

# Catalogue

## 04/2009

### HAUTAU GLT control units and accessories

for smoke and heat exhaust and for ventilation



**HAUTAU**



# **HAUTAU Catalogue**

## **Building control systems HAUTAU GLT Control units and accessories 04/2009**

**HAUTAU GmbH**

P.O.Box 1151  
D 31689 Helpsen  
Phone 05724/393-0  
Telefax 05724/393-124  
Info@HAUTAU.de  
www.HAUTAU.de

Trade Register Stadthagen · HRB No. 2565

Bank Information

Volksbank in Schaumburg eG (Routing No. 255 91413) Account 645 273 600  
IBAN: DE 19 2559 1413 0645 2736 00 · SWIFT: GENODEF1BCK

Postbank Hanover (Routing No. 250100 30) Account 38 87-305  
IBAN: DE 63 25010030 0003 8873 05 · SWIFT: PBNKDEFF250

Sales Tax ID: DE 811 213 544

Printed in Germany · Reprint even in excerpts, not without the publisher's approval.

In consideration of progress, we reserve the right to apply construction modifications and to consequently change any figures, dimensions, weight specifications etc.

The figures do not show items in their actual size and are also not of the same proportion.



---

## Contents

	Page
<b>Labeling Control Units</b> .....	6
Smoke and heat exhaust control unit RAZ K .....	8
Smoke and heat exhaust control units RAZ Series 900 .....	10
Module units .....	13
Releases for smoke and heat exhaust control units .....	17
Releases for smoke and heat exhaust and ventilation control units .....	20
<b>Ventilation control units</b> .....	24
Ventilation control units in compact design .....	26
Ventilation control units in modular design .....	28
Module units .....	29
<b>Power supply units</b> .....	31
<b>EnOcean products</b> .....	32

## RWA technology capable of meeting the highest standards in terms of functionality and safety

### Control units in compact design

### Control units in modular design Series 900

Smoke and heat exhaust control systems for opening and closing which can also be used for ventilation and exhaustion.

Power and emergency power supply, mains quiescent current-controlled (line monitoring), system voltage 24 V DC.

Emergency power supply at least 72 hrs.

The control system with the double benefit: **Smoke and heat exhaust and convenient ventilation rolled into one!** Since the system is also used for ventilation, the operability of the smoke and heat exhaust is checked constantly.

#### Opening in the event of an emergency

- manually by fire pushbutton
- third-party activation of for example the fire alarm system
- by smoke and/or heat detector

#### Closing in the event of an emergency

- manually by reset button inside fire pushbutton
- alarm reset in control unit, then close by pressing the ventilation pushbutton.

#### Ventilation and exhaustion

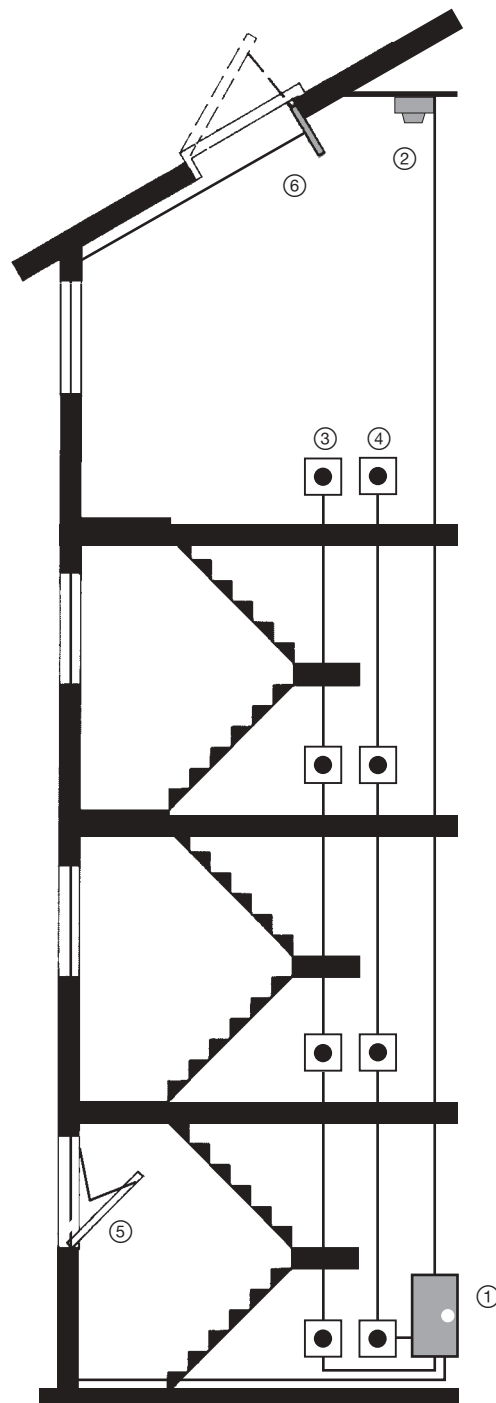
Daily ventilation by ventilation pushbutton (continuous opening of the windows).

Automatic operation by superordinate control systems:

- Automatic control including control and regulating variables such as wind, temperature, humidity or time
- Building control

Drives:

Direct drives including electric fitting stays, spindle and chain drives.



#### Installation example stairway

- ① Smoke and heat exhaust control unit RAZ ...
- ② Smoke or heat detector
- ③ Fire pushbutton
- ④ Ventilation pushbutton
- ⑤ Additional air element including drive
- ⑥ Smoke exhaust

## Labeling Control Units

### General information

The labeling of the smoke and heat exhaust control units (RAZ) always contains information on the maximum output current and the number of possible fire groups. The number of possible ventilation groups for use with smoke and heat exhaust control units and ventilation control units (LZ) depends on the output current of the control units.

### Smoke and heat exhaust control units



#### RAZ 9XX-Y

Number of fire groups

Max. output current in A

Output current : 8 = number of possible ventilation groups  
e.g. 56 A = 7 possible ventilation groups

Series 900

Smoke and heat exhaust control unit

### Ventilation control units



#### LZ 9XX

Max. output current in A

Output current : 8 = number of possible ventilation groups  
e.g. 56 A = 7 possible ventilation groups

Series 900

Ventilation control unit



## Characteristics of control units

To facilitate project planning, the following table provides the most important characteristics of the smoke and heat exhaust and ventilation control units.

Control unit	Output current (A)	2 battery packs 12 V (Ah)	Module GS 9	Module RWA 9	Width (mm)	Height (mm)	Depth (mm)	Available slot Top hat rail	Fire groups	Ventilation groups			
908-1	8	7,2	1	1	600	400	210	293	1	1			
916-1	16	18	2	1		600		600	703	1	2		
916-2				2					586	2			
924-1	24		3	1					600	600	643	1	3
924-2				2							526	2	
924-3				3							409	3	
932-1	32		7,2 + 18	4	1		1000		800	210	1304	1	4
932-2		2			1226	2							
932-3		3			1148	3							
932-4		4			1070	4							
940-1	40	18 + 18	5	1	1000	800	210	1255	1	5			
940-2				2				1176	2				
940-3				3				1098	3				
940-4				4				1020	4				
940-5				5				942	5				
948-1	48		6	1				1000	800	210	1194	1	6
948-2		2		1116	2								
948-3		3		1038	3								
948-4		4		960	4								
948-5		5		882	5								
948-6		6		804	6								
956-1	56	7,2 + 18 + 18	7	1	1000	800	210	1274	1	7			
956-2				2				1196	2				
956-3				3				1118	3				
956-4				4				1040	4				
956-5				5				962	5				
956-6				6				884	6				
956-7				7				806	7				
964-1	64	18 + 18 + 18	8	1	1000	800	300	1214	1	8			
964-2				2				1136	2				
964-3				3				1058	3				
964-4				4				980	4				
964-5				5				902	5				
964-6				6				824	6				
964-7				7				746	7				
964-8				8				668	8				
972-1	72	18 + 18 + 18	9	1	1000	800	300	1159	1	9			
972-2				2				1081	2				
972-3				3				1003	3				
972-4				4				925	4				
972-5				5				847	5				
972-6				6				769	6				
972-7				7				691	7				
972-8				8				613	8				
972-9				9				535	9				

# Smoke and heat exhaust control unit RAZ K

## Small unit in compact design

Can be used for opening and closing in the event of a fire and for general ventilation and exhaustion.

