



EN Operating instructions. . . . .pages 1 to 8  
Original

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## 1. About this document

### 1.1 Function

This operating instructions manual provides all the information you need for the mounting, set-up and commissioning to ensure the safe operation and disassembly of the the product. the operating instructions must be available in a legible condition and a complete version in the vicinity of the device.

### 1.2 Target group: authorised qualified personnel

All operations described in this operating instructions manual must be carried out by trained specialist personnel, authorised by the plant operator only.

Please make sure that you have read and understood these operating instructions and that you know all applicable legislations regarding occupational safety and accident prevention prior to installation and putting the component into operation.

The machine builder must carefully select the harmonised standards to be complied with as well as other technical specifications for the selection, mounting and integration of the components.

### 1.3 Explanation of the symbols used



#### Information, hint, note:

This symbol is used for identifying useful additional information.



**Caution:** Failure to comply with this warning notice could lead to failures or malfunctions.

**Warning:** Failure to comply with this warning notice could lead to physical injury and/or damage to the machine.

### 1.4 General safety instructions

The user must observe the safety instructions in this operating instructions manual, the country specific installation standards as well as all prevailing safety regulations and accident prevention rules.



Further technical information can be found in the Schmersal catalogues or in the online catalogue on the Internet: [www.schmersal.net](http://www.schmersal.net).

The information contained in this operating instructions manual is provided without liability and is subject to technical modifications.

There are no residual risks, provided that the safety instructions as well as the instructions regarding mounting, commissioning, operation and maintenance are observed.

### 1.5 Warning about misuse



In case of inadequate or improper use or manipulations of the component, personal hazards or damage to machinery or plant components cannot be excluded. The relevant requirements of the standard ISO 14119 must be observed.

### 1.6 Exclusion of liability

We shall accept no liability for damages and malfunctions resulting from defective mounting or failure to comply with this operating instructions manual. The manufacturer shall accept no liability for damages resulting from the use of unauthorised spare parts or accessories.

For safety reasons, invasive work on the device as well as arbitrary repairs, conversions and modifications to the device are strictly forbidden; the manufacturer shall accept no liability for damages resulting from such invasive work, arbitrary repairs, conversions and/or modifications to the device.

2. Product description

2.1 Ordering code
This operating instructions manual applies to the following types:

Table with 3 columns: No., Option, Description. It lists configurations for AZ/AZM 200-B40 and AZ/AZM 201-B40, including options for door hinge position (L/R), handle type (G1, G2, P1, P20, P25), and emergency exit features.

The actuator unit AZ/AZM 200-B40... is intended exclusively for combination with the AZ/AZM 200 series basic component.
The actuator unit AZ/AZM 201-B40... is intended exclusively for combination with the AZ/AZM 201 series basic component.

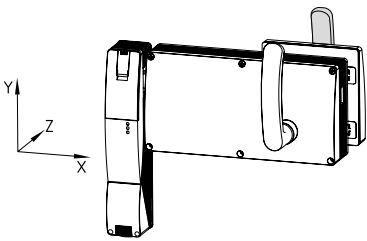
Only if the information described in this operating instructions manual are realised correctly, the safety function and therefore the compliance of the entire system with the Machinery Directive is maintained.

2.2 Special versions
For special versions, which are not listed in the order code below 2.1, these specifications apply accordingly, provided that they correspond to the standard version.

2.3 Purpose
In conjunction with the solenoid interlock or switch, the actuator unit is suitable for hinged and sliding safety guards, especially for hinged doors with overlapping folds. The safety guard can be opened and closed from outside by turning the door-handle.

The actuator is pulled into the actuator unit by a spring. The actuator unit with emergency exit is used to open the safety guard inside the hazardous area. By actuating the emergency exit, the safety guard can be opened from within the hazardous area without the need for unlocking the solenoid interlock. The safety guard cannot be locked from inside.

Actuator unit play
X = ± 1.5 mm
Y = ± 5.0 mm
Z = ± 1.0 mm



3. Mounting

3.1 General mounting instructions
The installation may only be carried out by authorised personnel.

Admissible mounting set-up
The actuator unit AZ/AZM 200-B40 or AZ/AZM 201-B40 must be fitted onto a flat surface by means of 4 screws.

