



MIWA

MIWA LOCK PRODUCTS

Lever handle Series

Knob Series

Deadlocks

Cremon locks

Emergency opening devices

Push-pull locks and latches

Locks for sliding doors

Door Hardware

Locks for industrial products

Smart locks

Electric locks

INDEX

Locks and Latches

PP.7–266

This section of the catalog describes all general locks. The horizontal bars located at the top of all the pages are colored gray in this section of the catalog.

This section is divided into the following groups. The index tabs on each page and the thin individual heading bars located under the general section bars are color coded for each group.

Lever handle Series

PP.21–90

This chapter describes all of the locks equipped with MIWA's standard lever handles. Read this chapter if you want a lever handle lock. Easy-to-use barrier-free products and antibacterial products designed with special sensitivities in mind.



Emergency opening devices

PP.171–199

This chapter describes all of the locks equipped with emergency opening device for emergency doors.



Knob Series

PP.91–120

This chapter describes all of the locks equipped with MIWA's standard knobs. Read this chapter if you want a knob lock.



Push-pull locks and latches

PP.201–213

This chapter describes all push-pull locks and latches for residential entrances.



Deadlocks

PP.121–150

This chapter describes all locks equipped with deadbolts only.



Locks for sliding doors

PP.215–233

This chapter describes all locks for sliding doors.



Cremon locks

PP.151–170

This chapter describes all Cremon locks for soundproof doors.



Door Hardware

PP.235–238

This section describes all door hardware.



Locks for industrial products

PP.239–243

This chapter describes all industrial products.



Smart locks

PP.245–266

This chapter describes locks which are locked and unlocked using a ten-key pad, card, and the like without using a key. The Cardlocks and Cipher locks presented in this chapter are stand-alone locks. Cardlocks and Cipher locks which are used in electric lock systems are described in the electric lock section of this catalogue.



Electric Locks and Systems

PP.267–407

This section of the catalogue describes the electric locks as well as the various terminal equipment (e.g. control boxes) included in the electric lock systems. The horizontal bars located at the top of all the pages are colored dark blue in this section of the catalogue. Read this section if you want a system with an electric lock.

Electric locks

PP.267–287, 349–371, 405–407

This chapter describes all locks which are locked and unlocked electronically.



Controllers, Residential and Hospitality

PP.288–348, 372–404

This chapter describes all terminal equipment in the electric lock systems. This equipment includes control boxes, card readers, and the like.



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QUALITY AND ENVIRONMENTAL POLICY

We have 3 factories in Japan. We ensure strict quality management and environmental measures through all stages.

Our factories obtained certification to ISO9001 and ISO14001 international quality standards. ISO9001 is international standards of quality on designing and production.

ISO14001 is international standards of maintaining and improving the environment.



Authentication registration target plants are as follows.



Registration details

ISO9001

1. **Registered enterprise's factories**
MIWA LOCK Co., Ltd.
Ise factory, Tamaki factory, Morioka factory
2. **Applicable standards**
ISO 9001:2015 / JIS Q 9001:2015
3. **Applicable products, processes, and services**
Design and manufacture of building-use hardware
(Locks, Doorclosers, Metal fittings)
4. **Locations**
Ise factories
 - 409-13 Yuta, Obata-cho, Ise City, Mie Prefecture
 - 110 Yuta, Obata-cho, Ise City, Mie Prefecture
 Tamaki factory
1028-1 Yamakami, Tamaki-cho,
Watarai-gun, Mie Prefecture

Morioka factory
20-18 Aza, Iwahana, Shibutami, Morioka City, Iwate
Prefecture
5. **Registration screening agency**
Better Living Foundation
6. **Registration number**
Q022
7. **Registration date**
Ise factories, Tamaki factory: February 4, 1999
Morioka Factory: January 23, 2001

ISO14001

1. **Registered enterprise's structure**
MIWA LOCK Co., Ltd. Ise factories
2. **Applicable standards**
ISO14001:2015 / JIS Q 14001:2015
3. **Applicable products, processes, and services**
Development and manufacture of locks, system
products, doorclosers, and metal fittings.
4. **Locations**
Ise factories
 - 409-13 Yuta, Obata-cho, Ise City, Mie Prefecture
 - 110 Yuta, Obata-cho, Ise City, Mie Prefecture
 Tamaki factory
1028-1 Yamakami, Tamaki-cho,
Watarai-gun, Mie Prefecture
5. **Registration screening agency**
Better Living Foundation
6. **Registration number**
E120
7. **Registration date**
September 18, 2003

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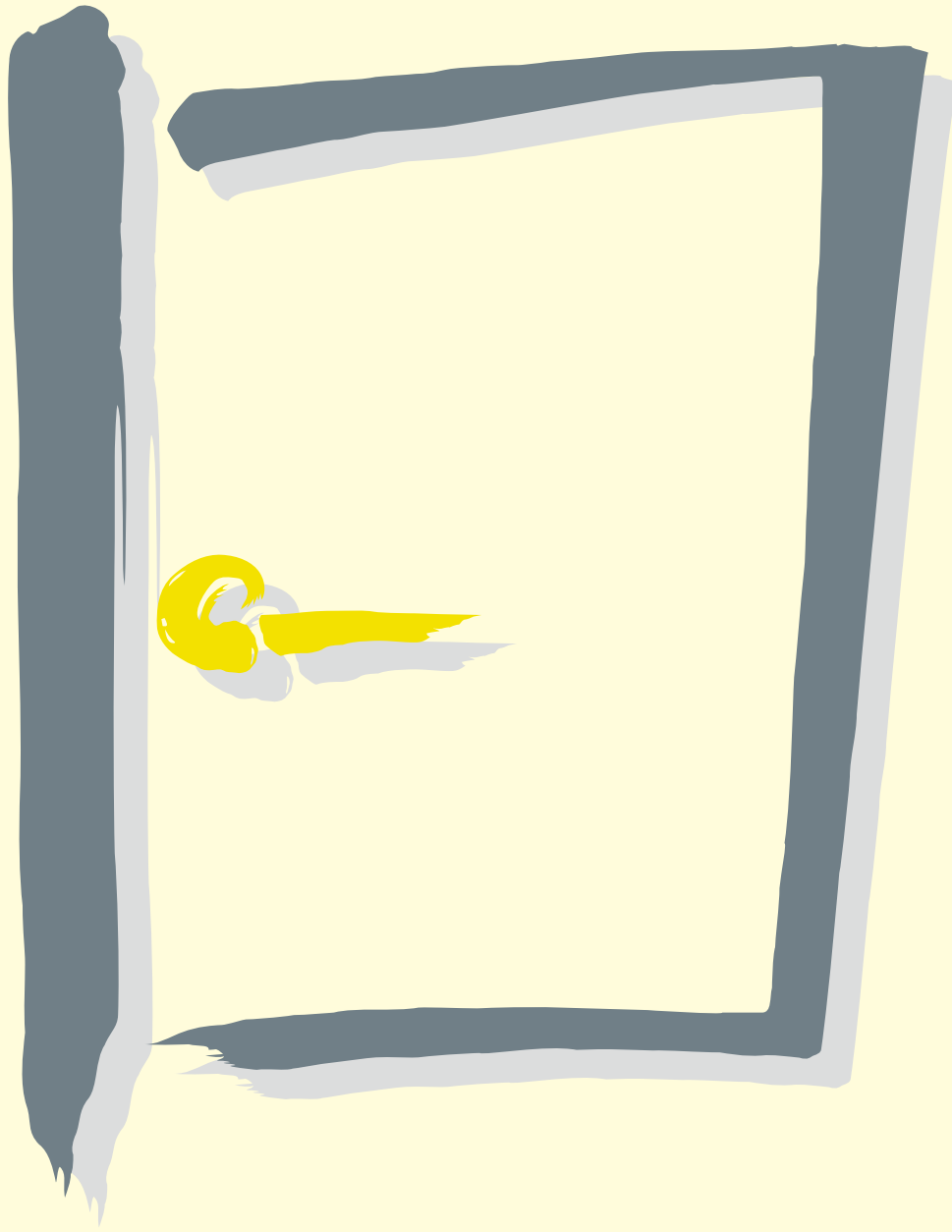
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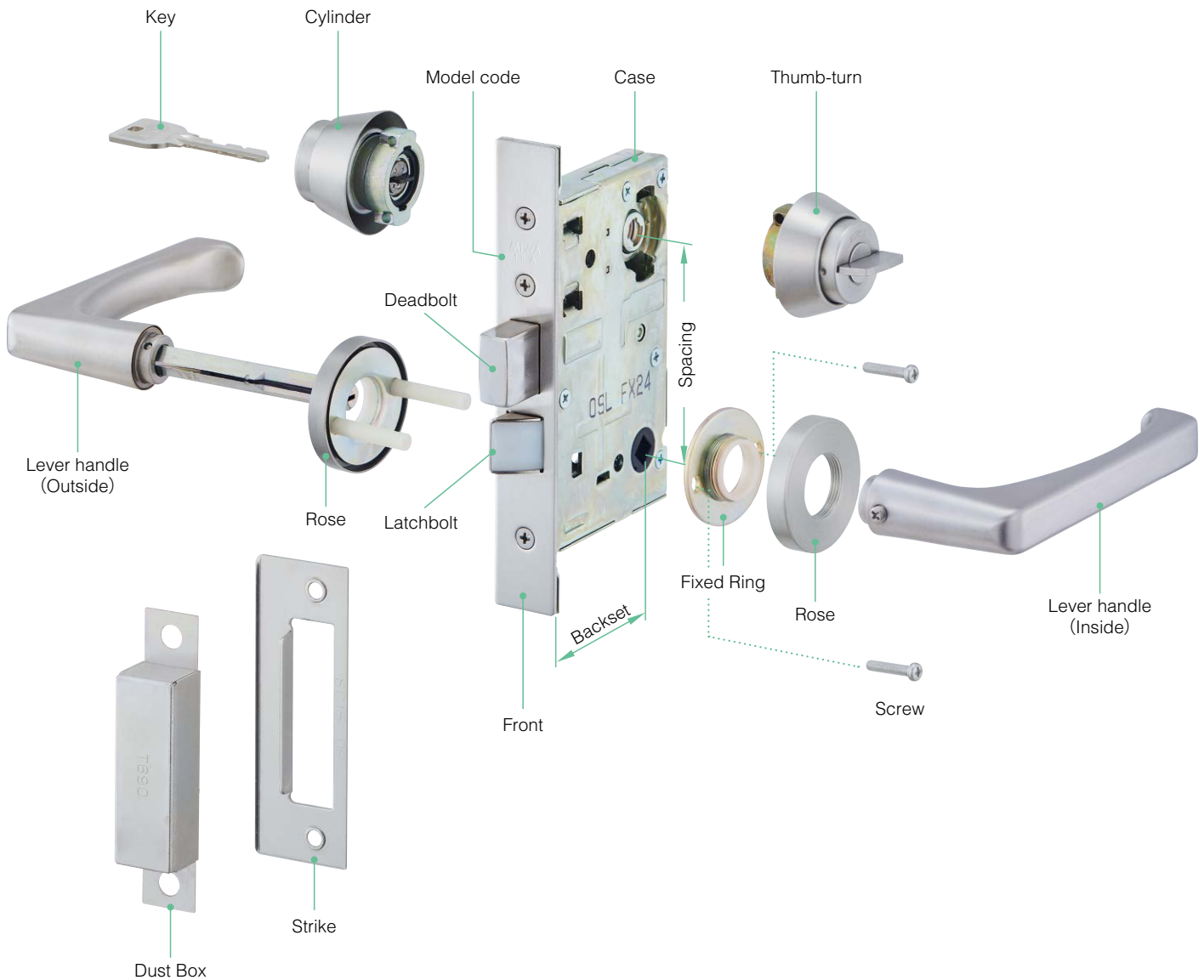


For understanding door locks

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WORKING PARTS OF A LOCK



Cylinder	A removable unit on high-grade locks which contains the tumblers and receives only the correct key, which when turned operates the lock.
Thumb-turn	On the inside of a door equipped with cylinder lock, connected to lock cam. Operates deadbolt.
Lever handle	Operates latchbolt.
Front	This is the surface of the mortice lock case which appears at the cut end of the door. It includes openings for latch bolt and deadbolt as well as holes for screws which secure it.
Deadbolt	A lock bolt which is activated by key or thumb-turn, is square on all edges, and has no spring behind it.
Latchbolt	That part of a lock which, because of a spring device behind it, slides in and then springs out to hold a door in position when it is closed.
Strike	The plate recessed into the door jamb, into which deadbolt or latchbolt fits when the door is closed or locked.
Case	Contains major lock components; the mortise type fits into the door and the rim type is fastened to the surface of the door.
Backset	Horizontal distance from front surface of lock to the center of lever handle or cylinder.
Spacing	Vertical distance between the center of cylinder and the center of lever handle.

SECURITY AND DURABILITY

Following are some of the key features of our products for security and durability.

Robust dead bolt

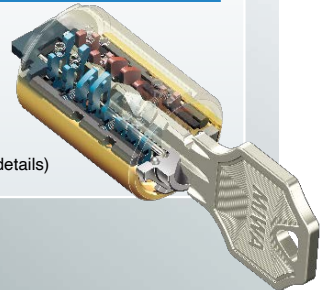
Both the push-in and side pressure resistance strength of the dead bolt are over 10,000 N, which are sufficient against break-ins using a crowbar, etc. The dead bolt also uses quenched internal parts and is highly resistant to cutting attacks.

Hook-dead bolt with stronger security are also available. This unit is ideal for residential entrances such as condominiums.

A variety of cylinders with excellent security, durability, and operability

U9 with large keying capability, There are various cylinders including WR cylinders, dimple key PR/JN cylinders, and LB cylinders with variable functions.

(Photo: WR Cylinder. See page 11 for details)



Cylinder pinned to the lock case

The cylinder unit is pinned to the lock case, realizing a structure that is resistant to tampering from the outside. A structure that allows you to remove the front plate and pull out the fixing pins also ensures easy maintenance. (for DA type)

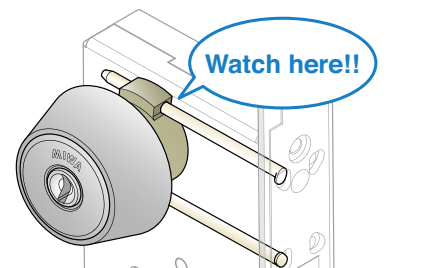


Photo: WRLA50-1

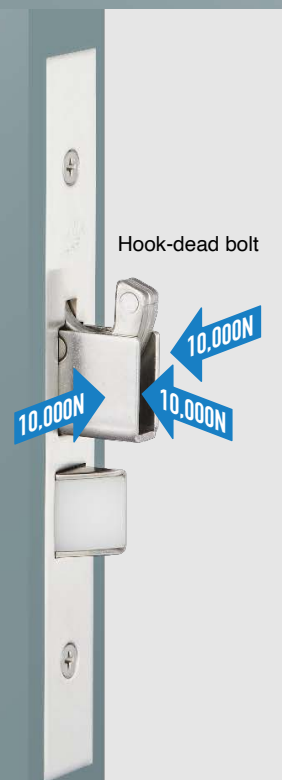
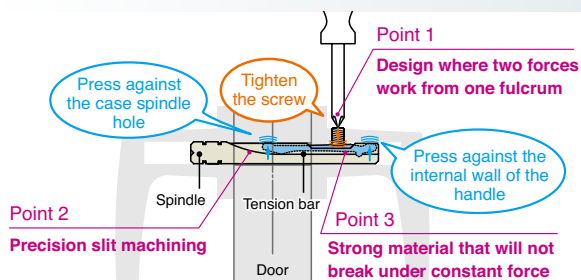
Switch-thumb-turn Type B5 that combines ease of use and security

This is very effective as a countermeasure against turning the thumb-turn, because the switches at the top and bottom of the thumb-turn must be pressed in to turn.

In addition, the center section is made of light-storing resin, making it possible to check the position of the thumb-turn when the surroundings are dark.

Rattle-free lever handle

The adoption of a tension bar system not only reduces handle rattling, but also achieves high durability and strength.



Hook-dead bolt

Photo: LAF50-1B

CYLINDER TYPES

MIWA LOCK offers four cylinder types, *U9 Cylinder* (rotary cylinder), *WR Cylinder* (double-sided bar disk cylinder), *PR Cylinder* (two-way rotary cylinder), *JN Cylinder* (reversible-pin cylinder), and *LB Cylinder* (variable tumbler cylinder). These are geared to MIWA LOCK's master-keying, grandmaster-keying, cross master-keying, and other keying systems.

U9 Cylinder (rotary cylinder)

Features

Good for large and Complicated Keying

With nine tumblers positioned four-deep in nine double-sided chambers, this lock boasts 150,994,944 possible number of key combination.

Superior Durability

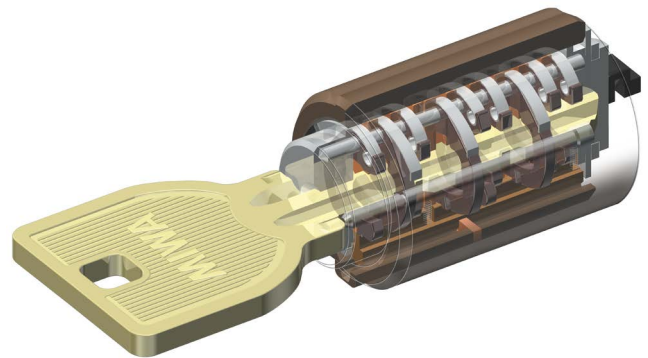
Cylinder life is extended by the use of phosphor bronze, which is extremely wear-resistant.

High Security

In addition to having ultra safe rotary tumblers, the U9 features nine four-deep tumblers, making it extremely difficult to pick.

Available keying systems

- Keyed-alike system
- Master-keying system
- Grand master-keying system
- Great-grand-master-keying system
- Common keying system
- Multi-master-keying system
- Construction keying system
- Display keying; emergency keying system



Principles

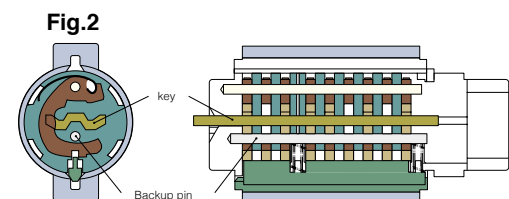
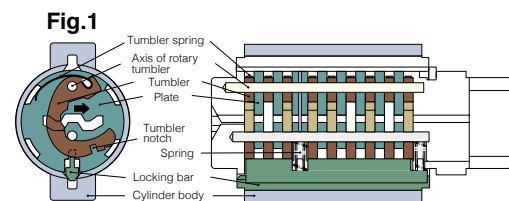
1. Locking bar stays in V groove of cylinder body and prevents rotation of plug when locked.
2. Tumbler notches line up and give room for in-and-out movement of locking bar with change key insertion. Then locking bar is retracted by plug rotation according to slope-contacts between locking bar and cylinder body.



Keyway shape



Key shape



CYLINDER TYPES

WR cylinder (double-sided bar disk cylinder, reversible key)

Features

Large-scale key plans are possible

WR cylinder has tumblers with 16 discs arranged in 8 rows and 2 columns, allowing for 5 levels of variation. Consequently, the theoretical number of key combinations totals an immense 152.5 billion, ensuring ample capability to accommodate large-scale key plans.

Excellent durability

The tumblers are made of phosphor bronze, ensuring excellent wear resistance. Additionally, they have high dust resistance and boast outstanding durability.

MIWA's unique "Ridge Cut" design

The globally distinctive "Ridge Cut", produced through excellent metal forming technology of MIWA, makes it extremely challenging for keys to be replicated by anyone other than us, due to its uniqueness.

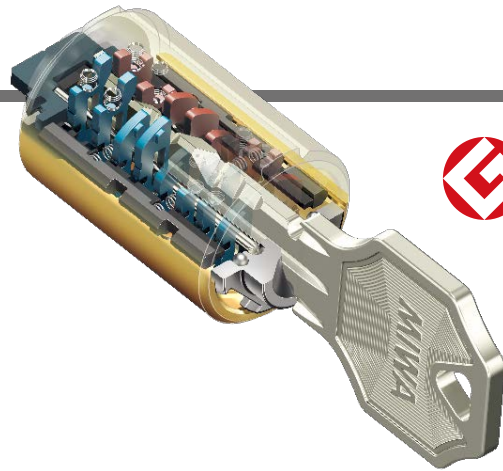
The key has a shape that makes it less likely for dust and dirt to adhere, resulting in a cylinder structure that is less prone to dust intrusion inside.

Excellent resistance to picking

We employ a double-sided bar mechanism with locking bars on two sides, which require all tumblers to align simultaneously to rotate. Additionally, we use anti-picking tumblers with effective grooves designed to enhance resistance against picking attempts. These features combine to achieve high resistance to picking.

Principles

1. When the key is not inserted, as shown in Figure 1, the locking bars on the left and right are pressed against the outer cylinder's grooves by the locking springs. Additionally, the tumblers are pushed by the tumbler springs. In this state, attempting to rotate the inner cylinder (since the tumblers' notches are not aligned with the locking bars on either side), the tumblers obstruct rotation, preventing the locking bars from entering the inner cylinder side, thus preventing the inner cylinder from rotating.
2. Tumbler notches line up and give room for in-and-out movement of locking bar with change key insertion. Then locking bar is retracted by plug rotation according to slope-contacts between locking bar and cylinder body.



Also considering ease of operation

The key is a reversible type, allowing it to be inserted in either orientation, eliminating the hassle of insertion direction.

Furthermore, when the key reaches the position where it can be removed, there is a noticeable click sensation, ensuring precise key operation.

A bowl-shaped key way

The bottom of the keyway is shaped like a bowl, making it easy to insert the key.

Available keying systems

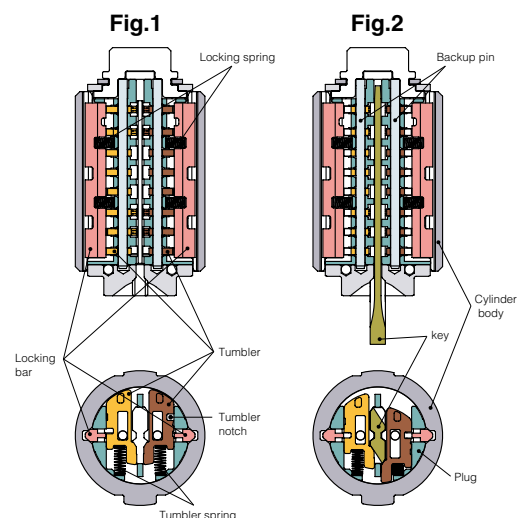
- Master-keying system
 - Grand master-keying system
 - Great-grand-master-keying system
 - Multi-master-keying system
 - Common keying system
 - Keyd alike system
 - Construction keying system
- (Double construction keying system is not available)



Keyway shape



Key shape



CYLINDER TYPES

PR Cylinder for housing complex (two-way rotary cylinder, reversible key type)

Features

A two-way rotary tumbler cylinder with high security

The PR Cylinder has a 2-way construction consisting of main and side tumblers whose contact surfaces are different, giving 100 billion possible number of key combination.

Enormous number of key combination

Eleven tumblers in eleven chambers, whose main and side tumblers are positioned at four-level and two-level respectively, give the lock 100 billion possible number of key combination.

Superior durability

Like the U9 Cylinder, PR has extreme dust-proof and wear resistance.

High Security

The cylinder is extremely difficult to pick because the locking bar does not rotate until all tumblers are aligned at the same time and the anti-picking structure has a complicated shape. Also PR is highly resistant to drilling due to the use of extremely hard parts in the cylinder.

Available keying systems

- Keyed-alike system
- Master-keying system
- Grand master-keying system
- Common keying system
- Multi-master-keying system
- Construction keying system
- Display keying; emergency keying system

Square Cylinder available

Square Cylinder is also available. Specifications differ from those for a standard cylinder. Please refer to P.206 for details.