For use, for example, in stairways with an output current of 4 A in one fire and ventilation group.

## Function

### Opening in the event of an emergency:

manually by fire pushbutton, automatically by smoke and heat detector or third-party activation

### Closing in the event of an emergency:

manually by reset button inside the fire pushbutton

### Daily ventilation and exhaustion:

by ventilation pushbutton "OPEN-STOP-CLOSE" (continuous opening) and automatic closing by superordinate wind/rain sensor



Smoke and heat exhaust control unit RAZ K with a surface housing.

## Features

- Power and emergency power supply, mains quiescent current-controlled (line monitoring), system voltage 24 V DC.
- Available with a PVC surface and flush housing and cable feed from the top. Also available with a metal lockable housing. Easy four-screw installation. Protection class IP 30. Ambient temperature: +5 °C to +40 °C.
- Indicator lights on the control unit for alarm and line monitoring mains /battery pack, drives, fire pushbutton and smoke detector. Also inside a maintenance interval indicator.
- Potential-free contact for external alarm and error messages and connection options for ventilation pushbuttons, drives for supply air and a wind/rain sensor.
- Programmable ventilation of setting opening width, ventilation time and ventilation cycle
- In the event of a power failure during alarm opening, the "OPEN" command remains saved, allowing the control unit to open on battery power.
- The ventilation pushbutton will be blocked in the event of an alarm or any kind of failure. The "Mode" LED in the fire pushbuttons flashes in the event of mains failure.
- The smoke and heat exhaust control unit RAZ K corresponds the future EN standards





# Smoke and heat exhaust control unit RAZ K

## Technical specifications

Control unit		RAZ 704/B
Output current (A)		4
Battery packs, 12 V		2 x 1,3 Ah
Housing dimensions W x H x D (mm)	Surface housing (PVC)	287 x 236 x 112
	Flush housing (PVC)	283 x 232 x 70
	Surface housing (metal)	300 x 300 x 110
Fire groups		1
Ventilation groups		1

## Connection options

Automatic alarm triggering in dual conductor design	up to 10 detectors as smoke or heat detectors or activated by a third-party device (e.g. central fire alarm system)
Manual alarm triggering	up to 6 fire pushbuttons with display additional fire pushbuttons without display
Ventilation activation	up to 10 ventilation pushbuttons 1 wind/rain sensor
Drives	Output current max. 4 A, the total current consumption of the connected drives must not exceed this limit. When using a rain sensor, make sure to observe the current consumption limit of 5 A.

	Artikel-Code
Smoke exhaust control unit RAZ K, AP	219618
Smoke exhaust control unit RAZ K, UP	219621
Smoke exhaust control unit RAZ K, AP-metal	224424
Replacement battery pack, 12 V, 1,3 Ah	122624
Lock with key (for RAZ K, AP-metal)	162288



## Smoke and heat exhaust control unit, series 900

### Control units in modular design

We developed triggering and monitoring control units in modular design for use with smoke and heat exhaust control systems.

They are made of state-of-the-art electronic components and distinguish themselves by their:

**high operating reliability**

**installation-friendly design and trouble-free maintenance**

**individual control options**

### Function

Thanks to their modular design the control units can be adjusted to perfectly meet the requirements of any particular project. They can be adjusted and upgraded at any time and are easy to install and maintain.

If repairs are necessary, only the modules need to be replaced.

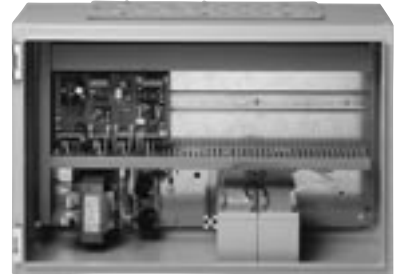
The wiring does not have to be loosened. The modules are fitted with pluggable connection terminals for wire cross sections of up to 2,5 mm<sup>2</sup>. Since they are easy to access, the use of distributing bus bars is only necessary in exceptional cases, for example, in connection with special control units. All wires are placed in cable conduits.

The internal wiring provides each module with the necessary information on the condition of the entire control unit. Some modules are fitted with jumpers that allow you to make individual adjustments. All safety-relevant circuits are constantly monitored. The operating mode and malfunction indicators in the modules allow you to identify possible errors without a problem.

When running on battery, the modules are switched automatically into a power saving mode, the operating mode display inside the fire pushbutton goes out, the malfunction indicator starts to flash, and all ventilation functions are blocked.

### Features

- Emergency power supply with integrated charger.  
Automatic switch to battery power in case of a mains malfunction.  
Emergency power supply at least 72 hrs.
- Priority of the fire pushbuttons and smoke detectors over the ventilation pushbuttons. Ventilation pushbutton blocked in the event of a mains failure.
- Ventilation pushbuttons without function when "superordinate control systems" (wind/rain sensor, air conditioning, etc.) are turned on.
- Lines to electric drives, fire pushbuttons, and smoke detectors monitored. Visual display by LEDs in the event of a malfunction.
- Diagnostic display in the control unit allows for the analysis of error messages (error location in the different lines).
- Alarm can be reset in the control unit by pressing the reset button.
- If a mains failure occurs during opening and alarm, the RAZ will save the command and continue to open on emergency power.
- The drives are controlled and supplied with 24 V DC voltage by the control unit.
- The smoke exhaust control unit has been certified by TÜV Thuringia Anlagentechnik GmbH, approval certificate no. 1942/03



Smoke exhaust control unit RAZ 908-1 in basic configuration with a clearance of 293 mm on the top hat rail



Smoke exhaust control unit RAZ 916-2 in basic configuration with a clearance of 586 mm on the top hat rail



Smoke exhaust control unit RAZ 924-3 basic configuration with a clearance of 409 mm on the top hat rail

Note: battery packs of smoke exhaust control units must be replaced every 5 years.



# Smoke and heat exhaust control unit, series 900

## Technical specifications

### The upgradable basic configuration: RAZ 908, 916 and 924

The basic configuration of each control unit consists of:

- housing with screw plate and top hat rail
- transformer TF 08/16/24
- rectifier module GL 9
- load module LAD 9
- group control module GS 9
- smoke and heat exhaust ventilation module RW 9
- smoke detector module RM 9
- battery pack

Each basic configuration is fully functional.

The group modules used are adjusted to handle the max. output current of the control unit. Sharing the power output with other fire and ventilation groups is possible.

The maximum output current of the power supply or the breaking capacity of the modules must not be exceeded. Additional modules to automate the smoke and heat exhaust ventilation system can be used as well.

The corresponding space requirements (mm) must be considered.

The housings are available in different sizes. They are fitted with a galvanized screw plate and top hat rail.

The result is an even larger equipotential surface and increased electromagnetic compatibility (EMC).

Control unit	<b>RAZ 908-1</b>	<b>RAZ 916-1</b>	<b>RAZ 916-2</b>	<b>RAZ 924-1</b>	<b>RAZ 924-2</b>	<b>RAZ 924-3</b>
Output current (A)	8	16	16	24	24	24
Battery packs, 12 V	2 x 7,2 Ah	2 x 18 Ah	2 x 18 Ah	2 x 18 Ah	2 x 18 Ah	2 x 18 Ah
Group control module GS 9	1	2	2	3	3	3
Smoke and heat exhaust ventilation module RWA 9	1	1	2	1	2	3
Smoke detector module RM 9	1	1	2	1	2	3
Housing dimensions W x H x D (mm)	600 x 400 x 210	600 x 600 x 210	600 x 600 x 210	600 x 600 x 210	600 x 600 x 210	600 x 600 x 210
Top hat rail clearance (mm)	293	703	586	643	526	409
Fire groups	1	1	2	1	2	3
Ventilation groups	1	2	2	3	3	3
Ambient temperature:	+5 °C to +40 °C					



# Smoke and heat exhaust control unit, series 900

## Technical specifications

### Smoke and heat exhaust control units RAZ 900 with output currents of up to 72 A

The smoke and heat exhaust control units are cascadable, i.e. smoke and heat exhaust control systems with output currents exceeding 24 A are available as well.

