avant®

www.avantitalygroup.it
Via Santo Stefano, 16
40125 Bologna (BO)
office@avantitalygroup.it
+39 051 0828720

Locks & Cylinders

B

Hardware

avant®

EN 12209

EN 1634
260 Mins

AVANT CE mark European Mortise Lock Successfully tested for conformity to all the requirements of BS EN 12209, 11 Classification: 3 X 9 1 0 G 3 B C 2 0

Powder coated case offers **High Corrosion Resistance**

Casting SS304 follower action for firm positive operating action. suitable for **high frequency** applications

200,000 test cycles with 120N load on casting SS304 of Latch bolt.

Quick-reverse latch for left and right hand application. No-hassle field-reversible.

50,000 test cycles on casting SS 304 of deadbolt

Sashlock has a cylinder to latch function where both latch and deadbolt can be with- drawn by cylinder or key action.

20mm double throw deadbolt from 2 turns of **the cylinder offers high level of security**

Conforms to the DIN18251 with follower to cylinder centres at 72mm/85mm. The case is pierced to accept bolt through fixings at 38mm centres .

One-piece square ended face plate in stainless steel grade 304 with satin finish. Optional radius ended corner is also available.

Introduction - Mortise Locks

The AVANT range of architectural locks is manufactured to the highest engineering standards and designed to offer a high price / performance ratio.

They have been successfully type tested to all the requirements of BS EN 12209 / EN 1634, 260 Minutes Fire Rated.

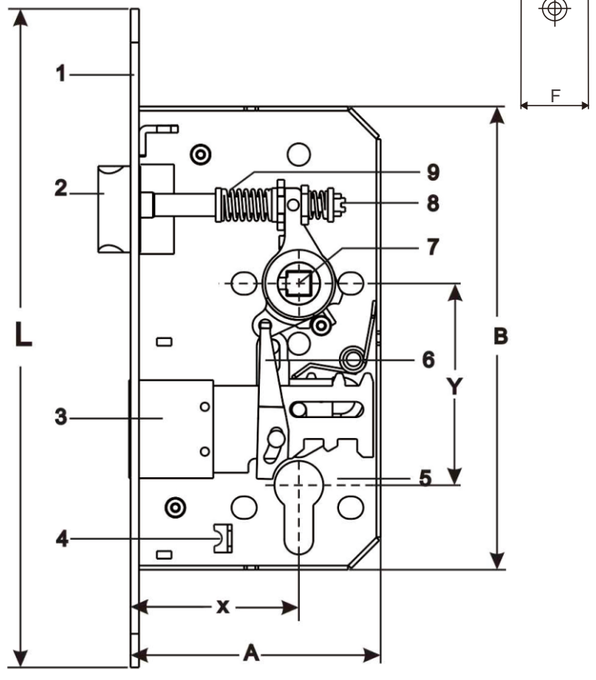
Solid stainless steel latchbolts, deadbolts, followers, forend and strike plate provide enhanced durability and security.

EN 12209

EN 1634
260 Mins

Technical Information:

- BS EN 12209 / DIN 18251, CE Classification: 3X910G3BC20
- Latch (Casting): SS304 (Durability: Grade X, 200,000 test cycles, 120N load on latch cycles)
- Dead bolt: SS304 (Durability: Grade X, 50,000 test cycles)
- EN 1634:260 Minutes Fire Rated



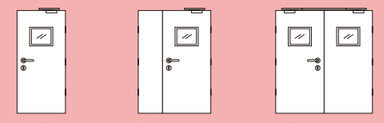
1. Forend
2. Latch
3. Dead bolt
4. Screw channel for cylinder
5. Lock case
6. Action-arm
7. Follower
8. Turning device
9. Spring
X. Backset
Y. Distance
A. Lock case width
B. Lock case height
L. Forend length
F. Forend width

Optional functions:

- Escape Door Lock
- Sash Door Lock
- Classroom Lock
- Storeroom Lock
- Privacy Lock
- Passage Lock With Latch bolt
- Deadbolt Lock
- Bathroom Lock
- Night Latch

Application for Doors

- Wooden Doors/Timber
- Metal/Steel Doors
- Office Doors
- Hollow Metal Doors
- Security Doors
- Fire-Rated Doors



Single Door | Composite Door | Double Door

Standards and Certification
avant

BS EN12209 Building Hardware Mechanically Operated Locks, Latch and Locking Plates

EN 12209 classifies mechanically operated locks, latches and locking plates using an 11 digit coding system.
Fundamental to this standard is a comprehensive classification system for assessing the wide range of products needed to satisfy the diverse requirements of the European market.
Features assessed include normal use (and abuse) forces, long-term durability, fire/smoke resistance, corrosion and temperature resistance and security, both manipulative and physical.

1. Category of Use

3

Three grades are identified:
Grade 1 : Low frequency of use by people with a high incentive to exercise care and a small chance of misuse. E.g.Internal residential doors
Grade 2 : Medium frequency of use by people with some incentive to exercise care but where there is some chance of misuse.E.g.Internal office doors.
Grade 3 : High frequency of use by public or others with little incentive to exercise care and with a high chance of misuse.E.g.Public doors.

2. Durability

X

Twelve grades are identified with minimum figures for deadbolt and snib operation, and latch bolt operation with and without side load, as shown. The side load is applied to the latch bolt when it is being withdrawn.

Grade A	50,000 tested cycles no stress on latch bolt	Grade L	100,000 tested cycles stress on latch bolt 25 N
Grade B	100,000 tested cycles no stress on latch bolt	Grade M	200,000 tested cycles stress on latch bolt 25 N
Grade C	200,000 tested cycles no stress on latch bolt	Grade R	100,000 tested cycles stress on latch bolt 50 N
Grade F	50,000 tested cycles stress on latch bolt 10 N	Grade S	200,000 tested cycles stress on latch bolt 50 N
Grade G	100,000 tested cycles stress on latch bolt 10 N	Grade W	200,000 tested cycles stress on latch bolt 100 N
Grade H	200,000 tested cycles stress on latch bolt 10 N	Grade X	200,000 tested cycles stress on latch bolt 100 N

3. Door Mass and Closing Force

9

Nine grades are identified with maximum figure for closing force at various door masses as shown.
Note :closing force is from a standing. Start :i.e.fully extended latch bolt in contact with striking plate at start of test .

Maximun closing	Up to 100kg	Door mass up to 200kg	Above 200kg
15N	grade 7	grade 8	grade 9
25N	grade 4	grade 5	grade 6
50N	grade 1	grade 2	grade 3

4. Fire Resistance

1

Two grade are identified :
Grade 0 : Not approved for use on fire/smke door assemblies
Grade 1 : Suitable for use on fire/smoke door assemblies tested to BS EN 1634-1 etc.

5. Safety

0

No requirement, but note : a lock or latch conforming to this standard can, at the same time, also be part of an exit device conforming to BS EN 179 or BS EN 1125.

6. Corrosion Resistance

G

Eight grade are identified with neutral salt-spray (NSS) corrosion resistance grades from BS EN 1670:1988, with and without temperature resistance as shown :

Corrision resistance (NSS)	Temperature resistance	
	No requirement	-20c to +80C
240 hours	grade D: very high corrosion resistance	grade G: very high corrosion resistance
96 hours	grade C: high corrosion resistance	grade F: high corrosion resistance
48 hours	grade B: moderate corrosion resistance	grade E: moderate corrosion resistance
24 hours	grade A: low corrosion resistance	
No requirement	grade 0: no defined corrosion resistance	

7. Security and drill resistance

3

Seven grades are identified with minimum figures for requirements relating to physical attack, with or without drilling of the lockcase, as shown:

	No drilling requirement	Drilling requirement
Increasing resistance to attack	grade6: very high security	grade7: very high security
	grade4: high security	grade5: high security
	grade3: medium security	
	grade2: low security	
	grade1: minimum security	

8. Field of Door Application.

B

A	mortise lock, unrestricted application	J	rim lock, pivot door, inwards opening
B	mortise lock, pivot door	K	mortise lock, pivot door, locked form inside
C	mortise lock, sliding door	L	mortise lock, sliding door, locked form inside
D	rim lock, unrestricted application	M	rim lock, pivot door, locked form inside
E	rim lock, pivot door	N	rim lock, sliding door, locked form inside
F	rim lock, sliding door	P	mortise lock, pivot door, supported, locked form inside
G	bored lock, unrestricted application	R	rim lock, pivot door, inwards opening, locked form inside
H	mortise lock, pivot door, supported		

9.Type of Key Operation and Locking.

C

Nine grades are identified for differing types of key operation, The grading determines how the lock is assessed for deadlocking requirement as shown. In addition, there is a maximum key torque operating requirement of 1.5 Nm and a minimum key strength requirement of 2.5 Nm .
Grade 0 : Not applicable;
Grade A : Cylinder lock or latch; manually locking;
Grade B : Cylinder lock or latch; automatically Locking;
Grade C : Cylinder lock or latch; manually locking with intermediate locking;
Grade D : Lever lock or latch; manually locking;
Grade E : Lever lock or latch; automatically locking;
Grade F : Lever lock or latch; manually locking with intermediate locking;
Grade G : Lock or latch without key operation; manually locking;
Grade H : Lock without key operation; automatically locking.

10. Type of Spindle Operation

2

Five grades are identified
Grade 0 : Lock without follower
Grade 1 : Lock with sprung lever or knob
Grade 2 : Lock with light unsprung lever.
Grade 3 : Lock with heavy unsprung lever
Grade 4 : Lock with manufacturer's own specification furniture

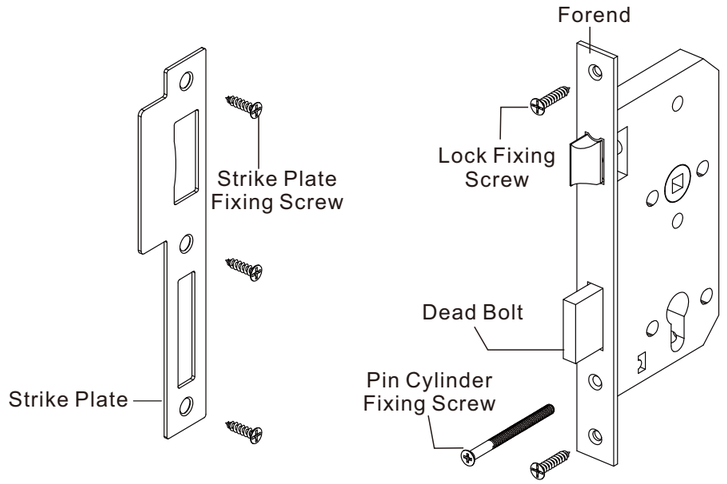
11. Key Identification

0

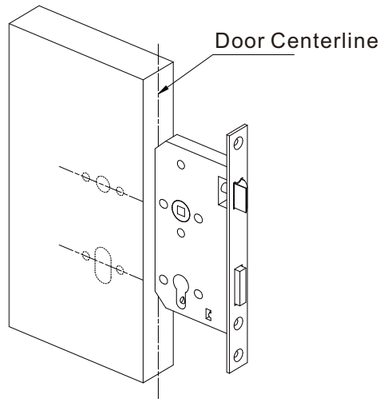
Nine grades are identified relating to the number of differs and levers. Grade 0 relates to a latch with no locking

No of differs	No of levers								
									grade H
				grade F				grade G	
			grade D			grade E			
		grade B			grade C				
	grade A								
grade 0									

Installation Guide for Mortise Locks

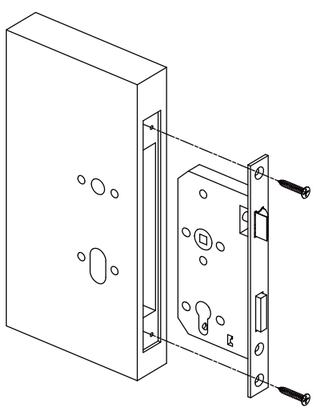


1



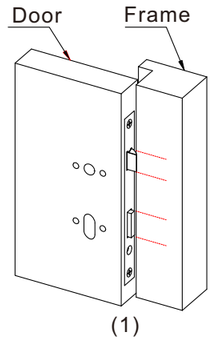
1. Normally the holes of for-end should be on door centerline.
2. Holes for Lever handle and Cylinder should be vertical to door centerline.
3. Detailed holes size please refer for hole preparation instruction.