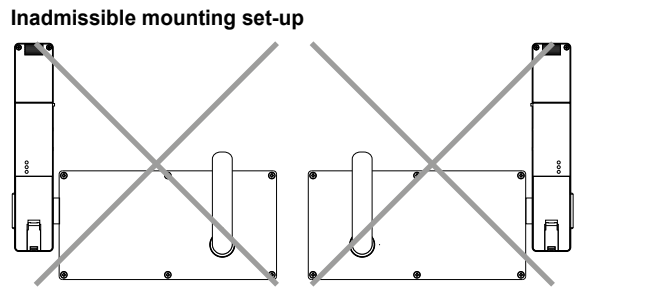
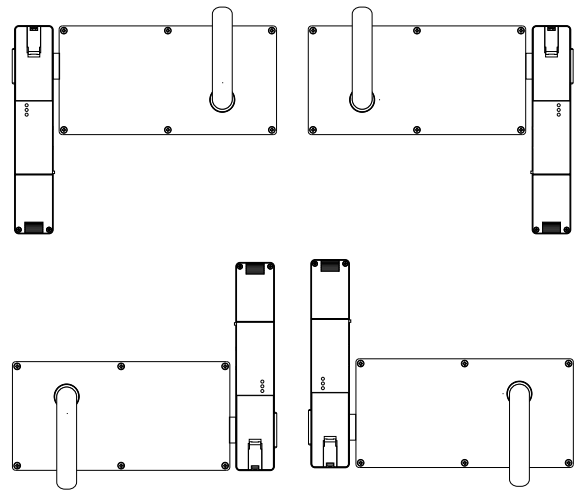


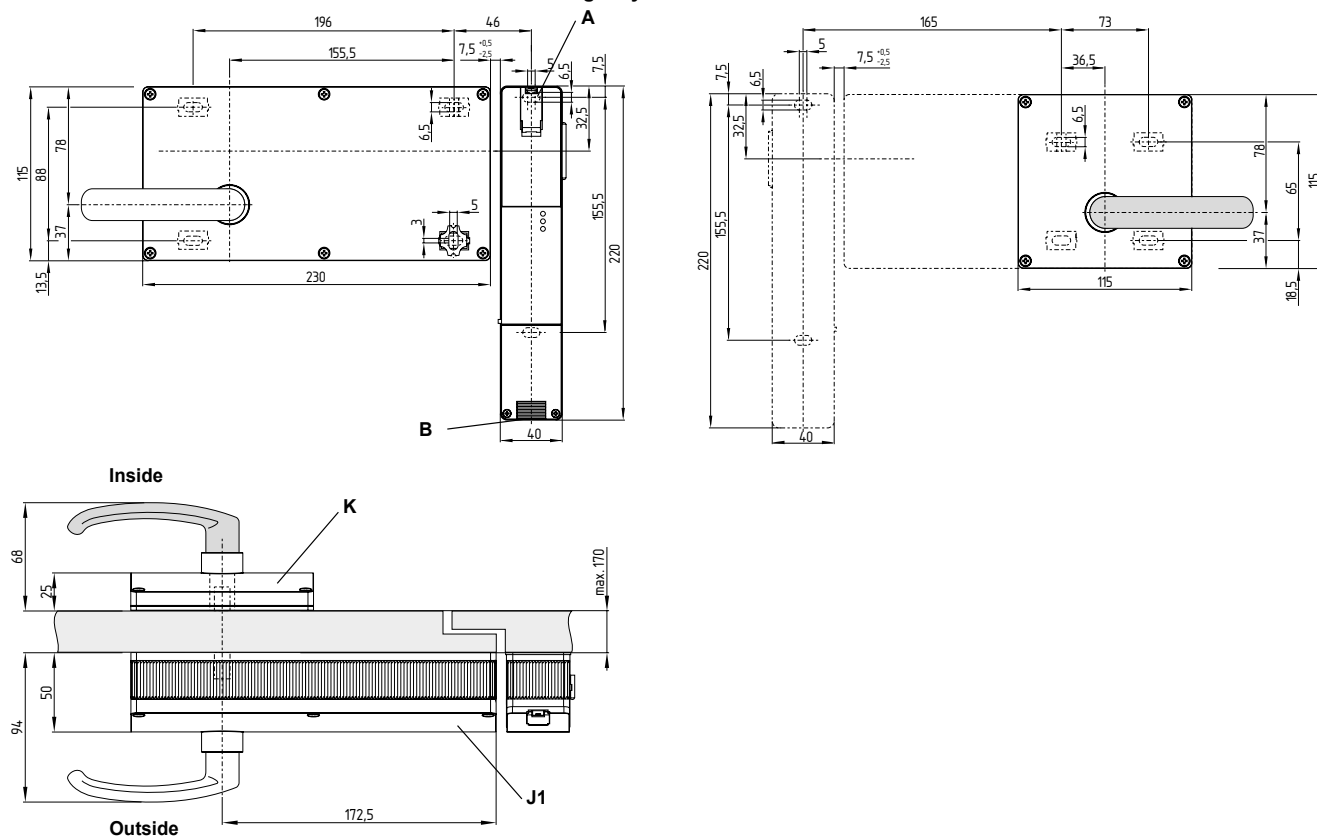
Table with 2 columns: Mounting condition (With emergency exit, Without emergency exit) and Door type (Right hinged door, Left hinged door). It includes diagrams showing the correct installation of the actuator unit for each combination.