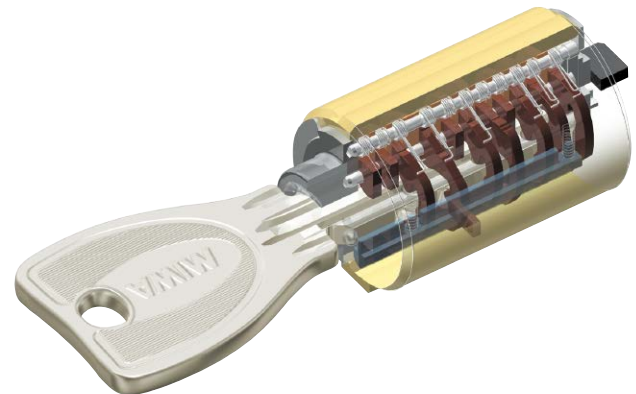
PR Cylinder



Keyway shape



Key shape



Principles

1. As shown in Fig.1, without the key inserted, the locking bar is pushed by a spring into a groove on the cylinder body. Also, the tumblers are pushed by tumbler springs. In this condition, the cylinder plug is impeded by the tumblers (because the tumbler notch is not above the locking bar); therefore, it is impossible for the locking bar to rise, and it is impossible to turn the cylinder.
2. When a standard change key is inserted, the tumblers are pushed in by the key cuts and rotation occurs until the notch lines up with the top of the locking bar. In this condition, the taper of the groove and locking bar works against the spring, and the locking bar is pushed up, making it possible to turn the cylinder plug.

Fig.1

Without the key inserted

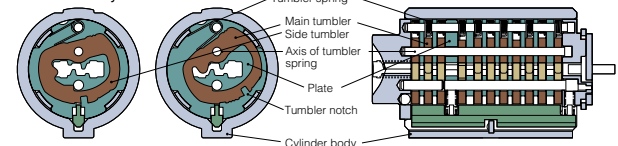
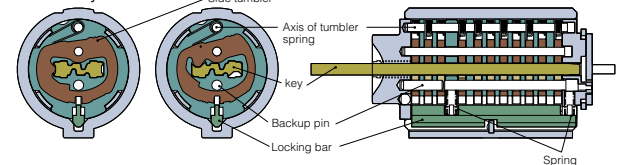


Fig.2

With the key inserted



PR-J Cylinder



Keyway shape



Key shape



Key shape
(for barrier-free locks)

CYLINDER TYPES

JN Cylinder (reversible-pin cylinder)

Features

Enormous number of key combination

Twenty-one pins-eleven four-level horizontal pins arranged in two rows, and ten two-level diagonal pins arranged in two rows-give this lock 17.2 billion possible number of key combination.

User-friendly cylinder

Because keys are reversible, it is never necessary to flip a key before inserting it. Also, entirely concave keyways make it easy to insert the key even when it's dark.

Superior durability

All tumblers are made of stainless steel and are, therefore, highly wear-resistant and durable. This cylinder can be safely used even for common entryways, which have a high frequency of use.

Exceptionally difficult to pick

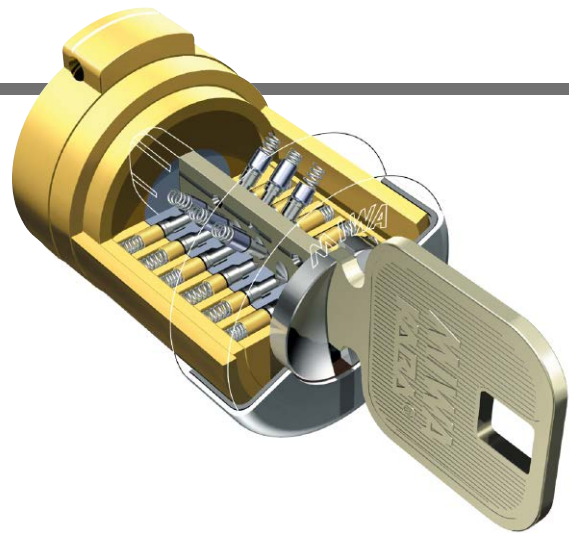
High-precision diagonal pins make this cylinder exceptionally difficult to pick.

Perfect for use in hotels

Because their keys are difficult to duplicate, this cylinder provides high security even when used in places like hotels.

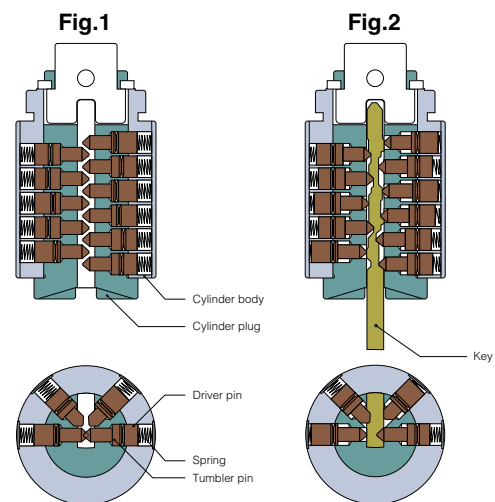
Available keying systems

- Keyed-alike system
- Master-keying system
- Grand master-keying system
- Great-grand-master-keying system
- Common keying system
- Multi-master-keying system
- Construction keying system
- Double-construction keying system
- Display keying;emergency keying system



Principles

1. As shown in Fig.1, without the key inserted, pins are pushed through the cylinder body and cylinder plug by springs, making it impossible to turn the cylinder plug.
2. When a standard change key is inserted, the pins are pushed out to line up with the shear line and it is possible to turn the cylinder plug.



Keyway shape



Key shape

CYLINDER TYPES

LB Cylinder (variable tumbler cylinder)

Features

High security and high functionality

LB Cylinder ensures high security and high functionality by using variable tumblers with our unique variable mechanism arranged in 13 rows, and upper and lower locking bars that are very resistant to unauthorized unlocking.

The main tumblers have 4 positions each, and the side tumblers have 2 positions each.

Theoretically, approximately number of key combination is 26.1 billion.

Prevention of picking and unauthorized unlocking

The locking bar system (two bars, upper and lower) allows the cylinder to turn only when the tumblers in all rows are aligned simultaneously. The use of grooved anti-picking tumblers realizes high resistance to picking due to the extreme difficulty to discriminate the correct notches from the grooves.

Resistant to attacks by drills and hole saws

As a number of high-hardness parts are used in the cylinder, it is very resistant to attacks by drills and hole saws.



Principles

1. As shown in Fig.1, without the key inserted the upper and lower locking bars are pushed by the locking springs into the grooves in the cylinder body.

In addition, the tumblers are pushed by the tumbler springs. In this condition, the bars are impeded by the tumblers (because the tumbler notches are not above or below the locking bars), and the locking bars cannot enter the cylinder. Therefore, the cylinder cannot be turned.

2. When a standard change key is inserted, the tumblers are moved to the right and left by the key cuts, and the notches are aligned just above and under the locking bars. In this condition, the taper of the grooves and locking bars counteracts the springs to set the locking bars in the notches in the aligned tumblers, and the cylinder can be turned.

Fig.1

Without the key inserted

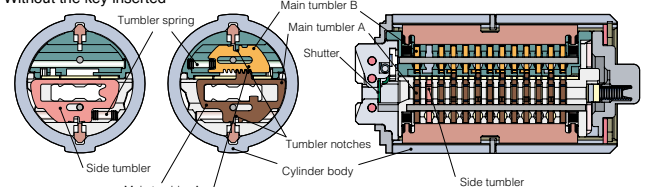
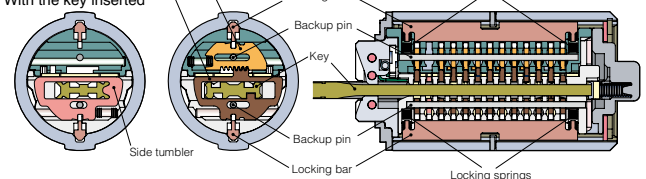


Fig.2

With the key inserted



Available keying systems

	Free selection type (with master key)	Free selection type (without master key)
Master key variable system	✓ (Option)	
Master keying system	✓	
Grand master keying system (Note 1)	✓	
Multi-master keying system (Note 2) (Note 3)	✓	✓
Common master keying system (Note 2) (Note 3)	✓	✓
Keyed alike	✓	✓
Variable construction keying system	✓ (Standard)	✓ (Standard)

Note 1: In case of the grand master keying system, each affiliated MK group is provided with a neutral key and security card set applicable to all rooms.

Note 2: Cylinders to be multi-master keyed or common-master keyed do not possess the variable function. As the cylinder structure is different from the structure of cylinders possessing the variable function, the keyway position is slightly different.

Note 3: Even if keys are changed, the cylinder to be multi-master keyed or common-master keyed can be used without any changes.

LB Cylinder



Keyway shape



Key shape

LB-J Cylinder



Keyway shape



Key shape



Key shape
(for barrier-free locks)

Features

High-precision key with double inline and dimples

High-precision processing is required for the complicated inline and dimple positioning. The key cross-sectional shape is designed using our unique technology. As its unique positions of dimples and inlines require extreme precision to duplicate a key, duplication at the MIWA factory is strongly recommended.



Provision of a clicking function to indicate the key insertion and removal positions

A click is given out when the key reaches the removal position when it is being turned, allowing for reliable operation of the key.

Large keyheads are also available

Keys can be provided with large keyheads in order to facilitate key operations.



Change key system provided as a standard option

The variable cylinder is provided with a change key system that disables the previous key and allows for the locking and unlocking of a room with a new key without replacing the cylinder even when the tenant changes or the key is lost.

When the tenant changes

When the key in use is lost

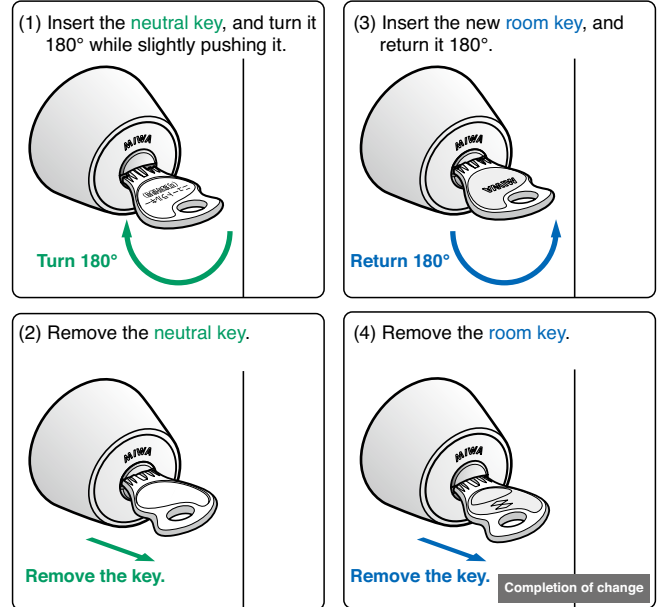
- Anxiety about wrongful use of the key by the finder
- Expenses for replacement of lock and key
- Time required for replacement of lock and key



The LB Key System can immediately eliminate such anxieties without replacement of the cylinder.

The LIBERO Key System disables the previous key and allows the user to use a new key to lock and unlock the room without replacing the cylinder.

Procedure for changing room keys

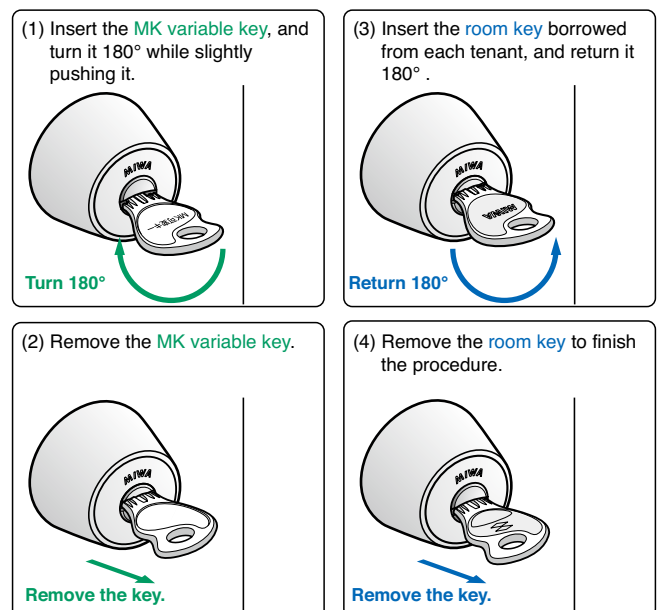


Master key is changeable (Option only for systems with master keys)

When the master key is lost or the management firm of the rental apartment changes, the master key can be changed once through a simple operation.

Note: When the master key is changed, the neutral key must also be replaced.

Procedure for changing the master key (Procedure to be conducted for all rooms)



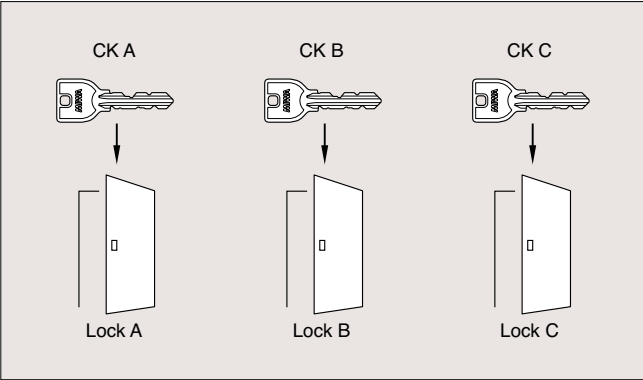
Note: For GMK buildings, it is necessary to change the master keys for all rooms of GMK groups.

KEYING SYSTEMS

There are many types of keying systems. You can combine types to meet your specific requirements.

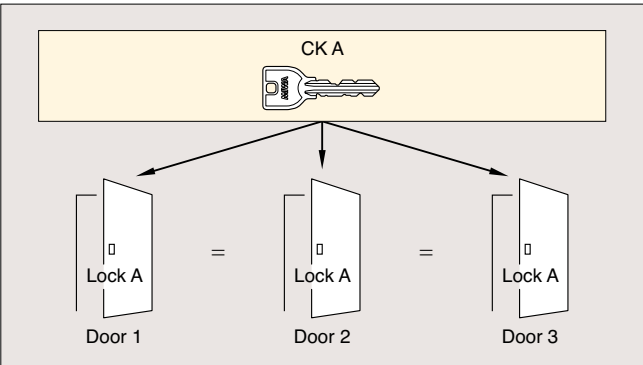
1 Change Key (CK)

Each individual lock has its own individual key, and there is no master key. (MK)



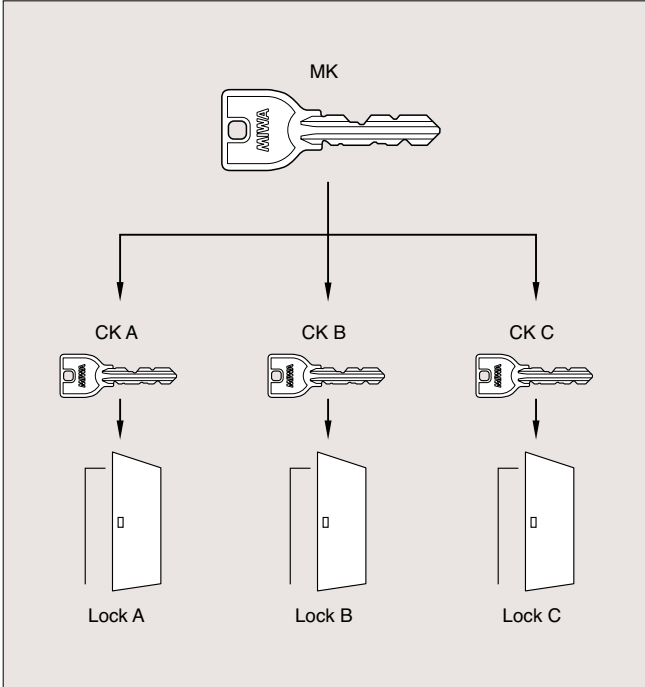
2 Keyed-Alike (KA)

A system wherein a number of locks have the same cylinder construction (key number), and each individual key that operates one of the locks can operate all of the locks.



3 Master-Keying (MK)

A system wherein several different locks are combined in one group, and one key (the “master key”) can open all of them.

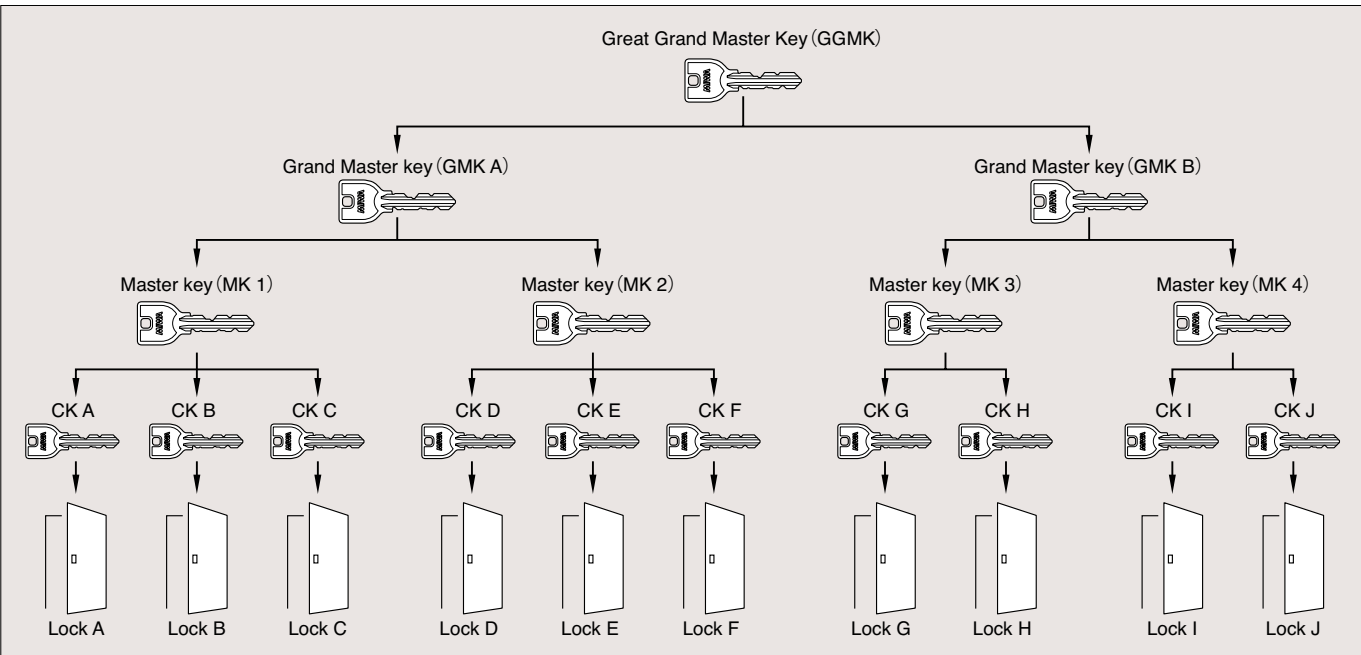


4 Grandmaster-Keying (GMK)

A system wherein one key (the “grandmaster key”) can operate several different groups of master-keyed locks.

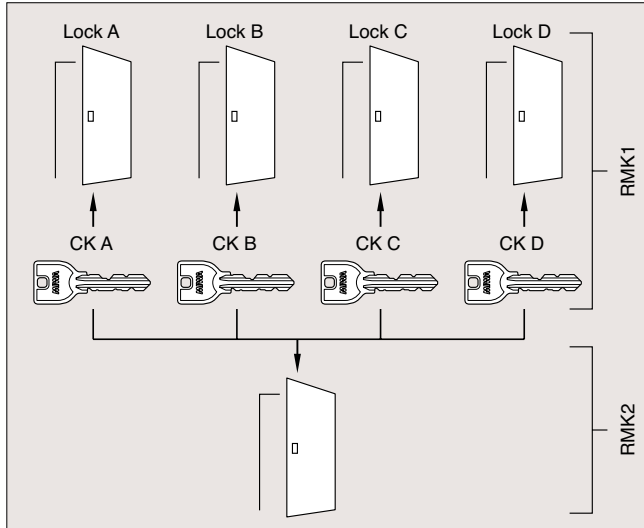
5 Great-Grandmaster-Keying (GGMK)

A system wherein one key (the “great-grandmaster key”) can operate several different groups of grand master-keying systems.



6 Common Keying System (RMK)

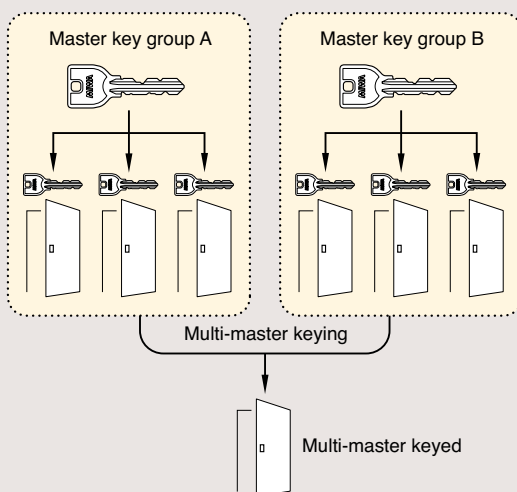
Each key can individually open its own lock. However, it can also operate one or more other locks.



7 Multi-Master-Keying (MMK)

A system wherein the master keys of several different groups of master-keying systems and all the individual keys therein can operate the lock (s) of a designated location. The master keys and individual keys are called "multi-master keying" and the designated locks are called "multi-master keyed".

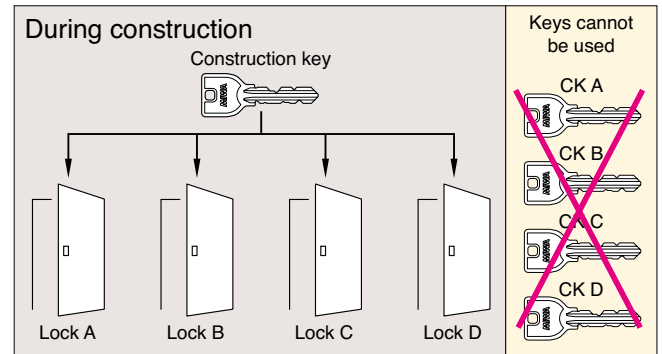
Simple multi-master keying system



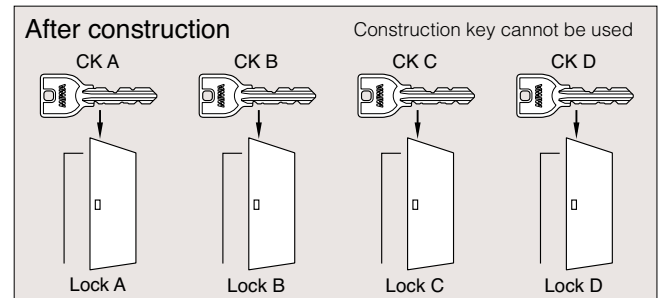
Both master keys and each change keying in groups A and B can open a specially designated lock.

8 Construction Keying System (CNK)

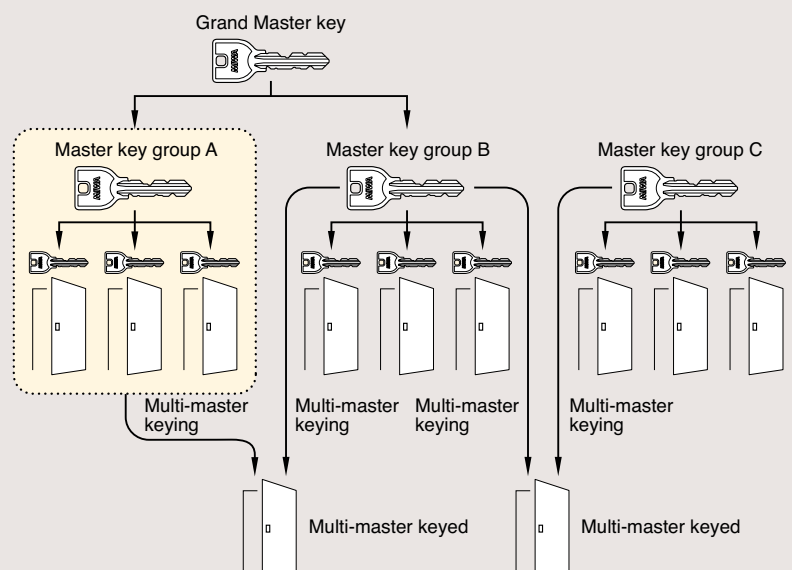
After completing construction, the contractor gives a new key to the owner or his tenant. The new key nullifies the existing key and can operate locks without the need of replacing cylinders.