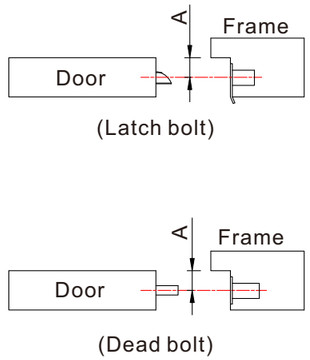
2



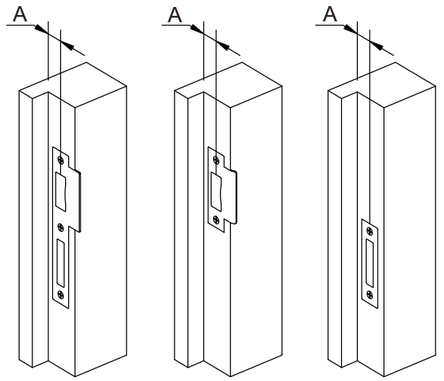
1. Install the lock-case to the door then tighten the screws.
2. Make sure the prepared holes for lever handle and cylinder are matching with lock-case.

3 **Strike plate installation:**





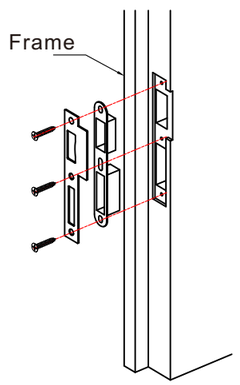
1. Close the door and mark the latch bolt/dead bolt position onto the frame as shown in (1).



(2)

2. Transfer the lines from latch bolt and dead bolt onto the edge of the frame to mark the vertical positions (A) , as shown in (2).

4



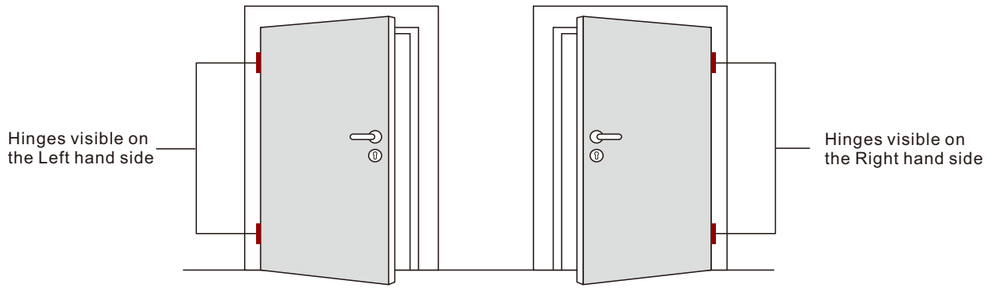
1. Install the strike box to the prepared holes then strike plate with screws.
2. After installation, check and make sure the lock-case functions properly.

Door Direction

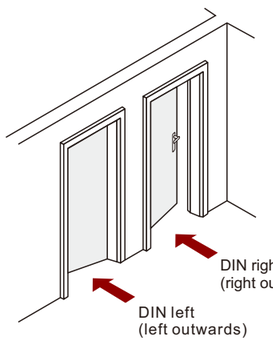
Depending on the pivot direction of a door, a door is classified as a left and right hand door.
The door direction or side definition according to DIN 107 is determined as follows:

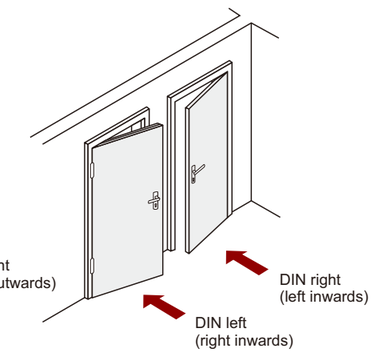
Visible position of the door hinges on the left = DIN left
Visible position of the door hinges on the right = DIN right

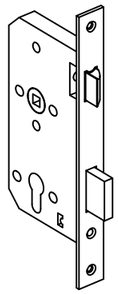
In accordance with the door directions, the mortise locks are also classified
as DIN left and DIN right hand locks:



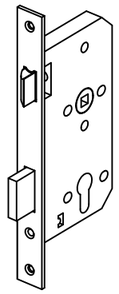
DIN left hand **DIN right hand**



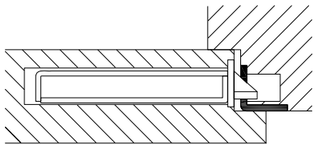




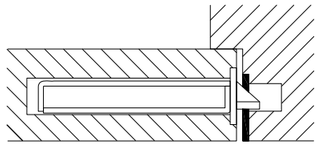
DIN left hand lock
(the straight side of
the latch points to the left)



DIN right hand lock
(the straight side of
the latch points to the right)



The choice of mortise lock also depends on the type of the door:
Profile of a rebated door with mortise lock
(for end protruding at one side)



Profile of a flush door with mortise lock
(for end protruding at both sides)

Fire Rated Sash Lock

AVML009 (72 ctc)

Function: Latch bolt can be operated by lever handles on either side. Deadbolt thrown and retracted from one or from both sides depending on the type of cylinder installed. Cylinder action will operate both deadbolt and latchbolt. Deadbolt 2 turns.

EN12209

EN 1634
260 Mins

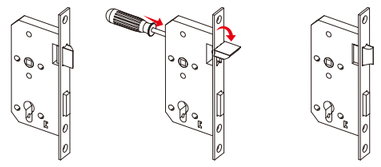
Certification	BS EN12209 / DIN 18251 Grade 3, 200,000 test cycles, EN1634: 260 Min fire rated, EN1670: 240 hours Corrosion Resistance
CE Classification	3X910G3BC20
Backset	55mm, 60mm, 65mm, 70mm, 80mm
Distance	72mm
Material	Solid SUS 304 Latch bolt & Deadbolt, Follower, SUS 304 Forend, Strike Plate
Forend & Strike plate	Square or Radius
Deadbolt	2 Turns
Finish	SSS, PSS, PVD, PB, AB, AC
Application	Entrance door of commercial or residential application
Suitable For Door	Wooden door, Metal door, Fire door, Smoke door, Interior door, Outer door, Swing door etc.
Cylinder can withdraw both latch and deadbolt - offers convenience and safety combined with security.	
Pierced to accept bolt through furniture and escutcheons at 38mm centres	

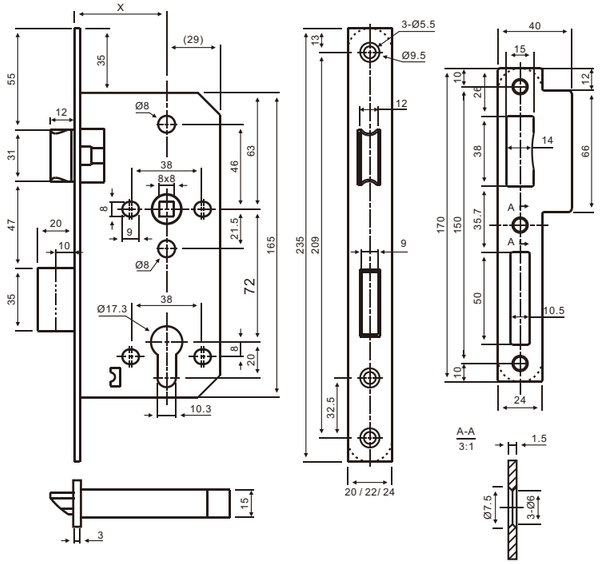
Class: 3 X 9 1 0 G 3 B C 2 0

Art No.:

1025.01.1301 X=55mm
1025.01.2301 X=60mm
1025.01.3301 X=65mm
1025.01.4301 X=70mm
1025.01.5301 X=80mm

Lockcase Reversible Direction





Standard Configuration

AVML009 AVTH001 AVLC004 AVLC003

Fire Door: rotate the handle to open the door from inside, by key form outside

Smoke Door : open by key in both sides

*Master key is available

Fire Rated Deadbolt Lock

AVML013

Function: Deadbolt thrown and retracted from one side or from both sides depending on the type of cylinder installed. Deadbolt 2 turns.

EN12209

EN 1634
260 Mins

Certification	BS EN12209 / DIN 18251 Grade 3, 200,000 test cycles, EN1634: 260 Min fire rated, EN1670: 240 hours Corrosion Resistance
CE Classification	3X910G3BC00
Backset	55mm, 60mm, 65mm
Distance	72mm
Material	Solid SUS 304 Deadbolt, Follower, SUS 304 Forend, Strike plate
Forend & Strike plate	Square or Radius
Finish	SSS, PSS, PVD, PB, AB, AC
Application	Entrance or storeroom door of commercial or residential application
Suitable For Door	Wooden door, Metal door, Fire door, Smoke door, Interior door, Outer door, Swing door etc.
Cylinder can withdraw deadbolt - offers safety combined with security.	
Pierced to accept bolt through furniture and escutcheons at 38mm centres	

Class: 3 X 9 1 0 G 3 B C 0 0

Art No.:

1025.02.1301 X=55mm
1025.02.2301 X=60mm
1025.02.3301 X=65mm

Standard Configuration

AVML013 AVLC004 AVLC003

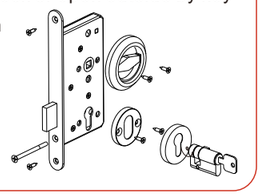
Equipment Door : inside and outside open by key

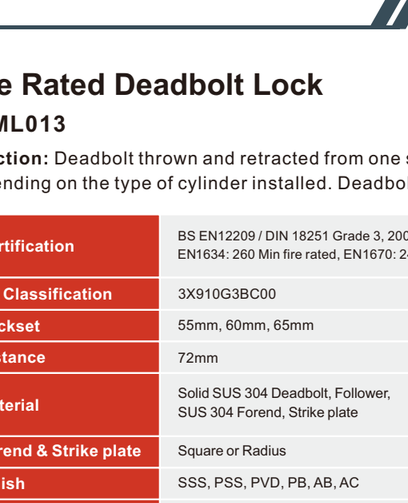
*Master key is available

AVML013 AVFH013 AVLC010 AVES001

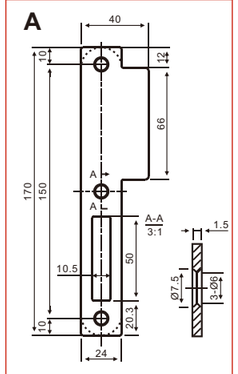
Tube Wells Door : lock or open outside by key

Installation diagram





Strike Plate Option



Fire Rated Latch Lock

AVML011

Function: Latch bolt can be operated by lever handles on either side all the time.