The minimum radius of the door is 400 mm.
Assumptions:
- 40 mm Profile
- Distance between solenoid interlock and actuator unit 7.5 mm
- Use standard hinge for 40 mm profile

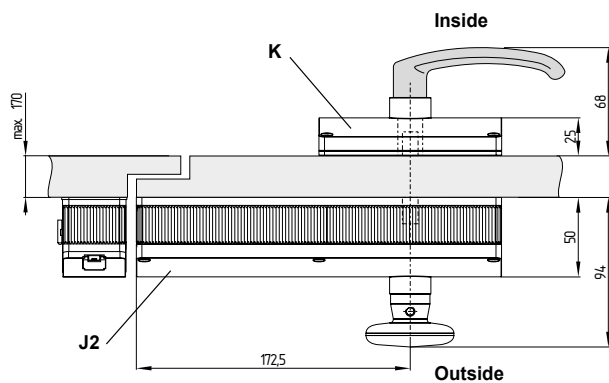
### 3.3 Dimensions

All measurements in mm.

#### AZ/AZM 200 or AZ/AZM201 with actuator unit G1 and emergency exit P1



#### AZ/AZM 200 or AZ/AZM201 with actuator unit G2 and emergency exit P1

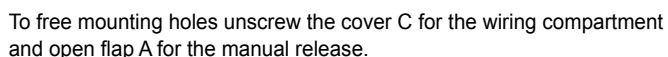


#### Key

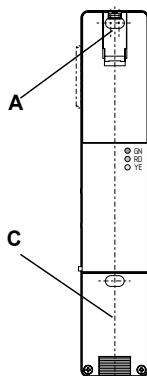
- A = Manual release
- B = Cable entry M20 x 1.5
- J1 = Actuator unit with door-handle G1
- J2 = Actuator unit with door-handle G2
- K = Emergency exit P1

### 3.4 Sequence of the steps

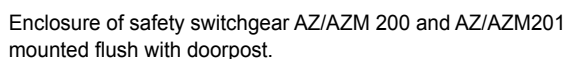
### Step 1



- Actuation of manual release (beneath flap) with triangular key (included in delivery)



## Step 2



The lockout tags SZ 200 and SZ 200-1 are optional available as accessory.

- For applications with strong vibrations, please observe the screws are correctly secured.

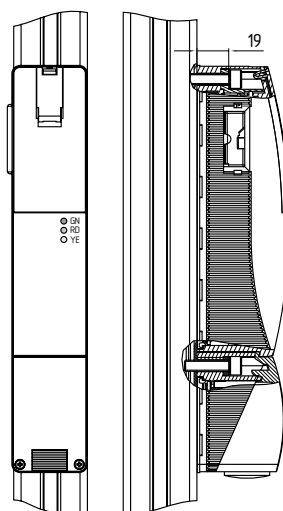
Technical drawing of the 281-331 pump assembly, showing front and side views with dimensions.

**Front View (Top):**

- Overall length: 136
- Distance from left edge to center of the first mounting hole: 9
- Distance between mounting holes: 8
- Overall height: 79-85

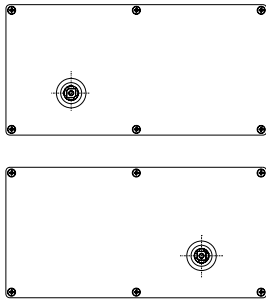
**Side View (Bottom):**

- Overall length: 160
- Distance from left edge to center of the first mounting hole: 45
- Distance between mounting holes: 6,3
- Overall height: 35
- Distance from bottom edge to center of the first mounting hole: 2
- Overall width: 281 - 331



### Step 3

- Unscrew the cover of the actuator unit

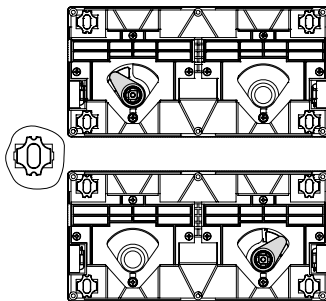


### Step 4

Insert sliding blocks (included in delivery with actuator unit AZ/AZM) as shown.