Removal of construction devices



Complex multi-master keying system



Lock can be opened by the grandmaster key, master key A and group A's change keys, and by master key B.

Lock can be opened by the grandmaster key and by master keys B and C.

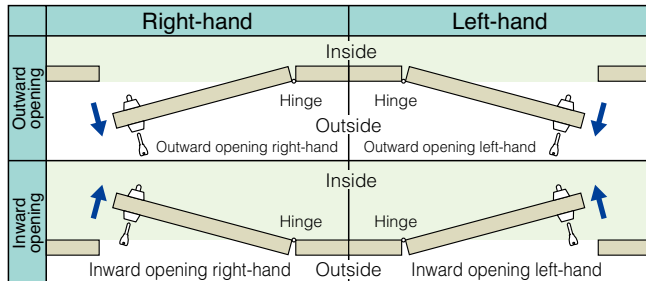
Note: Multi-master Keyed Systems involve many related master keys and change keys, so special care should be taken to avoid the loss of master keys.

DOOR OPENING (View of the right-hand or left-hand)

Standard view of the right-hand or left-hand

The right-hand or left-hand of the lock is described below. Please specify the right-hand or left-hand, and inward or outward at the time of ordering.

For a swing door

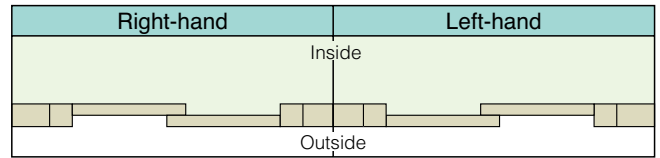


Right- or Left-hand

The hinge can be seen on the right side when viewed from the cylinder (outside) side: right-hand

The hinge can be seen on the left side when viewed from the cylinder (outside) side: left-hand

For a sliding door



Right- or Left-hand

The right side door is before you: right-hand

The left side door is before you: left-hand

Inside or outside opening

Open the door to the indoor side: inward opening

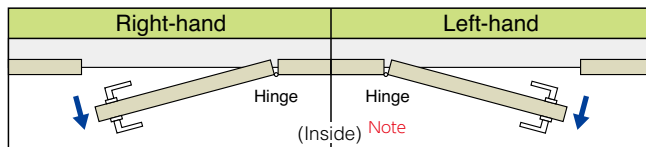
Open the door to the outdoor side: outward opening

Dedicated notation of the right- or left-hand by the lock type

Some models become dedicated notation of the right- and left-hand by the type. Please specify on the basis of the following views when ordering the applicable products.

1. Hotel card lock (general lock/battery type lock), Hinges and brackets

Lock types: Hotel locks
: TEC, TED (Hinges and brackets)



Right- or Left-hand

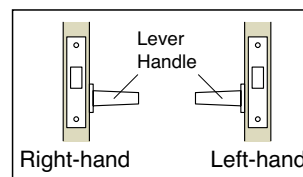
Axis of the hinge can be seen on the right side when viewed from the side from which the door is opened: right-hand

Axis of the hinge can be seen on the left side when viewed from the side from which the door is opened: left-hand

Note: This shows in the case of hotel card lock. Hotel card lock is for inward opening only.

2. One side handle lock

Lock types: LA ※ - □ H, LO ※ - □ H



Right- or Left-hand

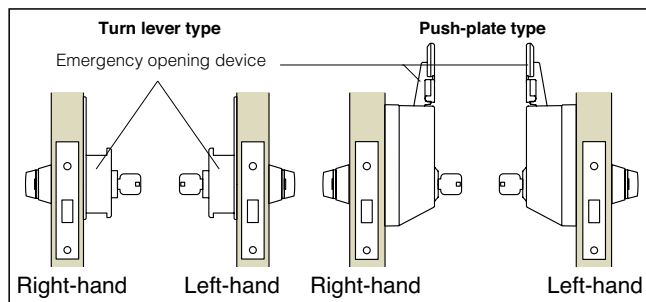
Lever handle is right when viewed from the door end side: right-hand

Lever handle is left when viewed from the door end side: left-hand

Note: You should indicate the right- or left-hand at the time of ordering if there is dedicated right or left-handle.

3. Lock with an emergency opening device

Lock types: DA-E, LHS-E, MHS-E, LA-E, MA-E, LAT(L)-E, FG3-E (Turn lever type)/DA-EP (Push-plate type)



Right- or Left-hand

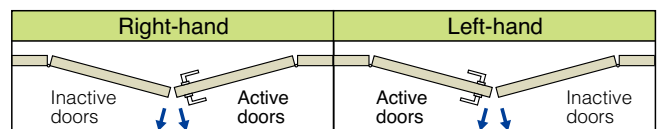
Emergency unlocking device is right when viewed from the door end side: right-hand

Emergency unlocking device is left when viewed from the door end side: left-hand

Note: For more details of the emergency unlocking devices, please refer to page 173.

4. Automatic flash bolt

Lock types: AFB02



Right- or Left-hand

When the active door is on the right when viewed from the side from which the door is opened: right-hand

When the active door is on the left when viewed from the side from which the door is opened: left-hand

CAUTION

Please pay attention on the following instruction when installing our locks.

Attention 1

Carefully read the instructions attached with the product.

Attention 2

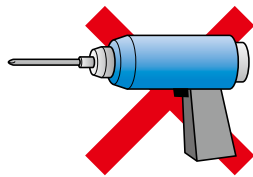
- Use only the installation screws that are enclosed with the lock.
- When installing a handle and escutcheon, the side of the lock on which the screws are installed should be on the indoor side.

Attention 3

In order to avoid warping the surface of steel or aluminum doors when tightening installation screws, reinforce the area where the handle is to be installed. Without sufficient reinforcement in the door, warping could result and prevent the lock from functioning properly.

Attention 4

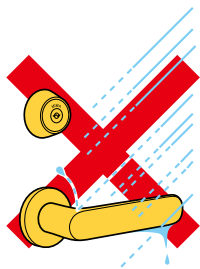
Do not use an impact screwdriver, as it might become impossible to remove the lock later. Also, tightening the screws too much might prevent the lock from functioning properly.



Attention 5

When installing locks, please prevent from wet by rainfall or moisture.

Exposure under moisture may shorten the product life cycle.

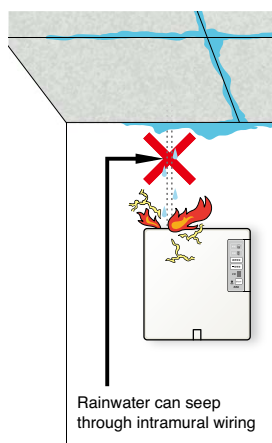


Attention 6

Products labeled "indoor use" such as electric and other various controllers should be installed where they will not be exposed to rainwater, etc.

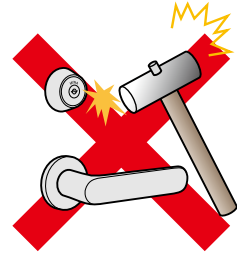
Do not also install the products in locations where they will be exposed to rain or water leakage.

Infiltration of water may result in device failure or a fire accident due to electrical leakage.



Attention 7

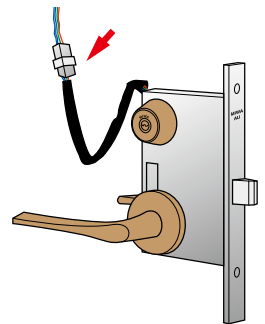
Dropping, striking, or hammering the lock may cause irreparable damage.



Attention 8

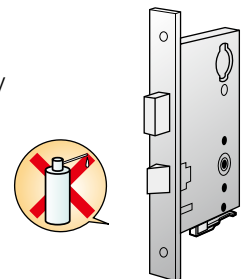
For locks utilizing electric wires, take care not to bend, cut, or otherwise damage the wires.

Damage to the wires may result in malfunctioning in the lock and possibly lead to accidents.



Attention 9

Do not insert foreign objects or lubricants in the lock case, as they may adversely affect the interior parts or grease and lead to malfunctioning.



Attention 10

Do not apply spray or lubricant that contains silicone component to the surrounding area of the equipment (including wires connected to fittings). Otherwise, the silicone component may adhere to contacts of electrical components to cause troubles.

COLOR VARIATIONS

Following is a list of materials and finishes used on our standard cylinders. Please refer to the material, finish, and delivery date list on each page for details, as the finish vary by series.

Stainless Steel



Satin Finish
Symbol: ST



Polished chrome Finish
Symbol: SB



Ceramic Bronze Finish
Symbol: CB



Ceramic Dark Grey Finish
Symbol: CD



Matte Black Finish
Symbol: BK



White Finish
Symbol: WH

Note: WH Finish is made-to-order.
When placing an order, please inquire
about the delivery date.

Brass

Aluminum



Satin Chrome Finish
Symbol: SC



Hairline Finish
Symbol: BS



Polished Brass Finish
Symbol: YB



Polished Silver Finish
Symbol: S1



Polished Gold Finish
Symbol: G1

Painting (aluminum)



Stainless Finish
Symbol: SF



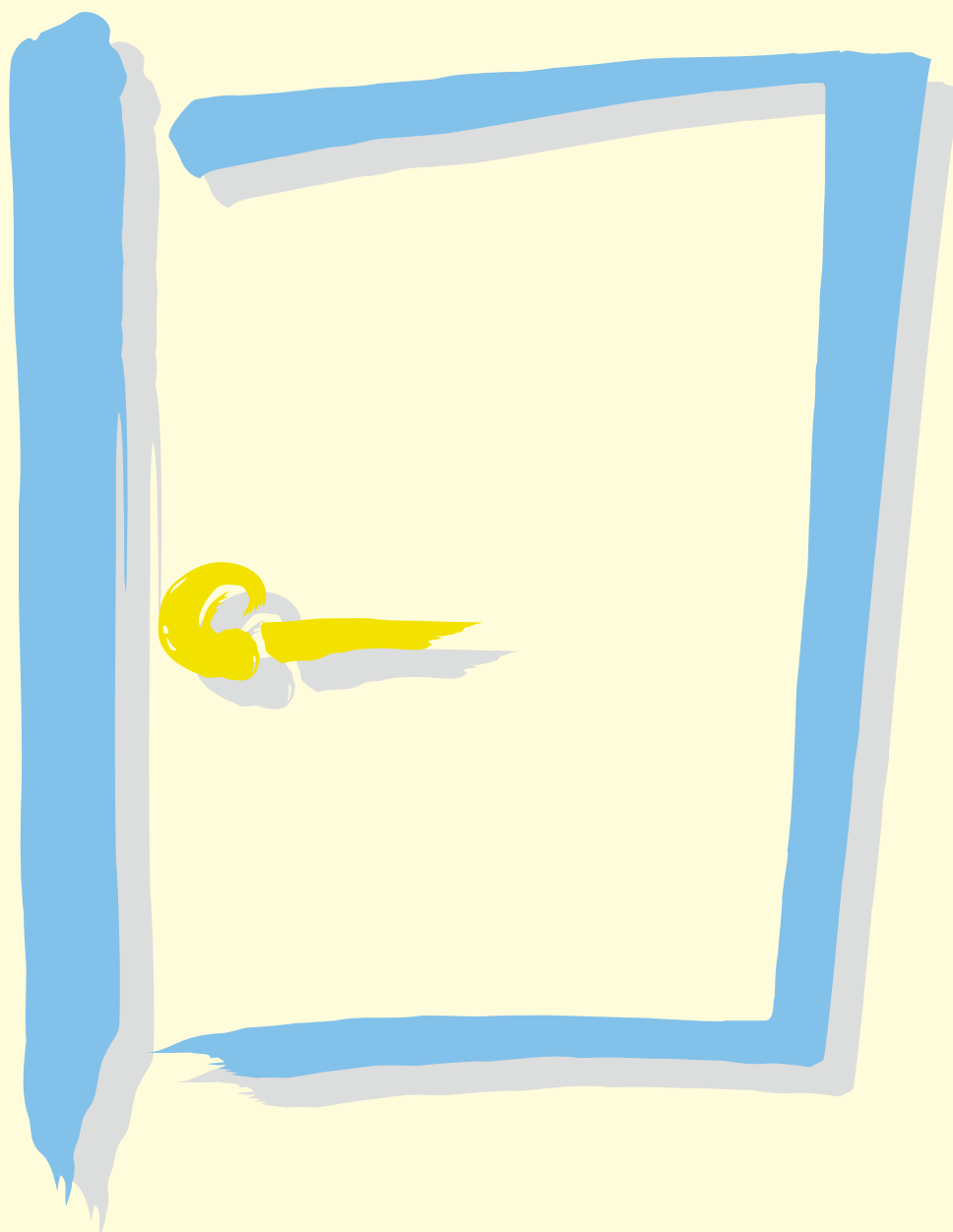
Light Silver Finish
Symbol: RV



Champagne Gold Finish
Symbol: CG



Gold Finish
Symbol: GL



Lever handle Series

CONTENTS

Model	Body text	Drawing	Model	Body text	Drawing
ANTIVIRUS/ANTIBACTERIAL LEVER HANDLE.....	22		TGL.....	50	80
ANTIBACTERIAL LEVER HANDLES.....	24		LO.....	51	81
LEVER HANDLE DESIGNS.....	26	60	LP.....	52	82
ESCUTCHEON DESIGNS.....	34	65	INTERIOR LOCKS.....	53	83
LHS.....	38	67	PULL PLATE DESIGNS.....	53	83
LHT.....	40	68	LEVER HANDLE DESIGNS.....	54	83
LA.....	42	70	ZPC series.....	55	85
LAF.....	45	74	ZLC series.....	56	85
LAM.....	46	75	ZLK series.....	57	87
UUT.....	47	77	ZLT series.....	58	89
LAT.....	48	78	ZSL05 series.....	59	90
LAL.....	49	79	ZSL15 series.....	59	90

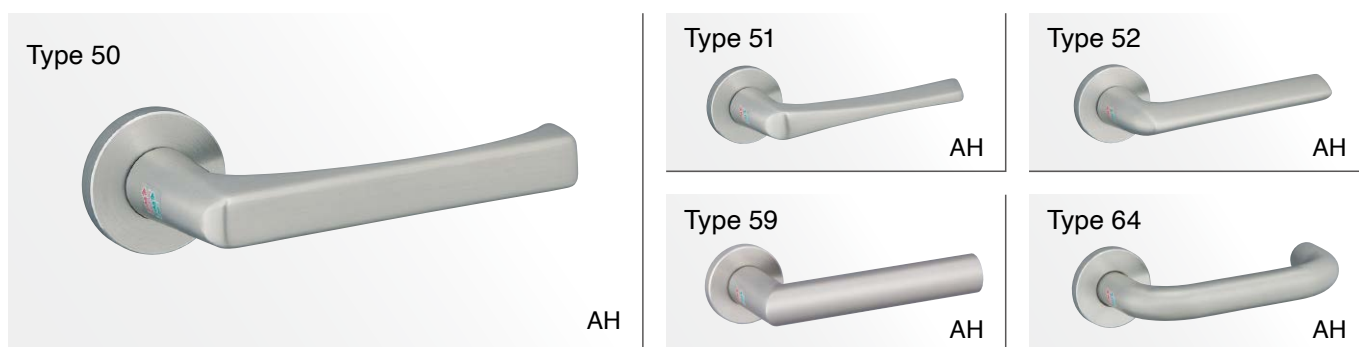
ANTIVIRUS/ANTIBACTERIAL LEVER HANDLE

These are ideal for installation on doors that have heavy traffic and that are used by an unspecified number of people or that are difficult to disinfect or care for.

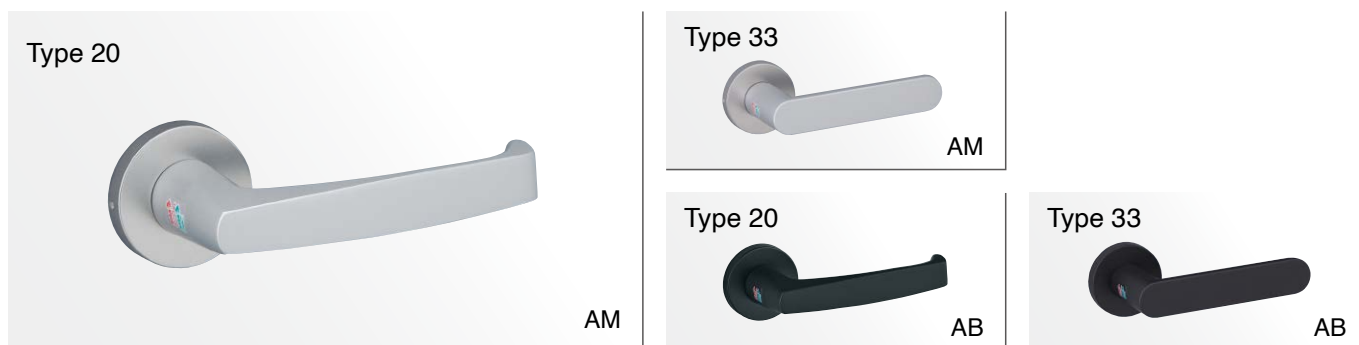
Coated with inorganic antivirus and antibacterial agents.



Stainless Steel



Aluminum



Similar finish to standard lever handles.

Although these are antivirus and antibacterial, the appearance is similar to standard handles, therefore they can also be used as a replacement for existing lever handles.

Note: The exterior has a matte clear coating. Antivirus agents cover the surface, resulting in a rough texture.



Also available for thumb-turn.

Not only lever handles, but also thumb-turns, which are often touched, are finished with the same antivirus and antibacterial treatment.

Certified for SIAA antivirus and antibacterial treatment.



The SIAA mark is displayed on products subject to quality control and information disclosure according to the guidelines of the Society of Industrial Technology for Antimicrobial Articles based on the results evaluated by ISO 21702.

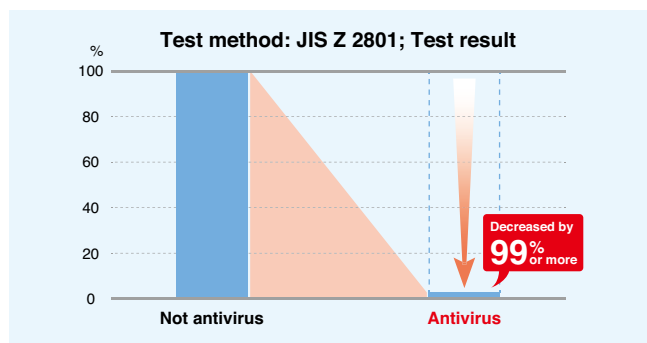


The SIAA mark is displayed on products subject to quality control and information disclosure according to the guidelines of the Society of Industrial Technology for Antimicrobial Articles based on the results evaluated by ISO 22196.

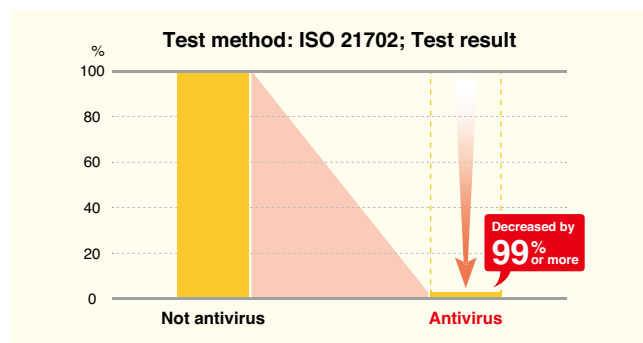
Antivirus effect.

Reduces the number of specific viruses by over 99% in 24 hours.

Virus A (with envelope membrane)



Virus B (without envelope membrane)



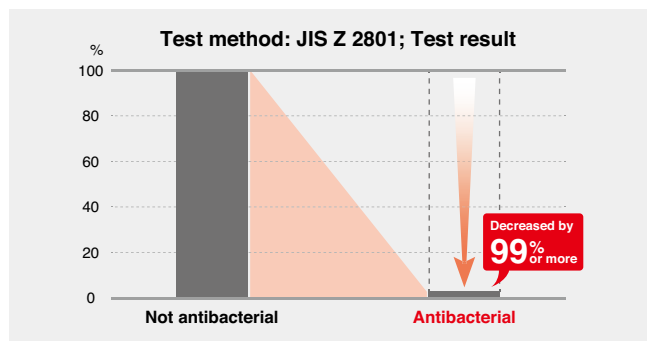
Envelope membrane: the lipid membrane that covers the outside of the virus

Testing institute: Nissenken Quality Evaluation Center

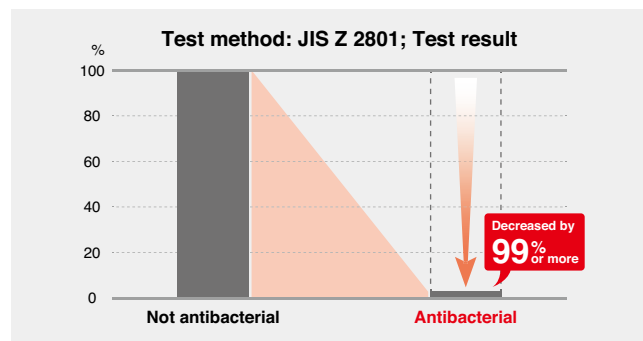
Antimicrobial effect.

Reduces the number of specific bacteria by over 99% in 24 hours.

Bacteria (Staphylococcus aureus)



Bacteria (E. coli)



Testing institute: Kanagawa Institute of Industrial Science and Technology

Specifications

Lock types (Note 1)	LA	AUT (A), AUR (A)
Mountable cylinder	U9, WR, PR, LB, JN	
Backset (mm)	38, 51, 64, 76, 100	76, 100
Door thickness range	33–66	

Note 1: Please contact us for other products.

Note 2: Lever handles and thumb-turn knobs have an antivirus finish, while round roses and cylinders that have little contact have normal finishes (not antivirus).

Materials and finishes

●: Available as a special product

Materials and finishes	Model	20	33	50	51	52	59	64
Stainless Steel	AH			●	●	●	●	●
Aluminum	AM	●	●					
Aluminum	AB	●	●					

Note 3: The finishes are slightly different from standard stainless steel and aluminum lever handles.

Note 4: The color tones of the images may differ from actual products.

Note 5: Stainless steel lever handles are standard for the AU series. Please note that when combined with an aluminum handle, the finishes of the lever handle and the base are different because the round rose is made of stainless steel.

Cautionary Notes

·The values and expressions used in relation to these products are based on measurements by the Nissenken Quality Evaluation Center and the Kanagawa Institute of Industrial Science and Technology but do not guarantee performance. ·Due to the Pharmaceutical and Medical Device Act, the notation of specific virus names is prohibited. ·Antivirus treatment and antibacterial performance are intended to reduce the number of specific viruses and bacteria on the product surface but are not intended to treat or prevent disease. ·These products are not medical products or medical devices intended for medical treatment. ·Antivirus treatment and antibacterial performance do not inhibit the action of viruses and bacteria. ·These are simulated test results. Similar test results may not be obtained for all viruses or bacteria. Results may vary depending on usage conditions and how products are used. ·Antivirus and antibacterial specifications are effective only when viruses and bacteria come into direct contact with the coated surface. Excessive dust or oil film on the product will affect performance. It is important to keep product surfaces clean. ·Products comply with SIAA safety standards.

ANTIBACTERIAL LEVER HANDLES

For hospitals and food-handling facilities, high levels of hygiene are a must. The best door handles for places such as these are MIWA's Antibacterial Lever Handles. We offer two types to choose from-one made from metal with a clear antibacterial coating and the other made of antibacterial plastic.

Two types available-one finished with an inorganic antibacterial agent and the other made of antibacterial plastic.

Coated Specification :

Stainless steel finished with a clear anti-bacterial coating.

Materials and Finishes

Lever handle	50	51	52	53	55	56	57	64	66	346
Materials and Finishes										
Stainless steel	KH	●	●	●	●	●	●	●	●	●

● : Available ● : Available as a special product

Type 64



Finish: KH

ABS resin Specification :

Type 64 Lever Handle design with a metal core and antibacterial coating and tried and true Type 40 and 41 ABS resin Lever Handles made of an antibacterial ABS resin.

Type 64: A metal core gives this handle strength and makes it suitable for heavy interior doors.

