



Replacement for version  
2010-01

Directive FZG

**Test guideline for profile cylinders with freewheel function for cylinder locks in escape door devices**

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**Notice**

Technical specifications and recommendations in these guidelines are based on current knowledge at the time of printing. The content of the disclaimer on the website above applies.

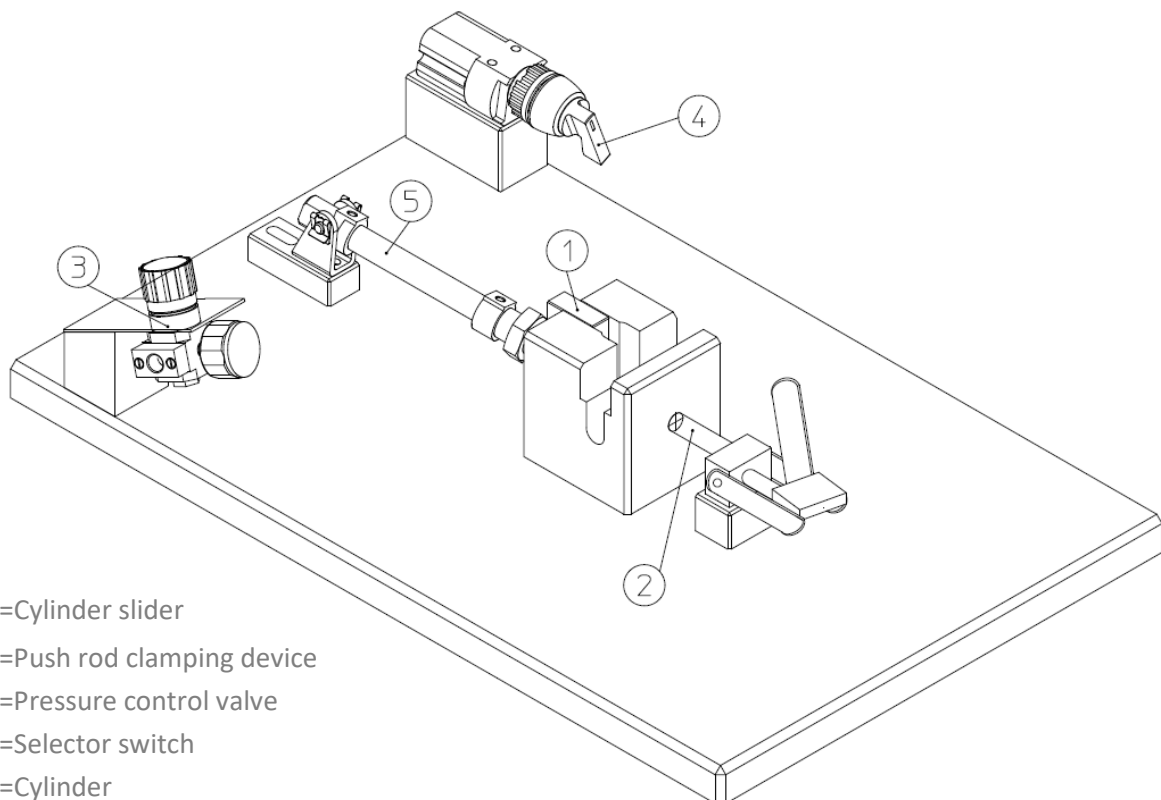
## 1 Area of application of this directive

