

Operating instructions for extract air unit type AL-A



1 Information on safe use


The exhaust air unit type **AL-A** is used for the extraction of hazardous substances from hazardous substance / safety cabinets, chemical cabinets and pressurised gas cylinder cabinets and acid and alkali cabinets (aggressive and/or explosive media with a dust content < 5g/m³). The permissible ambient temperature is from +10°C to +40°C. The unit vents the cabinet taking into account the prescribed air exchange and indicates the function via two lights: RED - malfunction / green - operation. In addition, the unit has potential-free outputs for these signals. The unit is suitable for extraction from cabinets, defined by EN 14470-1 and DIN 12925 Part 2.



PERSONAL INJURY AND MATERIAL DAMAGE

Improper use can cause impeller fractures, fatigue fractures and fires due to sparking, resulting in personal injury and material damage.

2 Indications of special hazards

According to 2014/34/EU (ATEX), the unit corresponds to equipment group II, equipment category 3 and temperature class T4 and is intended exclusively for extraction from zone 2 or from a non-Ex zone and installation in a non-Ex area. Marking: C €  II 3/-G Ex ec IIC T4 Gc



Any other use or use beyond this is considered improper. The manufacturer / supplier is not liable for any resulting damage, the risk is borne solely by the user.

When used as intended, with the original accessories and in compliance with the installation and assembly instructions, as well as the instructions for safe commissioning, this unit poses no particular danger to people or the environment.

3 Safe installation, commissioning, adjustment, assembly/disassembly, maintenance

The unit is delivered ready for operation and installation. Exceptions are the control line and exhaust air duct, which are not included in the scope of delivery, as they must be adapted to the local conditions. Before connecting to the mains, the electrical connection data (voltage, frequency) and the system resistance must be checked and compared with the data of the unit.



The unit may only be installed, operated and maintained by trained, instructed and authorised persons.


- **Installation and commissioning:** The unit is plugged onto the cabinet with the supplied connection piece. The signal output and the exhaust air duct are connected. It must be ensured that no foreign bodies can enter the exhaust air monitor via the exhaust air duct (protective grille). The unit is connected to the mains by means of the mains plug and goes into operation immediately. The green light indicates normal operation.

- **Function check: A function** check should be carried out before connecting the exhaust air duct or if required - see chapter **Malfunction**. For this purpose, the unit is plugged in and connected to the mains. The unit goes into operation immediately after connection. The green lamp then lights up continuously. By briefly covering the exhaust air connection - throttling the volume flow - the unit should go into malfunction. Repeat this procedure several times. To be able to test the monitoring function even when the unit is installed, press the test switch on the back of the unit.
- **Setting: The** exhaust air monitoring is set to the required volume flow at the factory and therefore requires no further settings.
- **Assembly/disassembly:** Repair work is carried out exclusively by qualified personnel.
- **Maintenance:** The unit is maintenance-free.

4 Malfunction / Troubleshooting

Malfunction	Cause	Troubleshooting
No function	Missing voltage Device defective	Check network Send in unit
Red light permanently on, or flashing, function check OK	System resistance too high	Change duct routing, reduce air velocity in the duct (increase cross-section)
Red light permanently on, function check not OK	Fan jammed, control circuit defective	Send in unit

Properties:

Fan type	: AL-A	
Housing material Fan	: RCRv75/2m	
impeller material Volume	: Acid and alkali resistant plastic	
flow Total pressure	: Acid and alkali resistant plastic	
Speed Sound pressure	: 30 - 110 m ³ /h	
level* Lp2A	: 250 - 50 Pa	
	: 2400 - 2800 1/min	
	: 35 dB(A)	
LED display	: RED/Fault -	
switching	: GREEN/Operation	
frequency	: min. 1,000,000	
Signal output	: Floating via DIN socket	
Contact power	: max. 230V / 8A	
Voltage Current	: 230 V +/-10%	
consumption	: max. 0.45 A	
Frequency	: 50 Hz	
Motor protection	: PTO 90°C	
Protection class	: CE  II 3/-G Ex ec IIC T4 Gc PTB 21 ATEX D137	
Weight	: 8kg	

