



**EN** Operating instructions. . . . .pages 1 to 6  
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:

#### AZ/AZM 415-B30-①

No.	Option	Description
①	01	Mounting inside, with emergency handle, door hinge right
	02	Mounting inside, with emergency handle, door hinge left
	03	Mounting inside, without emergency handle, door hinge right
	04	Mounting inside, without emergency handle, door hinge left
	05	Mounting outside, with emergency handle, door hinge right
	06	Mounting outside, with emergency handle, door hinge left
	07	Mounting outside, without emergency handle, door hinge right
	08	Mounting outside, without emergency handle, door hinge left



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

The AZ/AZM 415-B30 actuator is preferably used on sliding and hinged safety guards in conjunction with the AZ 415 safety switch or the AZM 415 solenoid interlock.

### Application

The safety switch and solenoid interlock can be mounted inside and outside of a hazardous area. The safety guard can be opened and closed from outside by turning the door-handle. The door-handle latches in 90° position. The actuator AZ/AZM 415-B30 is available with an emergency handle for opening the safety guard. When the emergency handle is actuated, the safety guard can be opened from within the hazardous area. The safety guard cannot be closed from inside. The actuator AZ/AZM 415-B30 can be delivered with the lockout tag SZ 415 to prevent accidental locking of the safety guard, e.g. during maintenance. For easy installation on safety guards use the mounting plate MP AZ/AZM 415. The shearing force at the actuator is 25000 N.



When ordering the AZM 415 solenoid interlocks in connection with an emergency exit handle, always order the version AZM 415-...ZPKT. with emergency unlocking.

## 3. Mounting

### 3.1 General mounting instructions



The installation may only be carried out by authorised personnel.

Four boreholes  $\varnothing 6.4$  mm are available for mounting the actuator AZ/AZM 415-B30. The actuator AZ/AZM 415-B30 has to be mounted in such a way, that it can easily be inserted in the safety switch. The safety switch and the solenoid interlock must be mounted in such a way that the housing is in-line with the door post. The square-shaped bar ③ should fit exactly between the mounting parts from inside and outside of the safety guard.

Therefore the length of the square-shaped bar must be adapted to the size of the door of max. 100 mm (type with emergency handle 82 mm plus door size, type without emergency handle 69 mm plus door size). In connection with the lockout tag SZ 415-1/-2 the total length must be increased by 4 mm.

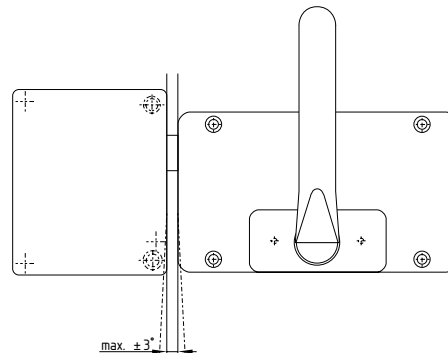
The emergency handle ① must be brought into the opened position before mounting the square-shaped bar. Insert the milled end of the square-shaped bar ③ into the emergency handle ①. Insert the other end of the square-shaped bar into the rear of the actuator unit ②. The version without emergency handle and external mounting is fix mounted to the square-shaped bar.



It must not be possible to close the safety guard with the emergency handle.