EN12209

EN 1634
260 Mins

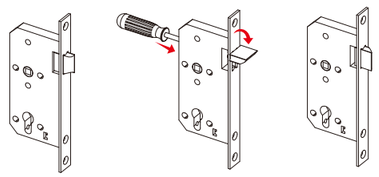
Certification	BS EN12209 / DIN 18251 Grade 3, 200,000 test cycles, EN1634: 260 Min fire rated, EN1670: 240 hours Corrosion Resistance
CE Classification	3X910G-B020
Backset	55mm, 60mm, 65mm
Distance	72mm
Material	Solid SUS 304 Latch bolt , Follower, SUS 304 Forend, Strike Plate
Forend & Strike plate	Square or Radius
Finish	SSS, PSS, PVD, PB, AB, AC
Application	Passage door of commercial or residential application
Suitable For Door	Wooden door, Metal door, Fire door, Smoke door, Interior door, Outer door, Swing door etc.

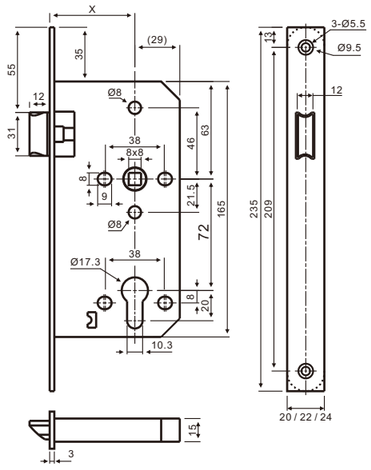
Pierced to accept bolt through furniture and escutcheons at 38mm centers

Class: 3X910G-B020

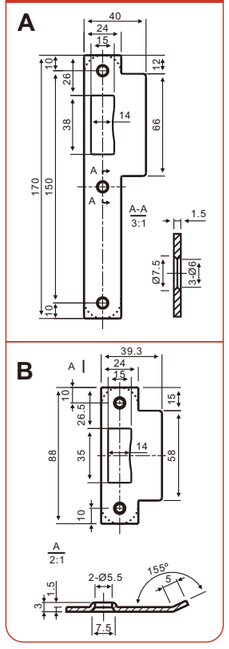
Art No.:
1025.03.1301 X=55mm
1025.03.2301 X=60mm
1025.03.3301 X=65mm

Lockcase Reversible Direction





Strike Plate Option



Standard Configuration

AVML011

AVTH001

Passage Door: unlocked by both sides.

Roller Bolt Euro Dead Lock

AVML010

Function: Roller bolt can be automatic close on either side. Deadbolt thrown and retracted from one or from both sides depending on the type of cylinder installed. Cylinder action will operate deadbolt . Deadbolt 2 turns.

EN12209

EN 1634
260 Mins

Certification	BS EN12209 / DIN 18251 Grade 3, 200,000 test cycles, EN1634: 260 Min fire rated, EN1670: 240 hours Corrosion Resistance
Deadbolt	2 Turns
Backset	50mm, 55mm, 60mm
Distance	72mm, 85 mm
Material	Solid SUS 304 Roller bolt & Deadbolt, SUS 304 Forend, Strike plate
Forend & Strike plate	Square or Radius
Finish	SSS, PSS, PVD, PB, AB, AC
Suitable For Door	Wooden door, Metal door, Interior door, Outer door, Swing door etc.

Cylinder can withdraw deadbolt - offers convenience and safety combined with security.

Pierced to accept bolt through furniture and escutcheons at 38mm centres

Class: 3X910G-B020

Art No.:
1025.04.1301 X=55mm
1025.04.2301 X=60mm
1025.04.3301 X=65mm

Standard Configuration

*Master key is available

AVML010

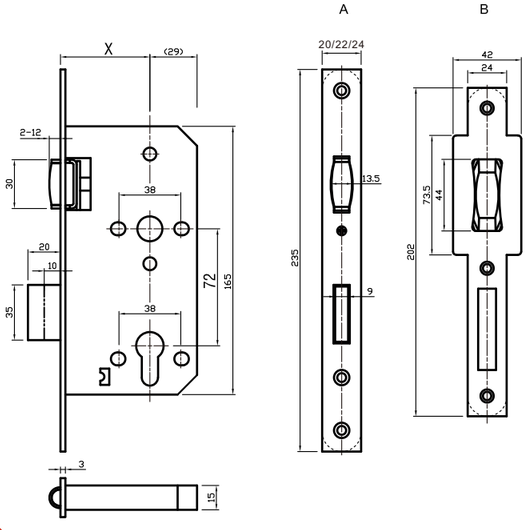
AVLC004

or

AVLC003

AVES001

72 Centres



Fire Rated Bathroom Lock

AVML012

Function: Latch bolt operated by lever on either side. Deadbolt is thrown by thumbturn inside. An indicator with an emergency release can be installed on the outside of the door and operates in conjunction with the thumbturn.

EN12209

EN 1634
260 Mins

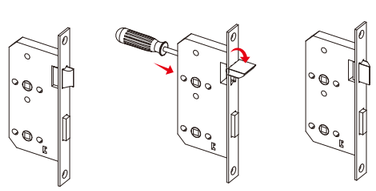
Certification	BS EN12209 / DIN 18251 Grade 3, 200,000 test cycles, EN1634: 260 Min fire rated, EN1670: 240 hours Corrosion Resistance
CE Classification	3X910G-B020
Backset	55mm, 60mm, 65mm
Distance	78mm
Material	Solid SUS 304 Latch bolt & Deadbolt, Follower, SUS 304 Forend, Strike plate
Forend & Strike plate	Square or Radius
Deadbolt	1 Turn
Finish	SSS, PSS, PVD, PB, AB, AC
Application	Bathroom or Toilet door of commercial or residential
Suitable For Door	Wooden door, Metal door, Fire door, Smoke door, Interior door, Outer door, Swing door etc.

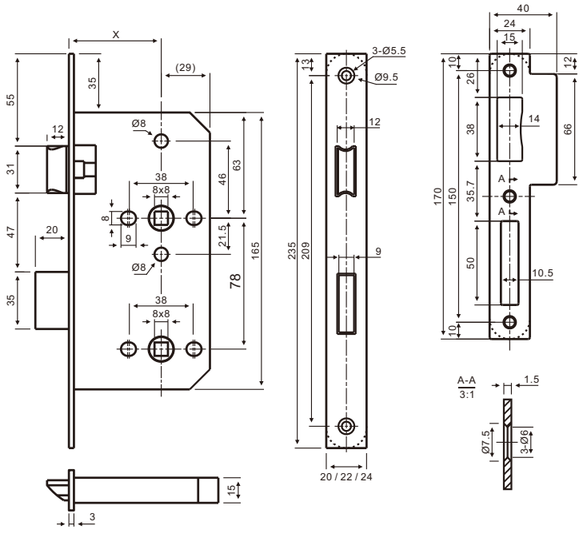
Class: 3X910G-B020

Art No.:

1025.06.1301 X=55mm
1025.06.2301 X=60mm
1025.06.3301 X=65mm

Lockcase Reversible Direction





Standard Configuration

AVML012 AVTH001 AVIK002

Bathroom Door: Indicator to show the occupy Emergency open by coin.

Fire Rated Night Latch Lock

AVML014

Function: Latch bolt operated by lever handle or exit device inside and outside by key. Suitable for doors where single action of escape is required.
The door will be relocked automatically when it closes and the security will be ensured.
The auxiliary bolt dead-locking latch bolt when door is closed to provide extra security with Anti-card function Outside lever is dummy

EN12209

EN 1634
260 Mins

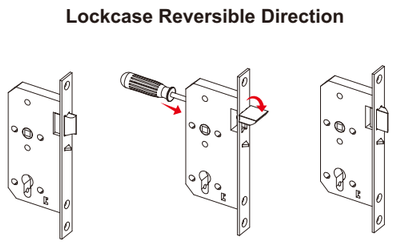
Certification	BS EN12209 / DIN 18251 Grade 3, 200,000 test cycles, EN1634: 260 Min fire rated, EN1670: 240 hours Corrosion Resistance
CE Classification	3X910G2BB20
Backset	55mm, 60mm, 65mm
Distance	72mm
Material	Solid SUS 304 Latch bolt , Follower, SUS 304 Forend, Strike plate
Forend & Strike plate	Square or Radius
Finish	SSS, PSS, PVD, PB, AB, AC
Application	Escape door of commercial application
Suitable For Door	Wooden door, Metal door, Fire door, Smoke door, Interior door, Outer door, Swing door etc.

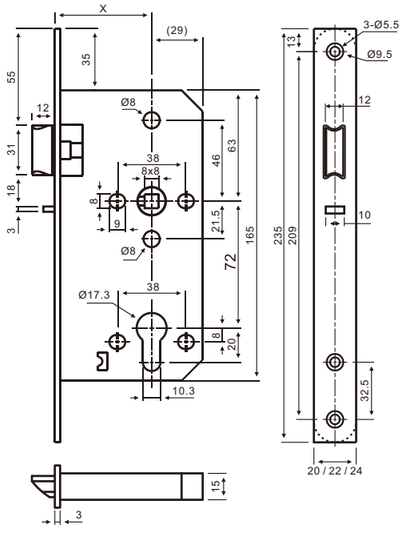
Class: 3X910G2BB20

Art No.:

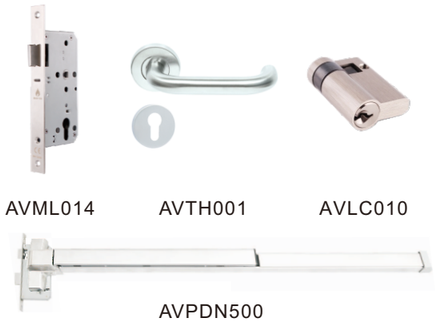
1025.07.1301 X=55mm
1025.07.2301 X=60mm
1025.07.3301 X=65mm

Lockcase Reversible Direction





Standard Configuration



AVML014 AVTH001 AVLC010

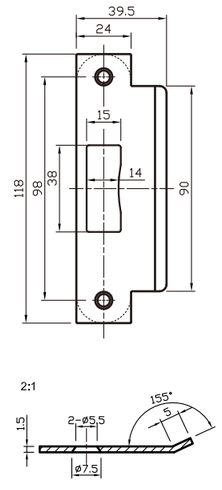
AVPDN500

Handle: Outside handle fixed, inside activity

Storeroom Door: inside unlocked-free exit open from outside by key

*Master key is available

Strike Plate Option



Emergency Escape Lock

AVML009-E

Function: Inside Lever handle/panic exit device can withdraw both latchbolt and deadbolt in one action, allowing quick escape for fire and safety reasons, suitable for doors where single action of escape as well as high security is required.

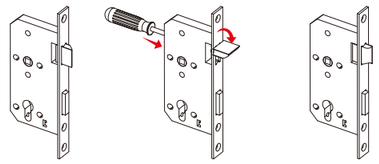
Standards	BS EN12209 / DIN 18251 Grade 3, 200,000 test cycles, EN1634: 260 Min fire rated, EN1670: 240 hours Corrosion Resistance
Deadbolt	1 Turn
Backset	55mm, 60mm
Distance	72mm
Material	Solid SUS 304 Latch bolt & Deadbolt, Follower, SUS 304 Forend, Strike Plate
Forend & Strike plate	Square or Radius
Finish	SSS, PSS, PVD, PB, AB, AC
Application	Escape door of commercial application
Suitable For Door	Escape door, Wooden door, Metal door, Fire door, Smoke door, Interior door, Outer door, Swing door etc.