Finish Code: KM, KD, KG

Note: KM, KD and KG finishes available for each. Colors same as for MT, DN and GE.

Materials and Finishes

Lever handle	64
Materials and Finishes	
Metal+ABS resin	
KM	●
KD	●
KG	●

● : Available ● : Available as a special product

Type 64



Finish: KM

Type 40, 41: For light interior doors.

Finish Code: KD

Note: KD finishes available for each. Colors same as for DN.

Materials and Finishes

Lever handle	40	41
Materials and Finishes		
ABS resin+ABS resin		
KD	●	●

● : Available as a special product

Type 40



Finish: KD

Type 41



Finish: KD

Mountable Lever Handles

Lock Lever Handles	LA WLA	LO WLO	LHS	AUS AUT AUR
Stainless + Clear antibacterial finish	●	●	●	●
Type 40, 41 ABS resin Handle	●	●		
Type 64 ABS resin Handle	●	●	●	●

Note 1: Cylinders and thumb-turns are all stainless + clear antibacterial finish (KH finish).

Note 2: The round rose for the Type 64 ABS resin Handle is painted in each of the available colors.

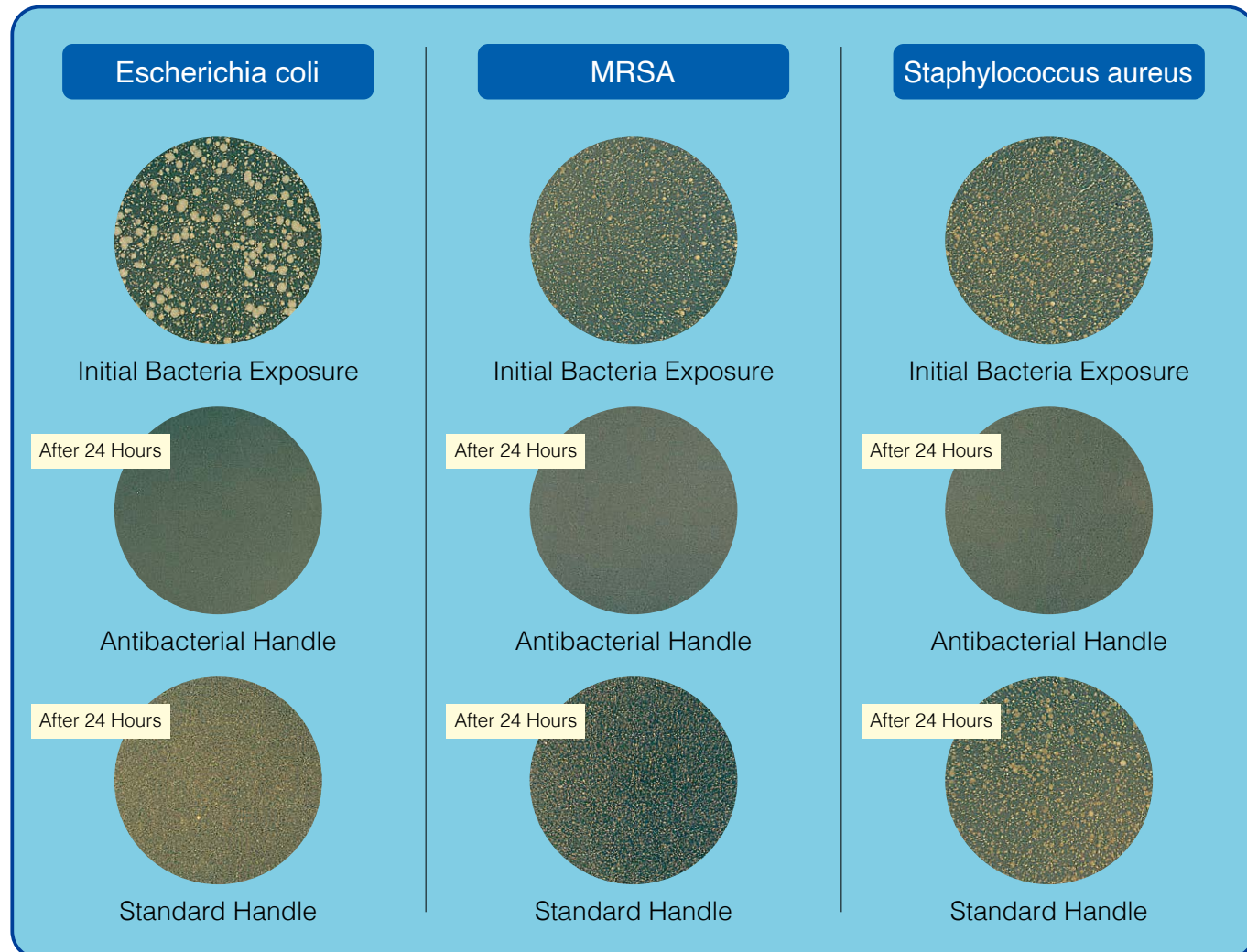
Effective against various types of bacteria.

Examples of Antibacterial Effect

Bacteria Type		Anti-Bacterial Handle	Standard Handle
Escherichia coli	Starting Bacteria Count	4.2×10^5	4.2×10^5
	Bacterial Count After 24 Hours	<10	2.0×10^7
	Reduction in Bacteria Count	$\geq 99.9\%$	Multiplying
Staphylococcus aureus	Starting Bacteria Count	1.9×10^5	1.2×10^5
	Bacterial Count After 24 Hours	<10	2.0×10^5
	Reduction in Bacteria Count	$\geq 99.9\%$	Multiplying
MRSA	Starting Bacteria Count	3.0×10^5	3.0×10^5
	Bacterial Count After 24 Hours	<10	2.1×10^5
	Reduction in Bacteria Count	$\geq 99.9\%$	30%

Note: The figures above are from test data developed by the Japan Food Research Laboratories. These results do not constitute guarantees. Also, surface grime decreases antibacterial affects, so excessive grime should be washed away with a mild detergent.

Test Results



LEVER HANDLE DESIGNS

Mountable lever handles which can be used

Model	18	19	20	21	22	23	29	31	32	33	34	35	40	41	50	51	52	53	55	56	57	59	
LHS(Note 1)(Note 5)	●	●	●	●	●	●	●	●	●	●	●	●			●	●	●	●	●	●	●	●	
LHT(Note 1)(Note 5)	●	●	●	●	●	●	●	●	●	●	●	●			●	●	●	●	●	●	●	●	
LHHE(Note 5)	□	□	□	□	□	□	□	□	□	□	□	□			□	□	□	□	□	□	□	□	
LA, LAF	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
LAM(Note 6)															○	○	○	○	○	○	○	○	
UUT(Note 5)(Note 7)(Note 8)	○	○	○	○	○	○	○	○	○	○	○	○			○	○	○	○	○	○	○	○	
LAT(Note 1)(Note 5)	○	○	○	○	○	○	○	○	○	○	○	○			○	○	○	○	○	○	○	○	
LAL(Note 1)(Note 5)	○	○	○	○	○	○	○	○	○	○	○	○			○	○	○	○	○	○	○	○	
LO	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
LOR(Note 6)															○	○	○	○	○	○	○	○	
LP(Note 2)			●	●	●	●		●	●	●	●	●			●	●	●	●	●	●	●	●	
AUS(Note 8)(Note 9)	○	○	○	○	○	○	○	○	○	○	○	○			○	○	○	○	○	○	○	○	
AUT(Note 8)(Note 9)	○	○	○	○	○	○	○	○	○	○	○	○			○	○	○	○	○	○	○	○	
AUR(Note 8)(Note 9)	○	○	○	○	○	○	○	○	○	○	○	○			○	○	○	○	○	○	○	○	
ALA	●	●	●	●	●	●	●	●	●	●	●	●			●	●	●	●	●	●	●	●	
ANS	●	●	●	●	●	●		●	●	●	●	●			●	●	●	●	●	●	●	●	
Door hand				●	●						●	●											
Interior only	●	●											●	●									

● : Indicates standard types with round rose types.

○ : Indicates standard types with escutcheons. Round rose types are also available.

When you order round rose types, please add 01 or 02 after the handle sign.

In case 63 type handle of round rose type: 6301 (Mention of "ELA01" is needed when round rose for ALA series is required.) .

In case 66 type handle of round rose type: 6602 (Mention of "ELA02" is needed when round rose for ALA series is required.) .

◎ : Indicates only round rose type available.

□ : Indicates only escutcheon type available.

Note 1: Diameter of LH, LAT, LAL series round rose: 55φ

Note 2: Special LP escutcheon required.

Note 3: Models 40 and 41 are suitable for lightweight wooden doors.

Note 4: When you order separately the piece of escutcheons or round rose types handle for 18, 19, 29, 64, 69, 346, 373, 391, 420, 430, 431, 432 please note the product code is different from the code of a set. Please contact us for more information.

Specifications for finishes of each lever handle design

Materials and Finishes	18	19	20	21	22	23	29	31	32	33	34	35	40	41	50	51	52	53	55	56	57	59	
Aluminum SV			●	●	●	●	●	●	●	●	●	●											
Aluminum CB			●	●	●	●	●	●	●	●	●	●											
Aluminum GD			●	●	●	●	●	●	●	●	●	●											
Aluminum BK			●	●	●	●		●	●	●	●	●											
Stainless steel, Satin ST															●	●	●	●	●	●	●	●	
Stainless steel, Polished SB															●	●	●	●	●	●	●	●	
Stainless steel CB															●	●	●	●	●	●	●	●	
Stainless steel CD															●	●	●	●	●	●	●	●	
Brass, Satin BS															●								
Brass, Polished YB															●								
Brass, Satin chrome SC																							
Brass, Chrome CR																							
Wood(Note 12)	●	●																					
ABS resin MT													●	●									
ABS resin WR													●	●									
ABS resin DN													●	●									
ABS resin GE													●	●									
ABS resin YC													●	●									
Antibacterial (painted) KH															●	●	●	●	●	●	●	●	
Antibacterial (resin) KM																							
Antibacterial (resin) KD													●	●									
Antibacterial (resin) KG																							
Antivirus AH															●	●	●				●		
Antivirus AM			●							●													
Antivirus AB			●							●													

Note 12: Please check the respective content pages for information on delivery dates.

Note 13: For details on the finish of the reinforced wood handles, please refer to the main text. For types 18 and 19, refer to P.28; for type 67, refer to P.31; and for type 391, refer to P.32.

	63	64	65	66	67	68	69	74	342	346	356	373	391	411	414	420	421	430	431	432	472	Lever handles	Model	
	●	●	○	●	●	●	●	●	● (Note 10)	●	●	● (Note 10)	●	○	○	○	○	○	○	○	○	○	LHS (Note 1)(Note 5)	
	●	●	●	●	□	●	●	●		●	●	● (Note 11)											LHT (Note 1)(Note 5)	
	□	□	□	□	□	□	□	□		□	□	□ (Note 11)											LHHE (Note 5)	
	○	●	○	○	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	LA / LAF	
		○		○						○					○		○	○	○	○	○	○	LAM (Note 6)	
	○	○		○	○	○	○	○	○	○	○	○	○	○	○	○		○	○	○	○	○	UUT (Note 5)(Note 7)(Note 8)	
	○	○	○	○	○	○	○	○		○	○	○ (Note 11)											LAT (Note 1)(Note 5)	
	○	○	○	○	○	○	○	○		○	○	○ (Note 11)											LAL (Note 1)(Note 5)	
	○	●	●	○	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	LO	
		○																					LOR (Note 6)	
									●	●	●	●		●	●		●	●	●	●	●	●	LP (Note 2)	
	○	○		○	○	○	○	○	○	○	○	○	○	○	○	○		○	○	○	○	○	AUS (Note 8)(Note 9)	
	○	○		○	○	○	○	○	○	○	○	○	○	○	○	○		○	○	○	○	○	AUT (Note 8)(Note 9)	
	○	○		○	○	○	○	○	○	○	○	○	○	○	○	○		○	○	○	○	○	AUR (Note 8)(Note 9)	
	○	●	○	○	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	ALA	
		●		○		●	●	●	●	●	●	●			●	●	●	●	●	●	●	●	ANS	
						●		●	●		●										●	Door hand		
					●								●										Interior only	

Note 5: You can also use the lever handle made of aluminum, but please note the finish of the round rose and handle is different because of the round rose is made of stainless steel.

Note 6: Only stainless steel lever handle is available for LAM and LOR series products.

Note 7: Stainless steel lever handles are standard for UUT series. You can also use brass lever handles.

Note 8: Diameter of UUT, AU series round rose: 62φ

Note 9: Standard handle of AU series is Stainless steel. Aluminum and brass handles are available but a round rose is made from stainless steel. Please be careful finish is different with a handle and a round rose. (Type 65 handle is not available)

Note 10: Type 342 handle is not available for LHSA series. Type 373 handle is only brass handle.

Note 11: Only brass handle is available.

	63	64	65	66	67	68	69	74	342	346	356	373	391	411	414	420	421	430	431	432	472	Lever handles	Materials and Finishes	
	●		●						●		●	●		●									Aluminum	SV
	●		●						●		●	●		●									Aluminum	CB
	●								●		●	●		●									Aluminum	GD
			●																				Aluminum	BK
		●		●						●					●		●					●	Stainless steel, Satin	ST
		●		●						●					●		●	●	●	●	●	●	Stainless steel, Polished	SB
		●		●						●					●							●	Stainless steel	CB
		●		●						●					●							●	Stainless steel	CD
				●		●	●	●				●				●							Brass, Satin	BS
				●		●	●	●				●				●							Brass, Polished	YB
						●	●	●				●				●							Brass, Satin chrome	SC
						●	●	●				●				●							Brass, Chrome	CR
					●								●										Wood ^(Note 12)	
																							ABS resin	MT
																							ABS resin	WR
																							ABS resin	DN
																							ABS resin	GE
																							ABS resin	YC
		●		●						●													Antibacterial (painted)	KH
		●																					Antibacterial (resin)	KM
		●																					Antibacterial (resin)	KD
		●																					Antibacterial (resin)	KG
		●																					Antivirus	AH
																							Antivirus	AM
																							Antivirus	AB

LEVER HANDLE DESIGNS

18TYPE

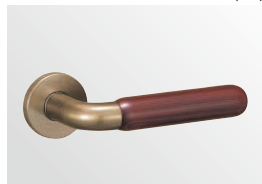
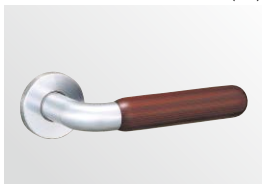
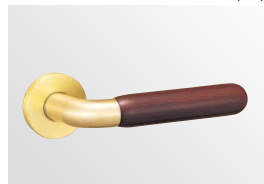
Brass Satin (BS)

Brass Polished (YB)

Brass Satin Chrome (SC)

Brass Chrome (CR)

Brass CB Coated (CB)



Note: Since this product uses wooden parts, please refrain from using it outdoors.

19TYPE

Brass Satin (BS)

Brass Polished (YB)

Brass Satin Chrome (SC)

Brass Chrome (CR)

Brass CB Coated (CB)



Note: Since this product uses wooden parts, please refrain from using it outdoors.

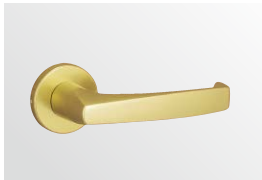
20TYPE

Aluminum alloy (SV)

Aluminum alloy (CB)

Aluminum alloy (GD)

Aluminum alloy (BK)



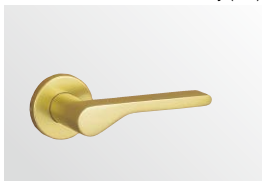
21TYPE

Aluminum alloy (SV)

Aluminum alloy (CB)

Aluminum alloy (GD)

Aluminum alloy (BK)



Note: This picture shows a right-hand. Please indicate R or L hand when you order.

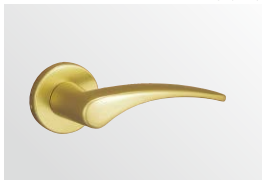
22TYPE

Aluminum alloy (SV)

Aluminum alloy (CB)

Aluminum alloy (GD)

Aluminum alloy (BK)



Note: This picture shows a right-hand. Please indicate R or L hand when you order.

23TYPE

Aluminum alloy (SV)

Aluminum alloy (CB)

Aluminum alloy (GD)

Aluminum alloy (BK)



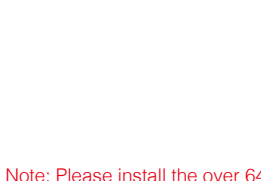
29TYPE

Aluminum alloy (SV)

Aluminum alloy (CB)

Aluminum alloy (GD)

Aluminum alloy (BK)



Note: Please install the over 64 mm backset lock case.

31TYPE

Aluminum alloy (SV)

Aluminum alloy (CB)

Aluminum alloy (GD)

Aluminum alloy (BK)



32TYPE

Aluminum alloy (SV)

Aluminum alloy (CB)

Aluminum alloy (GD)

Aluminum alloy (BK)

**33**TYPE

Aluminum alloy (SV)

Aluminum alloy (CB)

Aluminum alloy (GD)

Aluminum alloy (BK)

**34**TYPE

Aluminum alloy (SV)

Aluminum alloy (CB)

Aluminum alloy (GD)

Aluminum alloy (BK)



Note: This picture shows a right-hand. Please indicate R or L hand when you order.

35TYPE

Aluminum alloy (SV)

Aluminum alloy (CB)

Aluminum alloy (GD)

Aluminum alloy (BK)



Note: This picture shows a right-hand. Please indicate R or L hand when you order.

40TYPE

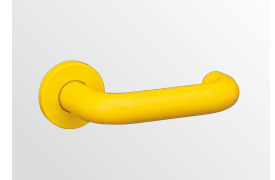
Milky White (MT)

Dark Brown (DN)

Wine Red (WR)

Olive Green (GE)

Yellow (YC)



Note: This lever handle is suitable for lightweight wooden doors. This lever handle cannot be installed with LOZ type. Note 2: Since this product uses resin parts, please refrain from using it outdoors. Note 3: Only cylinder in ST finish is available.

41TYPE

Milky White (MT)

Dark Brown (DN)

Wine Red (WR)

Olive Green (GE)

Yellow (YC)



Note: This lever handle is suitable for lightweight wooden doors. This lever handle cannot be installed with LOZ type. Note 2: Since this product uses resin parts, please refrain from using it outdoors. Note 3: Only cylinder in ST finish is available.

50TYPE

Stainless steel Satin (ST)

Stainless steel Polished (SB)

Stainless steel (CB)

Stainless steel (CD)

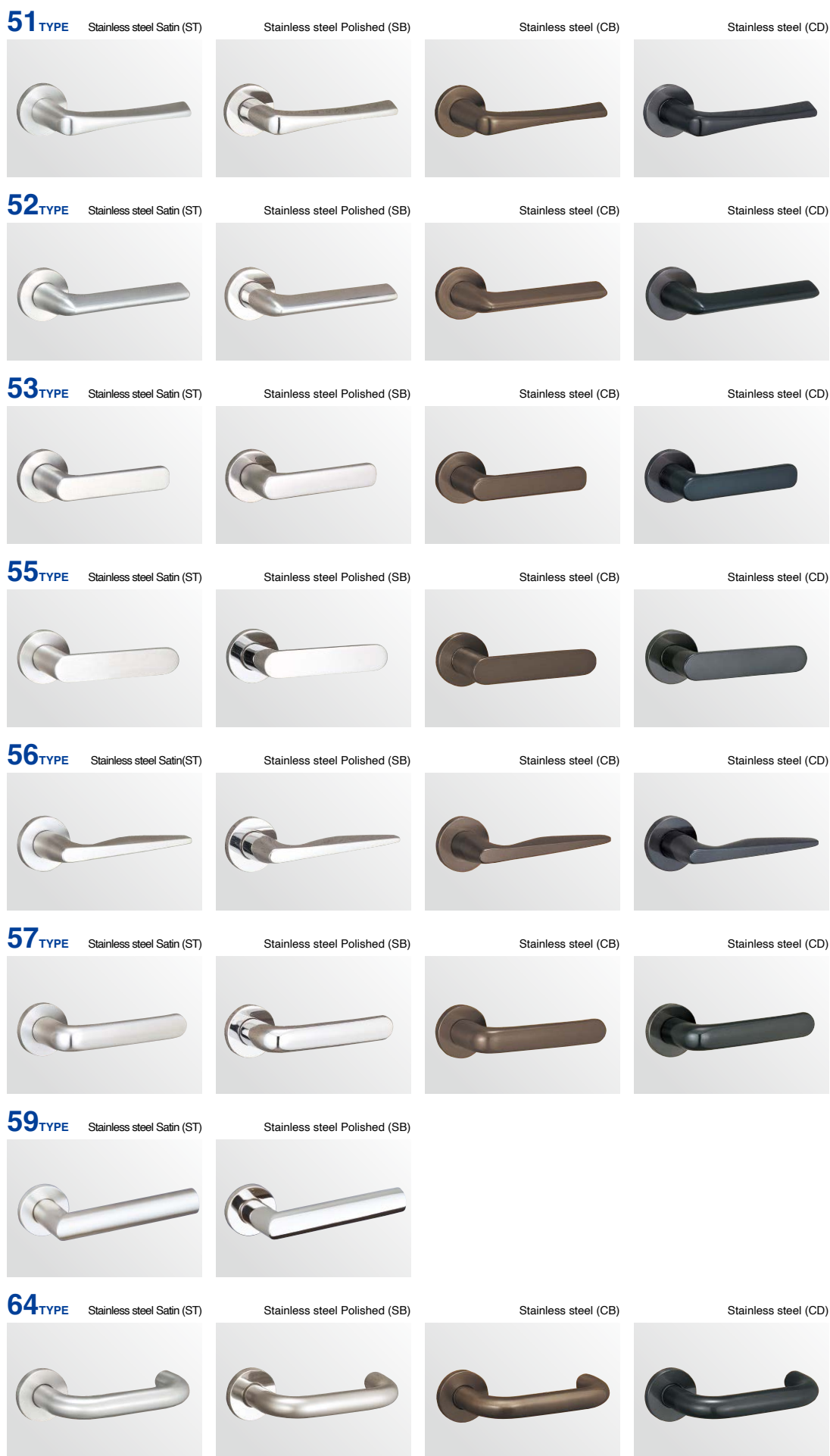
Brass Satin (BS)



Brass Polished (YB)



LEVER HANDLE DESIGNS



65_{TYPE} Aluminum alloy (SV)



Aluminum alloy (CB)

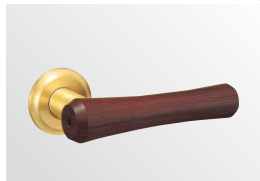


Aluminum alloy (BK)



Note 1: The rose is only available for type 65.
Note 2: Please install the over 51 mm backset lock case.

67_{TYPE} Brass Satin (BS)



Brass Polished (YB)



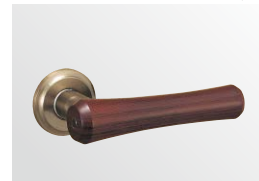
Brass Satin Chrome (SC)



Brass Chrome (CR)

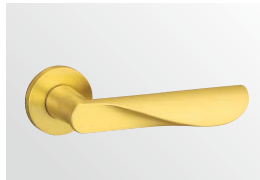


Brass CB Coated (CB)



Note 1: The rose is only available for type 67. Note 2: Please install the over 51 mm backset lock case. Note 3: Since this product uses wooden parts, please refrain from using it outdoors.

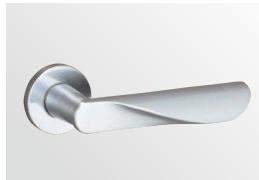
68_{TYPE} Brass Satin (BS)



Brass Polished (YB)



Brass Satin Chrome (SC)

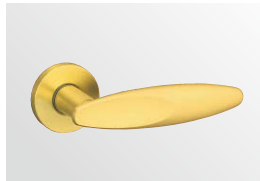


Brass Chrome (CR)



Note: This picture shows a right-hand. Please indicate R or L hand when you order.