Pre-wired control units **RAZ 932, 940, 948 and 972**

consist of:

- housing with screw plate and top hat rail
- 2 (or 3) transformers TF 08/16/24
- 2 (or 3) rectifier module GL 9
- 2 (or 3) load module LAD 9
- 2 (or 3) group control module GS 9
- 2 (or 3) smoke and heat exhaust ventilation module RW 9
- 2 (or 3) smoke detector module RM 9
- battery packs

These basic control units are fully functional. The group control modules used allow for operation in 2 or 3 fire and ventilation groups with up to 8 A for each module. The Smoke and heat exhaust control unit can be upgraded by fitting it with additional group control modules. The maximum output current of the power supply or the breaking capacity of the modules must not be exceeded.

Additional modules to automate the smoke and heat exhaust control system can be used as well.

Control unit	RAZ 932-2	RAZ 940-2	RAZ 948-2	RAZ 956-2	RAZ 956-3	RAZ 964-2	RAZ 964-3	RAZ 972-3
Output current (A)	32	40	48	56	56	64	64	72
Battery packs, 12 V, 2 each	7,2+18 Ah	18+18 Ah	18+18 Ah	7,2+18+18 Ah	7,2+18+18 Ah	18+18+18 Ah	18+18+18 Ah	18+18+18 Ah
Group control module GS 9	4	5	6	7	7	8	8	9
Smoke and heat exhaust ventilation module RWA 9	2	2	2	2	3	2	3	3
Smoke detector module RM 9	2	2	2	2	3	2	3	3
Housing dimensions W x H x D (mm)	1000 x 800 x 210	1000 x 800 x 210	1000 x 800 x 210	1000 x 1000 x 300	1000 x 1000 x 300	1000 x 1000 x 300	1000 x 1000 x 300	1000 x 1000 x 300
Top hat rail clearance (mm)	1226	1176	1116	1196	1118	1136	1058	1003
Fire groups	2	2	2	2	3	2	3	3
Ventilation groups	4	5	6	7	7	8	8	9

	Item code
Smoke exhaust control unit RAZ 908-1	183251
Smoke exhaust control unit RAZ 916-1	183254
Smoke exhaust control unit RAZ 916-2	183257
Smoke exhaust control unit RAZ 924-1	183260
Smoke exhaust control unit RAZ 924-2	183263
Smoke exhaust control unit RAZ 924-3	183267
Smoke exhaust control unit RAZ 932-2	183273
Smoke exhaust control unit RAZ 940-2	183285
Smoke exhaust control unit RAZ 948-2	183300
Smoke exhaust control unit RAZ 956-2	183318
Smoke exhaust control unit RAZ 956-3	183321
Smoke exhaust control unit RAZ 964-2	183339
Smoke exhaust control unit RAZ 964-3	183342
Smoke exhaust control unit RAZ 972-3	183366

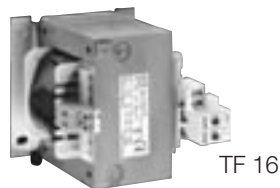
Special control units available on request

## Module units for RAZ 900

### Power supply units

Transformers are used to supply the control units with mains voltage. The mains terminals and the mains fuse are installed on the transformer.

Input voltage	230 V AC
Output voltage	Sek I 21 V AC Sek II 27 V AC
Mains fuse	TF 08 8 A 1,6 A TF 16 16 A 3,5 A TF 24 24 A 5,0 A



TF 16

### Rectifier module GLR 9

The rectifier module is mounted directly on the screw plate. The control unit is reverse battery protected by a time-lag fuse.

Input voltage	21 V AC
Output voltage	24 V DC (max. 32 V)
Battery voltage	24 V DC (max. 27,6 V)
Capacity	24 A 4 min. 1,2 A 16 min.



GLR 9

### Charger module LAD 9

The load module creates the charging voltage required for the battery packs and monitors the battery pack and mains connections for disruptions.

Input voltage	27 V AC
Charging voltage	27,6 V DC
Fuse	T 1,6 A / 250 V
Space requirements	55 mm



LAD 9

### Group control module GS 9

The group control module is used to control the motors of each group. The microfuse is monitored and dependent on the number of connected motors and the current flowing through them.

Supply voltage	24 V DC (max. 32 V)
Output current	max. 8 A
Ventilation pushbuttons	LT
Fuse	microfuse dependent on connected drives
Opening time limit	up to 60 s
Display malfunction	yellow LED
Space requirements	55 mm



GS 9

### Smoke and heat exhaust module RWA 9

The fire pushbuttons are connected to the smoke and heat exhaust module. The "OPEN" and "CLOSE" buttons are monitored for break of short circuit. Any malfunction and alarm is indicated by LEDs. The "OK" "Malfunction" and "Alarm" outputs are short circuit-proof.

Supply voltage	24 V DC (max. 32 V)
Connection	up to 10 fire pushbuttons
RWA pushbutton	FR 900
Display alarm	red LED
Display malfunction	yellow LED
Monitoring	break and short circuit
Space requirements	41 mm



RWA 9

## Module units for RAZ 900

### Smoke detector module RM 9

The smoke detector module supplies and monitors the smoke detectors installed in one line. Any malfunction and alarm is indicated by LEDs.

As an alternative, an external fire alarm system can be connected as well (via potential-free contact).

Supply voltage	24 V DC (max. 32 V)
Connection	up to 10 smoke detectors
Monitoring	break and short circuit
Display release	red LED
Display OK	green LED
Space requirements	37 mm



RM 9

### Wind/rain module WR 9

The impulses issued by the wind transmitter WG/H 10 and the signal sent by the rain sensor REM/H 10 are analysed by the wind/rain module. The release is triggered when the limits have been exceeded. A potentiometer is used to adjust the set point.

Supply voltage	24 V DC (max. 32 V)
Connection	wind transmitter WG/H 10 rain sensor REM/H 10
Start delay	20 s (wind), 0 s (rain)
Switch-off delay	60 s (wind and rain)
Display wind force	optional
Display wind/rain alarm	red LED
Space requirements	37 mm



WR 9

### Wind direction control module WRT 9

The signals issued by wind direction transmitter WRG 10 and wind speed transmitter WG/H 10 are processed by the wind direction control module. The windows located on the north, east, south, and west side of the building are controlled by the corresponding GS 9 group module. When wind speeds reach more than 1 m/s, the sashes on the downwind side open while the sashes on the upwind side close when the smoke and heat exhaust control system is triggered.

Supply voltage	24 V DC (max. 32 V)
Outputs	RB1 ... RB4
Displays	alarm and malfunction
Space requirements	55 mm



WRT 9

### Potential-free input module PFE 9

The potential-free input module is used to process the potential-free input signals issued by the control unit. The input signals are indicated by LEDs.

Supply voltage	24 V DC (max. 32 V)
Connection	+ / - 24 V DC and 2 relays
Display	2 x green LEDs
Space requirements	37 mm



PFE 9

### Potential-free output module PFA 9

The output module contains two relays used for controlling external 24 V DC devices. The output signals are indicated by LEDs.

Supply voltage:	24 V DC (max. 32 V)
Output	2 x change-over contacts 24 V DC, 1 A
Display	2 x green LEDs
Space requirements	37 mm



PFA 9

## Module units for RAZ 900

### Potential-free output module PFW 9

The output module contains two relays used for controlling external 230 V DC devices. The output signals are indicated by LEDs.