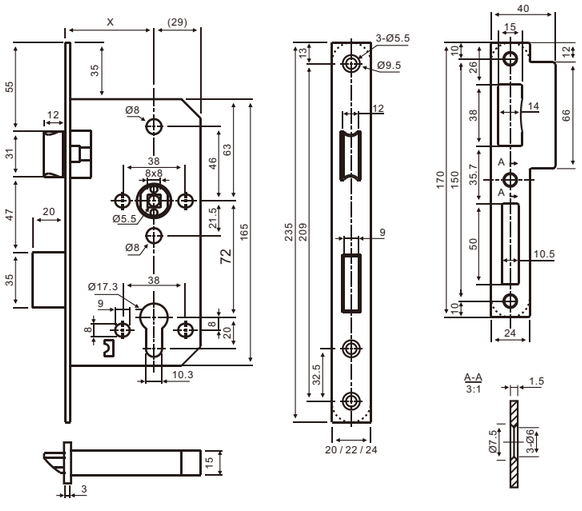
Cylinder can withdraw both latch and deadbolt - offers convenience and safety combined with security.

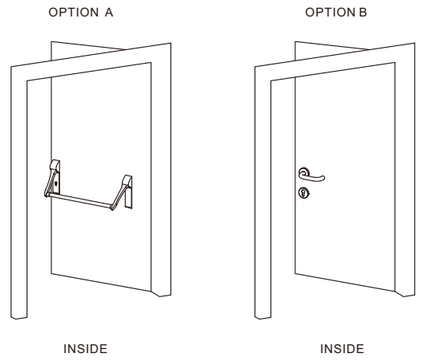
Pierced to accept bolt through furniture and escutcheons at 38mm centres

Art No.:
1025.09.1301 X=55mm
1025.09.2301 X=60mm

Lockcase Reversible Direction







Inside
The door can be opened by activating the lever handle(escape route founction) and locked with the key. The panic function A (reversible function) is only permitted with the key removed, otherwise damages to the lock may occur.

Outisde
The door can be opened with the key and by activating the lever
handle and locked with the key.

Classroom Lock

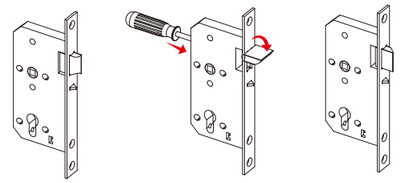
AVML015

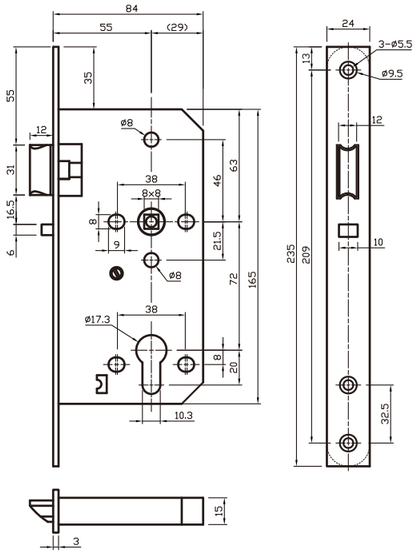
Latch bolt retracted by lever from either side unless outside is locked by key.
Unlocked from outside by key, inside lever always free for immediate exit.

Standards	BS EN12209 / DIN 18251 Grade 3, 200,000 test cycles, EN1634: 260 Min fire rated, EN1670: 240 hours Corrosion Resistance
Backset	55mm, 60mm,
Distance	72mm
Material	Solid SUS 304 Latch bolt , Follower, SUS 304 Forend, Strike plate
Forend & Strike plate	Square or Radius
Finish	SSS, PSS, PVD, PB, AB, AC
Application	Classroom door of commercial or residential application
Suitable For Door	Wooden door, Metal door, Fire door, Smoke door, Interior door, Outer door, Swing door etc.

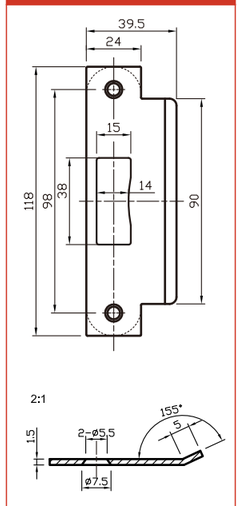
Art No.:
1025.08.1301 X=55mm
1025.08.2301 X=60mm
1025.08.3301 X=65mm

Lockcase Reversible Direction





Strike Plate Option



Standard Configuration

AVML015 AVTH001 AVLC010

Handle: Two activity handle for both sides.

Classroom Door: Lever handle from either side unless outside is locked by key.
inside lever always unlocked.

*Master key is available

Fire Rated Sash Lock

AVML026 (85 ctc)

Function: Latch bolt can be operated by lever handles on either side. Deadbolt thrown and retracted from one or from both sides depending on the type of cylinder installed. Cylinder action will operate both deadbolt and latchbolt. Deadbolt 2 turns.

EN12209

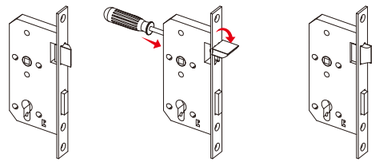
EN 1634
260 Mins

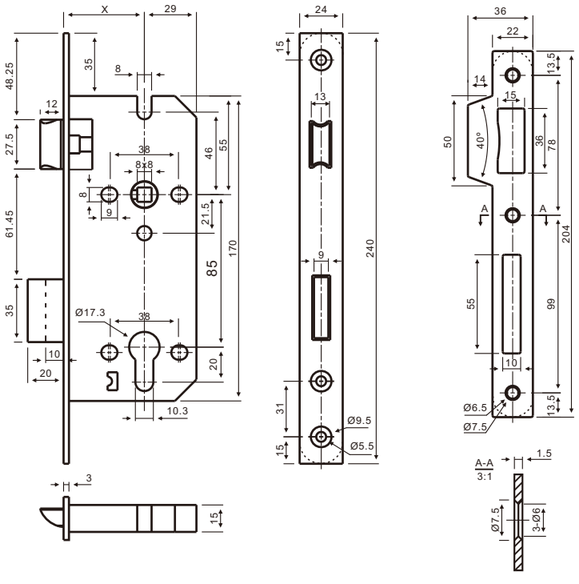
Certification	BS EN12209 / DIN 18251 Grade 3, 200,000 test cycles, EN1634: 260 Min fire rated, EN1670: 240 hours Corrosion Resistance
CE Classification	3X910G3BC20
Backset	45mm, 50mm, 60mm
Distance	85mm
Material	Solid SUS 304 Latch bolt & Deadbolt, Follower, SUS 304 Forend, Strike Plate
Forend & Strike plate	Square or Radius
Finish	SSS, PSS, PVD, PB, AB, AC
Application	Entrance door of commercial or residential application
Suitable For Door	Wooden door, Metal door, Fire door, Smoke door, Interior door, Outer door, Swing door etc.
Cylinder can withdraw both latch and deadbolt - offers convenience and safety combined with security.	
Pierced to accept bolt through furniture and escutcheons at 38mm centres	

Class: 3 X 9 1 0 G 3 B C 2 0

Art No.:
1025.01.6301 X=45mm
1025.01.7301 X=50mm
1025.01.9301 X=60mm

Lockcase Reversible Direction





Standard Configuration

AVML026 AVTH001 AVLC003 AVLC004

Fire Door: Rotate the handle to open the door from inside,by key form outside

Smoke Door : open by key in both sides

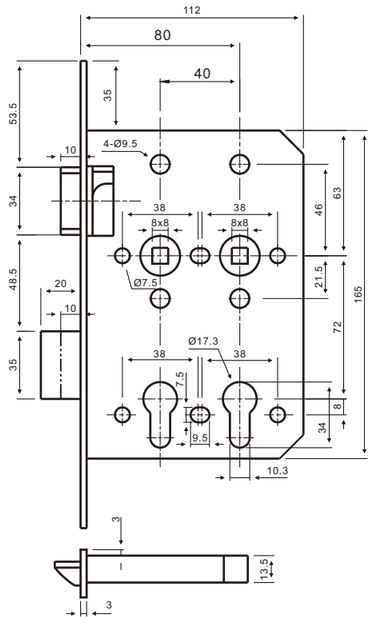
*Master key is available

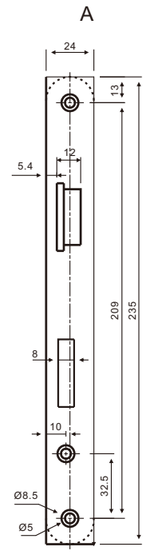
Mortise X-Ray Lock

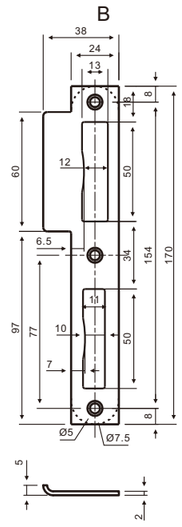
AVML027

Function: Prevention of X ray Penetration.
Latch bolt can be operated by lever handles on either side.
Deadbolt thrown and retracted from both side cylinders.

Backset	40mm, 80mm
Distance	72mm
Follower	8x8 mm
Material	Solid SUS 304 Latch bolt & Deadbolt, Follower, SUS 304 Forend, Strike plate
Forend & Strike plate	Square or Radius
Finish	SSS, PSS, PVD, PB, AB, AC
Suitable For	X-Ray door of Hospital application Ultrasonic test room doors
Handed	Din Left or Din right



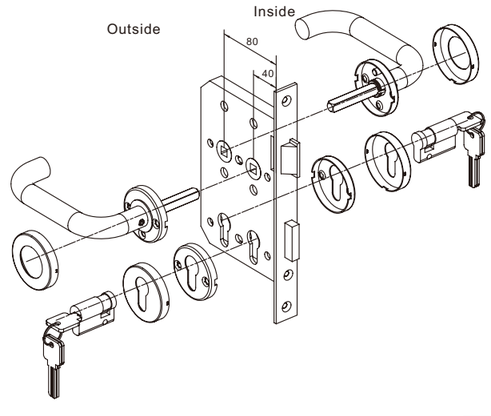




Standard Configuration

AVML027 AVTH001 AVLC010 x2

Installations: Spindle hole and Cylinder hole only drill one side on door, can not drill throught both side.



Latch Bolt Lock Body

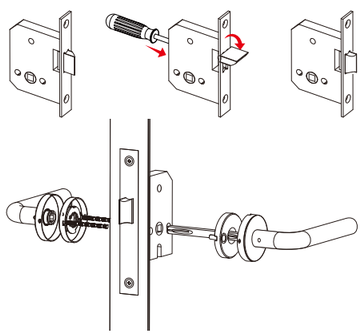
AVML028

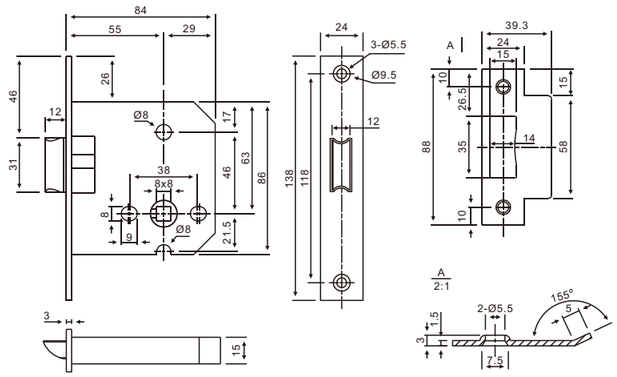
Function: Latch bolt can be operated by lever handles on either side

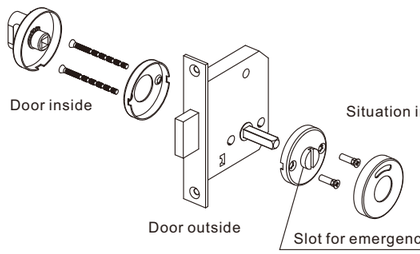
Backset	55mm
Material	Casting SUS 304 Latch bolt & Follower, SUS 304 Forend, Strike Plate
Forend & Strike plate	Square
Finish	SSS, PSS, PVD, PB, AB, AC
Application	Passage door of commercial or residential application
Suitable For Door	Wooden door, Metal door, Interior door, Outer door, Swing door etc.