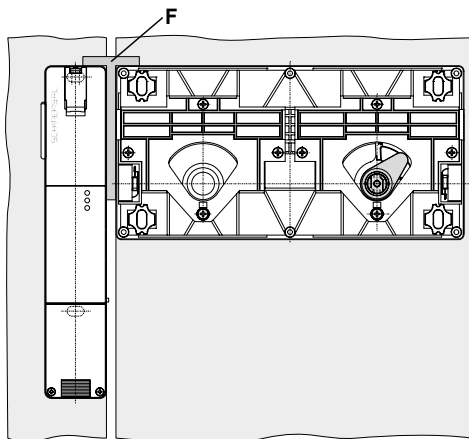
**To be observed:**

- Observe the alignment (notch) of the sliding blocks



### Step 5

- Fit the actuator unit to the doorpost by means of the spacer **F** (7.5 mm)
- To be observed:**
  - Actuator unit completely retracted
  - Distance between solenoid interlock and actuator unit = 7.5 +0.5/-2.5 mm
  - Fix the actuator enclosure onto a flat surface by means of 4 screws (DIN 912-M6)
  - Torque MA = 8 Nm
  - Wall thickness of the device 8 mm (see step 11)
  - Washers DIN 125-6.4 (included in delivery)
  - For applications with strong vibrations, please observe a proper securing of the screws

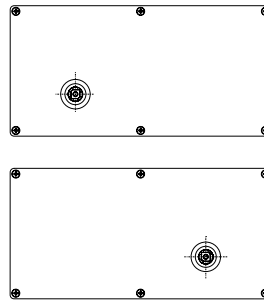


### Step 6

- Mount the cover on the actuator unit

**To be observed:**

- Actuator unit completely retracted

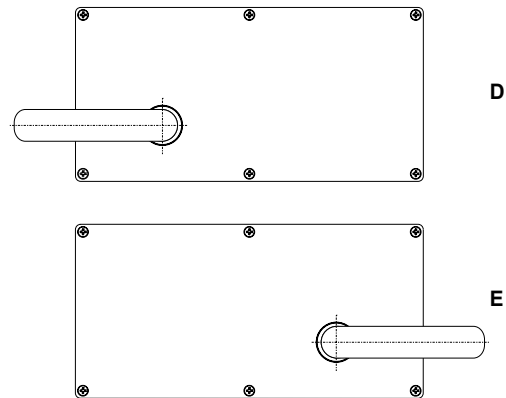


### Step 7

- Fit the door-handle

**To be observed:**

- Fit the door-handle P1 horizontal
- **D** = for left hinged doors
- **E** = for right hinged door
- Hexagonal screw A/F 3 with screw-lock (included in delivery)
- When fitted without emergency exit, proceed with step 16

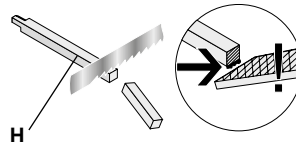


### Step 8

If an emergency exit is available, cut square tube **H** at length. De-burr the cut sides.

**To be observed:**

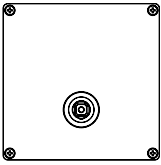
- Max. door leaf thickness  $S = 170$  mm
- Length of the cut square tube **H**
  - P1:  $L = S + 22-2$  mm
  - P20:  $L = S + 28$  mm
  - P25:  $L = S + 24$  mm
- Through-hole for square tube **H**  $\varnothing 16$  mm



- For mounting with emergency exit P20 continue from paragraph 14  
emergency exit P25 continue from paragraph 16

### Step 9 - Mounting emergency exit P1

- Unscrew the cover of the emergency exit P1

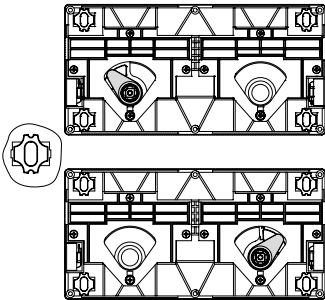


### Step 10 - Mounting emergency exit P1

For emergency exit, insert sliding blocks as shown (included in delivery)