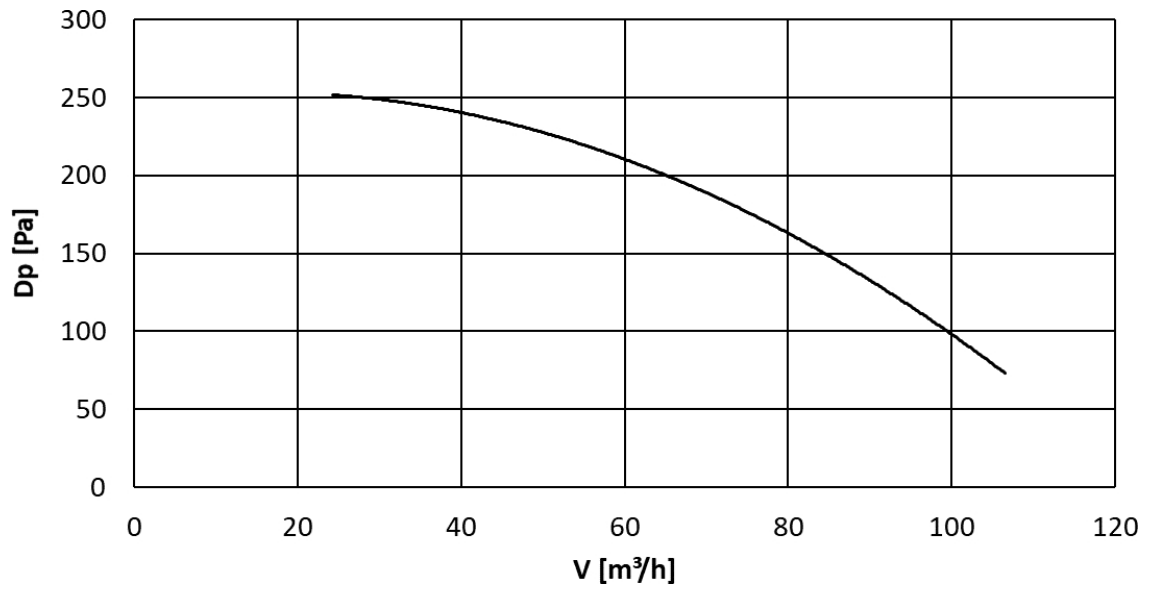
Assignment of signal output Max. 230V / 8A

Volumenstrom
Flow

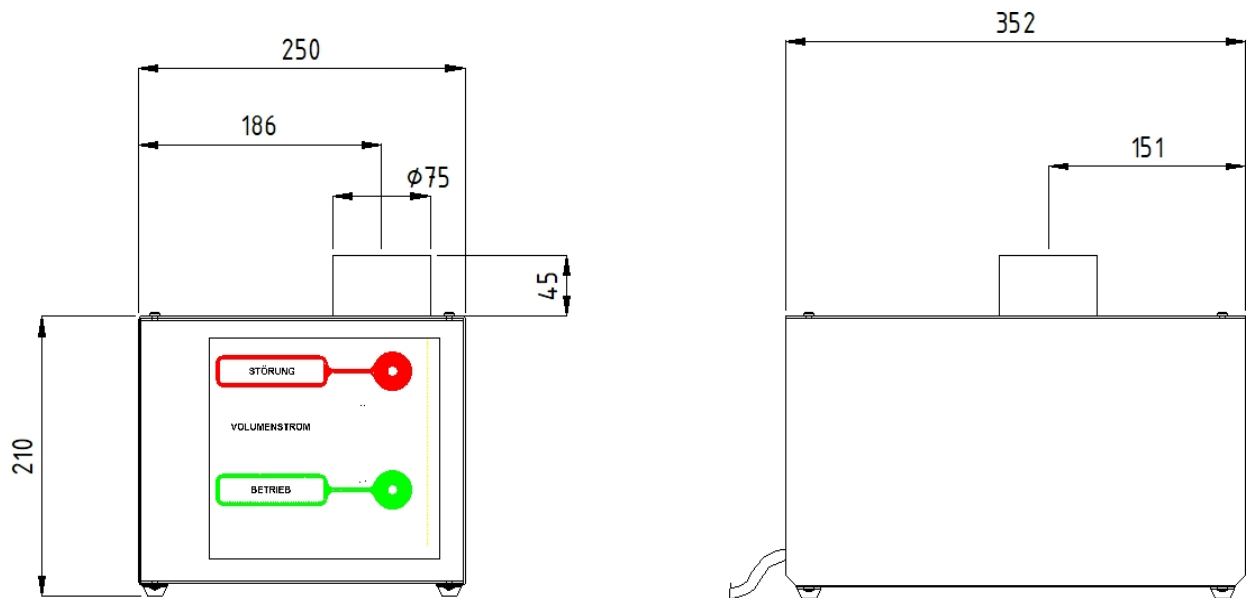
NC COMM NO

* at 3m distance according to DIN 45635 with air lines connected on suction and pressure side


Characteristic curve:



Dimension sheet:



Accessories included:

	1. operating instructions
	2. plug for potential-free contacts
	3. connection piece for all cabinet types, pre-assembled
	4. connecting piece for DÜPERTHAL/ASECOS
	5. adapter for ASECOS
	6. adapter for PROTECTOPLUS

Assembly instructions for enclosures type PROTECTOPLUS:



1. Insert the adapter for PROTECTOPLUS at the free end of the connection piece and fix it in place with the hose clamp supplied.
2. Insert the adapter as prepared before into the unit and into the exhaust air connection piece of the cabinet and fix it to the cabinet connection piece with the supplied hose clamp. Aligning the unit

Assembly instructions for cabinets type DÜPERTHAL:



1. Insert the adapter for DÜPERTHAL/ASECOS at the free end of the connection piece and fix it with the supplied hose clamp.
2. Insert the adapter into the unit and into the exhaust air connection piece of the cabinet as prepared before and align the unit.

Assembly instructions for cabinets type ASECOS:



1. Insert the adapter for DÜPERTHAL/ASECOS at the free end of the connection piece and fix it with the supplied hose clamp.
2. Insert the adapter for ASECOS into the adapter prepared as before at one end.
3. Insert the adapter into the unit and into the exhaust air spigot of the cabinet and align the unit.

Manufacturer information:

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