Pierced to accept bolt through furniture and escutcheons at 38mm centres

Lockcase Reversible Direction





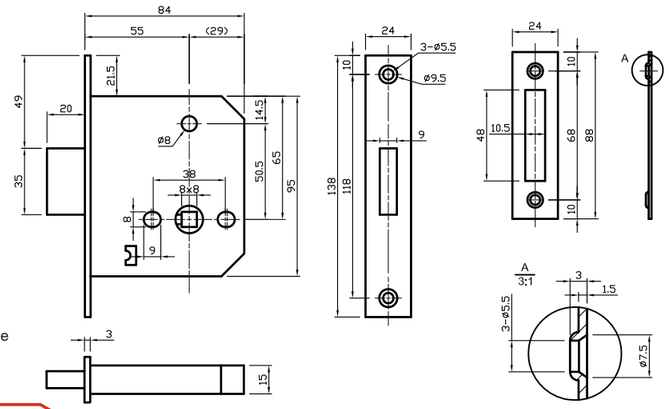


Deadbolt Lock Body

AVML029-B

Function: Deadbolt thrown and retracted from one side or from both sides depending on the type of indicator installed.

Backset	55mm
Material	Solid SUS 304 Deadbolt, SUS 304 Forend, Strike plate
Deadbolt	1 turns
Finish	SSS, PSS, PVD, PB, AB, AC
Application	Toilet door of commercial or residential application
Suitable For Door	Wooden door, Metal door, Interior door, Outer door, Swing door etc.



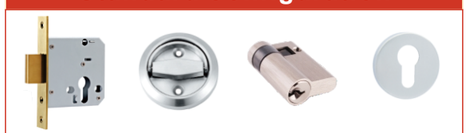
Deadbolt Lock Body

AVML029

Function: Deadbolt thrown and retracted from one side or from both sides depending on the type of cylinder installed.

Backset	55mm
Material	Solid SUS 304 Deadbolt, SUS 304 Forend, Strike plate
Deadbolt	2 turns
Finish	SSS, PSS, PVD, PB, AB, AC
Application	Entrance or storeroom door of commercial or residential application
Suitable For Door	Wooden door, Metal door, Interior door, Outer door, Swing door etc.

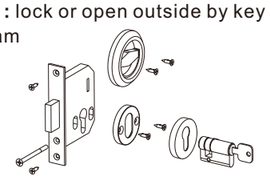
Standard Configuration

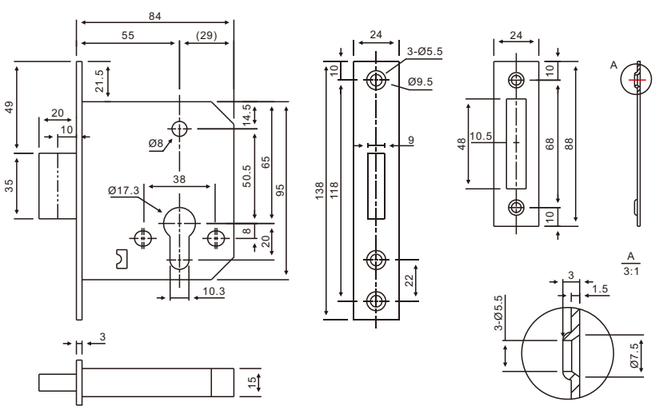


AVML029 AVFH013 AVLC010 AVES001

Tube Wells Door : lock or open outside by key

Installation diagram

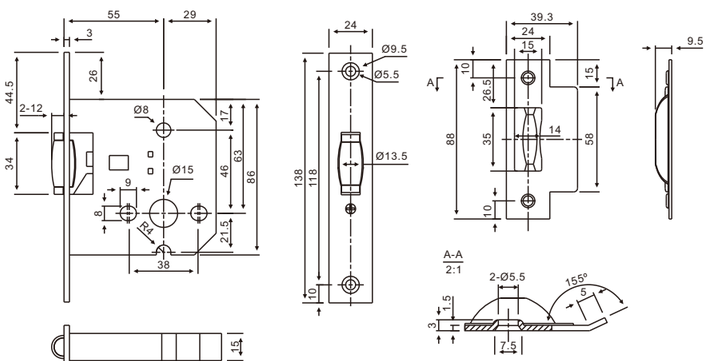




Roller Bolt Lock

AVML030

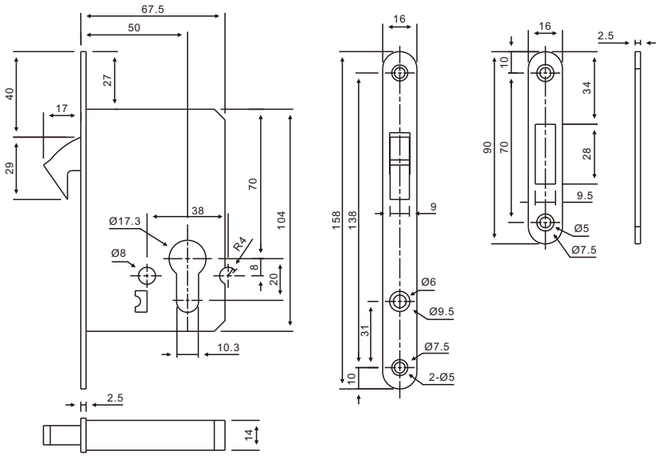
Backset available	55mm
Material	Solid SUS 304 Roller Bolt, SUS 304 Forend, Strike plate
Forend plate	W24 x H138 x T3 mm, Square head
Finish	SSS, PSS, PVD, PB, AB, AC
Suitable For Door	Wooden door, Metal door, Interior door, Outer door, Swing door etc.



Sliding Door Hook Lock

AVML031

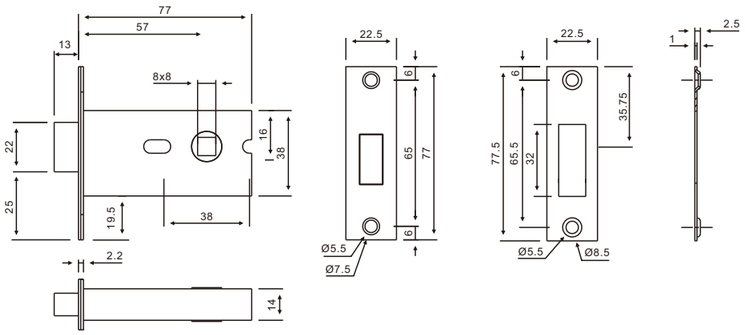
Backset	50mm
Material	Solid SUS 304 Hook Bolt, SUS 304 Forend, Strike plate
Forend plate	W16 x H158 x T2.5 mm, Radius Head
Finish	SSS, PSS, PVD, PB, AB, AC
Suitable For Door	Sliding Door, Wooden door, Metal door, Interior door, etc.



WC - Bathroom Deadbolt

AVML032

Follower	8 x 8 mm
Backset	57mm
Material	Solid Brass Deadbolt & Follower, SUS 304 Forend, Strike plate
Finish	SSS, PSS, PVD, PB, AB, AC
Suitable For	Bathroom door of commercial or residential application
Suitable For Door	Wooden door, Metal door,Interior door etc



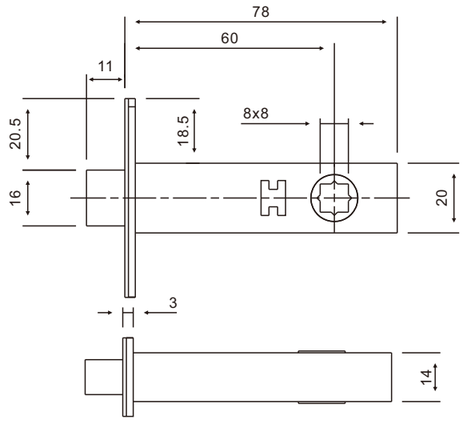
Optional Version

AVIK002

WC - Bathroom Deadbolt

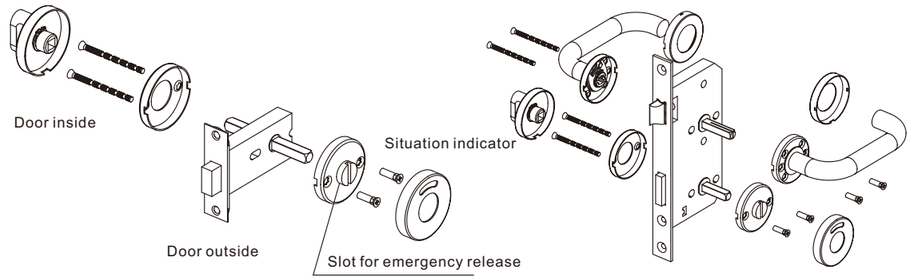
AVML033

Follower	8 x 8 mm
Backset	60mm, 70mm
Material	Solid Brass Deadbolt & Follower, SUS 304 Forend, Strike plate
Finish	SSS, PSS, PVD, PB, AB, AC
Suitable For	Bathroom door of commercial or residential application
Suitable For Door	Wooden door, Metal door,Interior door,



Indicator shown:

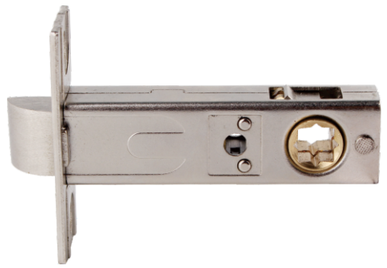
Red = door is close and it's occupied
Green = door is open and it's available



Optional Version

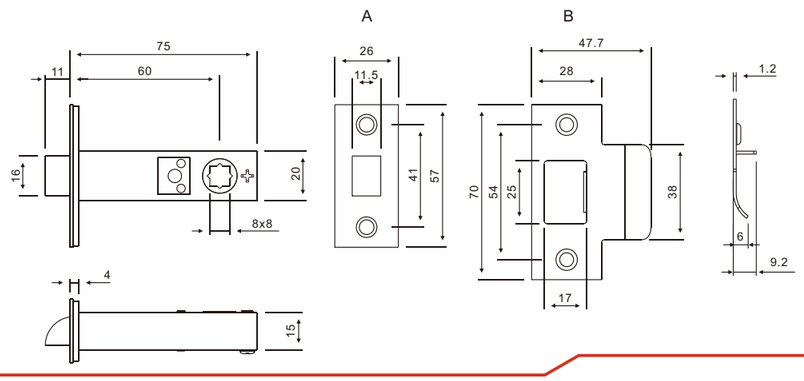
AVIK002

Architectural Tubular Latch
AVML035

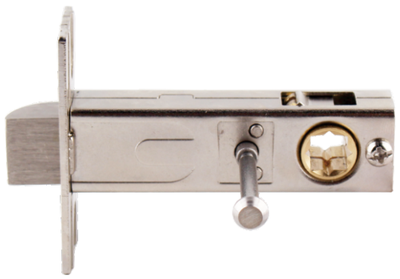


Features

- Follower :8x8 mm
- Backset: 60mm, 70mm
- Material: Solid Brass Latch bolt & Follower, SUS 304 Forend, Strike plate
- Finish: SSS, PSS, PVD