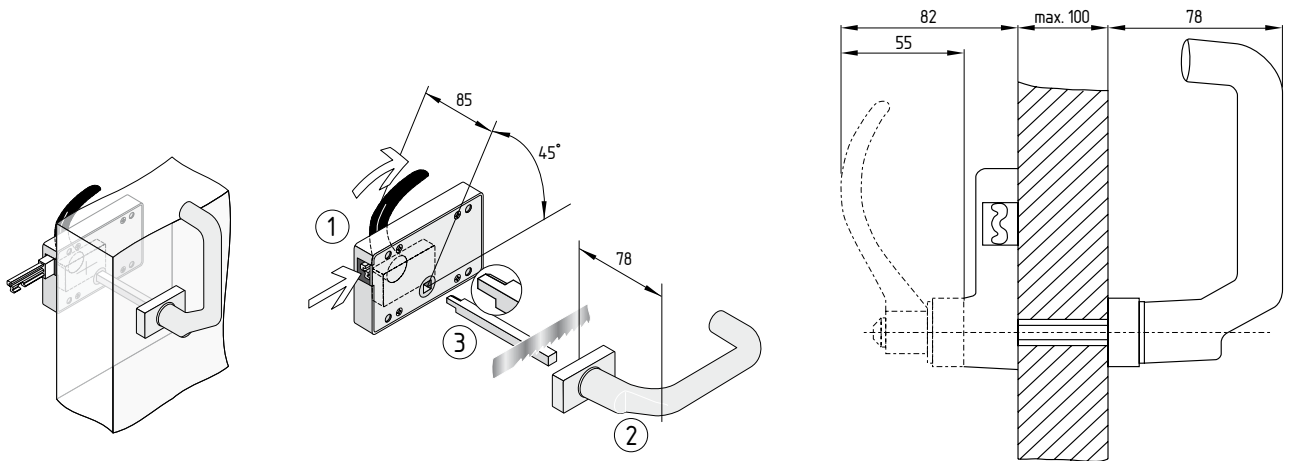


When mounting the device, it must be observed that the actuator can be inserted stress-free into the safety switching component (e. g. by using the supplied centering device). The observance of a gap of  $12^{-3}$  mm or a maximum misalignment  $\pm 3^\circ$  between the safety switchgear and the actuator unit must be ensured.



### 3.2 Mounting inside, Dimensions

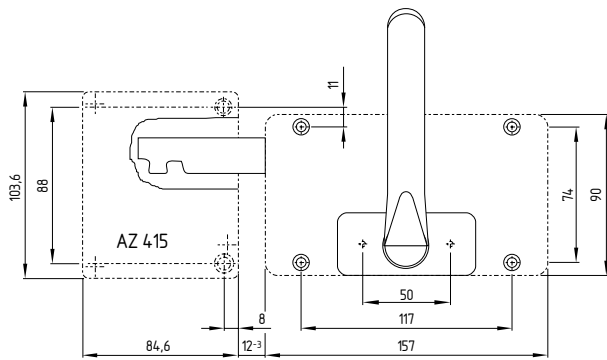
All measurements in mm.