Supply voltage:	24 V DC (max. 32 V)
Output	2 x change-over contacts 230 V AC, 1 A
Display	2 x green LEDs
Space requirements	37 mm



PFW 9

### Fault module STM 9

Used for monitoring the wires of star-wired drives for each GS 9 (up to 5 units)

Supply voltage	24 V DC (max. 32 V)
Display	5 x green LEDs
Display malfunction	1 x yellow LED
Space requirements	37 mm



STM 9

### Signal module SM 9

used to control flashlight and alarm siren

Supply voltage	24 V DC (max. 32 V)
Output	2 x 24 V DC 0,5 A
Display	red LED
Connection	1 flashlight 1 alarm siren
Space requirements	37 mm



SM 9

### Time module ZM 01

used for time-dependent control in combination with module PFE 9  
two-channel technology including 42 memory slots  
(e.g. Mo-Fr 8 am "open" = 1 memory slot)  
150 hrs of power reserve  
with LED time display

Space requirements	38 mm
--------------------	-------



ZM 01

### Earth fault monitoring module EUM 9

The earth fault monitoring module is used to monitor the live external connections of the control unit for earth faults

Supply voltage	24 V DC (max. 32 V)
Connection	earth fault
Displays	malfunction
Space requirements	37 mm



EUM 9

## Module units for RAZ 900

### SMS module SMS 9

This module can be used to control the ventilation functions "OPEN / CLOSE window" by sending SMS text messages. The module can also be used to send "ALARM" or "MALFUNCTION" signals from the central emergency power unit.

To use this function, you need a commercially available phone card (SIM card).

Supply voltage	24 V DC (max. 32 V)
Interface	GSM terminal TC 35
Inputs	8 x +24 V active 2 x OPEN / CLOSE RWA bus 4 x potential-free input
Outputs	8 x +24 V active 2 x OPEN / CLOSE ventilation pushbutton bus 2 x OPEN / CLOSE ventilation bus
Displays	alarm and malfunction
Space requirements	122 mm



SMS 9

	Item code
Power supply unit TF 08, 24 V, 8 A	183248
Power supply unit TF 16, 24 V, 16 A	183245
Power supply unit TF 24, 24 V, 24 A	183242
Rectifier module GLR 9/8	183779
Rectifier module GLR 9/24	183782
Group control module GS 9	183077
Charger module LAD 9	182990
Smoke and heat exhaust ventilation module RWA 9	183059
Smoke detector module RM 9	183032
Wind / rain module WR 9	183128
Wind direction control module WRT 9	193915
Potential-free input module PFE 9	182975
Potential-free output module PFW 9	183122
Potential-free output module PFA 9	183071
Signal module SM 9	185251
Fault module STM 9	183398
Time module ZM 01	144774
Earth fault monitoring module EUM 9	193918
SMS module SMS 9	193921
Battery pack 12 V, 7,2 Ah (2 units for RAZ 908-1)	145848
Battery pack 12 V, 18 Ah (2 units for RAZ 916-924)	122765
Locking cylinder SZ	183419



## Releases for smoke and heat exhaust control units

### Fire pushbuttons FR 900 Si and FR 900 SimA

This fire pushbutton can be used to control the function of the smoke and heat exhaust control unit. Intended for use with control units series 900 and the RAZ K.

Any connected she sashes can be opened and closed in emergency situations.

#### Model

FR 900 Si = with display  
FR 900 SimA = with display and acoustic alarm device

Surface PVC or aluminium housing with glass pane and key, lockable. Can be mounted on the switch box. Surface and concealed cable feed.

Display "MODE" (LED green), "MALFUNCTION" (LED yellow) and "ALARM" (LED red). Acoustic alarm device can be set to alarm and/or malfunction.

Functional principle	manual activation
Activation by	pressing the button
Signal transmission	normally open contact
Wire monitoring	wire disruption and short circuit
Installation height	max. 1,4 m
Protection class	IP 40
Rated voltage	24 V DC
Current consumption	max. 10 mA
Dimensions W/H/D	124 x 124 x 36,5 mm



FR 900

	grey	blue	Item code red	yellow	orange
Fire pushbutton FR 24/M Si, complete	183605	183608	183611	183614	183617
Fire pushbutton FR 24/M SimA, complete	183620	183623	183626	183629	183632
Fire pushbutton FR 24/M Si-AL, <b>in aluminium housing</b> , complete	183635			183638	194316
Fire pushbutton FR 900 Si, complete	183464	183467	183470	183473	183476
Fire pushbutton FR 900 SimA, complete	183479	183482	183485	183488	183491
Fire pushbutton FR 900 Si-AL, <b>in aluminium housing</b> , complete	183494			183497	194319
Glass pane for fire pushbutton					122576
Key for fire pushbutton					122579

## Releases for smoke and heat exhaust control units

### Smoke detector RM 523

#### smoke detector in dual conductor design

The RM 523 is capable of detecting smouldering and open fires with smoke formation. It makes use of the scattered light principle. The light transmitter and receiver inside the measuring chamber are arranged in a way that prevents the light beam of the transmitter from hitting the receiver directly. Only the light refracted by floating particles (Tyndall effect) reaches the receiver and is converted into an electrical signal.

Model	surface, colour white
Functional principle	scattered light (Tyndall effect)
Type of activation	smoke
Response threshold	according to DIN EN 54-7
VdS approval	G207123
Signal transmission	current increase, dual conductor design
Monitoring surface <sup>1)</sup>	up to 150 m <sup>2</sup>
Installation height <sup>1)</sup>	up to 16 m
Protection class according to IEC 529	IP 44
Rated voltage	24 V DC
Ambient temperature environmental condition	-25 °C to +60 °C
humidity (constant, without bedewing) ≤ 34°C	10 - 95 % rel/F
environmental condition humidity (constant, without bedewing) >34°C	max. 35 g/m <sup>3</sup> min. 10 % rel/F
Current consumption	in standby 120 µA, during alarm 19 to 22,5 mA
Dimensions	Ø 118 x height 70 mm
Weight	188 g

Note: battery packs of smoke exhaust control units must be replaced every 5 years.



RM 523

### Heat detector TM 523

#### heat detector in dual conductor design

The TM 523 is capable of detecting open fires with or without smoke formation. An NTC temperature sensor measures the speed of the temperature increase.

Model	surface, colour white (RAL 9010)
Functional principle	NTC temperature sensor
Type of activation	speed of temperature increase
Response threshold	according to DIN EN 54-5
VdS approval	G207124
Signal transmission	current increase, dual conductor design
Monitored surface <sup>1)</sup>	up to 40 m <sup>2</sup>
Installation height <sup>1)</sup>	up to 7,5 m
Protection class according to IEC 529	IP 44
Rated voltage	24 V DC
Ambient temperature environmental condition	-25 °C to +60 °C
humidity (constant, without bedewing) ≤ 34°C	10 - 95 % rel/F
environmental condition humidity (constant, without bedewing) >34°C	max. 35 g/m <sup>3</sup> min. 10 % rel/F
Current consumption	in standby 120 µA, during alarm 19 to 20 mA
Dimensions	Ø 118 mm x height 70 mm
Weight	188 g

<sup>1)</sup> Values depending on ceiling construction (height and pitch). Refer to the corresponding guidelines for the applicable values.



TM 523

	Item code
Smoke detector RM 523	220914
Heat detector TM 523	220917
Ball stroke protection for RM 523 or TM 523	184491

## Releases for smoke and heat exhaust control units

### Flashlight BL 01

**weather-proof Xenon signal lamp. Ideal for warning and alarm systems.**

Solid-state circuit offering a high degree of efficiency, protected against reverse polarity (direct current model)

Specially designed dome to increase the output of perceptible light

Rugged construction including polycarbonate lens with housing and base made of UV-stabilised polycarbonate / ABS

The lights will be supplied with a 1 m connection cable, protective cable sheathing and detachable screw plate for multipoint attachment. Suitable for indoor and outdoor use.