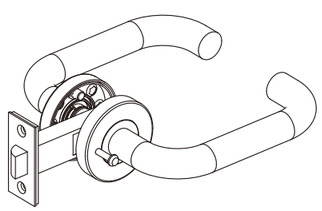


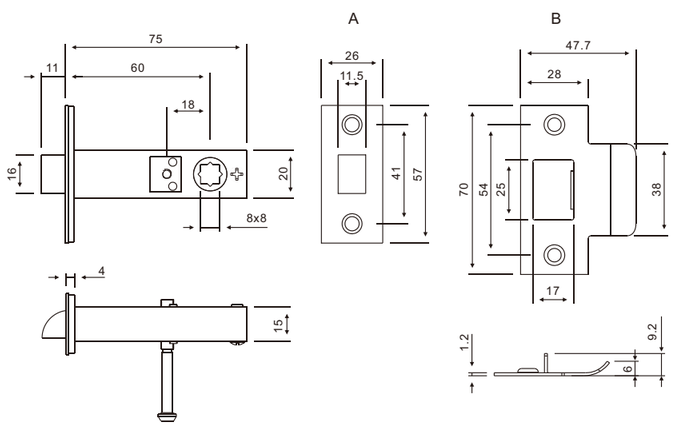
Architectural Tubular Latch with privacy function
AVML036



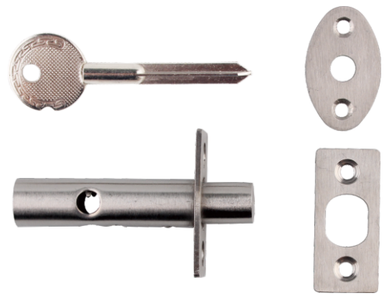
Features

- Follower :8x8 mm
- Backset: 60mm, 70mm
- Material: Solid Brass Latch bolt & Follower, SUS 304 Forend, Strike plate
- Finish: SSS, PSS, PVD



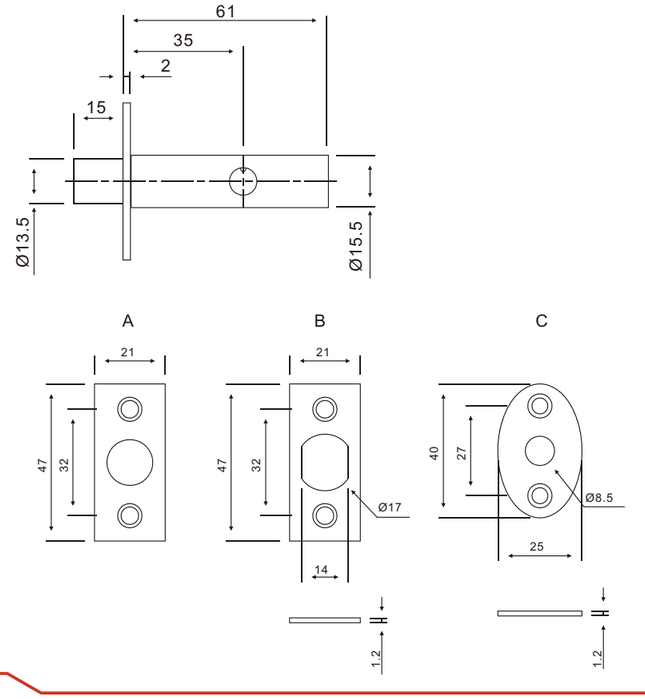


Shaft Lock(Allen Key)
AVML037

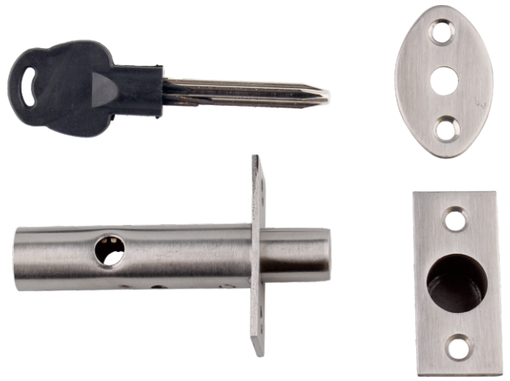


Features

- Follower :8x8 mm
- Backset: 35mm
- Material: Stainless steel
- Finish: SSS, PSS, PVD

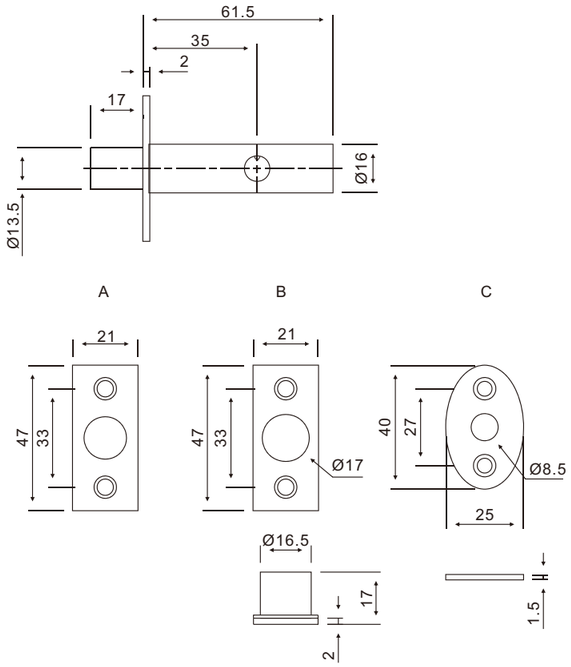


Shaft Lock(Allen Key)
AVML038



Features

- Follower :8x8 mm
- Backset: 35mm
- Material: Stainless steel
- Finish: SSS, PSS, PVD



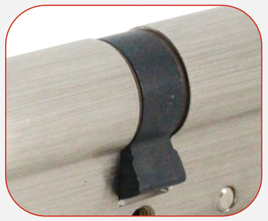
EN 1303

Lock Cylinder

European Standard

High Security

Safety



High Security

MK / GMK Key System

Brass Body Brass Pins

BS EN 1303 Building hardware - cylinders for locks

GUIDE TO CLASSIFICATION

BS EN 1303 classifies cylinders using an 8 digit coding system.

Each digit refers to a particular feature of the product measured against the standard's performance requirements.

Digit 1 - Category of use ---------- 1

Grade 1: for use by people with a high incentive to exercise care and with a small chance of misuse

Digit 2 - Durability ---------- 6

Grade 4: 25 000 cycles.
Grade 5: 50 000 cycles.
Grade 6: 100 000 cycles.

Digit 3 - Door mass ---------- 0

Grade 0: No requirement.

Digit 4 - Fire resistance ---------- B

Grade 0: not approved for use on fire/smoke resisting door assemblies
Grade 1: suitable for use on fire/smoke resisting assemblies, subject to satisfactory assessment

Digit 5 - Safety ---------- 0

Grade 0: no requirement.

Digit 6 - Corrosion resistance ---------- C

Grade 0: No requirement.
Grade A: high corrosion resistance; no temperature requirement
Grade B: no corrosion requirement; temperature requirement from -20°C to +80°C
Grade C: high corrosion resistance; temperature requirement from -20°C to +80°C

Digit 7 - Key related security ---------- 6

Six grades of key related security in accordance with the table below:

	Grade					
	1	2	3	4	5	6
Minimum number of effective differs	100	300	15000	30000	30000	100000
Minimum number of movable levers, pins, discs, etc	2	3	5	5	6	6
Coding on key could disclose combination	Yes	Yes	No	No	No	No
Torque resistance of plug	2.5Nm	5Nm	15Nm	15Nm	15Nm	15Nm

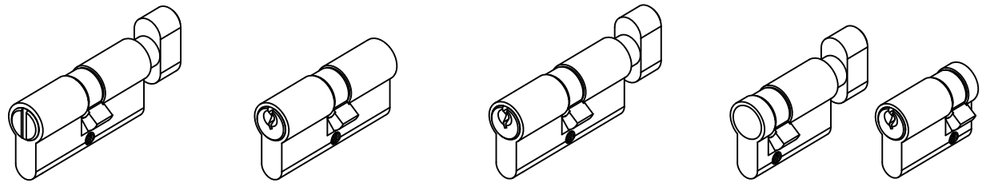
Digit 8 - Attack resistance ---------- 0

Three grades are identified and the principal requirements are sumarised in the table below:

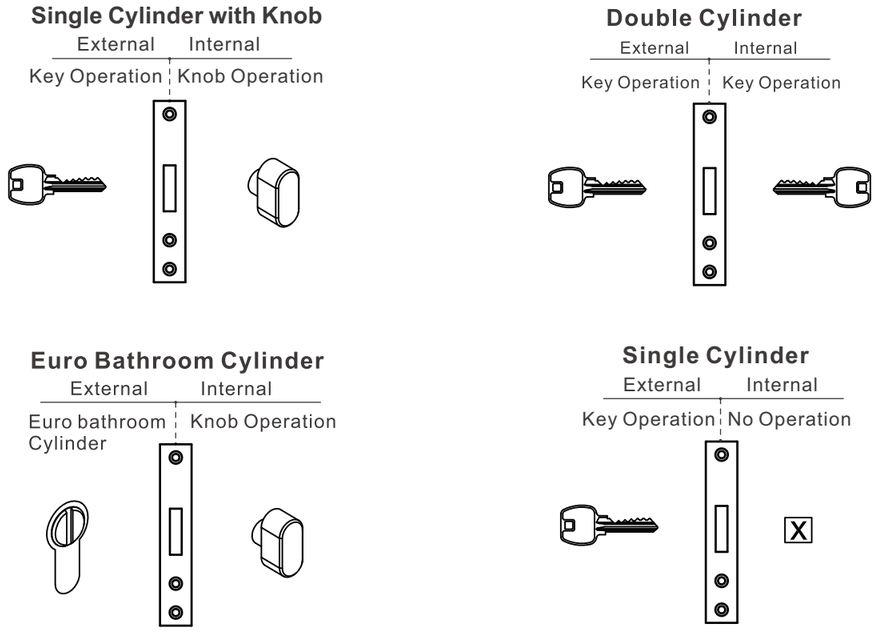
	Grade		
	0	1	2
Resistance to drilling(nett drilling time)	-	3 mins	5 mins
Resistance to chisel (number of blows)	-	30	40
Resistance to twisting attack (number of defined twists)	-	20	30
Resistance to plug/ cylinder extraction(pull load)	-	15kN	15kN
Torque resistance of plug/cylinder	-	20Nm	20Nm

Cylinder Type

Locking Cylinders are categorized according to:

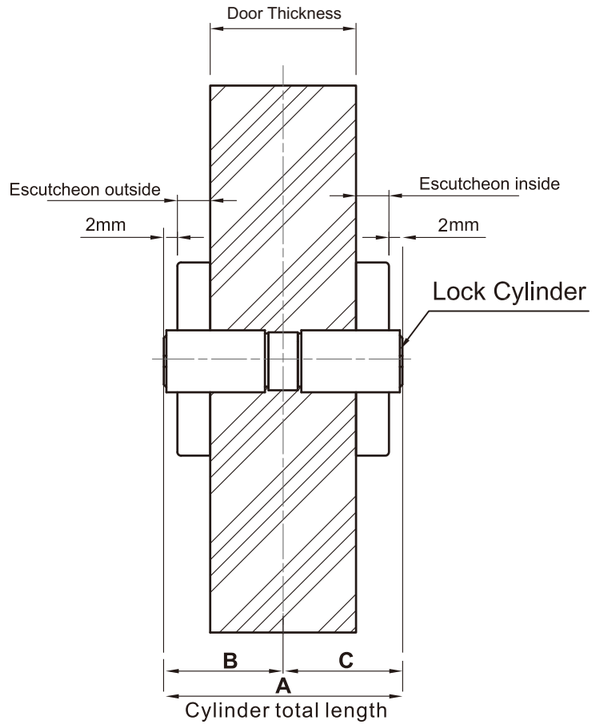


Application



Lock Cylinder

Determination Of Cylinder Length



The following factors have to be considered when determining the length A of the locking cylinder:

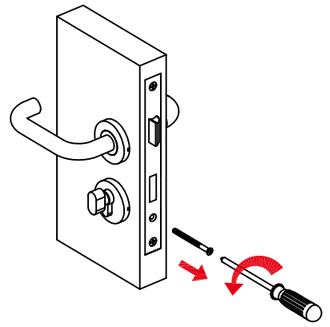
- Door thickness
- Position of the lock in the door
- Thickness of Escutcheon on the outside
- Thickness of Escutcheon on the inside

Note:

- The Lengths B and C are each measured from the centre of the fixing screw.
- The following applies to the Length A must protrude only max. 4 mm from the Escutcheon on the outside and inside.

