

Data sheet

Slant Locking SET 3.x

Please read these „data sheet“ carefully and completely. Only technically qualified personnel may work on this device.

Meaning of symbols



Safety instructions must be observed! Failure to observe these notes may result in personal injury and property damage.



Advice, the non-compliance with these instructions or the technical data shall lead to the loss of rights under guarantee.



Correct, this is how it should be done.



Incorrect, this is not how it should be done.

Intended Use

The slant locking is intended solely as a locking element for installation and operation in smoke and heat exhaust ventilation (SHEV) opening mechanisms. Any other use is considered improper.

Improper use

Any other or further use is considered improper. In particular, use is prohibited in the following cases:

- Use in smoke and heat exhaust ventilation (SHEV) opening mechanisms that require a higher holding force than specified.
- Operation in highly corrosive or saline environments.

Functional description

The slant locking is a mechanical locking unit for installation in smoke and heat exhaust ventilation (SHEV) opening mechanisms (e.g. BF, BG). It can be operated either via a locking bolt (SET 3.0 / SET 3.1) or via a combination of a locking bolt and a ventilation cylinder/-actuator (SET 3.2).

Variants

- SET 3.0 (Figur 1) Small, compact design
- SET 3.1 (Figur 2) Standard design
- SET 3.2 (Figur 3) Standard design for use with smoke and heat exhaust ventilation (SHEV) units with ventilation function

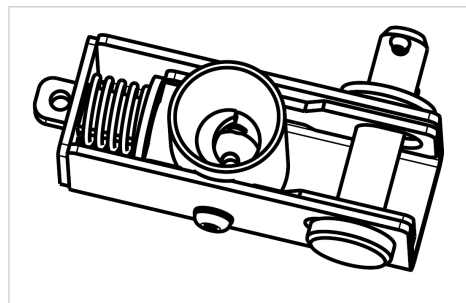


Figure 1: SET 3.0

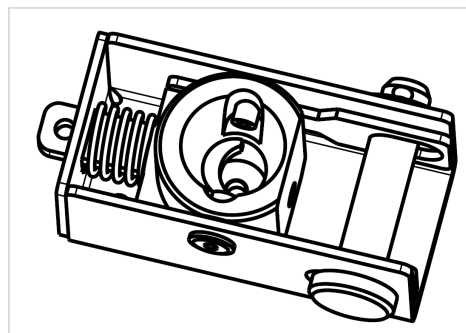


Figure 2: SET 3.1

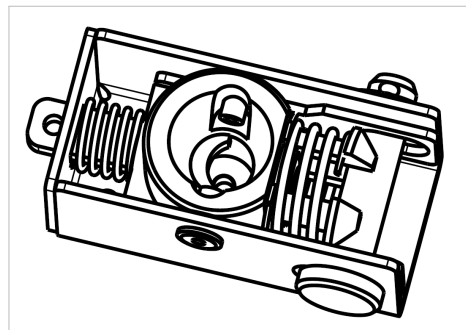


Figure 3: SET 3.2

Unlocking

The system can be unlocked in two ways:

- Unlocking via smoke and heat exhaust ventilation (SHEV) cylinder/-actuator: By applying a force in the unlocking direction (Figure 5). The required unlocking forces can be found in the Technical Data section.
- Manual release: By pulling directly on the tab (Figure 6 ②). A release rope can be attached to the eyelet of the tab for this purpose.

Technical data

Rated holding force [N]	3000
max. Unlockable holding force locking bolt[N]	1500
min. Unlocking force of SHEV cylinder/-actuator [N]	1570
max. Unlocking force of SHEV cylinder/-actuator [N]	5890
Lifespan RE cycles	500
Time limits	10 Years
max. Swivel angle locking bolt [°]	Figure 4
Unlocking angle [°]	Figure 5

- The ambient temperature for SET 3.0 and SET 3.1 is -25 to +110°C and for SET 3.2 -25 to +65°C.
- For ventilation purposes, use SET 3.2. Its lifespan is 10,000 ventilation cycles.
- The PMET bolts with a round head shape should be used as locking bolts for the SET 3.x.

General notes

 Secure the work area: During all work on the device, the work area must be secured in such a way that no persons can be below the work area.

 Safety separation during work: The locking mechanism must be separated from automatic controls (e.g. alarm boxes) and operating points that are not visible or controllable, as long as:

- the work in the operational area is not yet completed,
- the work area is not cleared of obstacles,
- people are in the danger zone.
- Action: To do this, disconnect the SHEV cylinder/-actuator / ventilation cylinder/-actuator (if present) from the control unit.

 Protection against contact (installation height): If the installation height is less than 2.5 m above the floor or the nearest access level, a separating protective device (e.g. a cover) must be provided as protection against tampering.

 Warranty disclaimer: Any unauthorized modifications or alterations to the locking mechanism will void all warranty and guarantee claims.