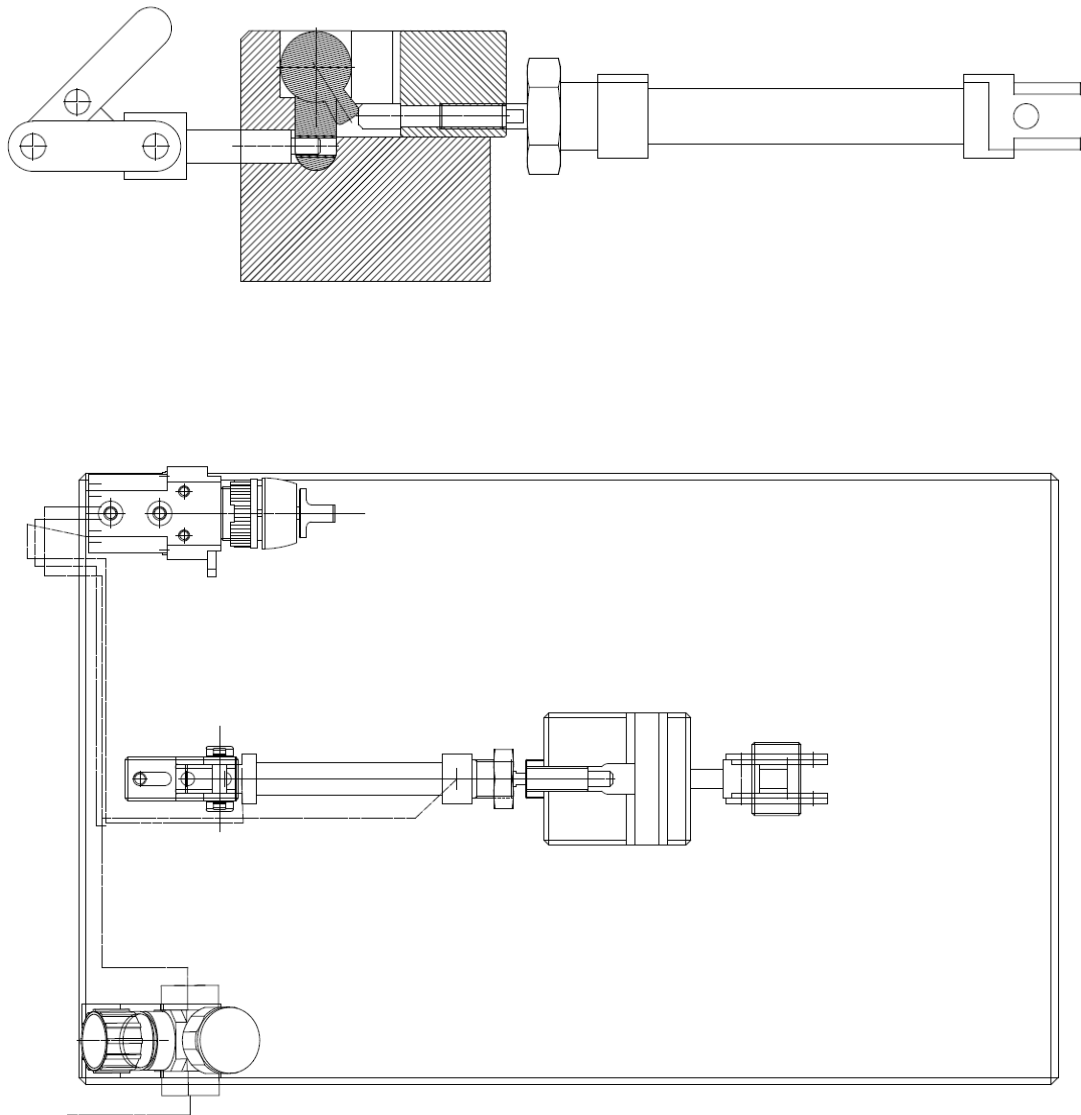
This directive replaces the issue from 2010-01. The new issue of the directive refers to DIN 18252:2018-05.

Escape door devices with cylinder locks require profile cylinders with freewheel function. DIN 18252 includes a reproducible test for mechanical and mechatronic profile cylinders to be able to test this property. The profile cylinders are labelled "FZG" if they meet the requirements.

DIN 18252 defines freewheel function as the lock bit in the profile cylinder being able to turn freely when the key is removed. In profile cylinders without freewheel function, the lock bit is blocked when the key is removed and thus cannot be turned.

## 2 Test setup





### 3 Number of test specimens

Three profile cylinders have to be submitted. The tests are performed on these profile cylinders, then a test specimen is disassembled for compliance testing and another test specimen is used as a reference sample.

Also to be submitted:

- A completed application
- Drawings illustrating the cylinder, the cylinder components and the structure of the cylinder

Profile cylinders of the same design (profile/coupling) can be summarised and certified in product families in consultation with the test centre. Technical documentation must be submitted for the test.

## 4 Requirement criteria

A freewheel profile cylinder is considered suitable in conjunction with cylinder locks if the requirements of DIN 18252 Section 6.5.7 are met. These are

- The lock bit of an FZG locking cylinder must not exceed a frictional torque of 5 Ncm in any position, tested in accordance with DIN 18252 Section 7.8.3
- After removing the key completely with a lock bit load of 65 N, the lock bit must be able to be turned without blocking. This test must be performed in accordance with DIN 18252 Section 7.8.7

## 5 Test procedure

The tests cover 3 cylinders with 5 test runs each. The tests are carried out in accordance with Sections 7.8.3 and 7.8.7 of DIN 18252.

## 6 Documentation

If the requirement criteria are met, the test centre issues:

- a) a detailed test report
- b) a test certificate

This test certificate authorises the manufacturer to label these profile cylinders/profile cylinders of the defined product family with “FZG”. This certifies that they are suitable for installation in escape door devices with cylinder locks.