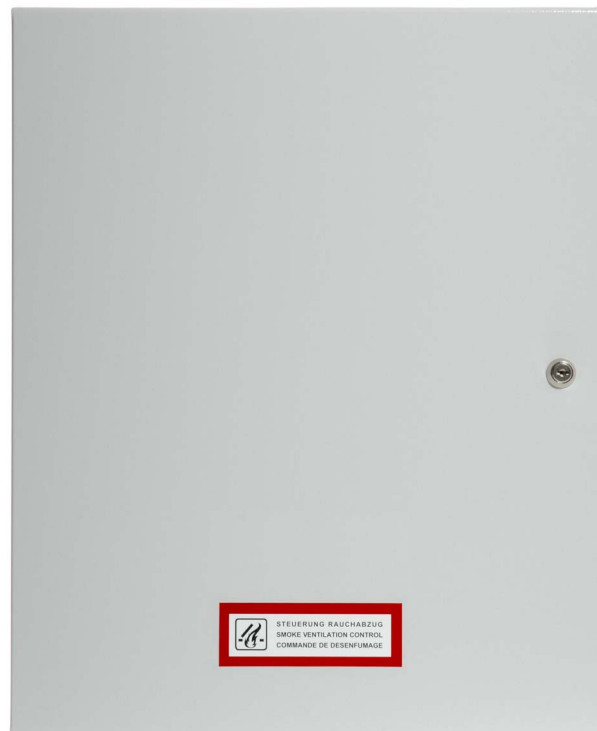


Installation and Operation Instructions

Version 1/19

SHEVS Control Centre RWZ 5 f - E



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1 Concept of Control Centre

- Smoke and Heat Exhaust Ventilation System (SHEVS) Control Centre with two outputs for the connection of 24 V- actuators
- One SHE group, one or two ventilation groups (selectable)
- Three signal lines:
 - Line : Automatic fire detectors
 - Line : Hand operated fire alarms **RT 2** or **RT 4** (main alarm point RT 2/4-*-BS or secondary alarm point RT 2/4-*). Connectable versions see section 6 “Technical Data”
 - Line  for connection of a Fire Alarm Control Panel (FACP)
- Reset the alarm / detector using the button in the main alarm point or in the Control Centre
- Selectable functions:
 - “One ventilation group” (control of both outputs in one ventilation group)
 - “Auto close” (automatic closure after resetting an alarm)
 - “Fault = Alarm” (fault in a signal line will trigger an alarm)
 - “Automatic OFF” (automatic travel commands - apart from the alarm - are disabled)
 - “Thermal Alarm” (alarm on exceeding an enclosure inside temperature of 70 °C)
 - “2-detector-dependency” (2-detector dependency for automatic fire detector in line )
- Possibility of connecting ventilation button for each vent. group, also with indication of position .
- For each actuator output adjustable ventilation position  and ventilation time .
- Possibility of connecting an external wind and rain control, e.g., type **WRS**. Internal wind and rain control optional
- Internal service display for indicating the detailed status
- The use of K + G / Grasl actuators is recommended. When controlling 3rd party actuators, compatibility is to be checked. Also note section 6 „Technical Data“ for this
- Connectable actuators: 24 V- actuators, travelling time for full stroke at rated load (total travelling time) < 4 minutes
- When directly changing the direction of travel, the actuators are stopped briefly before changing the direction
- The travelling current for the actuators is supplied from the Control Centre's accumulators
- Sheet steel enclosure, light grey (RAL 7035)

1.1 Options / Accessories

- **PK**: Potential-free contacts (PFC) for alarm and/or fault forwarding
- **WTM**: Outputs for controlling external warning devices in case of alarm or fault
- **WRM**: Internal wind and rain control. Connection of wind sensor **WM** and/or rain sensor **RS** is required (accessory)

2 Putting into service / putting out of service

Work may be performed only by qualified personnel!

Before starting any work, it is mandatory to deflect static charge!

We do not assume any guarantee or liability for defects caused by faulty connection.

 *Planning and design of SHEVS require observation of the following rules, as far as applicable: National building codes/model building code and regulations of local building and fire safety authorities, VDE regulations (particularly VDE 0100, 0108 and 0833), VdS Guidelines 2098 and 2221, DIN 18232, EN 12101, DIN 4102, model line systems policy.*

2.1 Installation / putting into service

 *Perform work only in de-energised condition!*

Actuators may not be driven with external power supply (e.g., external accumulators), if they are already connected to the Control Centre. This can lead to defects in the power output.

- Fasten the enclosure securely to a wall using suitable mounting material. Pass the connection cables through the openings provided and wire the Control Centre according to the terminal diagrams.
- Make function settings (see 3.2).
- Turn on line voltage. The indicators and the service display light up briefly. Subsequently, the indicator  flickers for about 15 s (calibration process). If the indicator  is permanently lit, there is a fault in a signal line (see 5). The service display remains on for 120 s.
- Insert the accumulators in the enclosure as illustrated on the “Line voltage, installation, accumulators” plan and connect them.

