

## INSTALLATION AND OPERATING INSTRUCTIONS



Extractor Fan Module (EXM)

# Unohab Extractor fan module for combined operation of Unohab units with extractor fans

## CHAPTER 1

### SAFETY

#### 1.0 Important information

In order to ensure complete and effective operation and for your own safety, all of the following instructions should be read carefully and observed.

This document should be regarded as part of the product and as such should be kept accessible and durable to ensure the safe operation of the fan. All product-related safety regulations must be observed.

 DANGER

 WARNING

 CAUTION

#### 1.1 Warning instructions

**The accompanying symbols are safety-relevant prominent warning symbols. All safety regulations and/or symbols in this document must be absolutely adhered to, so that any risks of injury and dangerous situations are avoided!**

 DANGER

#### 1.2 Safety instructions

Special regulations apply for use, connection and operation; consultation is required in case of doubt. Further information can be found in the relevant standards and legal texts.

- **With regard to all work on the fan, the generally applicable safety at work and accident prevention regulations must be observed!**
- **All electrical work, as well as the commissioning, maintenance and installation work must only be carried out by authorised qualified electricians!**
- **The following must be observed before all cleaning, maintenance and installation work or before opening the terminal compartment:**
  - **Isolate the device from the mains power supply and secure against being switched on again!**
- **All product-related safety regulations must be observed! If applicable, further country-specific regulations must also be observed!**

#### 1.3 Personnel qualification

 **DANGER!**

The electrical connections and commissioning as well as installation, servicing and maintenance work on the extension module must only be carried out by qualified electricians.

 DANGER

## CHAPTER 2

### GENERAL INSTRUCTIONS

#### 2.0 Warranty claims – exclusion of liability

All versions of this documentation must be observed, otherwise the warranty shall cease to apply. The same applies to liability claims against Airflow. The use of accessory parts, which are not recommended or offered by Airflow, is not permitted. Any possible damages are not covered by the warranty. Changes and modifications to the unit are not permitted and lead to a loss of conformity, and any warranty and liability shall be excluded in this case.

**2.1 Certificates - Guidelines**

If the unit is installed correctly and used for its intended purpose, it conforms to all applicable provisions and EU guidelines at its date of manufacture.

**2.2 Receipt**

The delivery contains the extension module: Unohab EXM (Part No: 90000997)

The shipment must be checked for damage and correctness immediately upon delivery. If there is any damage, promptly report the damage with the assistance of the transport company. If complaints are not made within the agreed period, any claims could be lost.

**2.3 Storage**

When storing for a prolonged time, the following steps are to be taken to avoid damaging influences:

Protection by dry, airtight and dust-proof packaging (plastic bag with desiccant and humidity indicators). The storage site must be vibration-free, water-tight and free from excessive temperature fluctuations. Damage caused during improper transportation, storage or commissioning is traceable and is not covered by warranty.

**2.4 Area of application**

The extension module Unohab EXM can be connected to control Uno hab CONTROL SET.

Furthermore, for example, other fans in the Airflow range can be current-monitored with the extension module.

**Any use other than the intended use is not permitted!**

**3.0 Technical data****Unohab EXM**

Ref.no. **90000997**

Supply **230 V~ 50/60 Hz**

Frequency must be identical with the fan to be monitored. Maximum load current of fan 2.0 A

**Relay contact:**

250 VAC 3A AC1 (ohmic load)

250 VAC 1A AC15 (AC relay, contactor)

24VDC 2A DC13 (DC relay, contactor)

Minimum load 1V/1 mA (gold contacts)

The relay is fitted with a gold contact. This enables the switching of very low DC currents. Once AC currents are switched, the contact can then only be used for this application.