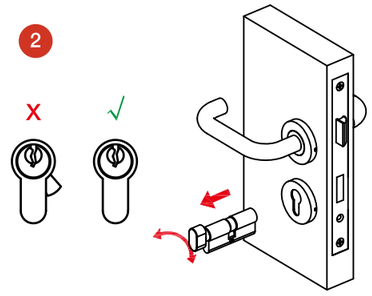
How to Change your Cylinder

1



Remove (but be safe) the screw to release the cylinder.

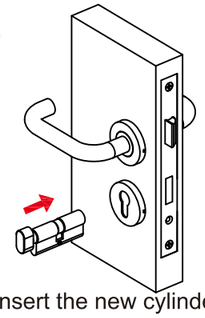
2



NB: Twist the key in both directions to find out where the cylinder cam is.

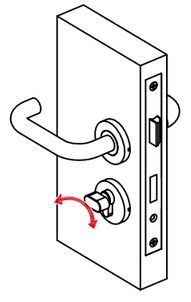
Remove the old cylinder. Use the key to align the cam with the cylinder housing in order to push in/ pull out the cylinder.

3



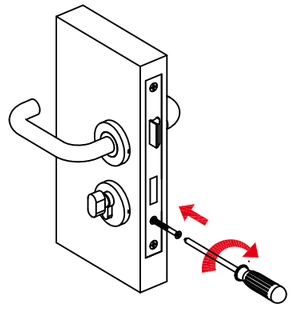
Insert the new cylinder and turn the key to check alignment.

4



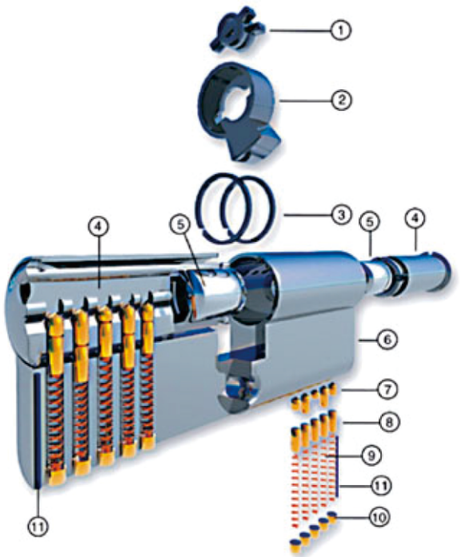
Turn the key to the unlock position.

5



Fasten the screw to secure the cylinder.

Lock Cylinder



① Clutch

② Cam

③ Clip Rings

④ Barrel

⑤ Spacer
(long cylinders only)

⑥ Housing

⑦ Key Pins

⑧ Middle Pins

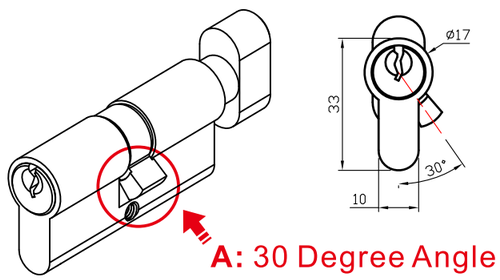
⑨ Springs

⑩ Closing Pins

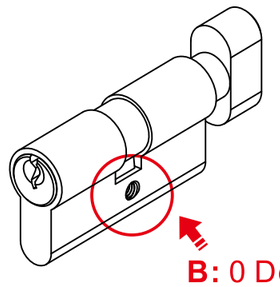
⑪ Anti-drill Pin

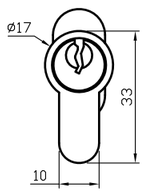
- **EN1303 And DIN 18252/09-1999 Standards.**
- **Quality Solid Brass Body**
- **30 Degree Offset Cam Inhibits Knock Through**
- **6 Pins Standard, 10 Pin High Security With Two Line Pins, Other Sizes Available.**
- **Cylinders Available In A Variety Of Finish**
- **Key Management : KD, Keyed Alike, Master Key, Grand Master Key, Construction Key**

Offset Cam Degree



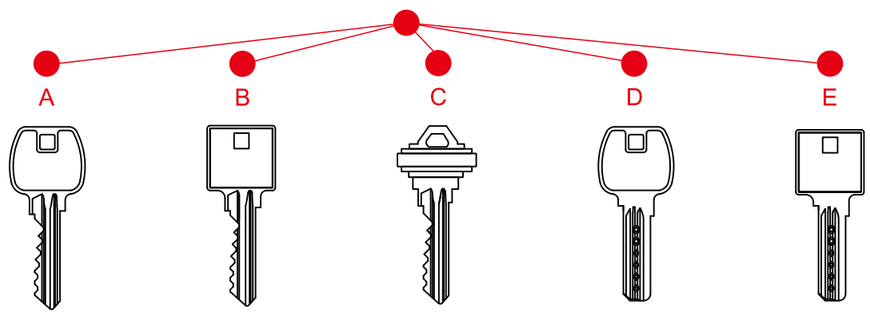
A: 30 Degree Angle





B: 0 Degree Angle

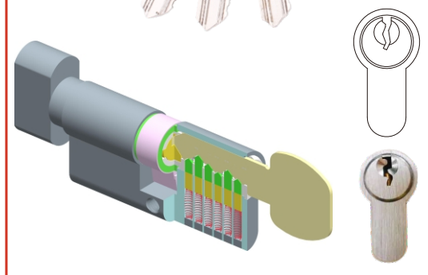
Key Design For Lock Cylinder



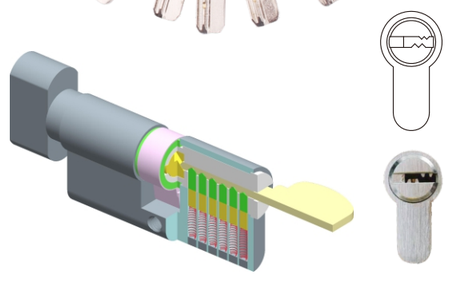
- **Customized design is available**

Difference between conventional keys and reversible keys

- **Conventional key**
- Regular Key
- Simple Key



- **Reversible key**
- Computer Key
- Dimple Key

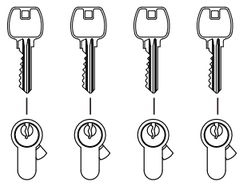


The Key Management Function

Before sketching out a key system schematic, It would be effective to use descriptive terms appropriately for the job on hand. Typically these would be departments, buildings or geographic areas. It is not necessary to account for every change key at this early stage. The schematic often looks like an organizational chart.
When designing the system, don't forget the building core. Core Areas Are Generally Maintenance areas: stairwells, mechanical rooms, electrical, phone and HVAC(Heating, Ventilation and Air Conditioning)areas.
Normally, individual floor or department masters DO NOT operate these areas. Group the mall under their own MK (or use changes under the grand, etc.).
Key all similar core areas alike: one key symbol for all electrical areas; a second one for all pipe chases; a third for all mechanical rooms, etc. This eliminates the need to issue master keys to maintenance personnel. Once the structure is determined, the next step is to determine the level of keying.

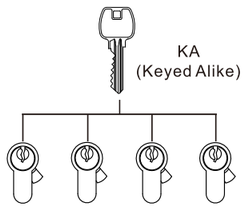
Keyed To Differ (KD)

Cylinders to differ are all operated by individual keys which are all different to each other.



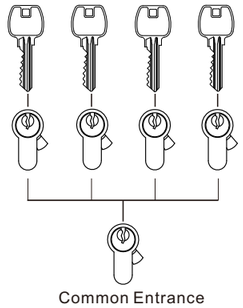
Keyed Alike Suites(KA)

All cylinders are operated by the same key. This gives an arrangement where one key can open a group of locks.



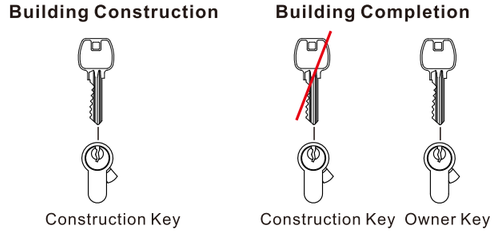
Common Entrance Suites

Each individual key opens its own lock and the common entrance.



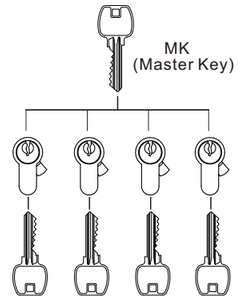
Construction Key (CK)

Construction key can operate the cylinder during construction period.
After construction is finished, Master Key can insert the cylinder and change the pin combination. The construction key can't open the same cylinder lock any more.



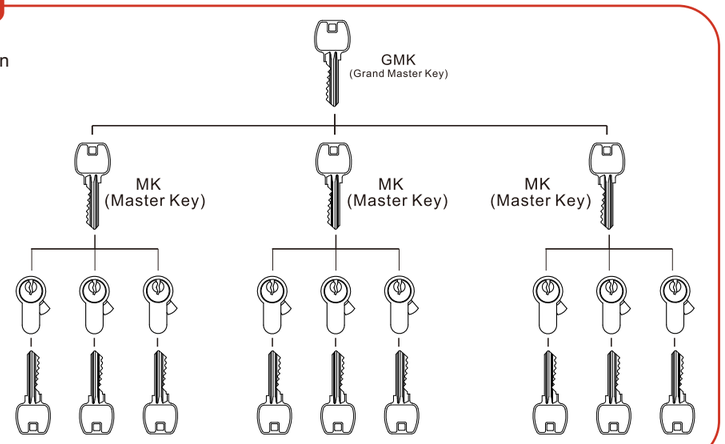
2-Level System

The simplest master key system has two levels of keying and is considered the lowest level of master keying. The least powerful keys at the bottom are called change keys. Each one operates only one lock, or one group of keyed alike locks. The most powerful key at the top is called the master key.
Even the largest, most complicated keying systems for hospitals and universities can be broken down into pieces as they use this simple model.



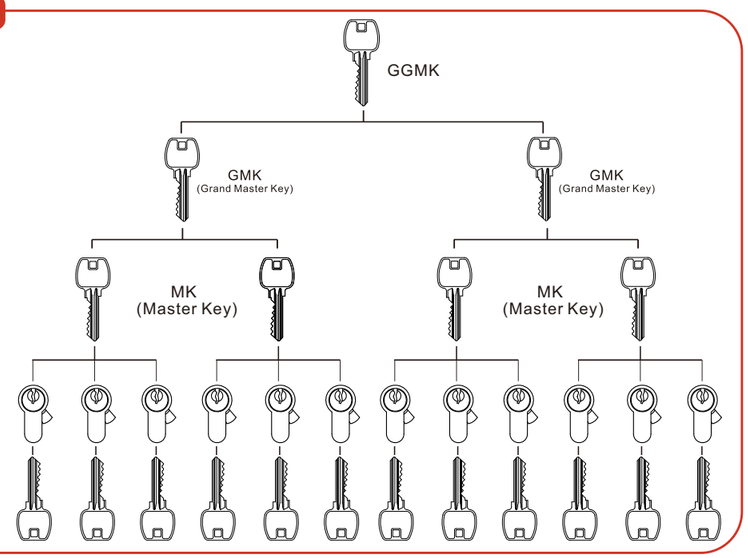
3-Level System

A 3-level system is nothing more than two ormore2-levelsystems tied together under a higher level key called a grand master key.



