

SECURITON © Copyright by Securiton	Air cooler and water collector LK 35		TD 004 040			1 / 6
Air cooler and water collector SecuriRAS® ASD Technical description	Status	Date	Ind.	Mod. No.	Abbreviation	released
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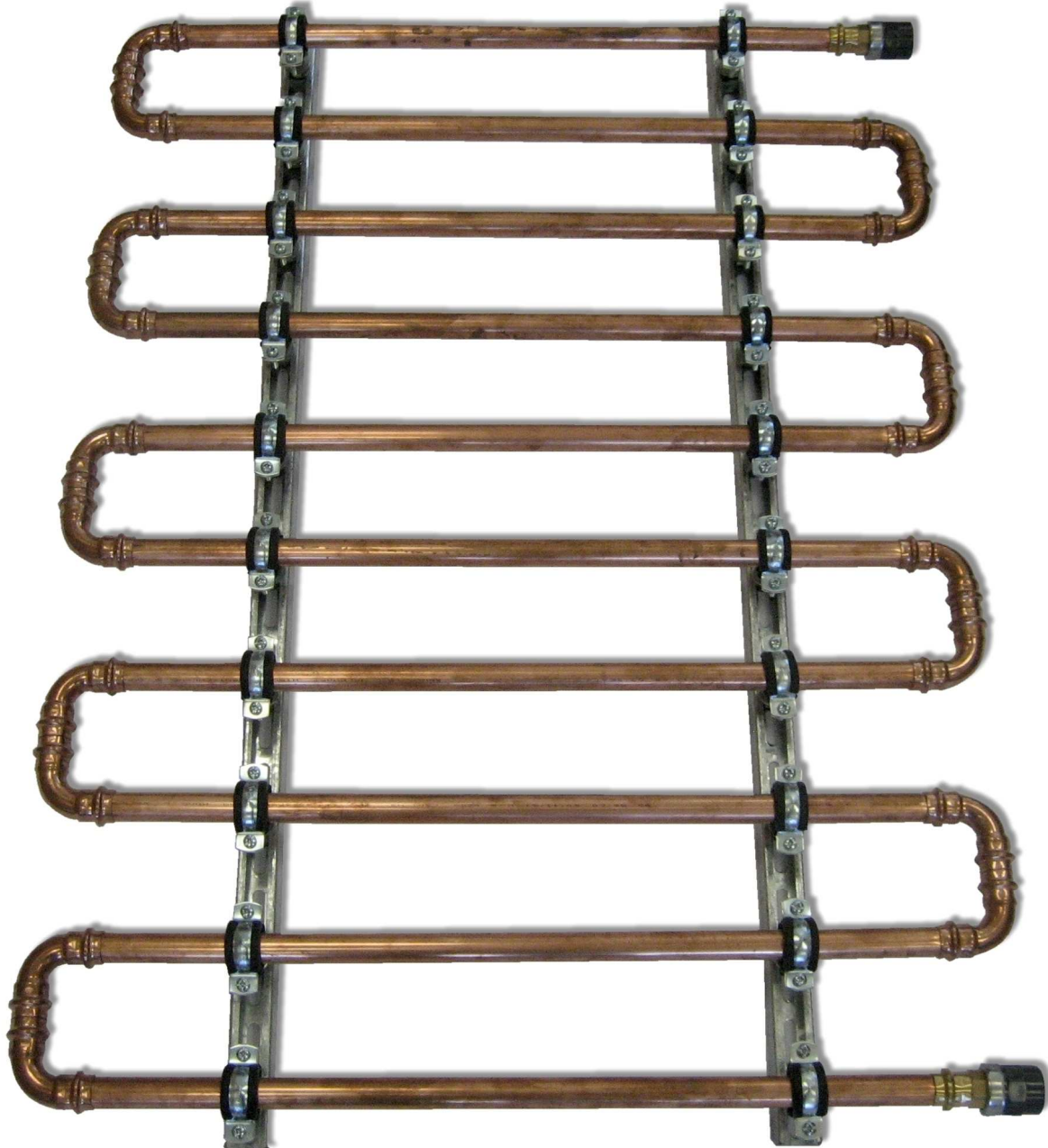


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1. General

Aspirating smoke detectors SecuriRAS® are special fire detectors used in areas where conventional fire detection technology cannot be used due to the prevailing environmental conditions. In order to monitor these problematic areas in terms of fire detection, the use of special additional components in connection with the aspirating smoke detectors is necessary.