Rated voltage	24 V DC
Voltage range	18 - 30 V DC
Current consumption	18 - 30 V DC
Strobe frequency	125 mA, 1 Hz
Strobe energy	1,2 J
Ambient temperature	-20 °C to +40 °C
Lifespan of the flashlight	> 5 M flashes
Protection class	IP 65
Colour	red
Dimensions	Ø 84 mm x height 79 mm



BL 01

### Alarm siren AS 01

**Weather-proof acoustic alarm device. Great sound volume at low current consumption.**

Flame-retardant ABS plastic housing

Internal jumpers can be used to switch to continuous tone, increasing and decreasing tone volume and pulse tone

External synchronisation: established via additional line, making it possible to switch the device remotely

24 V DC model suitable for fire alarm systems (reverse polarity protection)

Instructions included in scope of supply.

Rated voltage	24 V DC
Voltage range	12 - 30 V DC
Current consumption	20 mA
Volume at a distance of 1 m	110 <sup>-3</sup> dB (A)
Ambient temperature	-40 °C to +55 °C
Frequency	800 / 1000 Hz
Protection class	IP 65
Colour	red
Dimensions (W/H/D)	166 x 166 x 116,5 mm



AS 01

	Item code
Flashlight BL 01	147098
Alarm siren AS 01	147101

## Releases for smoke and heat exhaust and ventilation control units

### Ventilation pushbutton LT

Three-way pushbutton, function "OPEN-STOP-CLOSE"  
(for continuous opening of the windows), with display

Design flush  
for flush/surface socket Ø 55 mm, depth 40 mm



LT

### Ventilation pushbutton LTA

Like LT with toggle for switching between manual and automatic

### Rotary switch DS 010

Locking pushbutton, function "OPEN-STOP-CLOSE" (for continuous opening of the windows). Max. capacity 8 A.

Design flush  
for flush/surface socket Ø 55 mm, depth 40 mm



DS 010

### Key switch SS 010

Key switch for profile cylinders (cylinders not included)  
only suitable for flush frames (great installation depth)  
function "OPEN-CLOSE"

Design flush  
for flush/surface socket Ø 55 mm, depth 60 mm



SS 010

### Key pushbutton ST 010

Key pushbutton for profile cylinders (cylinders not included)  
only suitable for flush frames (great installation depth)  
function "OPEN-CLOSE"

Design flush  
for flush/surface socket Ø 55 mm, depth 60 mm



ST 010

### Rocker switch WS 010

Two-way switch, function "OPEN-STOP-CLOSE"

Design flush  
for flush/surface socket Ø 55 mm, depth 40 mm



WS 010

### Room thermostat TH 010

Room thermostat for opening and closing windows automatically.  
Output potential-free change-over contact 230 V AC max. 4 A

Design flush  
for flush/surface socket Ø 55 mm, depth 40 mm



TH 010

### Wind sensor WM/H 10

Impulses issued by the WG/H 10 wind transmitter are processed, and the wind force is displayed in Beaufort.

The wind alarm limit is adjustable.

Rated voltage 24 V AC-DC  
Ambient temperature -20 °C to +60 °C  
Start delay 20 s  
Switch-off delay 60 s

Output Potential-free  
change-over contact 24 V max. 1 A  
Design flush  
for flush/surface socket Ø 55 mm, depth 40 mm



WM/H 10

## Releases for smoke and heat exhaust and ventilation control units

### Wind direction indicator WRA 10

The wind direction is indicated in 16 different positions by green LEDs. The signal issued by the WRG 10 is decoded and attributed to the wind direction.

Rated voltage	24 V DC, (max. 32 V)
Current consumption	20 mA
Transmission	serial data packages
Design	flush
	for flush / surface socket Ø 55 mm, depth 40 mm



WRA 10

### Key switch AP

Key switch for profile cylinder, in metal housing

**IP 44**, function "OPEN-CLOSE" (cylinders not included)

Design surface housing



Key pushbutton AP

### Key pushbutton AP

Key pushbutton for profile cylinder, in metal housing,

**IP 44**, function "OPEN-CLOSE" (cylinders not included)

Design surface housing



Emergency stop button AP

### Emergency stop button AP

Safety pushbutton in surface housing, **IP 44**

Design surface housing

### Rocker switch AP

Gear in surface housing, **IP 44**,

function "OPEN-CLOSE"

Design surface housing



Gear AP

### Note

The products listed on pages 18 - 19 have to be combined with the adjacent flush frames.



Flush frame single, double or triple



Surface housing single, double or triple

## Releases for smoke and heat exhaust and ventilation control units

### Room hygrostat HG 120

Room hygrostat for opening and closing windows automatically depending on the humidity in the room.

Output potential-free change-over contact 230 V AC max. 4 A



HG 120

### Wind transmitter WG/H 10

Wind transmitter with console, for closing ventilation sashes automatically, in combination with a HAUTAU ventilation or smoke and heat exhaust control system including an integrated wind/rain module.



WG/H 10

### Rain sensor REM/H 10

Rain sensor with console and heatable probe, for closing windows automatically in rain or snow.

Rated voltage 24 V AC-DC  
 Current consumption 6 W  
 Automatic heating can be switched on < 60 °C  
 Start delay 3 s  
 Switch-off delay 10 s  
 Output potential-free  
 Change-over contact 24 V max. 1 A  
 Dimensions W/H/D 82 x 80 x 55 mm  
 Ambient temperature -20 °C to +75 °C  
 Protection class IP 65



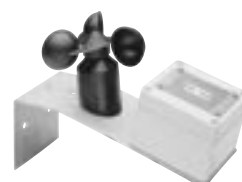
REM/H 10

### Wind transmitter/rain sensor WREM/H 10 with console

Combination of wind transmitter and rain sensor.

Wind sensor for closing windows automatically in strong winds. Limit can be set using wind sensor WM/H 10 or wind/rain modules WR 704 and WR 9. Rain sensor with heatable probe, for closing windows automatically in rain or snow.

Rated voltage 24 V AC-DC  
 Current consumption 6 W  
 Automatic heating can be switched on < 60 °C  
 Start delay 3 s (rain)  
 Switch-off delay 10 s (rain)  
 Output potential-free  
 Change-over contact 24 V max. 1 A  
 Dimensions W/H/D 82 x 80 x 55 mm  
 Ambient temperature -20 °C to +75 °C  
 Protection class IP 65

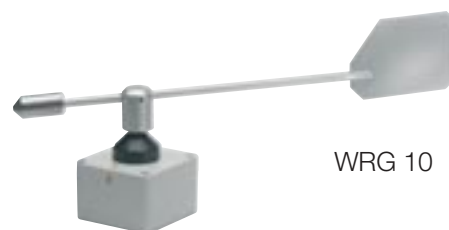


WREM/H 10

### Wind direction transmitter WRG 10

The wind direction is converted into 16 encoded wind direction signals by the position of the vane and transmitted as serial data packages to the WRA 10 wind direction indicator.

Rated voltage 24 V AC, (max. 32 V)  
 Current consumption 20 mA



WRG 10



## Releases for smoke and heat exhaust and ventilation control units

		Item code
Ventilation pushbutton LT	insert	219534
Ventilation pushbutton LTA	insert	225802
Rotary switch DS 010	insert	219867
Key switch SS 010 for profile cylinder	insert	219873
Key switch ST 010 for profile cylinder	insert	219876
Gear WS 010	insert	219870
Thermostat TH 010	insert	219888
Wind sensor WM/H 10	insert	223788
Wind direction indicator WRA 10	insert	223794
Flush frame, single		219852
Flush frame, double		219855
Flush frame, triple		219858
Surface housing, single		219879
Surface housing, double		219882
Surface housing, triple		219885
Key switch AP		122444
Key pushbutton AP		122447
Emergency stop button AP		183863
Rocker switch AP		183530
Room hygrostat HG 120 with 2 micro switches		122525
Wind transmitter with console WG/H 10		182846
Rain sensor with console REM/H 10		182837
Wind transmitter/rain sensor with console WREM/H 10		182835
Wind direction transmitter WRG 10		190903

## Electrical ventilation for increased convenience and security

### Convenience thanks to automatic control

Wind strips or roof-top windows need elaborate rods to be opened for ventilation. The maximum number of openers per lever or spindle gear is limited. This means that larger systems require even more positions in which the lever or the crank must be operated. Monitoring and controlling ventilation as needed, therefore, requires a great deal of personnel and time.