Switching threshold adjustable via the potentiometer, approx. 10 mA to approx. 400 mA +-5mA, Setpoint strongly dependent on the fan to be monitored and its inductive / capacitive load

Installation **Standard flush-mounted box**

Temperature **-5 to +40 °C**

Protection cat. **IP20**

Protection class **2**

Dimensions **W40 x H40 x D29**

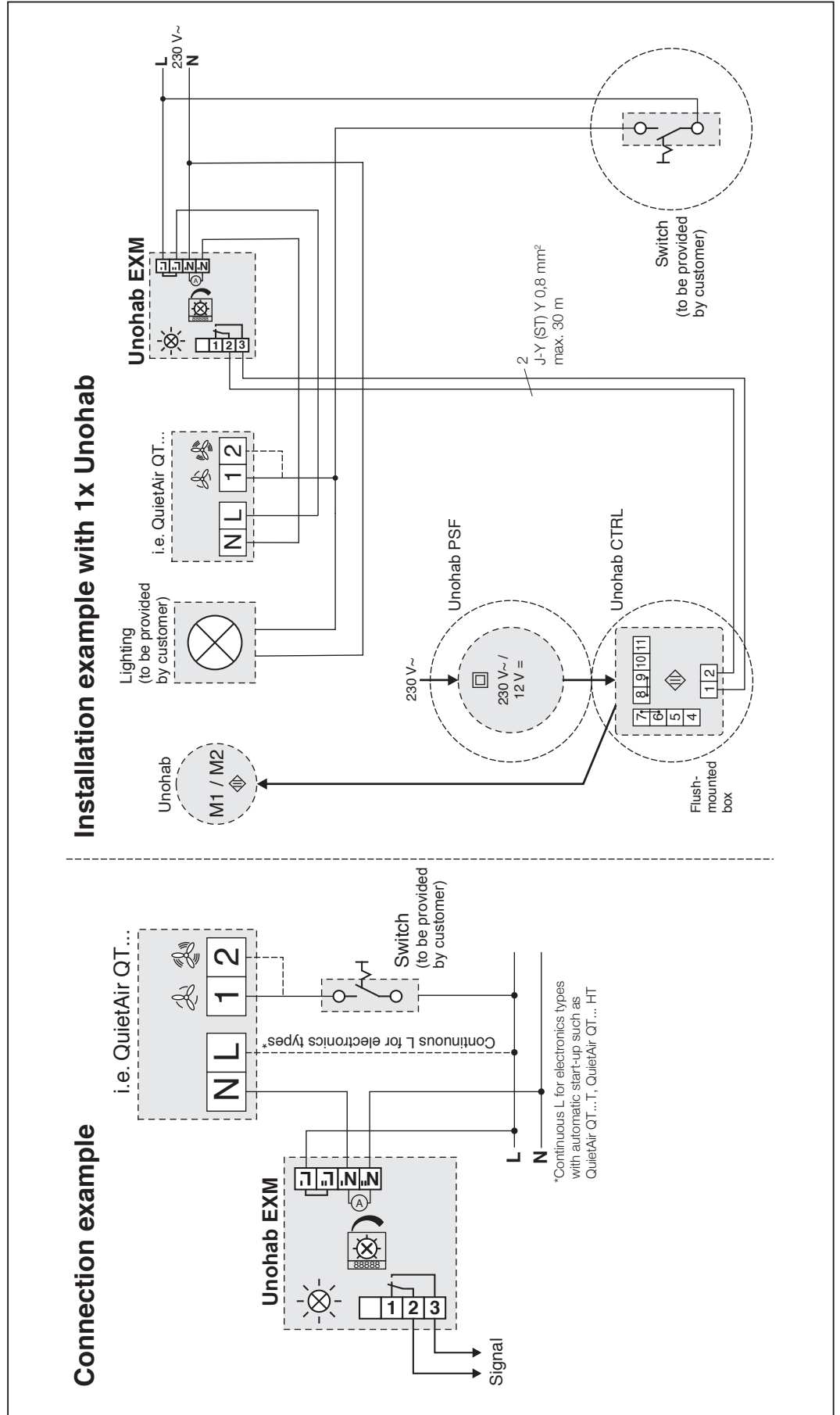
Circuit diagram **SS-1118**

Compliant with **DIN EN 60335-1**

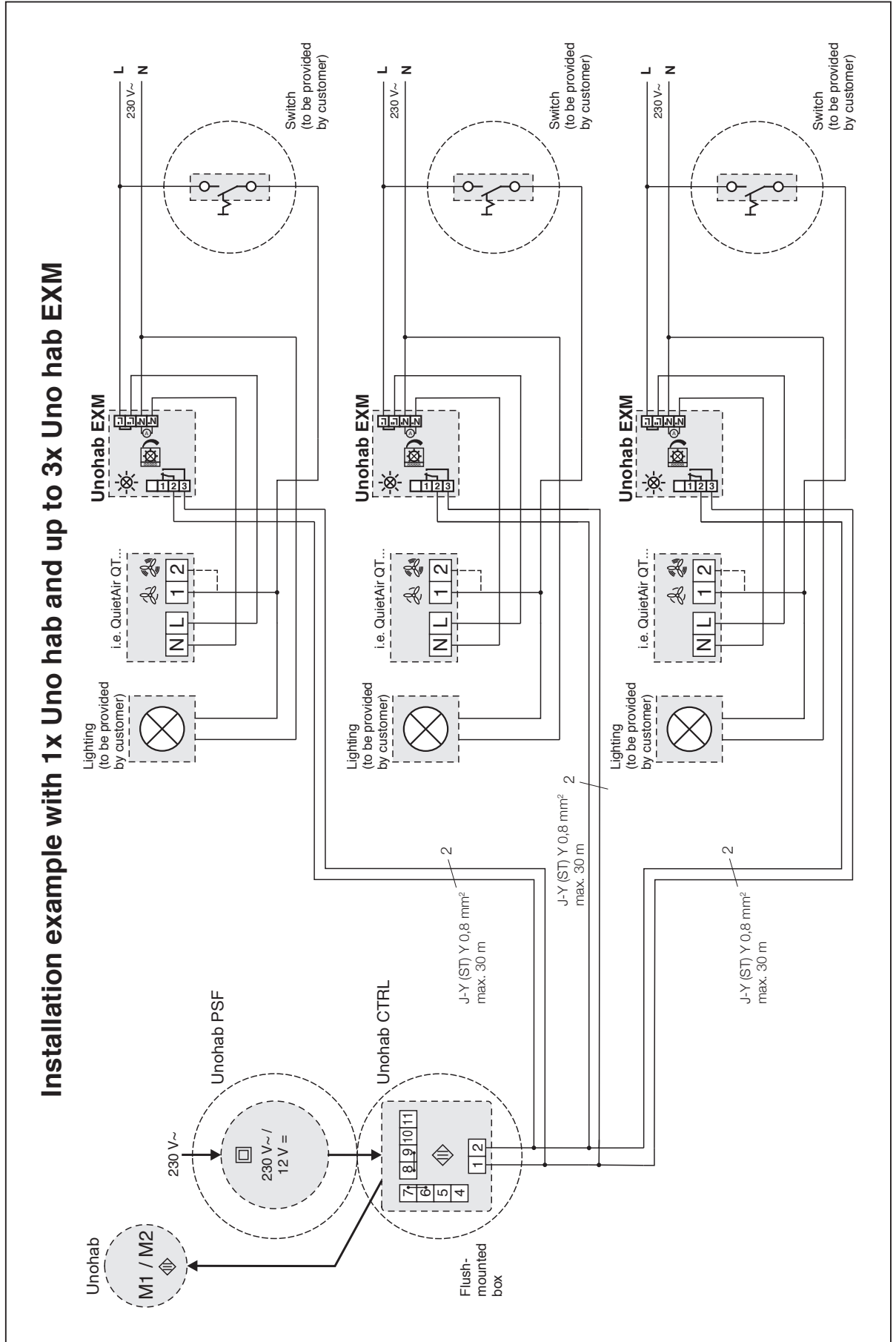
Designed and tested according to the latest regulations pursuant to the **EMC Directive**.