1.1 Application

The air cooler and water collector LK 35 was designed for use in areas with very high temperatures or in areas with a very high level of humidity. For example, this air cooler is used for monitoring recycling plants, swimming pools, outdoor applications or for monitoring saunas. Naturally, this additional component for aspirating smoke detectors can also be used successfully in many other applications.

1.2 Description

The air cooler and water collector LK 35 is made of copper pipe with an outer diameter $d=22\text{mm}$. PVC transition sleeves $d=25\text{mm}$ are available at the input and output of the air cooler for connection to the suction pipe which can also be designed in an ABS version (halogen-free) upon request. The LK 35 can also be assembled next to the aspirating smoke detector SecuriRAS® either on the left or the right. The system construction of the aspirating smoke detector SecuriRAS® ASD 535 in connection with the air cooler and water collector LK 35 is shown in chapter 3 of this technical description.

The air cooler and water collector LK 35 has the task of preventing the penetration of moisture into the aspirating smoke detector SecuriRAS® or of cooling the aspirated hot air before it penetrates the evaluation unit when this is used in very warm areas. It is generally recommended that the air cooler and water collector LK 35 is used in conjunction with the standard water collector.

When using the water collector, it should be noted that after assembly the water outlet opening (size 3mm) for the automatic separation of moisture must be drilled in the lower branch of the LK35!

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1.3 Function

If the LK 35 is used purely as an air cooler, the functional principle lies in the fact that the aspirated air is conducted by the LK 35 and consequently must travel a longer transport route to the evaluation unit. This longer transport time ultimately ensures the cooling of the air.

If this standard constellation is insufficient for the necessary cooling of the air, the LK 35 can also be cooled further by a ventilator or a fan.

When using the LK 35 as a water collector or as a combined air cooler and water collector, a water outlet opening should be drilled in the lower thread of the LK 35. The size of this opening is 3mm. In order to ensure complete separation of water, the water outlet opening must be made at the lowest point of the entire system construction so that the moisture can escape from the LK 35 properly. The distance of the water outlet opening to the lower edge of the aspirating smoke detector SecuriRAS[®] must be at least 500mm.

In the case of very high air humidity, it is recommended to use the LK 35 in conjunction with the standard water collector and the large filter box.

2. Properties

2.1 Advantages

- Dehumidification of the aspirated air
- Cooling of the aspirated air
- Prevention or substantial reduction of false alarms
- Lengthening of lifespan of smoke sensors
- very low installation costs
- subsequent installation possible at any time
- low operating costs
- applicable for all aspirating smoke detectors
- quick, clean and inexpensive solution

2.2 Application examples

- Waste-processing companies
- Composting plants
- Paper machines
- Climatic chambers
- Vehicle inspection stations
- Swimming pools
- Saunas
- Outdoor applications
- Chemical industry
- Animal stables
- Cold rooms (no deep freeze areas)