**To be observed:**

- Observe the alignment (notch) of the sliding blocks

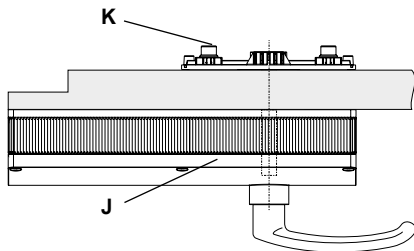


### Step 11 - Mounting emergency exit P1

- Fit the bottom plate of the emergency exit P1 to the door

**To be observed:**

- Actuator completely inserted into the actuator unit J
- Arrange emergency exit K to actuator unit J parallel
- Screws DIN 912-M6
- Torque MA = 8 Nm
- Wall thickness of the device 8 mm
- Washers Ø 6.4 DIN 125 (included in delivery)
- For applications with strong vibrations, please observe a proper securing of the screws

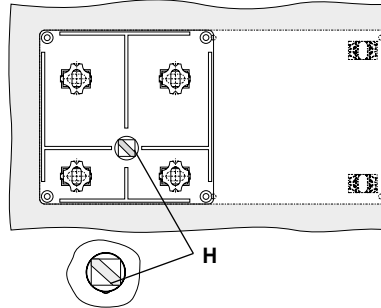


### Step 12 - Mounting emergency exit P1

- Insert square rod H in the rear of the actuator unit

**To be observed:**

- Insert chamfer of the square into the emergency exit with either cut side of the square into the actuator unit. Position of the chamfer as shown, when actuator unit is actuated.



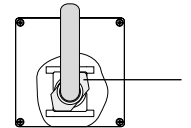
### Step 13 - Mounting emergency exit P1

- Fit the cover and the handle onto the emergency exit

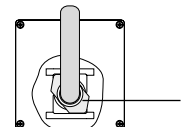
**To be observed:**

- Position of the driving shaft I as shown, when actuator unit is actuated
- Functional test of the emergency exit handle:  
it should be possible to open the safety guard inside the hazardous area; it should not be possible to lock the safety guard from inside.  
The emergency exit handle must be in upright position when closed.
- After successful assembly continue from paragraph 17

**For left hinged door**



**For right hinged door**

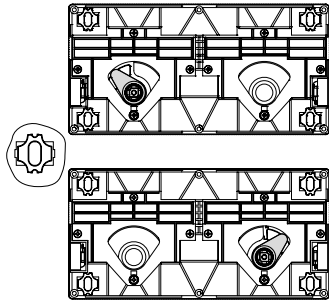


### Step 14 - Mounting emergency exit P20

For emergency exit, insert sliding blocks as shown (included in delivery)

**To be observed:**

- Observe the alignment (notch) of the sliding blocks



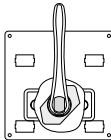
### Step 15 - Mounting emergency exit P20

Fit emergency exit P20 to the door.

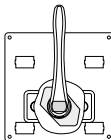
**To be observed:**

- Insert square rod H in the actuator unit, observe the direction of chamfer (see step 12)
- Observe the position of the slotted hole
- Actuator completely inserted into the actuator unit J
- Emergency exit P20 parallel to actuator unit J
- Screws DIN 912-M6
- Torque MA = 8 Nm
- Wall thickness of the device 8 mm
- Washers Ø 6.4 DIN 125 (included in delivery)
- For applications with strong vibrations, please observe a proper securing of the screws
- After the assembly of the emergency exit P20, proceed with step 17

**For left hinged door**



**For right hinged door**



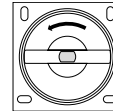
### Step 16 - Mounting emergency exit P25

Fit emergency exit P25 to the door.

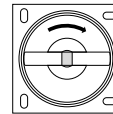
**To be observed:**

- Insert square rod H in the actuator unit, observe the direction of chamfer (see step 12)
- Observe the position of the slotted hole
- Actuator completely inserted into the actuator unit J
- Emergency exit P25 parallel to actuator unit J
- Screws DIN 912-M6
- Torque MA = 8 Nm
- Wall thickness of the device 8 mm
- For applications with strong vibrations, please observe a proper securing of the screws

**For left hinged door**



**For right hinged door**

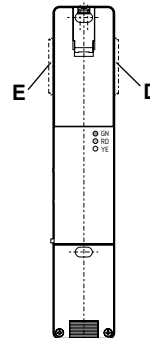


### Step 17

Clip the dust-proof flap in the unused side.

**To be observed:**

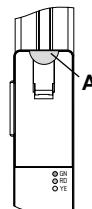
- D = for left hinged door
- E = for right hinged door



### Step 18

After being put into operation, the manual release must be secured by installing the seal, which is included in delivery.

- Seal the cover of the manual release A



## Checklist

### Set-up and maintenance

Access cover or access hole is sealed (only for AZM 200 or AZM 201).