



DBZ1197A

AlgoRex
Synova™

Air sampling smoke detection unit

collective/SynoLINE600, AnalogPLUS/SynoLOOP, interactive

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- **Reliable monitoring of fresh air, used air and air re-circulation ducts for smoke in air conditioning and ventilation systems**
 - **Suitable for air speeds of 1... 20 m/s**
 - **Smoke detection with the DO11 smoke detector**
 - **Adaptable detection algorithms in interactive fire detection systems**
 - **Simple installation with only one air flow tube**
 - **Accessories for all shapes of duct**

Function

- The air sampling smoke detection unit is a passive monitoring system without its own fan. It utilizes the differences in pressure in the ventilation system in order to carry continuous air samples via the air flow tube (bypass) from the ventilation duct to the air duct sampling chamber.
- The air sampling smoke detection unit operates reliably as long as the ventilation system is in operation and air can circulate. Normally, the air to be monitored must be clean, i.e. free of dust and aerosols.
- When the built-in smoke detector registers a certain smoke concentration the corresponding danger level is signaled to the control unit, which in turn activates the required alarm. The alarm indicator in the smoke detector visually signals the danger.
- Normally the standard smoke detectors DO11x1A or DO11x2A are used at the highest level of sensitivity. However, if the air is clean the highly sensitive DO11x3A/04 smoke detector is also permissible.

Design

The air sampling smoke detection unit consists of:

- the DBZ1197A air duct sampling chamber with:
 - the grey plastic housing with transparent cover
 - the air flow chamber with special air conveyance device
 - the mechanical air flow indicator
 - the connection chamber with 10 terminals
- the corresponding DBZ1197-Ax air flow tube with combined air inlet and air outlet
- the corresponding smoke detector with base

Options:

- DBZ1197-AE mounting device for uneven, round and insulated ducts
- air flow tubes 1500 mm and 2800 mm long
- DBZ1197-AD rubber gasket when using the mounting device and the longer tubes

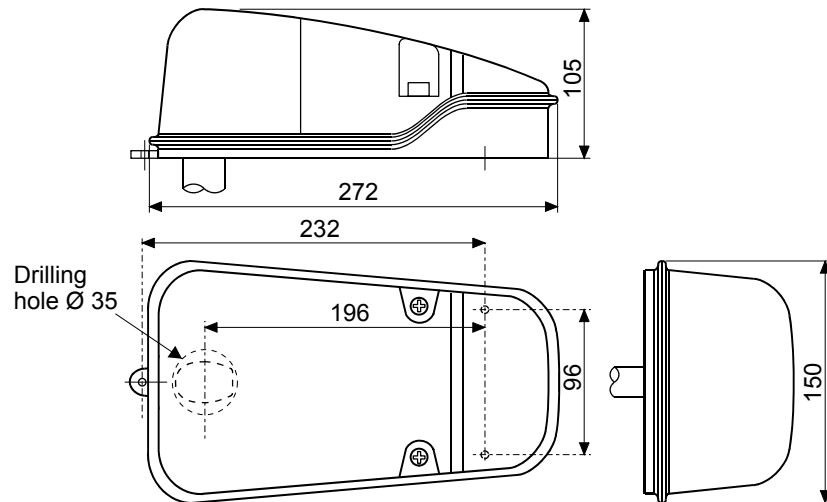
Installation

- The air duct sampling chamber is mounted on the outside of the air duct. Only the air flow tube is introduced through a hole drilled into the duct and shortened according to the diameter of the duct.
- Normally, the air duct sampling chamber is mounted on the air duct using three metal screws. It can also be mounted without difficulty on uneven, round or insulated ducts using the mounting device.
- Three knockouts are provided both at the top and rear for cable entry.

Choice of location

- The air duct sampling chamber is mounted in the ventilation system where air flow measuring devices are usually installed, i.e. where there is no air vortex, change of direction, duct branching, duct narrowing or duct extensions.
- In order to guarantee smoke detection, mount the air duct sampling chamber after the last air inlet point.

Dimensions



Technical data

Housing of the air duct sampling chamber	
- material	ABS
- cable entry	2x3, $\varnothing 19$ mm
- EN 60529 / IEC 529 protection category	IP64
- Color	grey, RAL 7001
Smoke detector / base	DO11xxA / DB11xxA
Air flow tube	Aluminum
Minimum duct diameter	100 mm
Permissible air speeds	1... 20 m/s
Air flow indicator	≥ 1 m/s
Ambient temperature	-20... + 50 °C
Humidity	
- bei T = 25 \pm 3 °C	≥ 95 % rel.
- bei T = 40 \pm 2 °C	93 % rel.
Approvals	
- VdS with smoke detector DO1104A	G201059

Details for ordering

	Type	Part no	Designation	Weight
Air sampling smoke detection unit	DBZ1197A	4926500001	Air duct sampling chamber	0.645 kg
	DBZ1197-AA	4926630001	Air flow tube 600 mm	0.225 kg
Accessories			Smoke detector and bases (interactive, AnalogPLUS/SynoLOOP, collec- tive/SynoLINE600) see detector documents	
	DBZ1197-AB	4995010001	Air flow tube 1500 mm	0.565 kg
	DBZ1197-AC	4995140001	Air flow tube 2800 mm	1.050 kg
	DBZ1197-AD	4995270001	Rubber gasket, required for DBZ1197-AB/AC/AE	0.040 kg
	DBZ1197-AE	4995300001	Mounting device	0.580 kg
	DBZ1197-AF	5294840001	Spare cover	0.175 kg

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