3 Construction

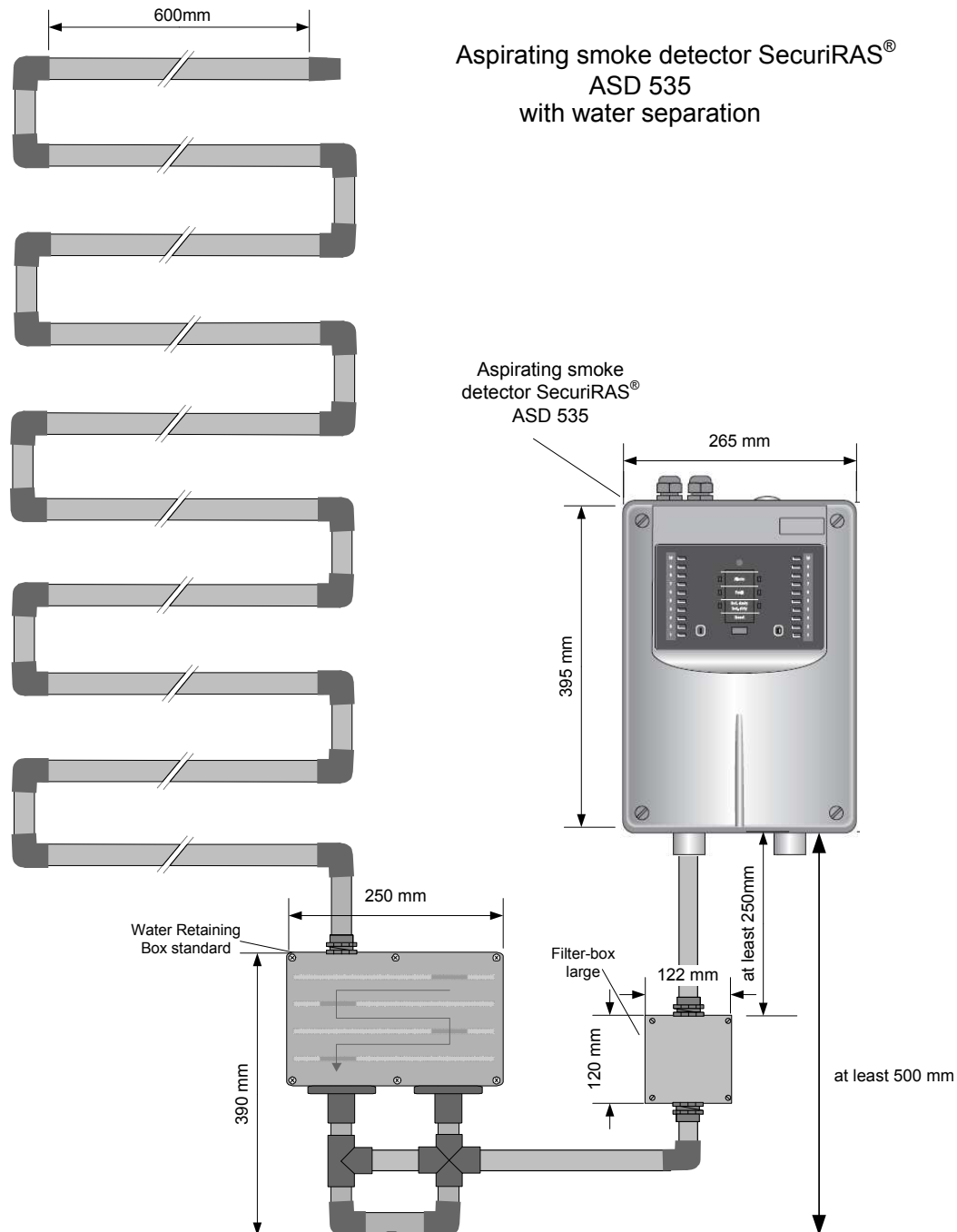


Fig. 1: Construction with water separation

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4. Technical data

Features		
Introduction	2x transfer to PVC pipe, d=25	mm
Material	Copper pipe d=22x1	mm
Dimensions (H x W x D)	1000 x 730 x 80	mm
Weight	approx. 8	kg
Approval		
VdS	G 208154	
Building product approval	0768-CPD-20600	

5 Part numbers

Abbreviated designation		Type No. SECURITON
Aspirating smoke detector SecuriRAS® ASD 535-1		5000623-0101
Aspirating smoke detector SecuriRAS® ASD 535-2		5000623-0102
Aspirating smoke detector SecuriRAS® ASD 535-3		5000623-0103
Aspirating smoke detector SecuriRAS® ASD 535-4		5000623-0104
Smoke sensor SSD 535-1 CP (Coated Print)		5000613-2201
Smoke sensor SSD 535-2 CP (Coated Print)		5000613-2202
Smoke sensor SSD 535-3 CP (Coated Print)		5000613-2203
Water Retaining Box standard - PVC	WRB 25 PVC	0.100908
Water Retaining Box standard - ABS	WRB 25 ABS	50-0500057-01-01
Filter-box large	FBL 25 PC	0.100793
Filter-box extra-large	FBX 25	0.101196
Spare filter mat block fine stage		0.101132
Spare filter mat set (extra-large filter box)		0.101949
Manual ball valve PVC	MV 25 PVC	21.544.20D25
Manual ball valve ABS	MV 25 ABS	0.100862
Air cooler and water collector LK 35 PVC		50-0500122-01-01
Air cooler and water collector LK 35 ABS		50-0500123-01-01

Subject to technical modification!