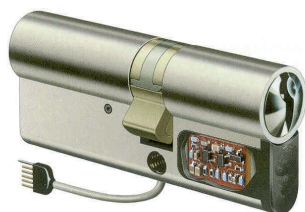


Technical Information Security Technology

Electronic Locking Cylinders



Basis of testing and certification:

VdS-Guidelines for Physical Security Devices
 Locking Cylinders with Individual Locking Function
 Requirements and Test Methods, VdS 2156-2 (03)

Classifications			
<i>Class</i>	A, AZ Basic burglary protection	B, BZ, B+, BZ+ Medium burglary protection	C, CZ, C+, CZ+ High burglary protection
	Classification "Z" : with integrated pulling protection Classification "+" : with high security against picking attacks suitable to use in ACE of IAS ¹⁾		
General requirements			
For VdS-approved locking cylinders a mounting instruction is made available, which contains a sufficient description of mounting and conditions of use. Electronic locking cylinders may use electronic devices exclusively or in combination with mechanical detainers.			
<i>Code and entering of the code</i>	Electronic, mnemonic or biometric codes may be used. For entering the code no direct contact of the code carrier and the input device is necessary (e.g. when using a transponder). In this cases the transfer of the opening code shall be performed encrypted.		
<i>Marking</i>	<ul style="list-style-type: none"> - VdS-company's logo - Type description - VdS-class 		
<i>Dimensions</i>	The dimensions of VdS-approved locking cylinders meet the requirements of DIN 18252. Alternative designs are permitted.		
Product requirements			
<i>Effective Varieties</i>	≥ 30,000	≥ 100,000	≥ 1,000,000
<i>Minimum number of used figures or letters at mnemonic codes</i>	≥ 4	≥ 5	≥ 6
<i>Event recorder</i>	no requirements	30 (minimum number of openings to be stored)	100 (minimum number of openings to be stored), 50 (minimum number of lockings to be stored) time and date of the operation are to be stored
	In case of failure of the power supply the filed data shall be kept at least for one year.		
<i>Faulty inputs</i>	max. 30 per hour	max. 20 per hour	max. 10 per hour
<i>Resistance against drilling</i>	≥ 3 min	≥ 6 min	≥ 10 min
<i>Resistance against pulling</i> ²⁾	≥ 15 kN / ≥ 3 min	≥ 15 kN / ≥ 6 min	≥ 20 kN / ≥ 10 min

The complete guidelines may be ordered by mail at verlag@vds.de.

Remark: Indications on times for manual attacks are to be understood as so-called laboratory times – real attack times are (due to less experience and/or tool equipment of burglar) in multiple longer. The forces during the tests are raised by machines.

¹⁾ Ancillary control equipment (ACE) of intruder alarm systems (IAS)

²⁾ Optional for cylinders with integrated pulling protection