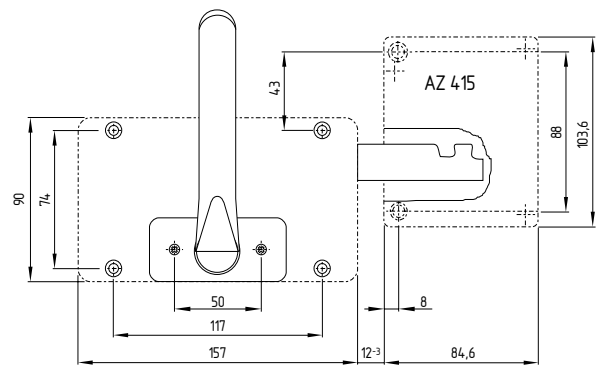
#### Key

- ① Emergency handle
- ② Actuator unit
- ③ Square-shaped bar

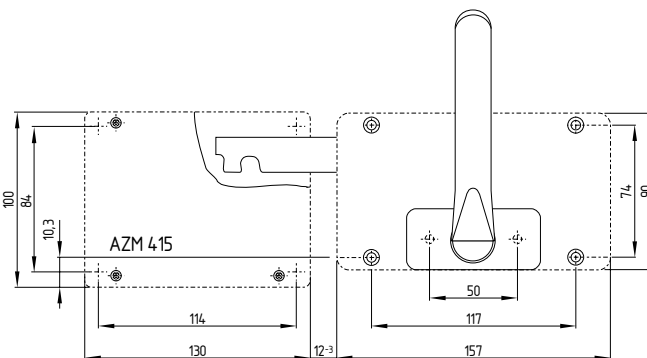
AZ/AZM 415-B30-01



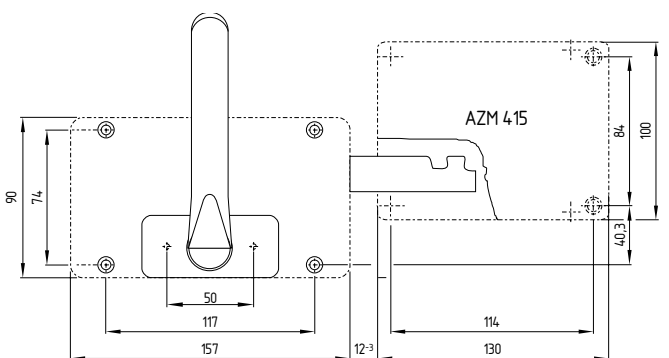
AZ/AZM 415-B30-02



AZ/AZM 415-B30-03

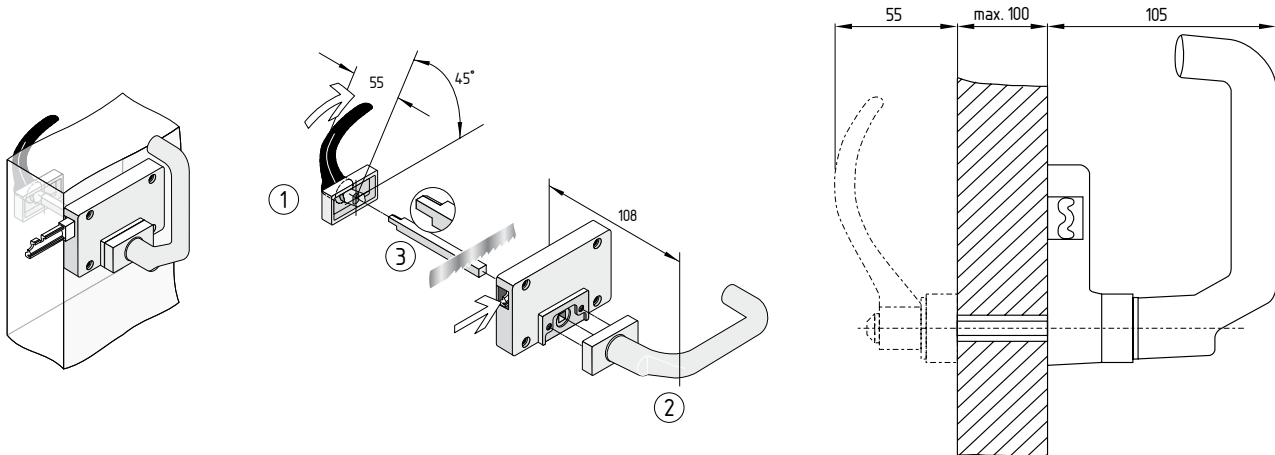


AZ/AZM 415-B30-04



### 3.3 Mounting outside, Dimensions

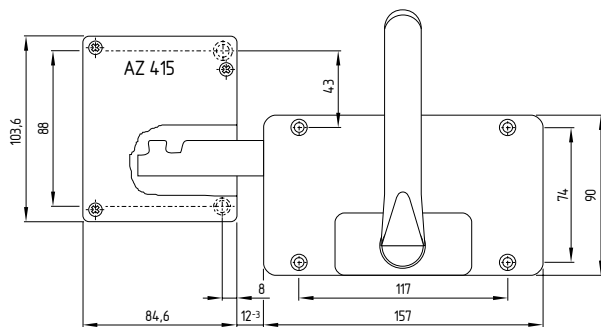
All measurements in mm.