69_{TYPE} Brass Satin (BS)



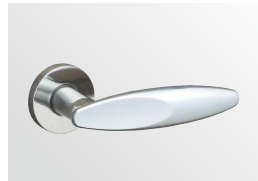
Brass Polished (YB)



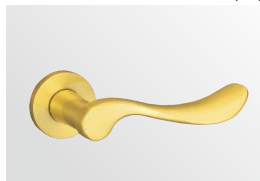
Brass Satin Chrome (SC)



Brass Chrome (CR)



74_{TYPE} Brass Satin (BS)



Brass Polished (YB)



Brass Satin Chrome (SC)



Brass Chrome (CR)



Note: This picture shows a right-hand. Please indicate R or L hand when you order.

342_{TYPE} Aluminum alloy (SV)



Aluminum alloy (CB)



Aluminum alloy (GD)



Note: This picture shows a right-hand. Please indicate R or L hand when you order.

346_{TYPE} Stainless steel Satin (ST)



Stainless steel Polished (SB)



Stainless steel (CB)



Stainless steel (CD)



356_{TYPE} Aluminum alloy (SV)



Aluminum alloy (CB)



Aluminum alloy (GD)



Note: This picture shows a right-hand. Please indicate R or L hand when you order.

LEVER HANDLE DESIGNS

LEVER HANDLE DESIGNS

373TYPE

Aluminum alloy (SV)

Aluminum alloy (CB)

Aluminum alloy (GD)

Brass Satin (BS)

Brass Polished (YB)

Brass Satin Chrome (SC)

Brass Chrome (CR)

391TYPE

21

42

33

24

15

Note 1: Please install the over 51 mm backset lock case.
Note 2: Since this product uses wooden parts, please refrain from using it outdoors.

Finishes for Type 391

Finishes are designated using number codes as shown below.

(e.g.) 1 2
└─ Grip Finish
└─ Grip Axle, Grip End Finish

		Handle Axle, Grip End Finish		Brass			
		BS	YB	SC	CR		
Wood	Grip Finish	11	21	31	41		
		12	22	32	42		
		13	23	33	43		
		14	24	34	44		
		15	25	35	45		

66TYPE

Stainless steel Satin (ST)

Stainless steel Polished (SB)

Stainless steel (CB)

Stainless steel (CD)

Brass Satin (BS)

Brass Polished (YB)

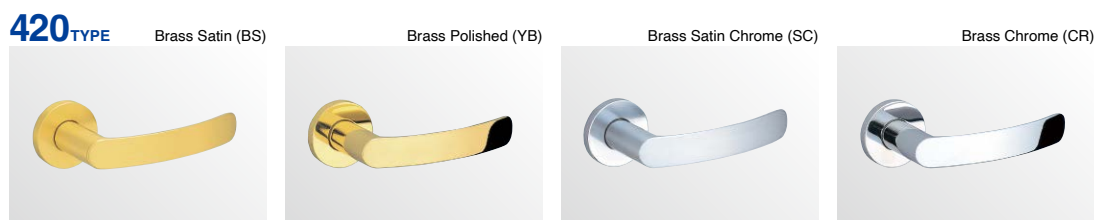
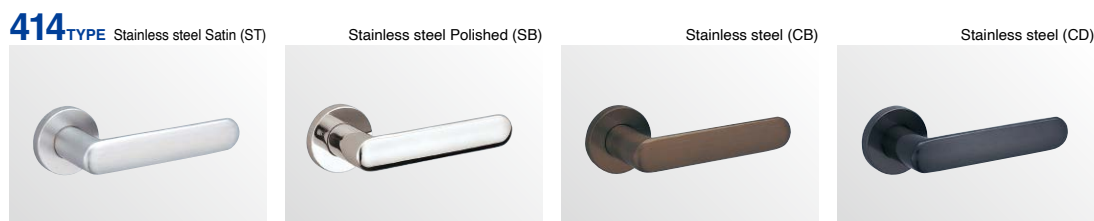
Note: Round rose types are also available. For details, please refer to P.26.



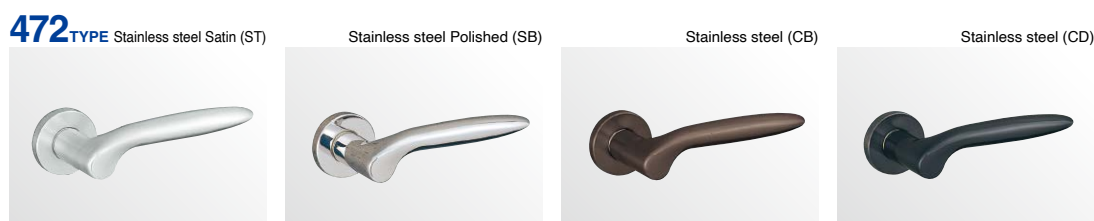
Note 1: Please install the over 51 mm backset lock case.
Note 2: Round rose types are also available. For details, please refer to P.26.



Note: Please install the over 64 mm backset lock case.



Note: Please install the over 38 mm backset lock case.



Note: This picture shows a right-hand. Please indicate R or L hand when you order.

ESCUTCHEON DESIGNS

LH Series ESCUTCHEON



ELH11



ELH12

LA Series LO Series ESCUTCHEON



ELA15



ELA17, 30



ELA19, 20

LP Series ESCUTCHEON



ELP40-6



ELP40-8

Materials and Finishes

●: Available ●: Available as a special product

Model	Materials and Finishes	Stainless steel				Aluminum			Cast brass			
		ST	SB	CB	CD	SV	CB	GD	BS	YB	SC	CR (Note 1)
LH series	ELH11	●	●	●	●				●	●	●	●
	ELH12	●	●	●	●				●	●	●	●
LA, LO series	ELA15 (ELO15)	●	●	●	●	●	●	●	●	●	●	●
	ELA17 (ELO17)	●	●	●	●	●	●	●	●	●	●	●
	ELA30 (ELO30)	●	●	●	●	●	●	●	●	●	●	●
	ELA19 (ELO19)	●	●	●	●							
	ELA20 (ELO20)	●	●	●	●							
	ELA20 (ELO20)	●	●	●	●							
LP, LO series	ELP40 (ELO40)	●	●	●	●	●	●	●				

Note 1: The escutcheon finish is polished stainless steel (SB) when the lever handle finish is chrome (CR).

Note 2: When only escutcheon parts for type 18, 19, 29, 64, 69, 346, 373, 391, 420, 430, 431, 432 handles is ordered, item code is different.

For LH series

ELH11 TYPE

Note: This model shows only the escutcheon.
Please note cylinder, lever handles are not included.

ESCUTCHEON DESIGNS



Stainless steel, Polished (SB)

Finish, Appearance

Type U9LHS50-1 (R = ELH11)



Stainless steel, Satin (ST)



Stainless steel, Polished (SB)



Stainless steel (CB)



Stainless steel (CD)

Indoor side (locking)



Stainless steel, Satin (ST)

Type U9LHS68-1 (R = ELH11)



Brass, Satin chrome (SC)



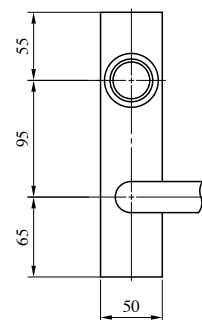
Brass, Chrome (CR)



Brass, Satin (BS)



Brass, Polished (YB)



Thickness: ELH11 = 8 mm

For LH series

ELH12 TYPE

Note: This model shows only the escutcheon.
Please note cylinder, lever handles are not included.



Brass, Polished (YB)

Finish, Appearance

Type U9LHS51-1 (R = ELH12)



Stainless steel, Satin (ST)



Stainless steel, Polished (SB)



Stainless steel (CB)



Stainless steel (CD)

Indoor side (locking)



Stainless steel, Satin (ST)

Type U9LHS74-1 (R = ELH12)



Brass, Satin chrome (SC)



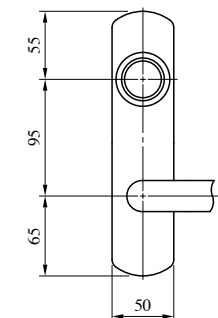
Brass, Chrome (CR)



Brass, Satin (BS)



Brass, Polished (YB)



Thickness: ELH12 = 8 mm

ESCUTCHEON DESIGNS

For LA, LO series

ELA(O)15 TYPE

Note: This model shows only the escutcheon.
Please note cylinder, lever handles are not included.



Brass, Polished (YB)

Finish, Appearance

Type U9LA66-1 (R = ELA15)



Stainless steel, Satin (ST)



Stainless steel, Polished (SB)



Stainless steel (CB)



Stainless steel (CD)

Indoor side (locking)



Stainless steel, Satin (ST)

Type LO66 (R=ELO15)



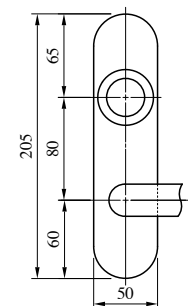
Brass, Satin (BS)



Brass, Polished (YB)



Stainless steel (CD)



Note: Also available in aluminum (SV, CB, GD).

Thickness: ELA15 = 4 mm

For LA, LO series

ELA(O)17, 30 TYPE

Note: This model shows only the escutcheon.
Please note cylinder, lever handles are not included.



Stainless steel (CD)

Finish, Appearance

Type U9LA50-1 (R = ELA17)



Stainless steel, Satin (ST)



Stainless steel, Polished (SB)



Stainless steel (CB)



Stainless steel (CD)

Indoor side (locking)



Stainless steel, Satin (ST)

Type LO50 (R=ELO17)



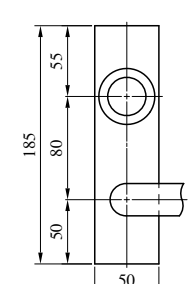
Brass, Satin (BS)



Brass, Polished (YB)



Stainless steel (CB)



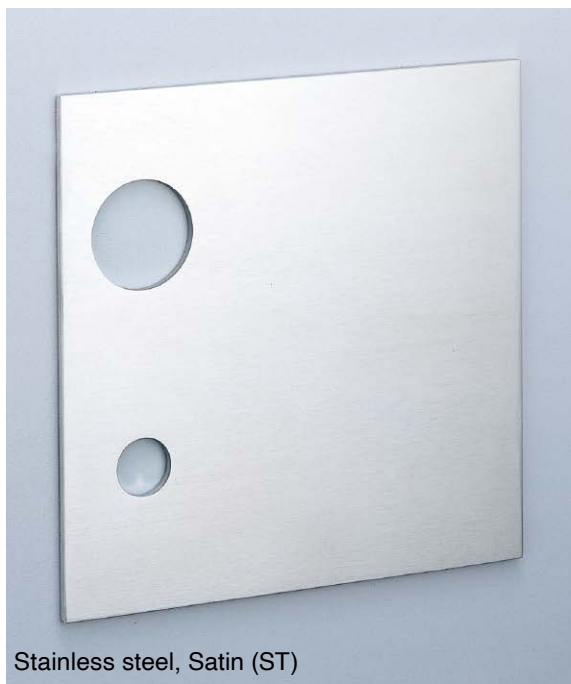
Note: Also available in aluminum (SV, CB, GD).

Thickness: ELA17 = 4 mm
ELA30 = 8 mm

For LA, LO series

ELA(O)19, 20 TYPE

Note: This model shows only the escutcheon.
Please note cylinder, lever handles are not included.



Stainless steel, Satin (ST)

Note: Also available in CB, CD.

Finish, Appearance

Type U9LA66-1 (R = ELA19) (This drawing shows a right hand.)

Indoor side (locking)



Stainless steel, Satin (ST)

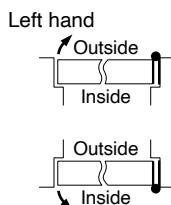


Stainless steel, Polished (SB)

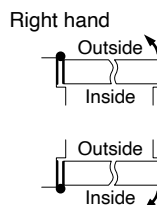


Stainless steel, Satin (ST)

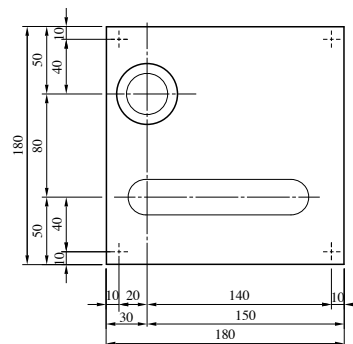
How to determine whether to use a left hand or right hand handle in ELA19,20 types.



(Outside is to the left of the door end)



(Outside is to the right of the door end)



Thickness: ELA19 = 4 mm
ELA20 = 2 mm

This drawing shows a right hand.

For LP, LO series

ELP(O)40 TYPE

Note: This model shows only the escutcheon.
Please note cylinder, lever handles are not included.



Aluminum alloy, Silver (SV)

Finish, Appearance

Type LP2040-6



Aluminum alloy, Silver (SV)



Aluminum alloy (CB)



Aluminum alloy, Gold (GD)

Type LP2040-8

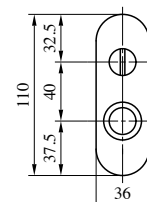


Aluminum alloy, Silver(SV)

Indoor side(locking)



Aluminum alloy, Silver(SV)



Note: Also available in Stainless (ST, SB, CB, CD).

LHS SERIES HIGH-QUALITY LEVER HANDLE LOCKS

Applications: Offices, entryways, external entrances, others.



Top-quality mortise locks.

Outstanding strength and endurance

The cylinder body is made of forged steel. In addition, the endurance test of 800,000 operations has been easily passed, indicating outstanding endurance.

Model LHSA * – ☐ (with anti-panic feature)

With this high-quality lever handle lock, both the deadbolt and the latch bolt can be retracted simply by turning the lever on the inside, even if the deadbolt is projected (only with 76 mm backset).

Emergency opening device LHS * – ☐ E model

In case of an emergency, the door can be opened without a key by simply removing the cover and turning the green knob. (For details, see *Emergency Locks*, page 178)

Note: The case is made exclusively for LHS-E.

Variation

In addition to the standard round rose type, escutcheon type is also available.



U9LHS66-1 (R = ELH11)



U9LHS66-1 (R = ELH12)

Lever Handle designs



Functions

Mountable cylinder	Model	Outside	Sketch	Inside	Operation	Applications
U9 WR PR(-J) LB(-J) JN	LHS*-1	Cylinder		Thumb-turn	·Latchbolt retracted by lever from either side.	Entryways, offices and other general doors
		Lever handle		Lever handle	·Deadbolt operated by key outside and thumb-turn inside.	
U9 WR PR(-J) LB(-J) JN	LHS*-2	Cylinder		None	·Latchbolt retracted by lever from either side.	Machine rooms, equipment rooms, inspection doors, warehouses, toolrooms
		Lever handle		Lever handle	·Deadbolt operated by key outside.	
	LHS*-3	None		Thumb-turn	·Latchbolt retracted by lever from either side.	Terraces, partitions
		Lever handle		Lever handle	·Deadbolt operated by thumb-turn inside.	
U9 WR PR(-J) LB(-J) JN	LHS*-4	Cylinder		Cylinder	·Latchbolt retracted by lever from either side.	Evacuation doors
		Lever handle		Lever handle	·Deadbolt operated by key from either side.	
	LHS*-0	None		None	·Latchbolt retracted by lever from either side.	Partitions
		Lever handle		Lever handle		
	LHS*-6	Emergency device		Thumb-turn	·Deadbolt operated by thumb-turn inside. (unlocked by an emergency opening mechanism from outside)	Restrooms, powder rooms, others
		Lever handle		Lever handle		
	LHS*-8	Emergency device with indicator		Thumb-turn	·Deadbolt operated by thumb-turn inside. (unlocked by an emergency opening mechanism from outside)	Restrooms, powder rooms, others
		Lever handle		Lever handle		

Note 1: *indicates lever handle designs : 18, 19, 50, 51, 52, 53, 55, 56, 57, 59, 64, 66, 68, 69, 74, 346, 373, 391, 414, 420, 421, 430, 431, 432, 472. For type 66, round rose type is standard.

Note 2: Escutcheon type is not available with PR-J cylinder, LB cylinder, LB-J cylinder.

Note 3: LHS-A series (with anti-panic function) and lever handle shape type 391, 414, 420, 421, 430, 431, 432, 472 is a special combination, please contact us for price and delivery time.

Note 4: We also offer a dummy cylinder type. Please write a "D" at the end of the unit code when ordering the set. Model example: Type LHS*-2D.

Materials and Finishes

Model	Stainless steel				Brass				Wood
	ST	SB	CB	CD	BS	YB	SC	CR	
18									●
19									●
50	●	●	●	●	●	●			
51	●	●	●	●					
52	●	●	●	●					
53	●	●	●	●					
55	●	●	●	●					
56	●	●	●	●					
57	●	●	●	●					
59	●	●	●	●					
64	●	●	●	●					
66	●	●	●	●	●	●			
68					●	●	●	●	
69					●	●	●	●	
74					●	●	●	●	
346	●	●	●	●					
373					●	●	●	●	

Note: Refer to the text about finishes

Type 18, 19: Refer to P.28

Type 391: Refer to P.32

Model	Stainless steel				Brass				Wood
	ST	SB	CB	CD	BS	YB	SC	CR	
391									●
414	●	●	●	●					
420					●	●	●	●	
421	●	●							
430		●							
431		●							
432		●							
472	●	●	●	●					

(Refer to pages 28-33 for colors)

Specifications

Backset (mm)	64, 76
Spacing (mm)	95
Door thickness range (mm)	33-42, 42-50, 50-58, 58-66

LHT SERIES HIGH-QUALITY MORTISE LOCKS (Automatic locking)

Applications: One-way passages, others.



High-quality mortise locks are provided with automatic locking device.

Double lock

Lower the front switch (outside knob is idled) and close door. The door is automatically locked. Furthermore, dead-bolt is projected by key from outside, by thumb-turn from inside.

Note: Function types 1A and 2A do not have front switches.

Indoor/outdoor setting

The indoor side screw of the indoor/outdoor selection screws must be removed to enable the LHT-1 to lock automatically. The selection screws are accessed by removing the front panel.

Model LHTA * – ☐ (with anti-panic feature)

With this high-quality lever handle lock, both the deadbolt and the latch bolt can be retracted simply by turning the lever on the inside, even if the deadbolt is projected.

Variation

In addition to the standard round rose type, escutcheon type is also available.

When placing your order, be sure to indicate whether the door opens to the inside or the outside and whether you want a left-door or right-door model.

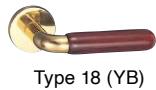


U9LHT66-1 (R = ELH11)



U9LHT66-1 (R = ELH12)

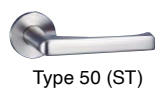
Lever Handle designs



Type 18 (YB)



Type 19 (YB)



Type 50 (ST)



Type 51 (SB)



Type 52 (CB)



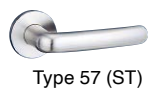
Type 53 (ST)



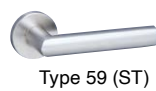
Type 55 (ST)



Type 56 (SB)



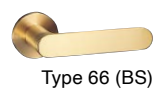
Type 57 (ST)



Type 59 (ST)



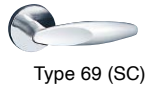
Type 64 (CD)



Type 66 (BS)



Type 68 (YB)



Type 69 (SC)



Type 74 (CR)



Type 346 (CD)



Type 373 (BS)

Functions

Mountable cylinder	Model	Outside	Sketch	Inside	Operation
U9 WR PR(-J) LB(-J) JN	LHT*-1	Cylinder Lever handle If switch is lowered lever is idled		Thumb-turn Lever handle	<ul style="list-style-type: none"> Latchbolt can be operated by lever from either side. Can be locked or unlocked from inside using thumb-turn to operate deadbolt and latchbolt. Can be locked or unlocked from outside using key to operate deadbolt and latchbolt. If front switch lever is lowered, outside knob will turn idle and door can be locked automatically.
U9 WR PR(-J) LB(-J) JN	LHT*-1A	Cylinder Lever always fixed		Thumb-turn Lever handle	<ul style="list-style-type: none"> Latchbolt can be operated by lever from inside and by key from outside. Can be locked or unlocked from inside using thumb-turn to operate deadbolt and latchbolt. Outside lever always fixed, so that if door is closed, it will be locked automatically. Door can be locked or unlocked from outside by using key to operate deadbolt and latchbolt, simultaneously.
U9 WR PR(-J) LB(-J) JN	LHT*-2A	Cylinder Lever always fixed		None Lever handle	<ul style="list-style-type: none"> Latchbolt can be operated by lever from inside and by key from outside. Cannot be locked or unlocked from inside. Outside lever always fixed, so that if door is closed, it will be locked automatically. Door can be locked or unlocked from outside by using key to operate deadbolt and latchbolt.
U9 WR PR(-J) LB(-J) JN	LHTA*-2A	Cylinder Lever always fixed		None Lever handle	<ul style="list-style-type: none"> Latchbolt can be operated by lever from inside and by key from outside. Outside lever always fixed, so that if door is closed, it will be locked automatically. Door can be locked or unlocked from outside by using key to operate deadbolt and latchbolt.
U9 WR PR(-J) JN	LHT*-4	Cylinder Lever handle If switch is lowered lever is idled		Cylinder Lever handle If switch is lowered lever is idled	<ul style="list-style-type: none"> Latchbolt can be operated by lever from either side. Door can be locked from either side using key to operate deadbolt and latchbolt. If front switch lever is lowered, either lever will turn idle and door locks automatically.

Note 1: *indicates lever handle designs : 18, 19, 50, 51, 52, 53, 55, 56, 57, 59, 64, 66, 68, 69, 74, 346, 373. For type 66, round rose type is standard.

Note 2: Escutcheon type is not available with PR-J cylinder, LB cylinder, LB-J cylinder.

Note 3: Please note the type of LBLHT*-1, LBLHT*-1A cannot be worked the latch operation with thumb-turn.

Note 4: We also offer a dummy cylinder type. Please write a "D" at the end of the unit code when ordering the set.

Model example: Type LHT*-2AD.

Materials and Finishes

● : Available ● : Available as a special product

Model	Stainless steel				Brass				Wood
	ST	SB	CB	CD	BS	YB	SC	CR	
18									●
19									●
50	●	●	●	●	●	●			
51	●	●	●	●					
52	●	●	●	●					
53	●	●	●	●					
55	●	●	●	●					
56	●	●	●	●					
57	●	●	●	●					
59	●	●	●	●					
64	●	●	●	●					
66	●	●	●	●	●	●			
68					●	●	●	●	
69					●	●	●	●	
74					●	●	●	●	
346	●	●	●	●					
373					●	●	●	●	

(Refer to pages 28-32 for colors)

Specifications

Backset (mm)	64 (Functions:types 1A and 2A only), 76
Spacing (mm)	95
Door thickness range (mm)	33-42, 42-50, 50-58, 58-66
Requisite clearance (mm)	1-6

Note: Refer to the text about finishes

Type 18, 19: Refer to P.28

Type 391: Refer to P.32

LA SERIES LEVER HANDLE LOCKS

Applications: Entryways, offices, hospital, partitions, others.



Easy to operate, secure lever handle mortise locks.

Strong, durable lever handle locks

In addition to easy to operate lever handle locks, the LA series provides the same outstanding strength and durability as the MA series.

A wide variety of lever handle types

A wide range of lever handles is available in aluminum alloy, stainless steel and cast brass. Lever handles made of aluminum alloy and stainless steel can be colored. (See page 28–33.)

Escutcheons also available

A wide variety of escutcheons is also available. (See page 34–37.)

Easy installation of lever handles with no play

Installation of lever handles is easy and the design assures almost no play between the lever, lever shaft and case.

Single-side handle type: LA * – □ H

This model is used when a handle is installed on one side only and is suitable for steel doors only. When ordering a lever handle with left-hand and right-hand (see the table on page 26), please specify left-hand or right-hand. (See page 18 for how to determine left-hand or right-hand.)

Automatic locking type: LAT * –2A

The door locks automatically (backset: 51 and 64 mm only). Note that the dimensions of the case depth and washers are different from those of LA * – □ . (See page 48.) Lever handle types 40, 41, 63, 65 and 67 are not mountable. For type 66, only the washer type is mountable.

Large-size AH thumb-turn also available

See page 216 for details.

Please use DA series (see page 122) as an auxiliary lock, the same key operation as LA series.

Emergency opening device and indicator: LA * –8

Since this model has a red indicator showing that the room is occupied and an emergency opening device that allows you to unlock the door from the outside using a coin, it is suitable for restrooms, powder rooms, and other such applications. Type-6 (only equipped with emergency opening device) is also available.



Dummy cylinder Type LA.DY

A dummy cylinder can be covered existing cylinder-thumb-turn hole. Please write a "D" at the end of the unit code when ordering the set.