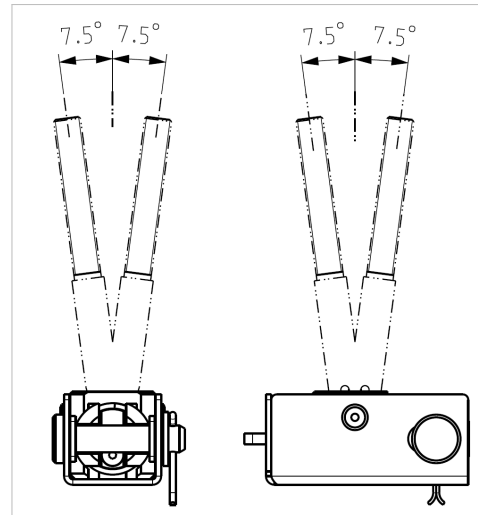


Figure 4: Swivel angle locking bolt

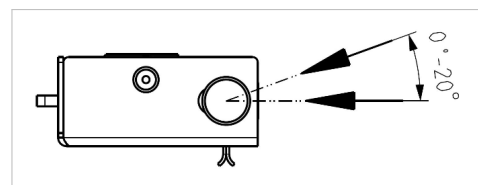


Figure 5: Unlocking direction and angle

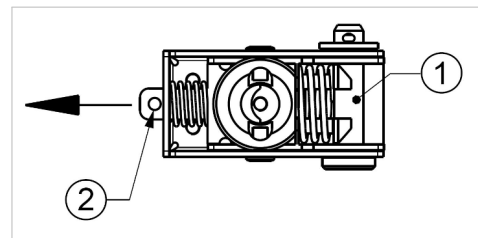


Figure 6: Mounting bolt and manual release

Scope-of-supply

- Locking mechanism including mounting bolt (Figure 6 ①), washer and cotter pin

Not-in-Scope-of-supply

- Fastening material
- Locking bolt
- Manual release rope

- **Compatibility and safety:** The locking mechanism is designed exclusively for use in smoke and heat exhaust ventilation (SHEV) systems. Compatibility and therefore operational safety cannot be guaranteed in other applications.
- **Overarching structure:** The overarching structure must be statically designed in such a way that the locking mechanism is not subjected to loads exceeding the limits specified in the "Technical Data".
- **Personal protective equipment (PPE):** When handling and working on the locking mechanism, the prescribed PPE must be worn.
- **Troubleshooting and repair:** Troubleshooting and repair may only be carried out by authorized specialists.

Assembly

Preparations:

- Check the delivery contents for completeness before assembly.
- Check the locking mechanism for visible transport damage.
- The fasteners must be designed to withstand the maximum loads that may occur (see chapter "Technical Data").

Assembly process:

- 1) **Base attachment:** Secure the locking mechanism from below using the designated mounting holes (M and N - Figure 7/Table 1). The screw length must be chosen so that the screws do not interfere with the internal movement mechanism.
- 2) **Remove the cotter pin:** Pull the cotter pin out of the transverse bore of the mounting bolt.
- 3) **Remove the washer.**
- 4) **Remove the bolt:** Pull the mounting bolt out completely.
- 5) **Attach SHEV cylinder/-actuator:** Carefully insert the eye bolt of the SHEV cylinder/-actuator into the locking mechanism.
- 6) **Securing components:** The mounting bolt is installed in the reverse order of steps 2 to 4 (insert bolt, place washer, secure cotter pin).

Maintenance

- **Maintenance interval:** Maintenance must be carried out at least once a year or in accordance with the applicable national legal regulations.
- **Fastening check:** Check all fastening screws for tightness and, if necessary, tighten them to the specified torque.
- **Visual and functional inspection:** Check the component for damage such as corrosion, deformation, or bent parts. If defects are found, the locking mechanism must be replaced immediately with an original spare part.

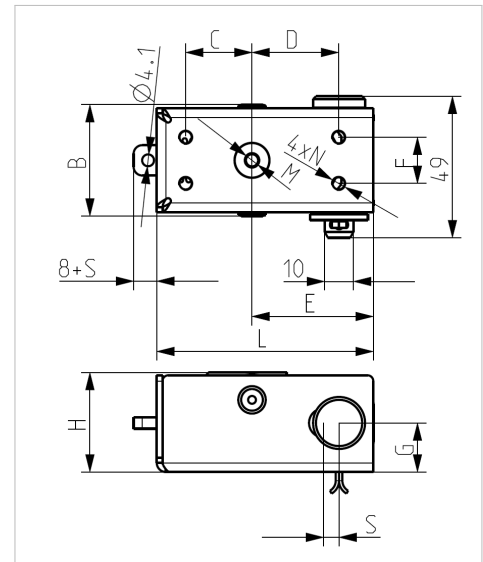


Figure 7: dimensional drawing

	SET 3.0	SET 3.1	SET 3.2
B	32	39	
C	25	23	
D	30		
E	42		
F	12	16	
G	17		
H	35		
L	75		
M	M4	M6	
N	M4	M5	
S	6		

Table 1: dimensions

Disposal

The locking mechanism and its packaging materials must be professionally recycled or disposed of in accordance with the applicable national environmental and waste disposal regulations.