Except for an electrical feed line, electrically operated windows do not require any elaborately installed rods. The simplest version of these windows requires only person to press a switch to open one or several windows or roof vents. Since they can be held in each position with this switch, their opening width is continuously adjustable.

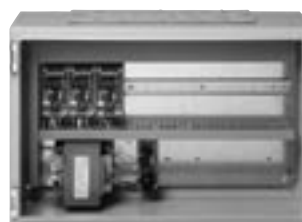
When used in combination with our central ventilation units, the windows can be opened and closed automatically depending on time, temperature, wind or rain.

Once opened, the windows do not stay open, for example, when it rains, but close automatically.

This helps minimise damage caused by windows that stay open in unfavourable conditions.

Since electrically operated windows can be connected to superordinate building control systems, ventilation can be programmed in consideration of the heating and air conditioning system.

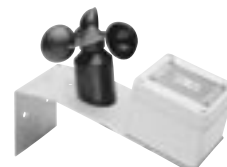
Our HAUTAU ventilation control units can also be used to actuate 24 V DC and/or 230 V AC drives.



Example ventilation control unit in modular design



Room hygrostat



Wind transmitter and rain sensor

## Ventilation control units LSF 24 and LSF 230

### Functional description

The LSF 24 and LSF 230 ventilation control systems can be used to conveniently control motor-powered window and blind drives using the infrared remote control. The release can also be triggered by a superordinate CLOSE command (e.g. key pushbutton, wind/rain sensor), a maximum of 10 ventilation pushbuttons or radio remote controls.

The command sent from a CLOSE contact is given first priority, while the ventilation pushbutton signal receives the second and the radio control command receives the third priority.

The buttons on the control unit are for the OPEN, STOP and CLOSE commands. The display shows the functions OPEN, CLOSE and DRIVE MOVING.

The ventilation control system can be run in three different modes:

**Manual:** Control by buttons and remote control only.

**Control:** Execution of custom ventilation program set by the user. This option makes it possible to specify the opening width of the window as well as the period after which the window is to be closed and opened again (ventilation cycle).

**Temperature control:** Ventilation is triggered by an optional thermostat. The switching temperature is set directly on the thermostat.

Opening time, ventilation cycle and opening width are programmed using the keypad and shown on the three-digit LED display.

**The 24 V DC model requires an external power supply source.**







## Ventilation control units LSF 24 and LSF 230

### Technical specifications

	<b>LSF 24</b>
Supply voltage	24 V DC
Ventilation groups	1
Output	Lock 24 V / max. 1,5 A
Connection CLOSE	24 V DC (1st priority), e.g. key pushbutton or wind/rain sensor
Integrated ventilation pushbutton	OPEN / CLOSE / STOP (2nd priority)
Connection external, potential-free ventilation pushbuttons	24 V DC, max. 10 units
Fuse	T 1,6 mA A 250 V
Radio remote control	Open / Close / Stop (3rd priority) Frequency 433,92 MHz, free-field range up to 30 m 10 remote controls programmable
Infrared remote control	Open / Close / Stop (3rd priority) RC5 code, range up to 10 m 10 buttons programmable
Antenna	integrated
Design	concealed socket
Protection class	IP 20
Dimensions	71 x 71 x 43 mm

	<b>LSF 230</b>
Supply voltage	230 V AC
Ventilation groups	1
Output	Lock 230 V / max. 1,5 A
Connection CLOSE	24 V DC (1st priority), e.g. key pushbutton or wind/rain sensor
Integrated ventilation pushbutton	OPEN / CLOSE / STOP (2nd priority)
Connection external, potential-free ventilation pushbuttons	24 V DC, max. 10 units
Fuse	–
Radio remote control	Open / Close / Stop (3rd priority) Frequency 433,92 MHz, free-field range up to 30 m 10 remote controls programmable
Infrared remote control	Open / Close / Stop (3rd priority) RC5 code, range up to 10 m 10 buttons programmable
Antenna	integrated
Design	concealed socket
Protection class	IP 20
Dimensions	71 x 71 x 43 mm

	Item code
Ventilation control unit LSF 24 including infrared remote	218280
Ventilation control unit LSF 230 including infrared remote	218283
Ventilation control unit LSF 24 with thermostat including infrared remote	219396
Ventilation control unit LSF 230 with thermostat including infrared remote	219399
<b>Accessories</b>	
Infrared remote	217524
Power supply unit TF 01, UP, 0,95A	223797
Power supply unit TF 02, AP, 2A	163200
Power supply unit TF 04, AP, 4A	163203
Flush frame single	219852
Flush frame double	219855
Flush frame triple	219858

## Ventilation control units in compact design

Thanks to their versatile modular design the ventilation control units can be composed of individual components

and:

adjusted to the requirements of your project, upgraded and adjusted at any time and are easy to install and maintain.

Actuation of the drives

single and group circuits.

manually = via ventilation pushbutton, key pushbutton

automatically = via wind/rain sensor, thermostat, hygrostat, and third-party activation.

Ambient temperature: +5 °C to +40 °C.

input voltage 230 V AC

output voltage 24 V DC, smoothed

### TF 01+

PVC housing with power supply unit and integrated group circuit

### TF 04+2

PVC housing with power supply unit TF 04 and group control module GSM 1, can be fitted with two additional modules

### TF 08K+1

PVC housing with power supply unit TF 08K and 2 group control module GSM 1, can be fitted with one additional module

The maximum output current of the ventilation control units is determined by the power supply unit used. The total current consumption of the connected drives must not exceed this limit.

When using a rain sensor, make sure to observe the current consumption limit of 0,25 A.

A group control module GSM 1 has a maximum load capacity of 4 A.



TF 01+



TF 04+2

## Technical specifications

Ventilation control unit	TF 01+	TF 04+2	TF 08K+1
Rated voltage	230 V AC	230 V AC	230 V AC
Output voltage	24 V DC	24 V DC	24 V DC
Maximum output voltage	32 V DC	32 V DC	32 V DC
Output current	1 A	4 A	8 A
Duty cycle	50 % ED	50 % ED	50 % ED
Housing dimensions W x H x D (mm)	120 x 122 x 55	200 x 120 x 96	200 x 120 x 96
Ambient temperature	+5 °C to +40 °C		

The total current consumption of the connected drives may not exceed the maximum output current of the power supply units.

	Item code
Ventilation control unit TF 01+, 1 ventilation group	183158
Ventilation control unit TF 04+2, 1 ventilation group	182009
Ventilation control unit TF 08K+1, 2 ventilation groups	182011

## Ventilation control units in compact design

### Group control module GSM 1

For ventilation control units in compact design, one GSM 1 is required for each ventilation group  
 connection options:  
 ventilation pushbutton, wind/rain sensor, thermostat and either room hygrostat or third-party activation, maximum load capacity 4 A



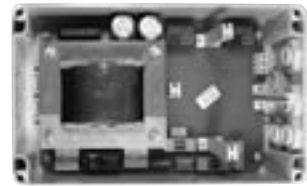
GSM 1

	Item code
Group control module GSM 1	182006
Group control module GSM 1 with housing	182003

### Motor control module MST 230/4

Motor control module used for connecting 24 V DC drives to 230 V AC control voltages

Mains supply	230 V AC
Output voltage	24 V DC (max. 32 V)
Output current	max. 4 A
Relative duty cycle	50 %
Clearance for 2 additional modules	
Surface PVC housing W/H/D	200 x 122 x 96 mm



MST 230/4

	Item code
Motor control module	182035

## Ventilation control units in modular design Series 900

Thanks to their versatile modular design the ventilation control units can be composed of individual components

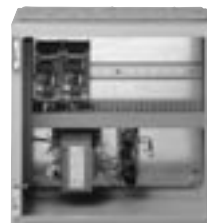
and:

**adjusted to the requirements of your project, upgraded and adjusted at any time, and are easy to install and maintain.**

Actuation of the drives:

single and group circuits.