Example: Model LA * –2D



When backset is 31 mm. Oval rose design is used.



Switch type thumb-turn is also available.

B5 or U1 thumb-turn can be used together with the lock. Please contact us for more detail.

Since luminous resin is used in the center and keeps brightness for a while after the surrounding area gets dark, you can check the condition of the thumb-turn.

Note1: Depending on the environmental condition (for example, LED lamps are used, light accumulation time is short, or surrounding area is bright), you may not visually recognize the thumb-turn.

Note2: The switch type thumb-turn cannot be mounted to water prevention type locks.

Cylinder with indicator: Type LA * – □ W

This cylinder allows you to understand the locking or un-locking status by indicator.

This lock is operated with a key from the outside. The combination of cylinder and indicator is optimal choice for public buildings, commercial buildings, and facilities whose usage is restricted (doors are locked during nighttime and holidays), such as restrooms and dressing rooms. (Special product)

Model	LA * – □ W (□ represents the function number type 1 or 2)
Mountable cylinder	U9, WR, PR, JN
Backset (mm)	More than 51
Door thickness range (mm)	29–50

Note 1: Cylinder with indicator is only ST finish.

Note 2: Please indicate R or L handle when you order. Refer to P.173 of the emergency device about how to confirm the door hand



Detachable outside handle type: Type LA * – □ UH

The handle can be removed. Use this type when you do not want the handle to show from outside. (Special product)

Model	LA* – □ UH (□ represents the function number type 1, 2, 3, 4, or 0)
Mountable cylinder	U9, WR, PR (–J), LB (–J), JN
Inside handle	50, 51, 52, 53, 55, 56, 57, 66
Backset (mm)	64, 76
Door thickness range (mm)	38–42, 42–46, 50–54, 54–58, 58–62
Finishes	Satin finish (ST) Polished finish (SB) Note: The round rose on the detachable handle side is only available in ST finish.

Note: Please order detachable handle separately. Type: LA-UH.KA

• This product is intended for use with steel doors only.



Type U9LA*–1UH (ST)

(the symbol * indicates the inside handle).

Water prevention type: Type LA50–1WB

This lock has water prevention function to prevent flooding in the room.

Water prevention parts are attached with inside lever handle and thumb-turn.

Please contact us for more details.

Note 1: Door thickness is limited to 40 mm, backset 64 mm and lever handle design is only 50 type ST finish.

Note 2: Water prevention capability depends on the performance of the door.



L-front plate to guard the attack on the deadbolt

A front plate with a guard function that protects the deadbolt. It hides the deadbolt from the outside, preventing a direct attack on the deadbolt.



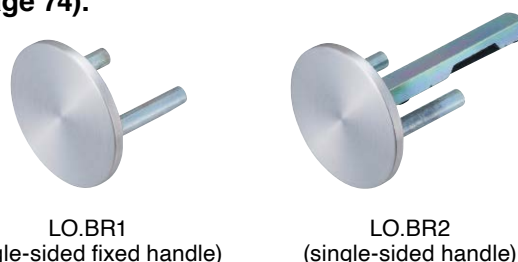
Products with a case handle also are available.

Products with a single-side case handle also are available.

Model	LAC*– □ (A lock with an outside case handle) LA*C– □ (A lock with an inside case handle) (□ represents the function number type 1, 2, 3, 4, or 0)
Mountable cylinder	U9, WR, PR (–J), LB (–J), JN
Inside handle	50, 51, 52, 53, 55, 56, 57, 59
Backset (mm)	51, 64, 76
Door thickness range (mm)	33–66 ^{Note}
Finishes	ST, SB, CB, CD Note: Only ST and SB finish is available for 59 type handle

Note: If the installation is off-center, please contact us for further assistance.

Single-sided fixed handle or blank rose used for single-sided handle is also available (refer to page 74).



X-ray shielding type: Type LA * – □ X

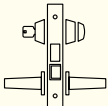
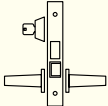
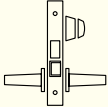
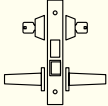
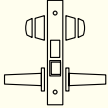
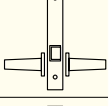
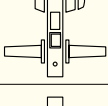
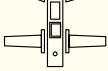
Using lead-containing liner to reduce X-ray leakage from the cut-out of the door. Suitable to use at the X-ray room. (Only the back set 51 mm or more) can not be used the lever handle 65 type.

Specifications

Backset (mm)	31, 38, 51, 64, 76, 100
Spacing (mm)	80
Deadbolt stroke (mm)	17, 21
Door thickness range (mm)	29–33, 33–42, 42–50, 50–58, 58–66

Note: Only deadbolt stroke of 17 mm is available for backset 31 mm and 38 mm and Types 6 and 8.

Functions

Mountable cylinder	Model	Outside	Sketch	Inside	Applications
U9 WR PR(–J) LB(–J) JN	LA*–1	Cylinder Lever handle		Thumb-turn Lever handle	Entryways, offices, consultation rooms, sickrooms
U9 WR PR(–J) LB(–J) JN	LA*–2	Cylinder Lever handle		None Lever handle	Machine rooms, equipment rooms, inspection doors, warehouses
	LA*–3	None Lever handle		Thumb-turn Lever handle	Terraces, partitions, others
U9 WR PR(–J) LB(–J) JN	LA*–4	Cylinder Lever handle		Cylinder Lever handle	Evacuation doors
	LA*–5	Thumb-turn Lever handle		Thumb-turn Lever handle	Evacuation doors
	LA*–0	None Lever handle		None Lever handle	Partitions, others
	LA*–6	Emergency device Lever handle		Thumb-turn Lever handle	Toilets, restrooms, powder rooms
	LA*–8	Emergency device with indicator Lever handle		Thumb-turn Lever handle	Toilets, restrooms, powder rooms

Note 1: indicates lever handle designs : 18, 19, 20, 21, 22, 23, 29, 31, 32, 33, 34, 35, 40, 41, 50, 51, 52, 53, 55, 56, 57, 59, 63, 64, 65, 66, 67, 68, 69, 74, 342, 346, 356, 373, 391, 411, 414, 420, 421, 430, 431, 432, 472. Models 40 and 41 are suitable for lightweight wooden doors.
63, 65, 67, 391 type: Please install the over 51 mm backset lock case.
29, 411 type: Please install the over 64 mm backset lock case.

Note 2: LB cylinder is suitable for 38 mm or larger backset lock case.

Note 3: Please write a "D" at the end of the unit code when ordering the set. Model example: Type LA*–2D.

Materials and Finishes

● : Available ● : Available as a special product

Model	18	19	20	21	22	23	29	31	32	33	34	35	40	41	50	51	52	53	55	56	57	59	63	64	65	66	67	68	69	74	342	346	356	373	391	411	414	420	421	430	431	432	472		
Aluminum alloy SV			●	●	●	●	●	●	●	●	●	●											●		●						●		●	●		●									
Aluminum alloy CB			●	●	●	●	●	●	●	●	●	●	●										●		●						●		●	●		●									
Aluminum alloy GD			●	●	●	●	●	●	●	●	●	●	●										●		●						●		●	●		●									
Aluminum alloy BK			●	●	●	●		●	●	●	●	●	●												●																				
Stainless steel ST															●	●	●	●	●	●	●	●		●		●						●				●		●						●	
Stainless steel SB															●	●	●	●	●	●	●	●		●		●						●				●		●						●	
Stainless steel CB															●	●	●	●	●	●	●	●		●		●						●				●		●						●	
Stainless steel CD															●	●	●	●	●	●	●	●		●		●						●				●		●						●	
Brass BS																●										●			●	●	●				●				●						
Brass YB																●									●			●	●	●					●				●						
Brass SC																									●			●	●	●					●				●						
Brass CR																									●			●	●	●					●				●						
Wood ^{Note}	●	●																								●										●									
ABS resin ^{Note}														●	●																														

(Refer to pages 28–33 for colors)

(Refer to pages 28–33 for colors)

Note: Refer to the text about finishes. Model 67 handles in brass chrome (CR) finish are available only on made-to-order basis.

Type 18, 19: Refer to P.28, Type 40, 41: Refer to P.29, Type 67: Refer to P.31, Type 391: Refer to P.32

LAF SERIES HOOK DEAD LEVER HANDLE LOCKS

Applications: Office, entrance, outside doorway, etc.



This product is a high-security lever handle lock equipped with hook dead.

Since the lock is equipped with hook dead, it can offer high-security performance even in case of violent vandalism by means of, for example, crowbar.

LA series lever handle is available.

Switch type thumb-turn is also available.

B5 or U1 thumb-turn can be used together with the lock. Please contact us for more detail.

Since luminous resin is used in the center and keeps brightness for a while after the surrounding area gets dark, you can check the condition of the thumb-turn.

Note: Depending on the environmental condition (for example, LED lamps are used, light accumulation time is short, or surrounding area is bright), you may not visually recognize the thumb-turn.

Specifications

Backset (mm)	64
Spacing (mm)	80
Door thickness range (mm)	29-33, 33-42, 42-50, 50-58, 58-66



B5 thumb-turn
Model LAF*-1B / LAF*-3B



U1 thumb-turn
Model LAF*-1U / LAF*-3U

Note: Standard thumb turns are also available.

Functions

Mountable cylinder	Model	Outside	Sketch	Inside	Applications
U9 PR(-J) LB(-J) JN	LAF*-1	Cylinder Lever handle		Thumb-turn Lever handle	Entryways
U9 PR(-J) LB(-J) JN	LAF*-2	Cylinder Lever handle		None Lever handle	Equipment rooms, inspection doors, warehouses
	LAF*-3	None Lever handle		Thumb-turn Lever handle	Terraces
U9 PR(-J) LB(-J) JN	LAF*-4	Cylinder Lever handle		Cylinder Lever handle	Evacuation doors

Note: LA series lever handle is available. Refer to Material/Finish/Delivery table of P.26 about available handles.

LAM SERIES LEVER HANDLE LOCKS (with anti-friction function)

Applications: Entryways, offices, hospital, partitions, others.



Type U9LAM50-1 (ST)

Lever handle locks equipped with anti-friction latch.

Door opening and closing is smooth and quiet. Achieved a certain closing by light latching force.

Switch type thumb-turn is also available.

Please contact us for more details.

Model LAM * - □ H (single-side handle type)

This model is used when a handle is installed on only one side. Both left-hand and right-hand models are available. This model is suitable for use with steel doors only.

An optional emergency opening device is available.

This lock can be opened in case of emergency by removing the cover and turning the green lever inside without the use of a key. Available in a removable cover type (reusable plastic cover) and a breakable cover type.



Dummy cylinder type LA.DY (refer to page 42)

A dummy cylinder can be covered existing cylinder-thumb-turn hole.

Please write a "D" at the end of the unit code when ordering the set.

Example: Model LAM*-2D

Optional emergency opening device cover Model LAM * -1M

This cylindrical cover is attached over a thumb-turn unit. Break the cover in an emergency to access the thumb-turn. This model can be unlocked by breaking the cover and turning the thumb-turn in case of an emergency.

Specifications

Mountable cylinder	U9, WR, PR(-J), LB(-J), JN
Function	LAM-1, 2, 3, 4, 5, 6, 8, 0
Backset (mm)	64, 76
Door thickness range (mm)	29-33, 33-42, 42-50, 50-58, 58-66
Dead bolt stroke (mm)	21 only
Right or left hand	Common (There is a distinction between right and left of the lever handle.)

Materials and Finishes

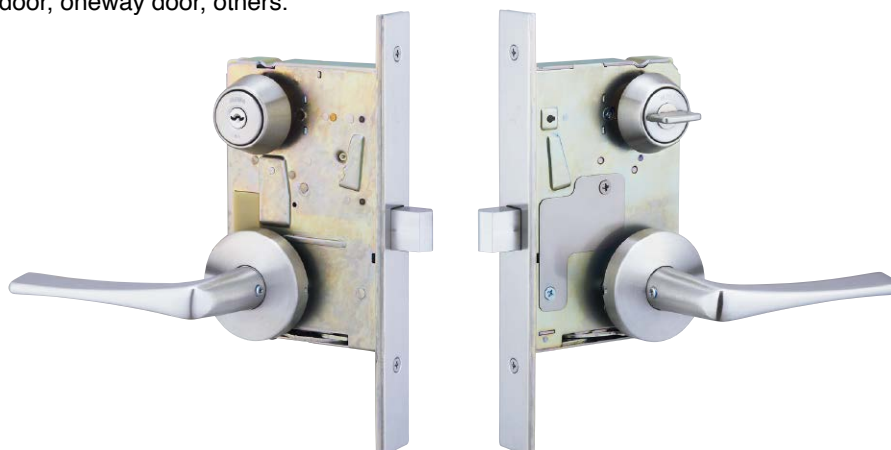
● : Available ● : Available as a special product

Model	Materials and finishes	Stainless steel			
		ST	SB	CB	CD
50		●	●	●	●
51		●	●	●	●
52		●	●	●	●
53		●	●	●	●
55		●	●	●	●
56		●	●	●	●
57		●	●	●	●
59		●	●	●	●
64		●	●	●	●
66		●	●	●	●
346		●	●	●	●
414		●	●	●	●
421		●	●	●	●
430		●	●	●	●
431		●	●	●	●
432		●	●	●	●
472		●	●	●	●

(Refer to pages 29-33 for colors)

UUT SERIES LEVER HANDLE LOCKS

Applications: Side door, oneway door, others.



Type U9UUT51-1 (ST)

Automatic locking mortise locks. (Function types: 1 and 4A only)

Simplified key management.

UUT series Locks, in addition to the usual mortise lock functions, provide automatic locking if the inside thumb-turn is rotated 90° before closing the door, enabling the last person to leave to lock up without using a key.
(Functions types: 1 only)

When the door is opened, the dead-locking latch is in the retracted position (flat-latch structure), so physical exertion latching force is no longer necessary to close it. When the door is closed, the latch automatically extends.

Can be installed using the same door preparations for the AU series.

The knob (lever handle) is fixed while the door is locked.

Functions						
Mountable cylinder	Model	Outside	Sketch	Inside	Operation	Applications
U9 WR PR LB JN	UUT*-1	Cylinder Plain knob (fixed when locked)		Thumb-turn Plain knob (fixed when locked)	<ul style="list-style-type: none"> Locked or unlocked from inside with thumb-turn. Automatically locked when inside thumb-turn is turned 90° and door closed. Locked or unlocked from outside with key. 	Entryways, offices and other general doors
U9 WR PR LB JN	UUT*-2	Cylinder Plain knob (fixed when locked)		None Plain knob (fixed when locked)	<ul style="list-style-type: none"> Cannot be locked or unlocked from inside. Locked or unlocked from outside with key. 	Machine rooms, equipment rooms, inspection doors
	UUT*-3	None Plain knob (fixed when locked)		Thumb-turn Plain knob (fixed when locked)	<ul style="list-style-type: none"> Locked or unlocked from inside with thumb-turn. Cannot be locked or unlocked from outside. 	Terraces
U9 WR PR LB JN	UUT*-4	Cylinder Plain knob (fixed when locked)		Cylinder Plain knob (fixed when locked)	<ul style="list-style-type: none"> Locked or unlocked from both sides with key. 	Evacuation doors
U9 WR PR LB JN	UUT*-4A	Cylinder Plain knob (fixed when locked)		Cylinder Plain knob (fixed when locked)	<ul style="list-style-type: none"> Always automatically locked when door is closed. Unlocked from both sides with key. 	Evacuation doors

Note 1: * indicates knob designs: D, W, U and Q; lever handle designs 50, 51, 52, 53, 55, 56, 57, 59, 64, 66, 346, 414, 430, 431, 432 and 472 (except for brass handles); and flush-cup handle type C. (Refer to PP.26-27 and 93.)

Note 2: The lock case is different according to the function: function type 1; function type 2, 3, 4; function type 4A. Please note that if you change the functions, you may be required a lock case exchange.

Specifications		
Backset (mm)	76	Door thickness range (mm) Knob: 33-42, 42-50, 50-58, 58-66 Lever handle: 33-35, 35-36, 36-38, 38-40, 40-42, 42-44, 44-46, 46-48, 48-50, 50-52, 52-54, 54-56, 56-58, 58-60, 60-62, 62-64, 64-66
Case depth (mm)	104	
Spacing (mm)	95	
Requisite clearance (mm)	1-6	

LAT SERIES LEVER HANDLE LOCKS (automatic locking)

Applications: Side door, oneway door, others.



Type U9LAT51-2A (ST)

Automatically Locking Lever Handle Locks.

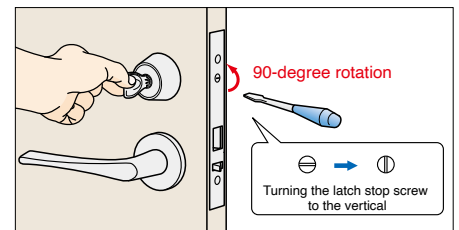
Uses a double-throw-latchbolt automatic lock.

When the door is closed, a double throw of the latchbolt occurs, to function as a deadbolt.

The outside lever handle is always immobilized, so the lock is opened by using the key to retract the latchbolt.

From the inside, the lever handle can always be used to retract the latchbolt and open the lock.
(Function type 2A only)

After the key or lever handle is used to retract the latchbolt, the latchbolt can be kept in that position with a turn of the latchbolt-stop screw.



Specifications

Backset (mm)	51, 64
Spacing (mm)	80
Door thickness range (mm)	33-42, 42-50, 50-58, 58-66
Requisite clearance (mm)	1-6

Note: Lever 29 type should be over 64 mm backset.

Functions

Mountable cylinder	Model	Outside	Sketch	Inside	Operation
U9 WR PR(-J) LB(-J) JN	LAT*-2A	Cylinder		None	Locking The outside lever is always fixed, and the door locks automatically when closed.
		Lever always fixed		Lever handle	Unlocking Can be held in the latch bolt dogging position to turning the "Latch bolt holding screw" by key from outside and by lever handle from inside.
U9 WR PR(-J) LB(-J) JN	LAT*-4	Cylinder		Cylinder	Locking As both of outside and inside levers are fixed, door is automatic locking whenever closed.
		Lever always fixed		Lever always fixed	Unlocking From both side, latch is unlocked by the key. The latch remains in recessed state when you turn the latch stop screw.

Note 1: * indicates lever handle designs: 18, 19, 20, 21, 22, 23, 29, 31, 32, 33, 34, 35, 50, 51, 52, 53, 55, 56, 57, 59, 63, 64, 65, 66, 67, 68, 69, 74, 346, 356, 373.

Note 2: Please write a "D" at the end of the unit code when ordering the set. Model example: Type LAT*-2AD.

Materials and Finishes

Materials and finishes		18	19	20	21	22	23	29	31	32	33	34	35	50	51	52	53	55	56	57	59	63	64	65	66	67	68	69	74	346	356	373		
Model																																		
Aluminum alloy	SV			●	●	●	●	●	●	●	●	●	●									●		●							●			
Aluminum alloy	CB			●	●	●	●	●	●	●	●	●	●									●		●							●			
Aluminum alloy	GD			●	●	●	●	●	●	●	●	●	●									●		●							●			
Stainless steel	ST													●	●	●	●	●	●	●	●			●							●			
Stainless steel	SB													●	●	●	●	●	●	●	●		●		●						●			
Stainless steel	CB													●	●	●	●	●	●	●	●		●		●						●			
Stainless steel	CD													●	●	●	●	●	●	●	●		●		●						●			
Brass	BS													●										●				●	●			●		
Brass	YB													●										●								●		
Brass	SC																							●								●		
Brass	CR																							●								●		
Wood		●	●																															
		(Refer to pages 28-33 for colors)																																

(Refer to pages 28-33 for colors)

Note 1: Lever 63 and 66 type is with round rose. Additionally, the 65 and 67 handles are not designed for dedicated round roses.

Note 2: 63, 65, and 67 handles are only available in -2A configuration. They cannot be installed on -4 models.

Note 3: Model 67 handles in brass chrome (CR) finish are available only on made-to-order basis.

LAL SERIES LEVER HANDLE LOCKS (automatic locking)

Applications: Common entrances, others.



Type U9LAL51-2A (ST)

Automatically Locking Lever Handle Locks with Latchbolt Hold/Release Feature.

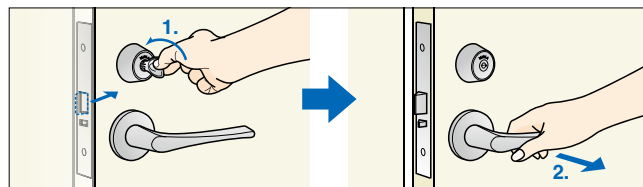
Uses a single-throw automatic lock. Can be used in combination with an electric strike.

The outside lever handle is always immobilized, so when the door is closed it always locks automatically.

From the outside the lock is opened by retracting the latchbolt with the key.

From the inside, the lever handle is always used to retract the latchbolt and open the lock.
(Function type 2A only)

When the latchbolt is retracted by using a key, it remains in that position. The Latchbolt Hold/Release Feature allows the latchbolt to return to its normal position once the door is opened. This allows the door to be unlocked and opened using only one hand.



1. The latch is retracted by turning the key, and the recessed state is held as it is. 2. Latch comes out at the same time as the door opens.

Specifications

Backset (mm)	51, 64
Spacing (mm)	80
Door thickness range (mm)	33-42, 42-50, 50-58, 58-66
Requisite clearance (mm)	1-6

Note: Lever 29 type should be over 64 mm backset.

Functions

Mountable cylinder	Model	Outside	Sketch	Inside	Operation
U9 WR PR(-J) LB(-J) JN	LAT*-2A	Cylinder		None	Locking The outside lever is always fixed, and the door locks automatically when closed.
		Lever always fixed		Lever handle	Unlocking Can be held in the latch bolt dogging position by key from outside and by lever handle from inside. When door is opened, the latch bolt comes back formerly position.
U9 WR PR(-J) LB(-J) JN	LAT*-4	Cylinder		Cylinder	Locking As both of outside and inside levers are fixed, door is automatic locking whenever closing.
		Lever always fixed		Lever always fixed	Unlocking From both side, latch is unlocked by the key. The latch remains in recessed state when you turn the latch stop screw.

Note: * indicates lever handle designs: 18, 19, 20, 21, 22, 23, 29, 31, 32, 33, 34, 35, 50, 51, 52, 53, 55, 56, 57, 59, 63, 64, 65, 66, 67, 68, 69, 74, 346, 356, 373.

Materials and Finishes

Materials and finishes		18	19	20	21	22	23	29	31	32	33	34	35	50	51	52	53	55	56	57	59	63	64	65	66	67	68	69	74	346	356	373		
Model																																		
Aluminum alloy	SV			●	●	●	●	●	●	●	●	●	●									●		●							●			
Aluminum alloy	CB			●	●	●	●	●	●	●	●	●	●									●		●							●			
Aluminum alloy	GD			●	●	●	●	●	●	●	●	●	●									●		●							●			
Stainless steel	ST													●	●	●	●	●	●	●	●		●		●					●				
Stainless steel	SB													●	●	●	●	●	●	●	●		●		●					●	●			
Stainless steel	CB													●	●	●	●	●	●	●	●		●		●					●	●			
Stainless steel	CD													●	●	●	●	●	●	●	●		●		●					●	●			
Brass	BS													●									●		●		●	●	●			●		
Brass	YB													●									●		●		●	●	●			●		
Brass	SC																							●		●		●	●	●			●	
Brass	CR																								●		●	●	●				●	
Wood		●	●																									●						
		(Refer to pages 28-33 for colors)																																

(Refer to pages 28-33 for colors)

Note 1: Lever 63 and 66 type is with round rose. Additionally, the 65 and 67 handles are not designed for dedicated round roses.

Note 2: 63, 65, and 67 handles are only available in -2A configuration. They cannot be installed on -4 models.

Note 3: Model 67 handles in brass chrome (CR) finish are available only on made-to-order basis.

PATCH FITTING LEVER HANDLE LOCKS FOR TEMPERED GLASS DOOR

Applications: Partitions, others.



Type U9TGL6690-1 (ST)

Made specifically for glass doors, these locks are perfect for dividers in such places as offices.

The external design of the locks doesn't detract from the beauty of glass doors.

Locks provide both security and a sense of openness in office spaces.

Adaptable to various key systems.