4-Level System

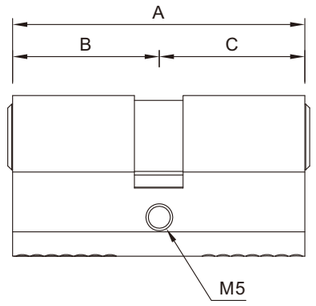
A 4-level system ties two or more 3-level systems together under a higher level key is called a great grand master key.
Even though large jobs tend to require more levels of keying than small jobs, most systems do not need more than 4 levels of keying.
In a 4-level master key system, it is especially important to consider the traffic flow through out the building.

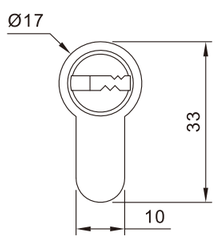


AVLC003
Double Cylinder

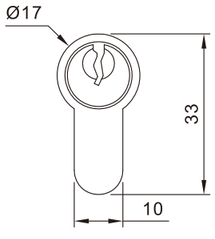
Art No.	A	B	C
1030.20.1123	60	30	30
1030.20.2223	70	35	35
1030.20.3323	80	40	40
1030.20.4423	90	45	45
1030.20.5523	100	50	50

EN 1303





Dimple key



Regular key

Certificate

- **BS EN 1303:2015**
- Size available from 60-100mm.
- Suitable for wooden and steel door.
- 0 Degree, Or 30 Degree Angle Offset Cam Inhibits Knock Through
- 6 Brass Pins Standard, 10 Pin High Security With Two Line Pins.

Finish

- SN, PB, AC, AB, US10B
- Other finishes upon request

Key Option

- **Quantity:**3 Keys / Other quantity as request

Key Type

- Regular key(Simple key/ Conventional Key)
- Dimple key(Computer key/ Reversible Key)

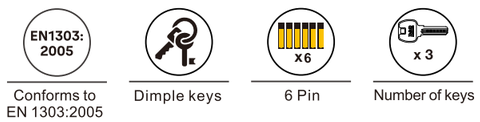
Key System

- MK
- GMK
- GGMK

Material Specifications

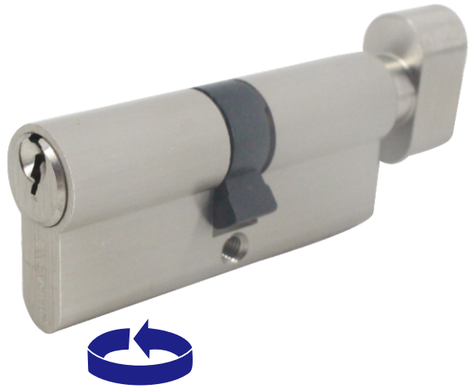
- **Body:** Brass
- **Keys:** Brass

Conforms to EN 1303:2005 | Regular keys | 6 Pin | Number of keys



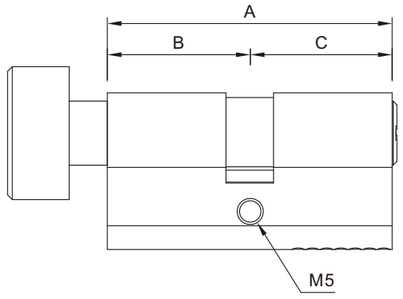
Conforms to EN 1303:2005 | Dimple keys | 6 Pin | Number of keys

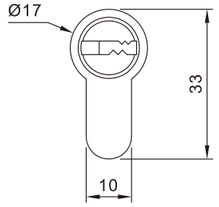
AVLC004
Thumbturn Cylinder With Key



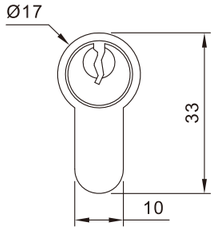
Art No.	A	B	C
1030.25.1123	60	30	30
1030.25.2223	70	35	35
1030.25.3323	80	40	40
1030.25.4423	90	45	45
1030.25.5523	100	50	50

EN 1303





Dimple key



Regular key

Certificate

- **BS EN 1303:2015**
- Size available from 60-100mm.
- Suitable for wooden and steel door.
- 0 Degree, Or 30 Degree Angle Offset Cam Inhibits Knock Through
- 6 Brass Pins Standard, 10 Pin High Security With Two Line Pins.

Finish

- SN, PB, AC, AB, US10B
- Other finish upon request

Key Option

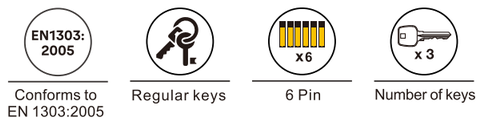
- **Quantity:**3 Keys / Other quantity as request

Key Type

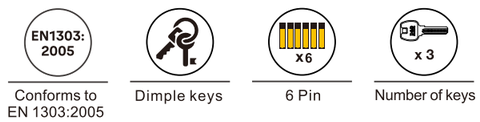
- Regular key(Simple key/ Conventional Key)
- Dimple key(Computer key/ Reversible Key)

Material Specifications

- **Body:** Brass
- **Knob:** Brass
- **Keys:** Brass



Conforms to EN 1303:2005 | Regular keys | 6 Pin | Number of keys



Conforms to EN 1303:2005 | Dimple keys | 6 Pin | Number of keys

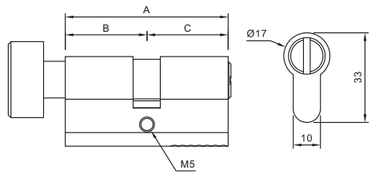
Key System

- MK
- GMK
- GGMK

- Material: Quality Solid Brass Body And Pin
- Keys: 3 or 5 Brass Keys / other quantity
- Key Type: Dimple Key, Regular Key
- Key Management Function: MK , GMK , GGMK KD , KA , Construction Key
- Size from 60-100mm
- Pins: 6 Brass Pins Standard, 10 Pin High Security With Two Line Pins, Other Sizes Available.
- Degree: 0 Degree, Or 30 Degree Angle Offset Cam Inhibits Knock Through
- Standard: Conforms To EN1303
- Fastening screw: 65mm (standard), other lengths are available according to different backset.

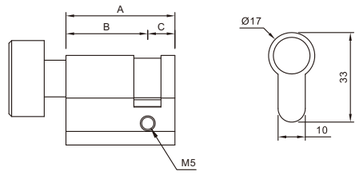
AVLC007
Euro Bathroom Cylinder

Art No.	A	B	C
1030.30.1123	60	30	30
1030.30.2223	70	35	35
1030.30.3323	80	40	40
1030.30.4423	90	45	45
1030.30.5523	100	50	50



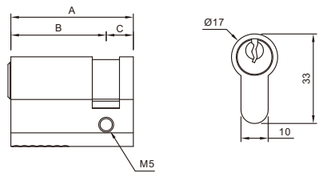
AVLC009
Half Cylinder
With Thumb-turn

Art No.	A	B	C
1030.15.1023	40	30	10
1030.15.2023	45	35	10
1030.15.3023	50	40	10
1030.15.4023	55	45	10



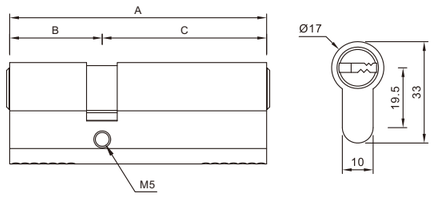
AVLC010
Half cylinder With Key

Art No.	A	B	C
1030.10.1023	40	30	10
1030.10.2023	45	35	10
1030.10.3023	50	40	10
1030.10.4023	55	45	10



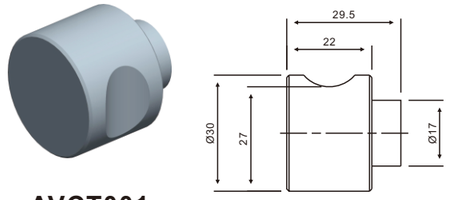
AVLC012
Offset Double Cylinder

Art No.	A	B	C
1030. 20. 1323	70	30	40
1030. 20. 1523	80	30	50
1030. 20. 3523	90	40	50
1030. 20. 3623	100	40	60

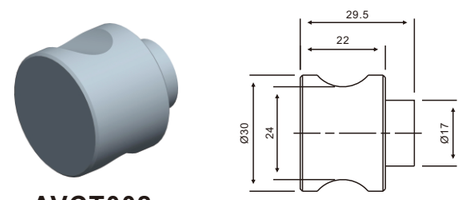


Features

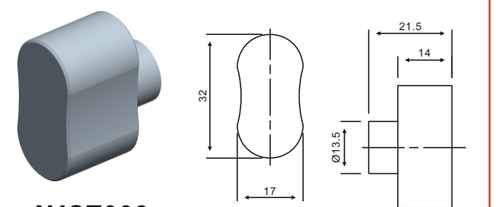
- Knob for Lock Cylinder
- Material: Solid brass
- Finish: SN, PB, AB, AC, CP, PVD



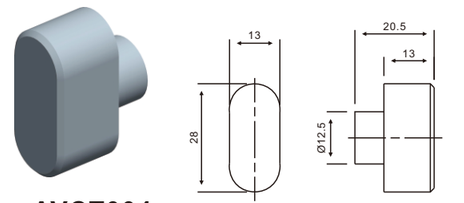
AVCT001



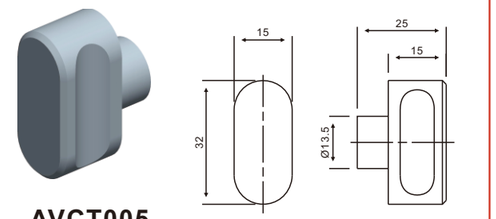
AVCT002



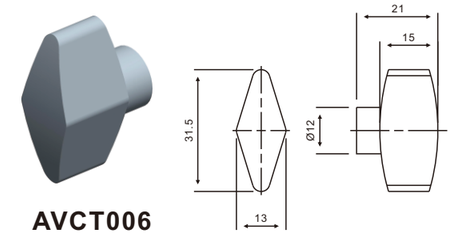
AVCT003



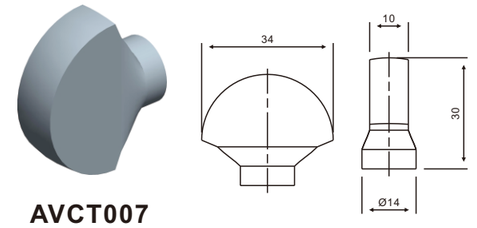
AVCT004



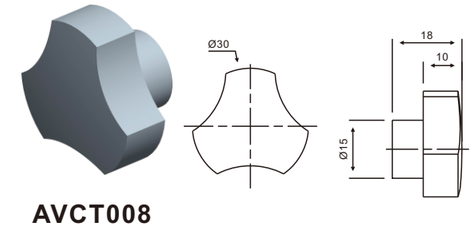
AVCT005



AVCT006



AVCT007



AVCT008