

**ANSI/BHMA A156.5-2014**  
Revision of ANSI/BHMA A156.5-2010



**AMERICAN NATIONAL STANDARD**

**FOR**

**CYLINDERS AND INPUT DEVICES FOR LOCKS**

**SPONSOR**

**BUILDERS HARDWARE MANUFACTURERS ASSOCIATION, INC.**



**AMERICAN NATIONAL STANDARDS INSTITUTE**

**Approved January 24, 2014**

## AMERICAN NATIONAL STANDARD

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FOREWORD (This Foreword is not a part of ANSI/BHMA A156.5)

This Standard is the result of the collective efforts of members of the Builders Hardware Manufacturers Association, Inc. who manufacturer cylinders and input devices for locks.. The total Product Standards effort is a collection of standards , each covering a specific category of items.

Performance tests, and, where necessary, dimensional requirements, have been established to ensure safety, security and stability to which the public is entitled. There are no restrictions on design, except for those dimensional requirements imposed for the reasons given above. It is also required that locks fit certain cutout dimensions.

This Standard is not intended to obstruct, but rather to encourage, the development of improved products, methods, and materials. The BHMA recognizes that errors will be found, items will become obsolete, and new products, methods, and materials will be developed. With this in mind, the Association plans to update, correct, and revise these Standards on a regular basis. It shall also be the responsibility of manufacturers to request such appropriate revisions.

In most cases, products have been described in grade levels related to performance and security. Choice of grade and specific product is made on the basis of utility, aesthetics, security objectives and end use desired.

The BHMA numbers, which indicate types of hardware do not identify grade, finish, or design and are not intended to be used without necessary supplementary information. Individual manufacturers' catalogs are consulted.

Users of this Standard consult applicable local building codes as to requirements affecting the functions of locks used on fire doors and doors within a means of egress. Some communities require the use of exterior door locks having a dead bolt with a 1 in. (25.4 mm) projection for the purpose of providing greater security. Only functions compatible with the requirements of the applicable building codes are used.

In 2008, the BHMA subcommittee revising A156.5 amended the standard to recognize the increased application of electrical input products with analogous functions to the traditional mechanical cylinders. At the same time, the auxiliary locking products were removed and placed in a new dedicated standard, A156.36.

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## 1. SCOPE

1.1 ANSI/BHMA A156.5 establishes requirements for mechanical cylinders, electrified input devices, and push button mechanisms, which include operational and strength tests.

1.2 Related products are covered in additional BHMA Publications: A156.25 ANSI/BHMA A156.28 for Master Keying Systems, and ANSI/BHMA A156.30 for High Security Cylinders and Input Devices. 1.3 Auxiliary Locks previously included in this Standard are now found in ANSI/BHMA A156.36 for Auxiliary Locks.

1.4 Tests described in this Standard are performed under laboratory conditions. In actual usage, results vary because of installation, maintenance and environmental conditions.

1.5 The intent of this standard is to provide fair, uniform and repeatable testing of locking cylinders and input devices used in commercially available door hardware. Each testing section of the standard identifies the tools and/or fixtures applicable to that particular test. We recognize that any cylinder can be compromised or destroyed by excessive force or extended time or by the use of custom designed tools or techniques. For cylinders and input devices to be used beyond the scope of this standard, we recommend the guidance of or consultation with an independent physical security specialist.

1.6 No lock can provide complete security by itself. Locks may be defeated by forcible or technical means, or evaded by entry elsewhere on the property. No lock can substitute for caution, awareness of your environment, and common sense. Builders hardware is available in multiple performance grades to suit the application. In order to enhance security and reduce risk, you should consult a qualified locksmith or other security professional. For applications where pick resistance and other higher security protections are required consider locks meeting UL 437-2013 Key Locks, or ANSI/BHMA A156.30-2010 for High Security Cylinders.

1.7 **Grade Qualifications** Two classifications of tests are described in this Standard, Operational and Security. Manufacturers shall indicate the Grade level. A Grade 1 product shall meet all Grade 1 criteria, a Grade 2 product shall meet all Grade 2 criteria, and a Grade 3 product shall meet all Grade 3 criteria in each classification.

## 2. DEFINITIONS

2.1 **Bitting** 1. the number(s) which represent(s) the dimensions of the key, 2. the actual cut(s) or combination of a key

2.3 **Cam** 1. a lock or cylinder component which transfers the rotational motion of a key or cylinder plug to the bolt works of a lock, 2. the bolt of a cam lock.

2.4 **Card Readers** Insertion or swipe credit-card readers decode magnetic stripes and smart cards (memory cards and chip cards).

2.5 **Contact Memory Readers** Electrical contact readers decode embedded EEROM chips and “touch memory” modules.

2.6 **Credential** A key, keycard, electronic key fob, PIN (personal identification number), biometric attribute, or other device, used in contact or proximity of the input device to transfer a code required for unlocking the locking device, or communicating with it for other access control purposes.

2.7 **Cylinder** The subassembly of a mechanical lock containing a plug with keyway and a body with movable retainers.