It is possible to attach U9, WR and JN cylinders, so a variety of key systems can be incorporated.

The adjustable strike makes it possible to open and close doors smoothly.

Even if the glass warps, it is possible to open and close the lock smoothly by adjusting the strike (in the case of a single swinging door).

Durable construction

Perfect for offices where there are many people coming through.

Strikes for double swinging doors are also available. Inquire for details.

Installation example



CLESTRA CO.,LTD

Functions

Mountable cylinder	Model	Outside	Sketch	Inside	Operation
U9 WR JN	TGL*90-1	Cylinder Lever handle		Thumb-turn Lever handle	conference rooms, partitions others.

Materials and Finishes

● : Available ● : Available as a special product

Model	Materials and finishes	Stainless steel		
		ST	SB	CB
50		●	●	●
52		●	●	●
53		●	●	●
55		●	●	●
66		●	●	●
(Refer to pages 29-32 for colors)				

Specifications

Glass thickness (mm) 8, 10, 12

Requisite clearance (mm) 1.5-6

Left/right Available (specify when ordering)

Note 1: When locked, the latch or handle becomes unmovable.

Note 2: Use only on interior inward opening doors. Cannot be used in bathroom doors.

Note 3: Do not give a strong impact to the door. Stress on the lock may cause damage.

LO SERIES PASSAGE LATCHES

Applications: Partitions, sickrooms, others.



Easy operation.

Operation of lever handle is simple, and the design assures that there is almost no play between lever and shaft, or between shaft and case.

A wide variety of lever handle types

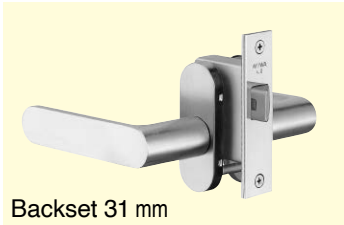
A wide range of lever handles is available in aluminum alloy, stainless steel and cast brass..

The lever handles on both sides of the door are fixed: LO * Z.

Escutcheons are not available.
Models 40 and 41 are not available.

The lever handles on one sides of the door is fixed: LO * -H.

This model is used when it is desired to have a handle installed on one side of the door only. Both left hand and right hand models are available. This model is suitable for steel doors only.



Backset 31 mm

Functions				
Model	Outside	Sketch	Inside	Applications
LO*	Lever handle		Lever handle	Partitions, sickrooms, others

Note 1: *indicates lever handle designs. (63, 65, 67, 391 type: Please install over 51 mm backset lock case. 29, 411 type: Please install over 64 mm backset lock case.)

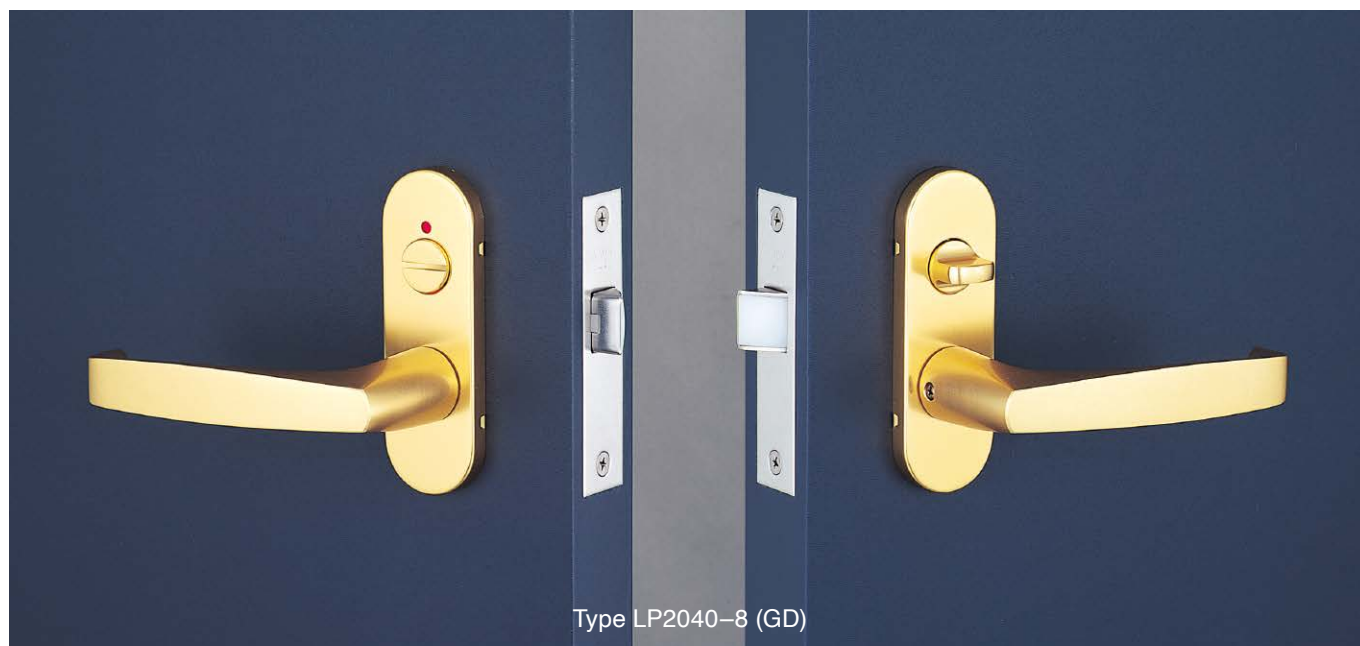
Note 2: LP and LA series escutcheons are available for the LO series.

Materials and Finishes	
Front strike:	18-8 Stainless steel (SUS304) Satin finish

Specifications	
Backset (mm)	31, 38, 51, 64, 76
Door thickness range (mm)	25-33, 33-42, 42-50, 50-58, 58-66

LP SERIES PASSAGE LATCHES WITH EMERGENCY DEVICE

Applications: Toilets, Changing room, others.



The LP series lever handle passage latches are equipped with emergency opening device.

A variety of escutcheons are available.

Functions

Model	Outside	Sketch	Inside	Applications
LP*40-6	Emergency device		Thumb-turn	Toilets, changing rooms.
	Lever handle (fixed when locked)		Lever handle (fixed when locked)	
LP*40-8	Emergency device with indicator		Thumb-turn	Toilets, changing rooms.
	Lever handle (fixed when locked)		Lever handle (fixed when locked)	

Note: *indicates lever handle designs, (Please install 411 type to the over 64 mm backset lock case.)

Materials and Finishes

		● : Available ● : Available as a special product																										
	Model	20	21	22	23	31	32	33	34	35	50	51	52	53	55	56	57	342	346	356	373	411	414	421	430	431	432	472
Materials and Finishes	Aluminum	SV	●	●	●	●	●	●	●	●									●		●	●	●					
	Aluminum	CB	●	●	●	●	●	●	●	●									●		●	●	●					
	Aluminum	GD	●	●	●	●	●	●	●	●									●		●	●	●					
	Stainless steel, Satin	ST									●	●	●	●	●	●	●		●					●	●			●
	Stainless steel, Polished	SB									●	●	●	●	●	●	●		●				●	●	●		●	●
	Stainless steel	CB									●	●	●	●	●	●	●			●			●	●	●			●
	Stainless steel	CD									●	●	●	●	●	●	●		●				●	●				●
			(Refer to pages 28–33 for colors)																									

(Refer to pages 28-33 for colors)

Specifications

Backset (mm)	38, 51, 64
Door thickness range (mm)	25-33, 33-42, 42-50

INTERIOR LOCKS–Pull Plates

Interior lock with excellent design.

Plates with a variety of designs can be attached to a door. By adding a rich expression to an interior door, the lock helps you to create unique interior decoration.



Also available is our new swing knob, which opens a door not by being turned but by being swung either to the left or to the right.



POM SERIES

Can also be used together with the front door locks in our POM 811–813, and 818 series (see page 204).



INTERIOR LOCKS Lever handles

Our wide selection of 24 types of handles and 7 types of escutcheons makes it possible to create any number of style variations, from the simplest of design schemes to complex combinations involving different materials.

INTERIOR LOCKS



Mountable lever handles which can be used

● : Available ● : Available as a special product

Model	Lever handle	901	902	903	980	981	983	941	943	944	945	946	947	948	951	952	953	954	957	960	961	963	964	966	970
01 type Flat rose	ZLC	●	●	●	●	●	●				●	●	●						●	●		●		●	●
	ZLK	●	●	●	●	●	●				●	●	●						●	●		●		●	●
	ZLT	●	●	●	●	●	●																		
02 type Round rose	ZLC														●	●	●	●			●		●		
	ZLK							●	●	●				●	●	●	●				●		●		
05 type Square rose	ZLC							●	●	●				●											
	ZLK							●	●	●				●											
11 type Escutcheon	ZLT	●	●	●	●	●	●																		
11-Y type Escutcheon	ZLK				●	●	●																		
12 type Escutcheon	ZLK														●	●	●	●			●		●		
13 type Escutcheon	ZLK																		●	●		●		●	●

Note 1: It is not possible to install Interior lock series handles on LA, LO series lock cases.

Note 2: Also, please note that lever handle finishes differ depending on design.

ZPC SERIES DOOR PULL PLATES FOR RESIDENCE INTERIOR

Applications: Interior door, others.

Pull Plates



Type ZPC88105-6 (CR)

Interior lock with excellent design.

Plates with a variety of designs can be attached to a door. By adding a rich expression to an interior door, the lock helps you to create unique interior decoration.

Enjoyable coordination with an entrance door lock and interior

knob.You can enjoy design coordination among the front door POM 811 series, interior knob ZM series and plates.

Operation of ZPC series

If no door closer is mounted on an interior door, and if a conventional push-pull latch is installed on the door, the door may open suddenly causing a collision accident when unlocked from the pushing side.

Specifications

Backset (mm)	64
Door thickness range (mm)	33-40
Requisite clearance (mm)	1-6

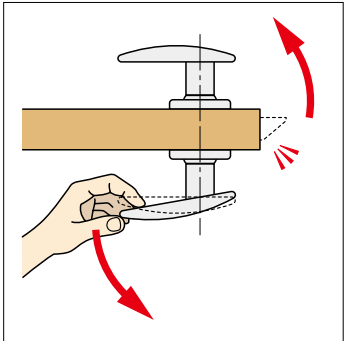
Note 1: ZPC model is specified for indoor use.

Note 2: Offset installation is not available.

At the side where the door is pushed to open.

- 1) As shown in the figure, gently pull the pull plate edge at the hinge side.
- 2) Latch bolt falls and the door is ready to be opened.
- 3) Pull the plate. The door opens because force is applied in the direction in which the door opens.

Since the pull plate is inevitably held by hand, the door does not open suddenly.

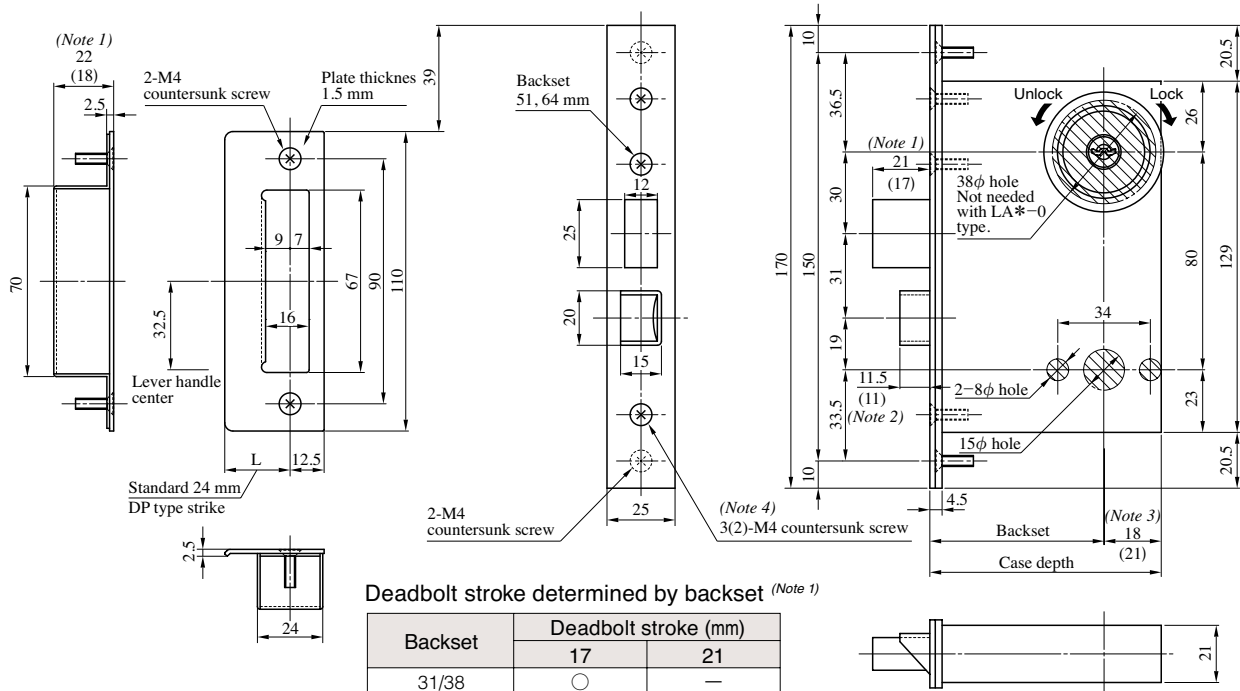


Functions

Model	Outside	Sketch	Inside	Operation
ZPK*#	Pull plate or Swing knob		Pull plate or Swing knob	Partitions
ZPC*#-6	Pull plate or Swing knob Emergency device		Pull plate or Swing knob Thumb-turn	Toilets, powder rooms, others
ZPC*#-8	Pull plate or Swing knob Emergency device with indicator		Pull plate or Swing knob Thumb-turn	Toilets, powder rooms, others
ZPC*#-KY	Pull plate or Swing knob Simple cylinder		Pull plate or Swing knob Thumb-turn	Bed rooms Private rooms

Note: * is type of lever handle and # is type of round rose and square rose. As for available handles, refer to P.54.

Turning direction is for the right-hand lock.



Models LA-6 and LA-8 have a deadbolt depth of 17 mm and dustbox depth of 18 mm.

Strike Dimension L for various door thicknesses (mm)

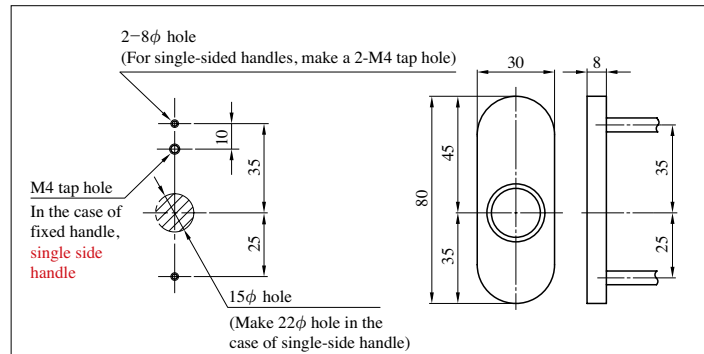
Single swinging door			Double swinging door		
Door thickness (minimum-less than)	Symbol	Dimension L	Door thickness (minimum-less than)	Symbol	Dimension L
29-33	CM	20	29-33	K	16
33-42	DP	24	33-37	L	18
42-50	ER	28	37-42	CM	20
50-58	FT	32	42-46	N	22
58-66	G	36	46-50	DP	24
			50-54	Q	26
			54-58	ER	28
			58-62	S	30
			62-66	FT	32

Note 2: Backsets 31, 38, 76 and 100 mm models have a latchbolt depth of 11 mm.

Note 3: Backsets 76 mm and 100 mm models have a case depth of backset value + 21 mm.

Door preparation for lever handle with 31 mm backset

Escutcheon for 31 mm
backset

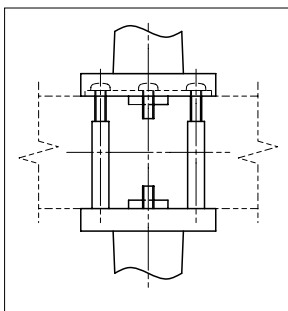


Note 4: As for the lock case of backset 31, 38, 76, 100 mm, a front plate is fixed with 2 screws, not 3.

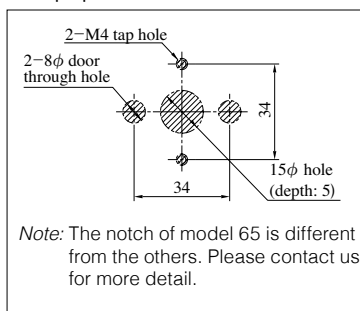
Note 5: Minimum door thickness is 29 mm other than backset 31 mm because installation is on a door directly by using screws. Please use M3 of screws and tapping hole to 8φ hole. In case of wooden door, tapping hole is not required.

LO * Z type

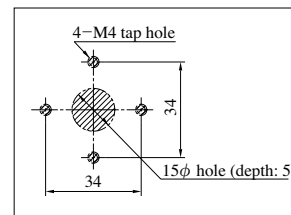
Reference drawing of the installation



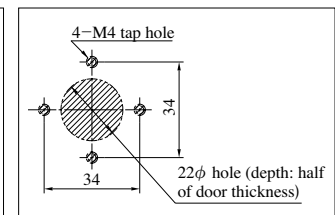
LO * Z type
door preparation



LO * Z-H type
door preparation (for steel door)



LA*–H and LO*–H type
door preparation (for steel door)

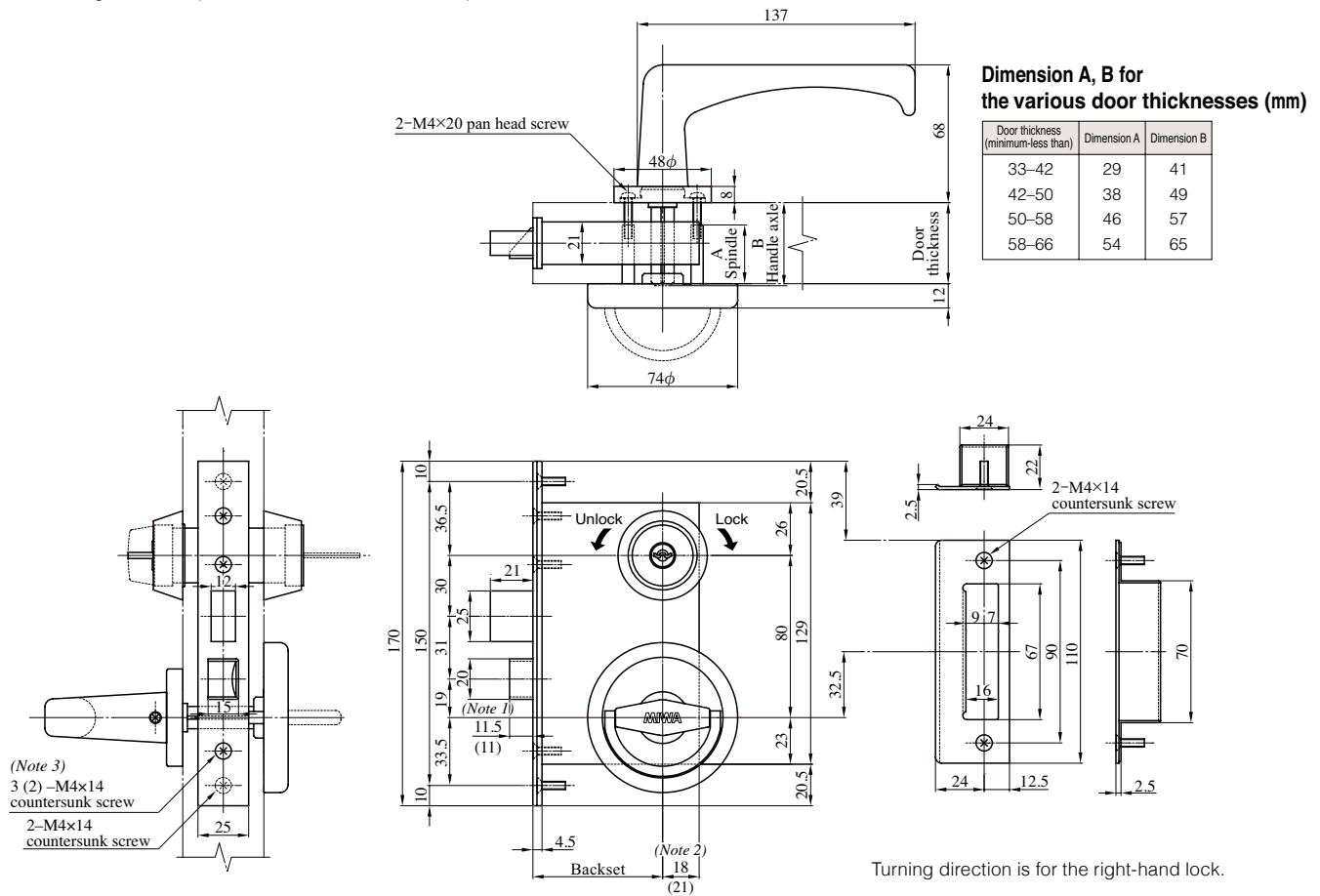


Note 6: Use LO.BR1 or LO.BR2 for single-side handles or single-side fixed handles on wooden doors. Preparation hole sizes are the same as for standard types.

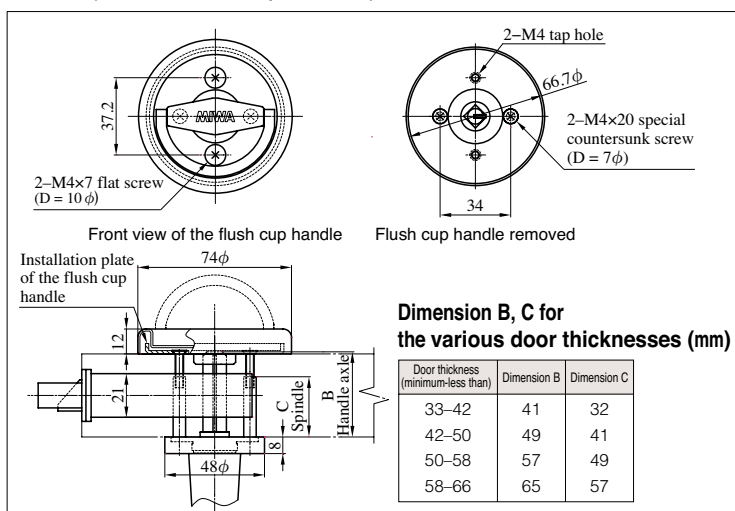
Note 7: Models 40 and 41 cannot be installed with the LOZ type.

Type U9LAC50-1

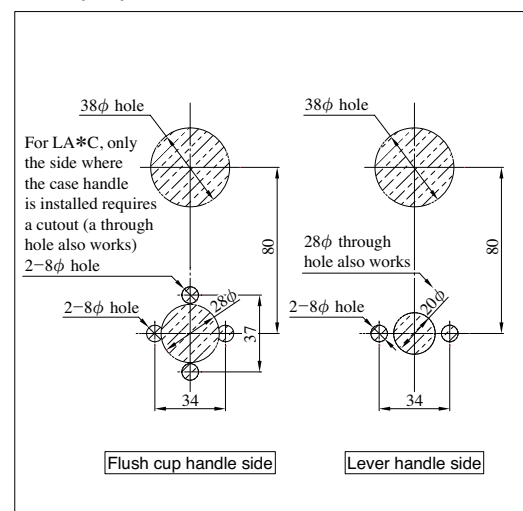
This drawing shows the specifications of the outside flush cup handle.



LA*C (Inside flush cup handle)



Door preparation



KNOB DESIGNS

Type D



Stainless steel, Satin (ST)



Stainless steel, Polished (SB)



Stainless steel (CB)



Stainless steel (CD)



Brass, Stain (BS)



Brass, Polished (YB)



Reinforced laminated wood (MW)

Note: The MH series type is shown in the photo.
The available finishes vary depending on the series.
Please see the list on page 93.
See the list on page 93 for details on the available locks.

