in RAL 9003 standard colour, white, gloss ratio 30 ± 6%, but can also be ordered in the following colours.

RAL 7037 Grey, gloss ratio 30-40%

RAL 9010 White, gloss ratio 30-40%

RAL 9005 Black, gloss ratio 30-40%

RAL 9006 White, gloss ratio 70-80%

RAL 9007 Grey, gloss ratio 70-80%

## Special types

On request, the product, the connection casing and the surface mounted assembly piece can also be supplied painted in an optional colour or relief finish paint.

For further details about special types, get in touch with your nearest Swegon representative.

## Accessories

Connection casing	ADRIATIC d KA-	aaaa bbbb
Length: (mm)		
200-350, 300-450, 400-550, 500-650, 500-1000, 900-1050 900-1350, 900-1750, 1600-1750, 1600-2450, 1600-3150		

Connection casing with end connection panel	ADRIATIC d- KA-G	aaaa
Length: (mm)		
200, 300, 400, 500, 900, 1600		

Assembly fitting (For suspended installation)	SYST MS M8	aaaa- b-	RAL9003
Length of threaded rod:			
200, 500, 1000 mm			
1 = threaded rod only			
2 = Double threaded rods with thread locking device			

Assembly fitting (For installation directly against the ceiling)	ADRIATIC d-T-MD-4S	a
Quantity per pack		
2 = 2 pcs		
3 = 3 pcs		

Flexible connection hose (1) Clamping ring coupling against pipe on both ends	SYST FH F1	aaa	12
Length: 300, 500 and 700 mm			
Dimension (Ø) mm: 12			

Flexible connection hose (1) Quick-fit coupling (push-on) against pipe on both ends	SYST FH F20	aaa	12
Length: 275, 475 or 675 mm			
Dimension (Ø) mm: 12			

Flexible connection hose (1) Quick-fit coupling (push-on) against pipe on one end, G20ID sleeve nut on the other end.	SYST FH F30	aaa	12
Length: 200, 400 or 600 mm			
Dimension (Ø) mm: 12			

Connection piece (90° duct bend)	SYST CA-125-90	
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# Specification text

VVS AMA PTD.4 0	Product with cooling & heating	
AMA-codes:	XXX	Page 1
CODE	TEXT	QUANTITY
P	UNITS; PIPES ETC IN PIPE SYSTEMS OR PIPE NETWORKS	
PT	ROOM-MOUNTED HEATER AND COOLER	
PTD	ROOM DEVICES FOR HEATING AND COOLING	
PTD.4	Duct-connected room devices for heating and cooling	
P	UNITS; PIPES ETC. IN PIPE SYSTEMS OR PIPE NETWORKS	
PT	ROOM-MOUNTED HEATER AND COOLER	
PTC	ROOM CHILLERS	
PTC.3	Chilled beams and convectors	
PTC.31	Chilled beams	
PTC.312	Duct-connected chilled beams	
XXXX		
Make:	Swegon	
Type:	<p>ADRIATIC d – A or ADRIATIC d – B (cooling and heating are always included in the coil regardless of whether A or B)</p> <p>Climate beam with the potential to add integrated, pressure-independent VAV control</p> <p>Waterborne cooling and heating for suspended installation or installation directly against the ceiling</p> <p>Slot adjustment for retained air distribution and function, as well as to achieve throw lengths even at low air flows</p> <p>Two-way air discharge climate beam with integrated comfort guarantee (ADC) for setting of the desired direction of the distributed air.</p> <p>Asymmetrical air flow on the different sides possible</p> <p>Variably adjustable air flow</p> <p>Two possible choices av design section, a square variant “Prisma” and a rounded variant “Ellips”.</p> <p>The design section is easily opened with the “lever function”, and is then suspended from one long side</p> <p>Actuators and controllers are concealed under the design section for a more minimalist appearance.</p> <p>Air connection and water on the product’s short side</p> <p>Connection casing for covering pipes, designed to fit the selected design section.</p> <p>The product is Eurovent certified (verified cooling capacity according to EN-15116).</p>	

CODE	TEXT	QUANTITY
Colour:	White, RAL 9003, gloss ratio 30 ± 6%	
Length (nominal):	1212, 1812, 2412, 3012 mm (Prisma) 1216, 1816, 2416, 3016 mm (Ellips)	
Width (nominal):	450 mm (Prisma), 513 mm (Ellips)	
Height:	190 (Ø125) mm (Prisma), 192.3 (Ø125) mm (Ellips)	
Tolerances:	± 2 mm	
Water connection:	Plain pipe ends Cu Ø12 x 1.0 mm; Cu Ø12 x 1.0 mm Alt.: 1.2/1.8/2.4/3.0: Male thread cooling and heating DN 15 (applies to factory mounted valves).	
Air connection:	Spigot Ø125 Air and water connect to the same short side	
Product:	ADRIATIC d-B-ccc-d or ADRIATIC d-A-ccc-d	X pcs.
Options/accessories Factory-fitted:		
	Various Design sections	X pcs.
	Prisma, a design section with angles and a severe appearance.	
	Ellips, a design section with rounded shapes that produce a soft and calm appearance.	
	ADRIATIC d-KA-aaaa Connection casing	X pcs.
	ADRIATIC d-KA-G-aaaa Connection casing with end connection panel	X pcs.
	Assembly fitting SYST MS M8 aaaa-b-RAL9003 For suspended installation, containing threaded rods, ceiling brackets and nuts for all four mounting brackets.	X pcs.
	Assembly fitting ADRIATIC d-T-MD-4S a For installation directly against the ceiling	X pcs.
	SYST VDN XXX Valve (straight) DN15 (1/2"), Normally open, Kv-value 0.89 (adjustable 0.07-0.89)	X pcs.
	ACTUATORc Thermal actuator On/off - 24 V AC/DC Normally closed Included in delivery, not installed	X pcs.

## Installation accessory

SYST CA	X pcs.
90° duct bend for air connection. Nipple connections with seals.	
Dimensions: Ø125 mm	
SYST CRPc 9	
Commissioning damper with perforated damper blade. Air tightness class 0.	
Dimensions: Ø125 mm	
SYST FH aaa- bbb - 12	X pcs.
Flexible connection hose (available in different variants)	
SYST AR-12 X pcs.	X pcs.
Nipple for venting the water circuit. Push-on connector adapted for installation with flexible connection hose type F20 and F30.	
SYST AD1	
Double nipple for the connection of the air duct to the product's air connection sleeve. X pcs.	
Actuators, see ADRIATIC VAV d and WISE Adriatic d.	