- manually = via ventilation pushbutton, key pushbutton
- automatically = via wind/rain sensor, thermostat, time switch, hygrosat or third-party activation with additional module.



LZ 908

### Equipment of ventilation control units:

Sheet metal housing with screw plate, lockable on request.

Power supply and group circuit(s).

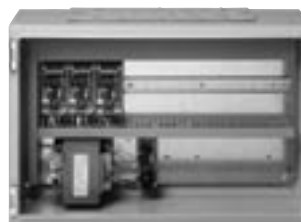
Output voltage 24 V DC, smoothed direct voltage

The maximum output current of the control units is determined by the power supply unit used. The total current consumption of the connected drives must not exceed this limit.

When using a rain sensor, make sure to observe the current consumption limit of 0,25 A.

The central unit has been certified

by TÜV Thuringia  
Anlagentechnik GmbH,  
approval certificate  
no. 1942/03



LZ 924

## Technical specifications

Ventilation control unit	LZ 908	LZ 916	LZ 924
Mains supply	230 V AC	230 V AC	230 V AC
Output voltage	24 V DC	24 V DC	24 V DC
Maximum output voltage	32 V DC	32 V DC	32 V DC
Output current	8 A	2 x 8 A	3 x 8 A
Group control module GS 9	1	2	3
Housing dimensions W x H x D (mm)	400 x 400 x 210	600 x 400 x 210	600 x 400 x 210
Top hat rail clearance (mm)	290	410	360
Ambient temperature:		+5 °C to +40 °C	

The total current consumption of the connected drives must not exceed the maximum output current of the power supply units.

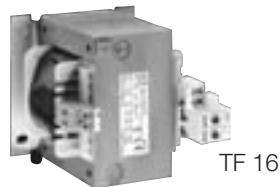
	Item code
Ventilation control unit LZ 908	183407
Ventilation control unit LZ 916	183410
Ventilation control unit LZ 924	183413
Special control units available on request	

## Module units for ventilation control units Series 900

### Power supply units

Transformers are used to supply the control units with mains voltage.  
The mains terminals and the mains fuse are installed on the transformer.

Input voltage	230 V AC	
Output voltage	Sek I	21 V AC
	Sek II	27 V AC
Mains fuse	TF 08	8 A 1,6 A
	TF 16	16 A 3,5 A
	TF 24	24 A 5,0 A



TF 16

### Rectifier module GLR 9

The rectifier module is mounted directly on the screw plate.  
The control unit is reverse battery protected by a time-lag fuse and an LED.

Input voltage	21 V AC	
Output voltage	24 V DC (max. 32 V)	
Battery voltage	24 V DC (max. 27,6 V)	
Capacity	24 A	4 min.
	1,2 A	16 min.



GLR 9

### Group control module GS 9

The group control module is used to control the motors of each group.  
The microfuse is dependent on the number of connected motors and the current flowing through them.

Supply voltage	24 V DC max. 32 V	
Output current	max. 8 A	
Fuse	microfuse according to table	
Opening time limit	60 s	
Space requirements	55 mm	



GS 9

### Wind / rain module WR 9

The impulses issued by the wind transmitter WG/H10 and the signal sent by the rain sensor REM/H 10 are analysed by the wind/rain module. The release is triggered when the limits have been exceeded. A potentiometer is used to adjust the set point.

Supply voltage	24 V DC (max. 32 V)	
Connection	wind transmitter WG/H 10 rain sensor REM/H 10	
Start delay	20 s (wind), 0 s (rain)	
Switch-off delay	60 s (wind and rain)	
Display wind force	optional	
Display wind/rain alarm	red LED	
Space requirements	37 mm	



WR 9

### Potential-free input module PFE 9

The potential-free input module is used to process the potential-free input signals issued by the control unit. The input signals are indicated by LEDs.

Supply voltage	24 V DC (max. 32 V)	
Connection	+/- 24 V DC and 2 relays	
Display	2 x green LED	
Space requirements	37 mm	



PFE 9



## Module units for ventilation control units Series 900

### Time module ZM 01

used for time-dependent control in combination with module PFE 9  
two-channel technology including 42 memory slots  
(e.g. Mo-Fr 8 am "open" = 1 memory slot)  
150 hrs of power reserve  
with LED time display  
Space requirements 38 mm



ZM 01

	Item code
Power supply unit TF 08, 24 V, 8 A	183248
Power supply unit TF 16, 24 V, 16 A	183245
Power supply unit TF 24, 24 V, 24 A	183242
Group control module GS 9 (for each additional group)	183077
Rectifier module GLR 9/8	183779
Rectifier module GLR 9/24	183782
Wind / rain sensor WR 9	183128
Potential-free input module PFE 9	182975
Time module ZM 01	144774

Other modules included in the accessories of the RAZ 900 series are available on request.

## Power supply units

These compact power supply units are used to power 24 V DC drives.

The maximum output current of the power supply units is indicated by the label TF .... The total current consumption of the connected drives must not exceed the maximum output current of the power supply units.

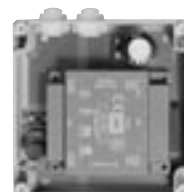
The TF 01 power supply unit has been designed as an insert element for deep concealed sockets.

The power units TF 02, TF 04 and TF 08K have been designed as compact units with a PVC housing, while the power supply units TF 08, TF 16 and TF 24 have been designed as compact units with a sheet metal housing.

The power supply units TF 04 and TF 08K feature 2 slots for additional modules (tandem cutoff / sequence control).



TF 01



TF 02



TF 08K



TF 24

## Technical specifications

Power supply unit	TF 01
Supply voltage	230 V AC
Output voltage	24 V DC ( $\pm 10\%$ )
max. output current	0,95 A
Duty cycle	50 % ED
Ambient temperature	-20 °C to +60 °C
Dimensions	insert for flush socket $\varnothing$ 55 mm, depth 60 mm

Power supply unit	TF 02	TF 04	TF 08K	TF 08	TF 16	TF 24
Supply voltage	230 V AC	230 V AC	230 V AC	230 V AC	230 V AC	230 V AC
Output voltage	24 V DC	24 V DC	24 V DC	24 V DC	24 V DC	24 V DC
Maximum output voltage	32 V DC	32 V DC	32 V DC	32 V DC	32 V DC	32 V DC
Maximum output current	2 A	4 A	8 A	8 A	2 x 8 A	3 x 8 A
Duty cycle	50 % ED	50 % ED	50 % ED	50 % ED	50 % ED	50 % ED
Ambient temperature	+5 °C to +40 °C	+5 °C to +40 °C	+5 °C to +40 °C	+5 °C to +40 °C	+5 °C to +40 °C	+5 °C to +40 °C
Housing dimensions W x H x D (mm)	120 x 122 x 55	200 x 120 x 96	200 x 120 x 96	200 x 300 x 155	200 x 300 x 155	200 x 300 x 155

	Item code
Power supply unit TF 01, 0,95 A	223797
Power supply unit TF 02, 2 A	163200
Power supply unit TF 04, 4 A	163203
Power supply unit TF 08K, 8 A	163206
Power supply unit TF 08, 8 A	155651
Power supply unit TF 16, 16 A	155660
Power supply unit TF 24, 24 A	155669



## EnOcean

### What is EnOcean?

Battery-free radio technology of EnOcean – Green, Smart, Wireless.

#### Green

- energy saving
- powered by miniaturized energy transducers

#### Smart

- intelligent sensor technology
- manufacturers and cross-trades networking
- programmable

#### Wireless

- battery-free radio standard (868 MHz)
- bidirectional communication

The basic idea of the EnOcean technology is based on the fact that wherever sensors collect measurements, it is also always the power state that changes. For example when you press a switch, when the temperature changes or the illumination varies.