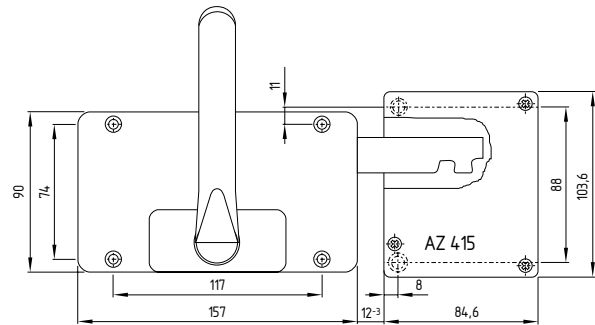
#### Key

- ① Emergency handle
- ② Actuator unit
- ③ Square-shaped bar

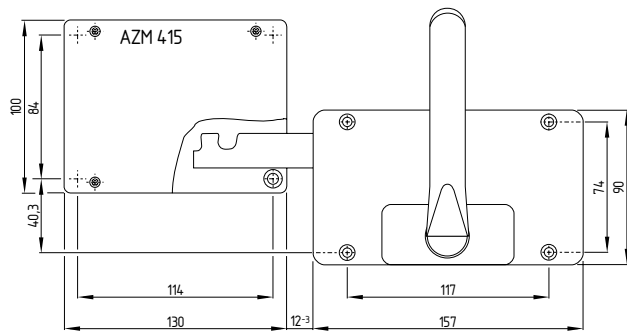
AZ 415-B30-05



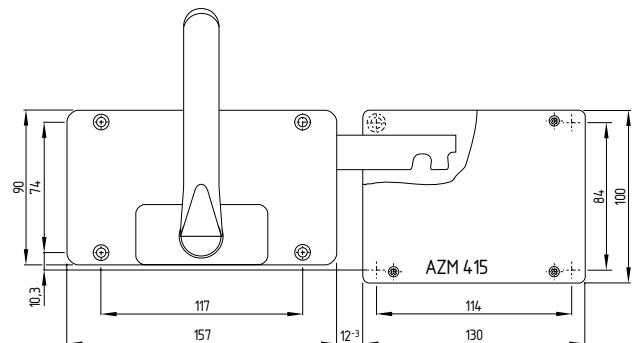
AZ 415-B30-06



AZM 415-B30-07



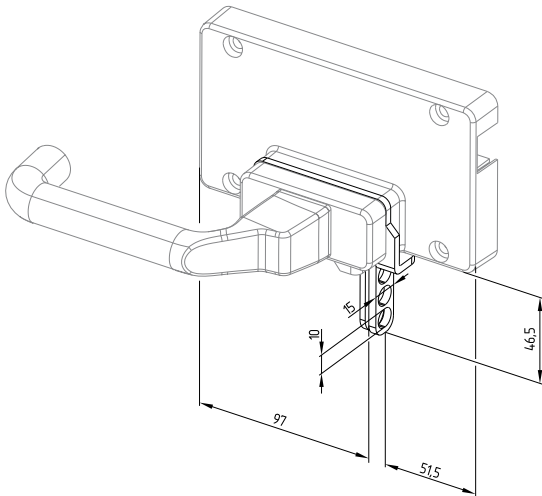
AZM 415-B30-08



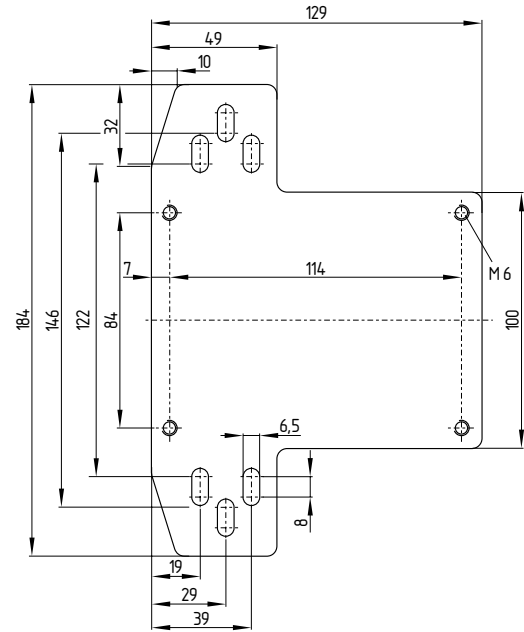
**3.4 Accessories**

Lockout tag

SZ 415-1/-2

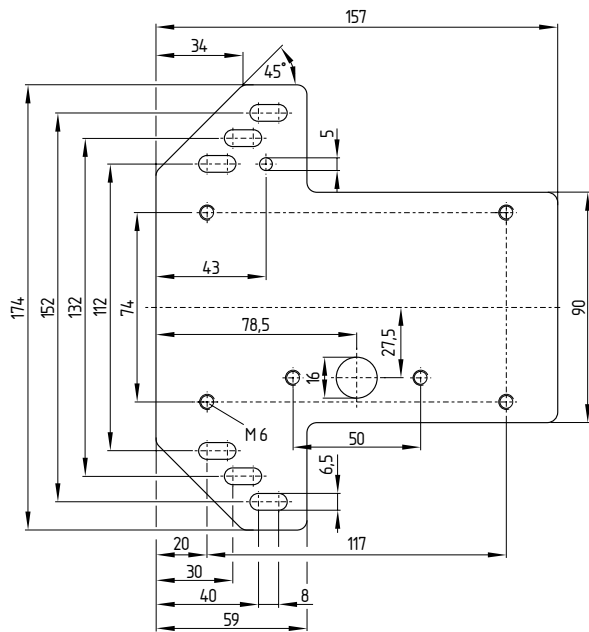


MP AZM 415

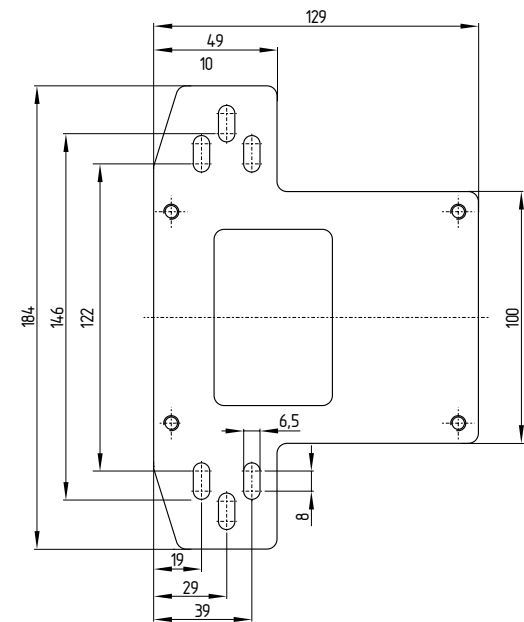


**Mounting plates**

MP AZ/AZM 415-B30

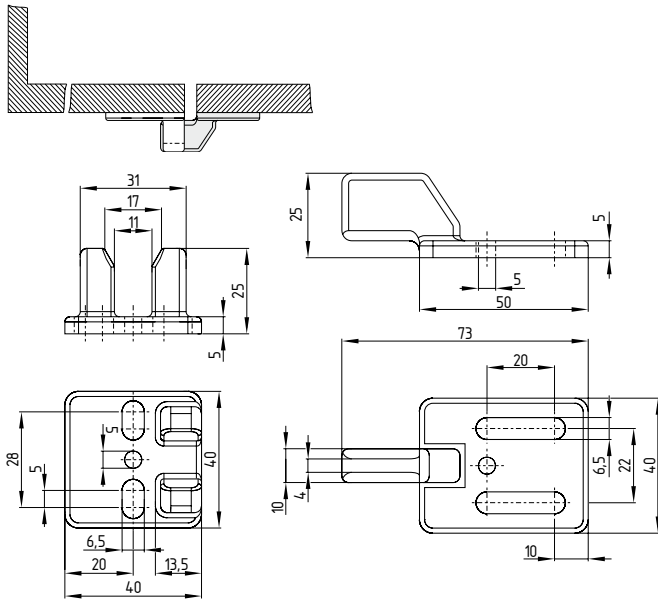


MP AZ 415

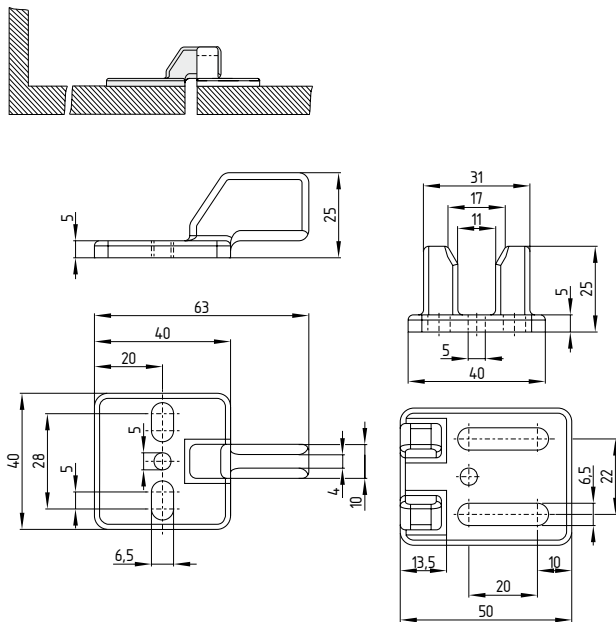


Centering device

TFA 010



TFI 010



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4. Set-up and maintenance

4.1 Functional testing

The function of the component must be tested.

The following conditions must be previously checked and met:

1. Correct fixing
2. Fitting and integrity

4.2 Maintenance

A regular visual inspection and functional test, including the following steps, is recommended:

1. Check for the integrity and correct installation of the actuator.
2. Check the gap  $12^{-3}$  mm and a maximum misalignment  $\pm 3^\circ$  between the safety switchgear and the actuator unit and re-adjust if necessary
3. Remove particles of dust and soiling

**Damaged or defective components must be replaced.**