6 Technical Data

6.1 Version

Type	RWZ 5f-E-10	RWZ 5f-E-20
Part number	8101 5610 0000	8101 5620 0000
Output current	10 A (24 V $\overline{=}$ / 240 W)	20 A (24 V $\overline{=}$ / 480 W)
Current input	0.25 A / 230 V $\sim$	
Dimensions in mm (W x H x D)	400 x 490 x 125	
Accumulators (VRLA-AGM), VdS approved	2 x 7 Ah / 12 V	2 x 12 Ah / 12 V

Only supplied or approved accumulators may be used.

See compatibility list on: www.kg-pneumatik.de (Electronics - System Accessories - Accumulators)

The requirements of Directives 2014/35/EU and 2014/30/EU are met. 

6.2 Performance data and characteristics

General

Line voltage supply	230 V $\sim$ / 50 - 60 Hz
Internal supply voltage / standby time	24 V $\overline{=}$ / 72 h (mains failure)
Cable entry through membrane grommets (from above) 2 housing openings (from behind)	7 x M16, 1 x M20, 2 x M25 110 x 34 mm (B x H)
Environmental class 1 / III (EN 12101-10 / VdS 2581)	-5 °C ... +40 °C
Relative humidity	20 % ... 80 %, non-condensing
Enclosure protection rating	IP30

Installation dimensions, see "Line voltage, Installation, Accumulators" diagram.

Not suitable for outdoor use. Protect from direct sunlight, humidity and excessive formation of dust! Preferably, the installation should be carried out in dry, heated rooms.

Signal lines

Line monitoring	wire-break, short-circuit
Line  , automatic fire detectors:	20 pieces, of which
Smoke detector / heat detector (RM 2 / TM 2 or RM 3 / TM 3)	max. 10 heat detectors ¹
Line  , manual call points:	
- RT 2/4-*  - RT 2/4-*.BS    - RT 2/4-*.BS-AA    	total of 10 pieces, of which max. 3 pieces with buzzer 
Line  , Fire Alarm Control Panel	NC / NO contact

Inputs / Outputs

Ventilation buttons LT  	unlimited per ventilation group
Ventilation buttons LT x-A   	10 pieces for each ventilation group
Wind and Rain Control (type WRS)	NC contact ²

¹ Heat detector: **TM 2-D** (65-55000-122), **TM 2-M** (65-55000-137), **TM 3-D** (FD-851RE), **TM 3-M** (FD-851HTE), **RM 3-OT** (SD-851-TE),
Optical detector: **RM 2-O** (65-55000-317), **RM 3-O** (SD-851-E)

² In the WRC, a separate contact is required for each Control Centre to be controlled

Actuator outputs

Rated voltage	24 V $\overline{=}$ (+6 V / -4 V)
Operating mode / duty cycle	S3 30 %
Maximum cross-section of the supply line	4 x 10 mm ² (rigid)
Line monitoring (unbranched common line)	wire-break, short-circuit

Permissible current for actuators / permissible total current

	RWZ 5f-E-10		RWZ 5f-E-20	
Output	1	2	1	2
Actuators	10 A	8 A	16 A	8 A
Total	10 A		20 A	

Permissible cable length from the Control Centre to the actuator at 1 V voltage drop (simple, not widely branched arrangement). Depending on the operating voltage range of the actuator, a higher voltage drop may be permissible.

Current Cross-section	2.0 A	4.0 A	6.0 A	8.0 A	10.0 A	12.0 A	14.0 A	16.0 A
2 x 1.5 mm ²	22 m	11 m	7 m	5 m	4 m	4 m	3 m	3 m
2 x 2.5 mm ²	36 m	18 m	12 m	9 m	7 m	6 m	5 m	5 m
2 x 4.0 mm ²	58 m	29 m	19 m	15 m	12 m	10 m	8 m	7 m
2 x 6.0 mm ²	87 m	44 m	29 m	22 m	17 m	15 m	12 m	11 m
2 x 10.0 mm ²	145 m	73 m	48 m	36 m	29 m	24 m	21 m	18 m
4 x 1.5 mm ²	44 m	22 m	15 m	11 m	9 m	7 m	6 m	5 m
4 x 2.5 mm ²	73 m	36 m	24 m	18 m	15 m	12 m	10 m	9 m
4 x 4.0 mm ²	116 m	58 m	39 m	29 m	23 m	19 m	17 m	15 m
4 x 6.0 mm ²	174 m	87 m	58 m	44 m	35 m	29 m	25 m	22 m
4 x 10.0 mm ²	290 m	145 m	97 m	73 m	58 m	48 m	41 m	36 m

When 4 cores are used, connect 2 cores each in parallel.

Fuses

Mains primary (miniature fuse 5 x 20 mm)	F1.1: T 1 A
Accumulators (blade fuse 19 mm)	F2.1: 20 A
Actuators (mini blade fuse 11 mm)	F3.1: 20 A, F3.2: 10 A