These operations provide enough energy to transfer radio signals over a distance of up to 300 meters. By this means solar-powered sensors for example are working inside low-lit buildings. The transmitted radio signal can be received and used for further processing.

- self-supply in energy from the environment
- energy converters generate the necessary energy for the signal
- minimal energy consumption
- integrated energy storage
- transmitting the signal via radio (868 MHz)
- low signal duration (1/1000 seconds)
- further processing of the received signal
- integration into customer applications

#### Advantages for the user

- low costs for building installation
- unlimited flexibility
- easy installation
- connectivity
- interoperability of the products
- energy efficiency

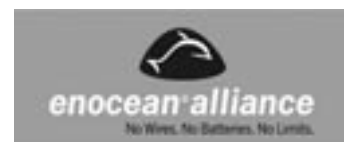
### What is the EnOcean Alliance?

HAUTAU is member of this alliance. Worldwide more than 80 leading companies of the building industry have joined this alliance.

#### Aims of the alliance are

- establishing the EnOcean technology as an international standard for sustainable, energy efficient buildings
- developing a broad range of inter-operable products
- ensure the interoperability

HAUTAU products in combination with EnOcean technology provide a valuable contribution to the increasing demands in safety, energy saving and comfort.







## EnOcean products

### EnOcean closing control enO VK

The closing control is a wireless, maintenance-free radio transmitter without battery. The power supply is provided by an integrated solar cell with an energy storage, which bridges night-time darkness. Normal daylight is sufficient to generate the necessary energy.

The closing control consists of a sensor housing and a magnet housing, which are mounted on the window frame and sash.

An integrated reed contact in the sensor housing supervises the magnet and reports immediately every status change (window open, window closed). In addition a life signal is sent at least every 30 minutes.

The signal of the closing control can be transmitted to building control systems, e.g. the heating cuts-off automatically if a window is open.

- energy self-supply thanks to an integrated solar cell
- without battery and maintenance-free
- window control, radio contact reports if window is open or closed
- directly fixed on the window
- wireless, for an easy retrofitting

### EnOcean adapter enO A

The EnOcean adapter in combination with the EnOcean closing control meets the requirements of controlling exhaust systems, as required by the German fireplace directive, the Landes-Feuerungsverordnung (FeuV):

It must be ensured that no carbon monoxide from the fireplace is withdrawn if an ambient air dependent fireplace (e.g. gas heating and hot water system, charcoal-fired oven) and an exhaust system (e.g. exhaust hood) are in use at the same time. Once activated, the exhaust system (e.g. exhaust hood) is creating a low pressure in the enclosed room.

A compulsory control is essential to exclude the lethal hazards caused by oxygen deprivation.



## Technical specifications

EnOcean closing control	enO VK
Power supply	by solar cell
Radio frequency	868,3 MHz
Transmission power	max. 10 mW
Transmission range	indoor 30 m free-field range 300 m
Ambient temperature	-25 °C bis +65 °C
State recording	internal reed contact
Light intensity	> 200 lux daily average
Protection class	IP40
Dimensions sensor housing	110 x 19 x 15 mm
Dimensions magnet housing	37 x 10 x 5 mm

EnOcean adapter	enO A
Power supply	230 V AC / 50 Hz
Power	500 W
Radio frequency	868,3 MHz
Transmission range	max. 30 m
Number of learnable EnOcean components	max. 16
Supported infrared codes	Philips (RC 5) AIIWA-Television
Number of learnable infrared signals	max. 16
Ambient temperature	+10 °C bis +40 °C
Protection class	IP20
Dimensions	66 x 137 x 26 mm
Housing colour	white

	Item code
EnOcean closing control enO VK, RAL 9016	224666
EnOcean closing control enO VK, RAL 9005	224669
EnOcean closing control enO VK, RAL 9006	224663
EnOcean adapter enO A, white	223911

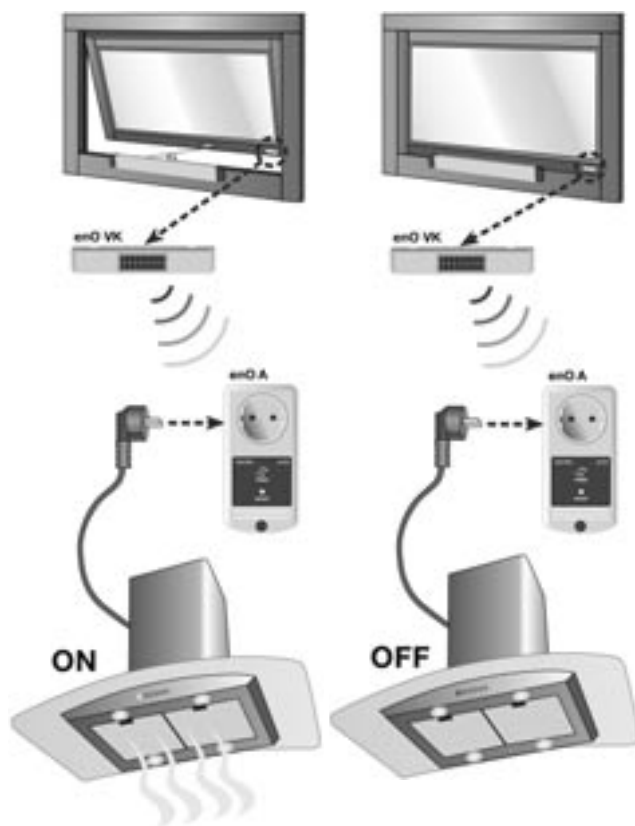
## EnOcean application examples

### Excerpt of the Lower-Saxony fireplace directive (niedersächsischen Feuerungsverordnung FeuV): § 4 Installation of fireplaces, gas installations

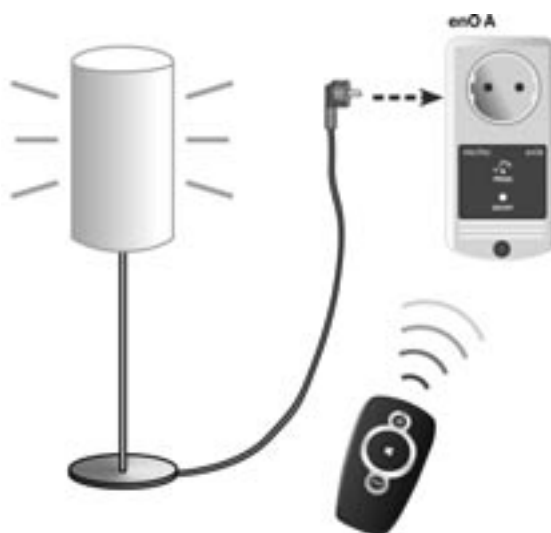
(2): In building where the air is drawn-off by ambient air exhaust systems, such as ventilation or hot air heating systems, exhaust hoods or exhaust heat dryers, ambient air dependent fireplaces which have to be connected to an exhaust system may only be installed if

1. a safety device is preventing the simultaneous operation of the fireplace and the ambient air exhaust system,
2. a safety device is monitoring the drawing-off of the exhaust fumes,
3. the exhaust fumes of the fireplaces are drawn-off by the ambient air exhaust system or
4. the system ensures that no hazardous low pressure is created during the operation of the fireplace.

An exhaust system (e.g. exhaust hood) connected to the EnOcean adapter cannot be activated until the closing control is sending a signal to the EnOcean adapter that a window is open.



Via a remote control or an EnOcean button a light source connected to the EnOcean adapter can be used as a light control system. Other appliances, like a T.V. set for example, can also be connected, thus the adapter is working as a "standby-killer".





**You know when it's HAUTAU.**



HAUTAU GmbH  
P.O.Box 11 51  
D 31689 Helpsen  
Phone +49 5724/393-0  
Fax +49 5724/393-124  
Info@HAUTAU.de

**[www.HAUTAU.de](http://www.HAUTAU.de)**



**HAUTAU**