 CAUTION**CHAPTER 3****TECHNICAL  
DATA** NOTE

3.1 Principle/installation example SD-1



3.2 Installation example with a Unohab and up to 3 Unohab EXM SD-2



### CHAPTER 4

### FUNCTION

#### 4.0 Functional description

The Uno hab EXM extension module monitors the operating current of a fan. A relay contact indicates the operating status "Fan on" with a normally open contact. The relay contact can be integrated in an external control system for evaluation.

#### 4.1 Information for the qualified electrician

##### – Supply

The Uno hab EXM is intended for use in a flush-mounted box.

**Only qualified electricians are allowed access to the unit during operation.**

The Uno hab EXM is supplied with mains voltage via terminals L' and N'. Terminal L'' can be used as a terminal station for the fan power supply, it has no significance for the module itself.

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 NOTE

The fan current to be monitored takes place via terminals N' and N''. Thus, the N-supply of the fan **must** be conducted via terminal N''. **Uno hab EXM module is required for each fan to be monitored.**

 ATTENTION

**The extension module Uno hab EXM must only be operated within the range of the specified data. Accordingly, a safety buffer (fan tolerance) of approx. 10% to max. current must be observed. The permanent overloading of the module will result in its destruction!**

##### – Relay

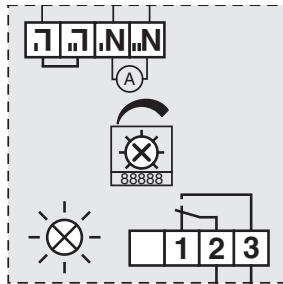
The relay contact can be used to indicate the switching state in external control systems.

Note contact load - see Technical data.

Contact terminal 2/3 closed means switching threshold exceeded, "Fan on". If the monitored current falls below the switching threshold, the contact terminal 2/3 will open again, "Fan off".

The relay is fitted with a gold contact. This enables the switching of very low DC currents. Once AC currents are switched, the contact can then only be used for this application.

#### 4.2 Adjust potentiometer / switching threshold



The majority of Airflow fan types are detected in the potentiometer position "min" (as delivered). If the current switching threshold is exceeded by a running fan, the relay will switch. This is simultaneously indicated by the green LED. Adjustment with the potentiometer is not necessary.

**In a minority of cases, it is necessary to adjust the switching threshold.**

##### Situation 1:

The relay has switched, the LED is lit up, but the fan is not on. This is because of the quiescent/standby current of the fan (internal electronic control of the fan). This is now above the switching threshold.

##### **Readjust:**

When the fan has stopped, slowly turn the potentiometer in the "max" direction, until the green LED goes out. Continue to turn fractionally for good measure. The switching threshold, which is above the quiescent/standby current of the fan, is now found.

**Situation 2:**

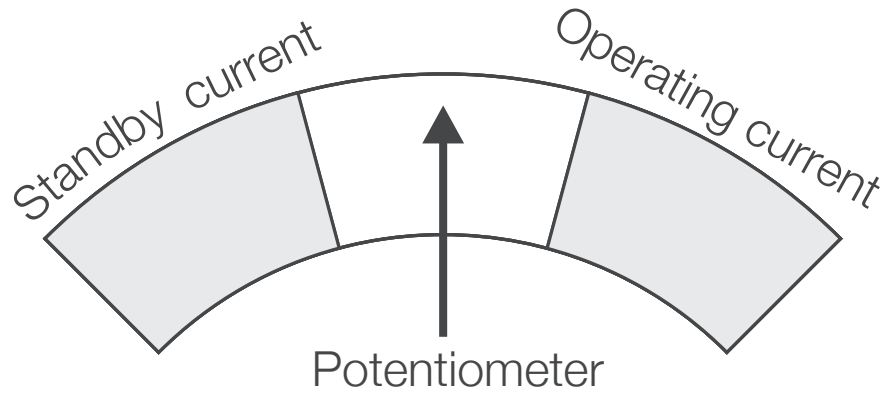
In the opposite case, the fan is on. The relay has not switched, the LED is off.

**Readjust:**

Turn the potentiometer in “min” direction until the LED lights up.  
The switching threshold is now below the fan operating current again.

 **NOTE****Note:**

Ideally, the switching threshold is set between the fan standby current and the fan operating current.





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