Type W



Stainless steel, Satin (ST)



Stainless steel, Polished (SB)



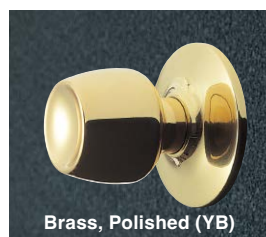
Stainless steel (CB)



Stainless steel (CD)



Brass, Stain (BS)



Brass, Polished (YB)



Reinforced laminated wood (MW)

Note: The MH series type is shown in the photo.
The available finishes vary depending on the series.
Please see the list on page 93.
See the list on page 93 for details on the available locks.

Type U



Stainless steel, Satin (ST)



Stainless steel, Polished (SB)



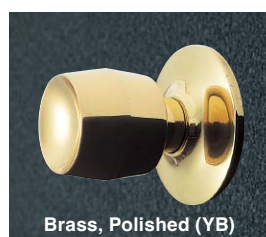
Stainless steel (CB)



Stainless steel (CD)



Brass, Stain (BS)



Brass, Polished (YB)



Reinforced laminated wood (MW)

Note: The MH series type is shown in the photo.
The available finishes vary depending on the series.
Please see the list on page 93.
See the list on page 93 for details on the available locks.

Type Q



Note: The available finishes vary depending on the series.
Refer to the following combination table.

Type C



Mountable knobs which can be used

Model	Knob designs	M	E	D	W	U	Q	C	Remark
MHS				●	●	●	●	●	
MHT				●	●	●	●	●	
MHHF				●	●	●	●		
MA				●	●	●	●	●	
HM				●	●	●		●	With cylinder and thumb-turn
HK				●	●	●			
BM		● Note 1	● Note 1	●	●	●			With emergency opening device
OM				●	●	●	●	●	
AUS				●	●	●	●	●	
AUT				●	●	●	●	●	
AUR				●	●	●	●	●	

Specifications for finishes of each knob design

● : Available ● : Available as a special product

Knob designs		MH					MA					HM				HK		
Materials and finishes		D	W	U	Q	C	D	W	U	Q	C	D	W	U	C	D	W	U
Stainless steel, Satin	ST	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel, Polished	SB	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel	CB	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel	CD	●	●	●	●	●	●	●	●	●	●	●	●	●	●			
Brass, Satin	BS	●	●	●	●													
Brass, Polished	YB	●	●	●	●													
Reinforced laminated wood	MW	●	●	●	●		●	●	●	●		●	●	●				

Knob designs		BM ^{Note 1}					OM ^{Note 2}					AU				
Materials and finishes		M	E	D	W	U	D	W	U	Q	C	D	W	U	Q	C
Stainless steel, Satin	ST	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless steel, Polished	SB						●	●	●	●	●	●	●	●	●	
Stainless steel	CB						●	●	●	●	●	●	●	●	●	
Stainless steel	CD						●	●	●	●	●	●	●	●	●	
Brass, Satin	BS															
Brass, Polished	YB															
Reinforced laminated wood	MW						●	●	●	●						

Note 1: Refer to P.106 about the shape of Type M and E knobs for BM series.

Note 2: As for OMCUC, and OMCLC, ST finish is special product as well.

MA SERIES MORTISE LOCKS

Applications: Entryways, offices, others.



This is a standard case lock.

Outstanding at preventing unauthorized entry, and highly durable.

Combines the outstanding strength and durability of a mortise lock with easy-to-handle size. It is especially effective for front entrances and offices, as well as a wide range of other uses.

Model MA*-6 (with emergency opening device)

These models have an emergency opening device which allows the door to be opened from the outside with a coin in case of an emergency. This model is suitable for toilets, bathrooms, powder rooms, etc.

Model MA*-8 (with emergency opening device and indicator)

These model indicate by means of red panel when the interior is occupied. In case of emergency you can unlock the door from the outside using a coin.

Cylinder with indicator: Type MA*-□W

This cylinder allows you to understand the locking or unlocking status by indicator.

This lock is operated with a key from the outside. The combination of cylinder and indicator is optimal choice for public buildings, commercial buildings, and facilities whose usage is restricted (doors are locked during nighttime and holidays), such as restrooms and dressing rooms.

A flush-cup handle may be mounted in place of a knob.

MAC*-□ for an outside flush-cup handle.

MA*C-□ for an inside flush-cup handle.

MACC-□ for flush-cup handles on both sides.

MACUC-□ for flush-cup handles on both sides.

The MACUC model has flush-cup handles to prevent finger injuries.



Knob designs



Type D (ST)



Type W (SB)



Type U (CB)



Type Q (MW)



Type C
Flush-cup handle (ST)



Type CUC
Flush-cup handle (ST)

Functions

Mountable cylinder	Model	Outside	Sketch	Inside	Applications
U9 WR PR LB JN	MA*-1	Cylinder		Thumb-turn	Entryways, offices, conference rooms, reception room, consultation room, studies, individual rooms, bedrooms, and other general doors.
		Plain knob		Plain knob	
U9 WR PR LB JN	MA*-2	Cylinder		None	Machine rooms, equipment rooms, inspection doors, warehouses, tool rooms
		Plain knob		Plain knob	
	MA*-3	None		Thumb-turn	Terraces, partitions, others
		Plain knob		Plain knob	
U9 WR PR LB JN	MA*-4	Cylinder		Cylinder	Evacuation doors, warehouses
		Plain knob		Plain knob	
	MA*-5	Thumb-turn		Thumb-turn	Evacuation doors
		Plain knob		Plain knob	
	MA*-0	None		None	Partitions, others
		Plain knob		Plain knob	
	MA*-6	Emergency device		Thumb-turn	Powder rooms, others
		Plain knob		Plain knob	
	MA*-8	Emergency device with indicator		Thumb-turn	Powder rooms, others
		Plain knob		Plain knob	

Note 1: *indicates knob designs: D, W, U and Q.

Note 2: The following models have flush-cup handles: MACC-□ / MACUC-□ (flush-cup handles on both sides), MAC*-□ (flush-cup handle on outside), MA*C-□ (flush-cup handle on inside). □ indicates function symbols.

Note 3: We also offer a dummy cylinder type. Please write a "D" at the end of the unit code when ordering the set.

Model example: Type MA*-2D.

Materials and Finishes

● : Available ● : Available as a special product

Model	Stainless steel				Wood
	ST	SB	CB	CD	MW
D	●	●	●	●	●
W	●	●	●	●	●
U	●	●	●	●	●
Q	●	●	●	●	●
C	●	●	●	●	
CUC	●				

(Refer to pages 92-93 for colors)

Specifications

Backset (mm)	64, 76, 100
Spacing (mm)	80
Door thickness range (mm)	29-33, 33-37, 37-42, 42-50, 50-58, 58-66
	Knob designs Q: 29-33, 33-37, 37-42, 42-46, 46-50 50-54, 54-58, 58-62, 62-66

HM SERIES KEY-IN-KNOB LOCKS WITH DEADBOLT

Applications: Entryways, offices, warehouses, others.



Type U9HMu-1

The HM Mortise Series are key-in-knob locks with built-in deadbolt.

HM Mortise Series Locksets with key-in-knob lock and built-in deadbolt design provide rapid installation and maximum security. The entire lock is well-balanced and the mechanism is durable.

This series of locksets has a wide range of applications, both residential and commercial. Used in combination with various locks for different purposes, they facilitate design and control of the ultimate keying system for an entire building.

Model HM *-1M (with emergency opening device cover)

This model can be unlocked by breaking the cover and turning the thumb-turn in case of an emergency.

Model HM *-8 (with emergency opening device and occupancy indicator)

The model indicate by means of a red panel when the interior is occupied. Model HM*-8 can be unlocked from the outside using a hairpin or similar object in case of emergency.

D and W designs are available.



Unlocking in case of an emergency (HM *-8)

Knob designs



Type D



Type W



Type U



Type D (HMD-8)



Type W (HMW-8)



Type C (Flush-cup handle)
(HM *C-2, HMC *-3)

This is a blank rose used when one side does not require a knob.



HM.BRN (for HM*-2P)



HM.BRK (for HM*-3P)

Functions					
Mountable cylinder	Model	Outside	Sketch	Inside	Applications
U9 WR PR JN	HM*-1	Cylinder in knob		Thumb-turn in knob	Entryways, offices, conference rooms, reception room, consultation room, studies, individual rooms, bedrooms, and other general doors.
U9 WR PR JN	HM*-2	Cylinder in knob		Plain knob	Machine rooms, equipment rooms, inspection doors, warehouses, tool rooms
	HM*-3	Plain knob		Thumb-turn in knob	Terraces, partitions, others
U9 WR PR JN	HM*-4	Cylinder in knob		Cylinder in knob	Evacuation doors, warehouses, others
	HM*-0	Plain knob		Plain knob	Partitions, passage new doors, hospital room doors, boiler room doors.
	HM*-8	Knob with emergency opener and occupancy indicator		Thumb-turn in knob	Toilets, bathrooms, powder rooms, others
U9 WR JN	HM*C-2	Cylinder in knob		Flush-cup handle	Wicket doors attached to rolling door, partitions, others. (Operated with a key)
	HMC*-3	Flush-cup handle		Thumb-turn in knob	Wicket doors attached to rolling door, partitions, others. (Operated with a thumb-turn)

Note 1: PR cylinder is available only for Type D and Type W knobs (ST finish) and door thickness from 33–50 mm. PR cylinder is not available for HMS series.

Note 2: * indicates knob designs. Model HM*-8 are only available with knob designs D and W.

Note 3: Blank roses are also available for types with functions 2 and 3: model HM*-2P (blank rose on inside), model HM*-3P (blank rose on outside) (see page 115).

Note 4: There is also the HMS series available (front width 22 mm).

Note 5: Please note that LB cylinders cannot be installed on this product.

Materials and Finishes		● : Available ● : Available as a special product			
Model	Materials and finishes	Stainless steel			Wood
		ST	SB	CB	MW
D		●	●	●	●
W		●	●	●	●
U		●	●	●	●
C		●	●	●	●
D (HM-8)		●	●		
W (HM-8)		●	●		

(Refer to pages 92–93 for colors)

Specifications	
Backset (mm)	51, 64, 76, 100, 127 ^(Note) An extension brace is provided for 76 and above on request
Door thickness range (mm)	33–42, 42–50, 50–58, 58–66 HMS series: 25–29, 29–33 Model HM*-8: 33–42, 42–50

Note: HM*-0 with 127 mm backset is not available.

HK SERIES CYLINDRICAL LOCKS

Applications: Hotel guest rooms, offices, one-way passages, others.

HK



Type U9HKU-1

The HK Series cylindrical key-in-knob locks offer strength and durability. They have also met UL10B standards for fire testing of door assemblies.

A wide range of applications

This model has a wide range of features, making it suitable for applications ranging from room partitions to hotel guest rooms.

Superior strength and durability

With a rugged latch and dead-locking system, this model is strong enough to be used on steel doors.

Knob designs



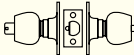
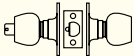
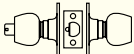
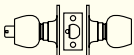
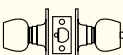
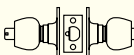
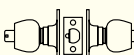
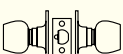
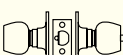
Type D



Type W



Type U

Functions						
Mountable cylinder	Model	Outside	Sketch	Inside	Operation	Applications
U9	HK*–1	Cylinder in knob fixed when locked		Universal button always free	Locking Locked from inside by pressing push-button, if universal button is then turned 90°, it remains locked even if inner knob is turned. Cannot be locked from outside. Unlocking Can be opened from outside with key, from inside by turning inner knob. However, inner knob will only work after returning universal button to its original position if it has been set.	Entrances, exterior doors, hotel rooms
U9	HK*–2	Cylinder in knob fixed when locked		Plain knob always free	Locking Can be locked from outside with key (turned 360°). Inside is always free. Unlocking Unlocked from outside with key (turned 360°). Inside is always free.	Warehouses, others
U9 PR ^(Note 1)	HK*–2A	Cylinder in knob fixed when locked		Plain knob always free	Locking Locks if door is closed. Inside is always free. Unlocking Unlocked with key. (However, if door is closed it will lock again.) Inside is always free.	Entrances, hotel rooms
U9	HK*–2B	Cylinder in knob fixed when locked		Plain knob always fixed	Locking Locked from outside with key (turned 360°). Inside is always fixed. Unlocking Unlocked from outside with key (turned 360°). Inside is always fixed.	One-way passages, others
	HK*–3	Plain knob fixed when locked		Push-button always free	Locking Can be locked from inside by pressing push-button. Unlocking Unlocked by turning knob. Cannot be unlocked from outside.	Terraces, partitions
U9	HK*–4	Cylinder in knob fixed when locked		Cylinder in knob fixed when locked	Locking Knobs on both sides will be locked at the same time by turning key on either side 360°. Unlocking Both knobs will be unlocked at the same time by turning key on either side 360°.	Communicating and corridor doors
U9	HK*–4A	Cylinder in knob fixed when locked		Cylinder in knob fixed when locked	Locking Locks if door is closed. Inside is always free. Unlocking Both knobs will be unlocked at the same time by turning key.	Evacuation doors
	HK*–0	Plain knob always free		Plain knob always free	Cannot be locked.	Partitions, sickrooms, Evacuation doors
	HK*–6	Emergency opening device knob fixed when locked		Push-button always free	Locking Locked from inside by pressing push-button. Unlocking Unlocked from inside by turning knob. Unlocked from outside by turning grooved button.	Bathrooms

Note 1: PR cylinder is available only for function Type 2A, Type D and Type W knobs (ST finish) and door thickness from 33–50 mm. When ordering the lock, be sure to specify left-hand or right-hand model.

Note 2: * indicates knob designs D, W and U.

Note 3: Please note that WR and LB cylinders cannot be installed on this product.

Materials and Finishes		Stainless steel		
Model	Materials and finishes	ST	SB	CB
D		●	●	●
W		●	●	●
U		●	●	●
(Refer to pages 92–93 for colors)				

Specifications

Backset (mm)	70, 90, 127
Door thickness range (mm)	28–30 (Requires special rose EHK12 and liner) ^(Note) 30–33 (Requires special rose EHK12 round base) ^(Note) 33–50, 50–64

Note: Install EHK12 supplied with the product (and a liner) under the round rose.

DA SERIES DEADBOLT MORTISE LOCKS

Applications: Auxiliary security locks, inspection doors, doors that need no knobs.



Type U9DA-1 (ST)

Strong and durable deadbolt mortise locks.

Switch type thumb-turn is also available.

B5 or U1 thumb-turn can be used together with the lock. Please contact us for more detail.

Since luminous resin is used in the center and keeps brightness for a while after the surrounding area gets dark, you can check the condition of the thumb-turn.

Note: Depending on the environmental condition (for example, LED lamps are used, light accumulation time is short, or surrounding area is bright), you may not visually recognize the thumb-turn.

Cylinder with indicator: Type DA- □ W

This cylinder allows you to understand the locking or unlocking status by indicator.

This lock is operated with a key from the outside. The combination of cylinder and indicator is optimal choice for public buildings, commercial buildings, and facilities whose usage is restricted (doors are locked during nighttime and holidays), such as restrooms and dressing rooms.

Note 1: The finish for cylinders with display functions is available only in ST (stainless steel).

Note 2: Please specify the left-hand or right-hand when placing your order.

Note 3: If the lockcase is installed with the top and bottom reversed, please note that the left-hand and right-hand mentioned above will be reversed accordingly. (If the display unit is on the right side, it will be considered left-hand orientation, and if on the left side, it will be considered right-hand orientation.)



Large-size AH thumb-turn also available.

See page 216 for details.

Functions

Mountable cylinder	Model	Outside	Sketch	Inside	Applications
U9 WR PR(-J) LB(-J) JN	DA-1	Cylinder		Thumb-turn	Auxiliary security locks
U9 WR PR(-J) LB(-J) JN	DA-2	Cylinder		None	Auxiliary security locks, inspection doors
	DA-3	None		Thumb-turn	Auxiliary security locks, terraces
U9 WR PR(-J) LB(-J) JN	DA-4	Cylinder		Cylinder	Auxiliary security locks
	DA-5	Thumb-turn		Thumb-turn	Evacuation doors
	DA-6	Emergency device		Thumb-turn	Toilets
	DA-8	Emergency device with indicator		Thumb-turn	Toilets

Note: We also offer a dummy cylinder type. Please write a "D" at the end of the unit code when ordering the set. Model example: Type DA-2D.

Materials and finishes

Model	Materials and finishes												GL
	ST	SB	CB	CD	BK	BS	YB	G1	S1	SF	RV	CG	
DA	●	●	●	●	●	●	●	●	●	●	●	●	●

(Refer to pages 92, 93 for colors)

Specifications

Backset (mm)	31, 38, 51, 64, 76, 100
Door thickness range (mm)	29-33, 33-42, 42-50, 50-58, 58-66 Aluminum: 33-42, 42-50

Note: LB cylinder is suitable for 38 mm or larger backset lock case.

DA2F SERIES MORTISE LOCK WITH A CLAW BOLT

Applications: Auxiliary security locks, inspection doors, doors that need no knobs.



Mortise lock with a claw bolt for extra security.

A claw bolt may provide extra security against the lock being forcefully pried open with a bar or other metal object.

Perfect for use as the auxiliary lock on a door with two locks.

Perfect for use as a *POM* series mortise lock.

Square Cylinder available.

Square Cylinder matching the POM series square design is also available. Specifications differ from those for a standard cylinder. Please refer to P.206 for details.



Square Cylinder

Design makes the deadlock resistant to side force.

The deadlock and strike clearance is larger. Even in the event of the door warping, the design makes the deadlock resistant to side force.

Switch type thumb-turn lock feature



B5 thumb-turn

Type DA2F-1B / DA2F-3B



U1 thumb-turn

Type DA2F-1U / DA2F-3U

Note: Standard thumb turns are also available.

Functions

Mountable cylinder	Model	Outside	Sketch	Inside	Applications
U9 PR(-J) LB(-J) JN	DA2F-1	Cylinder		Thumb-turn	Auxiliary security locks
U9 PR(-J) LB(-J) JN	DA2F-2	Cylinder		None	Auxiliary security locks, closets, warehouses
	DA2F-3	None		Thumb-turn	Auxiliary security locks, terraces
U9 PR(-J) LB(-J) JN	DA2F-4	Cylinder		Cylinder	Auxiliary security locks

Materials and finishes

● : Available

Materials and finishes		Stainless steel					Brass		Aluminum					
		ST	SB	CB	CD	BK	BS	YB	G1	S1	SF	RV	CG	GL
Model	DA2F	●	●	●	●	●	●	●	●	●	●	●	●	●
		(Refer to pages 92, 93 for colors)												

(Refer to pages 92, 93 for colors)

Note: SB, YB, and G1 finishes are not available for U1 thumb-turn.

Specifications

Backset (mm)	64
Door thickness range (mm)	29-33, 33-42, 42-50, 50-58, 58-66 Aluminum: 33-42, 42, 50

DN SERIES DEADBOLT MORTISE LOCKS

Applications: Auxiliary security locks, inspection doors, doors that need no knobs.



Type U9DN-1 (ST)

Deadbolt mortise locks for Narrow frames.

Large-size AH thumb-turn also available

See page 221 for details.

Functions					
Mountable cylinder	Model	Outside	Sketch	Inside	Applications
U9 WR PR(-J) LB(-J) JN	DN-1	Cylinder		Thumb-turn	Auxiliary security locks
U9 WR PR(-J) LB(-J) JN	DN-2	Cylinder		None	Auxiliary security locks, closets, warehouses
	DN-3	None		Thumb-turn	Auxiliary security locks, terraces
U9 WR PR(-J) LB(-J) JN	DN-4	Cylinder		Cylinder	Auxiliary security locks

Note: Please write a "D" at the end of the unit code when ordering the set. Example: Model DN-2D

Materials and finishes						● : Available
Model	Stainless steel				Brass	
	ST	SB	CB	CD	BS	YB
DN	●	●	●	●	●	●

(Refer to pages 92, 93 for colors)

Specifications			
Backset (mm)	DN	:	23, 29
	DNS	:	29
Door thickness range (mm)	DN	:	33-42, 42-50, 50-58, 58-66
	DNS	:	25-33

AD SERIES DEADBOLT MORTISE LOCKS (Automatic locking)

Applications: Apartment housing, dormitories entrances, gates, auxiliary security locks, inspection doors, others.



Type U9ADS-1 (ST)

Door can be locked automatically by simply closing door.

This series of locks can be opened with one hand

This lock series has a latch hold/release feature. When the door is unlocked with a key or thumb-turn, the latch retracts into the lock. When the door is opened, the latch is released.

This feature allows the door to be unlocked and opened with one hand (models ADS and ADT).

Combination with electric strike

A combination with electric strike AS series will permit electrical release by remote control, with confirmation signals for locked or unlocked door and for opened or closed door.

ADT	Standard type (Automatic locking function)
ADS	Can be held in the latchbolt dogging position by simply turning the "Latchbolt holding screw"
ADB	Can be held in the latchbolt dogging position by key or thumb-turn

Functions						
Mountable cylinder	Model	Outside	Sketch	Inside	Operation	Applications
U9 WR PR(-J) LB(-J) JN	AD※-1	Cylinder		Thumb-turn	Locking Automatically locked when door is closed. (Except for models ADB) ^{Note 1}	Common entrance of apartments, others.
					Unlocking Unlocked by key from outside and by thumb-turn from inside.	
U9 WR PR(-J) LB(-J) JN	AD※-2	Cylinder		None	Locking Automatically locked when door is closed. (Except for models ADB) ^{Note 1}	Inspection doors, others.
					Unlocking Unlocked by key from outside. Cannot be unlocked from inside.	
	AD※-3	None		Thumb-turn	Locking Automatically locked when door is closed. (Except for models ADB) ^{Note 1}	Terraces, others
					Unlocking Unlocked by thumb-turn from inside. Cannot be unlocked from outside.	
U9 WR PR(-J) LB(-J) JN	AD※-4	Cylinder		Cylinder	Locking Automatically locked when door is closed. (Except for models ADB) ^{Note 1}	Warehouses, others
					Unlocking Unlocked by key from either side.	
	AD※-5	Thumb-turn		Thumb-turn	Locking Automatically locked when door is closed. (Except for models ADB) ^{Note 1}	Partitions, others
					Unlocking Unlocked by thumb-turn from either side.	

Note 1: The ADB locks with a key or thumb-turn. When you perform the locking operation using a key or thumb turn during the door is opened, it automatically locks when the door is closed.

Note 2: ※ indicates AD series types T, S, B.

Materials and finishes						● : Available
Model	Stainless steel				Brass	
	ST	SB	CB	CD	BS	YB
AD	●	●	●	●	●	●

(Refer to pages 92, 93 for colors)

Specifications

Backset (mm)	34, 51, 64
Door thickness range (mm)	29-33, 33-42, 42-50, 50-58, 58-66
Requisite clearance (mm)	1-6

DH SERIES DEADBOLT MORTISE LOCKS

Applications: Auxiliary security locks (for MH and LH Series)



Type U9DH-1 (ST)

Top quality deadbolt mortise locks.

The DH Series is operated through the same key operation as the MH and LH Series, thus making it ideal for use as an auxiliary security lock for those series.

Functions					
Mountable cylinder	Model	Outside	Sketch	Inside	Applications
U9 WR PR(-J) LB(-J) JN	DH-1	Cylinder		Thumb-turn	Auxiliary security locks
U9 WR PR(-J) LB(-J) JN	DH-2	Cylinder		None	Auxiliary security locks, inspection doors
	DH-3	None		Thumb-turn	Auxiliary security locks, terraces
U9 WR PR(-J) LB(-J) JN	DH-4	Cylinder		Cylinder	Auxiliary security locks
	DH-6	Emergency device		Thumb-turn	Toilets
	DH-8	Emergency device with indicator		Thumb-turn	Toilets

Materials and finishes						
Model	Stainless steel				Brass	
	ST	SB	CB	CD	BS	YB
DH	●	●	●	●	●	●

(Refer to pages 92, 93 for colors)

Specifications	
Backset (mm)	64, 76, 100
Door thickness range (mm)	33-42, 42-50, 50-58, 58-66

TRF, TRT SERIES MORTISE LOCKS FOR TEMPERED GLASS DOORS

Applications: TRF tempered glass hinged doors, TRT tempered glass sliding doors.



Type U9TRF-4 (ST)



Type U9TRT-4 (ST)

TRF, TRT

Two models are available, TRF for tempered glass hinged doors and TRT for tempered glass sliding doors.

Model TRT: Strike is optional.

Be sure to specify for the upper or for the lower, at the time of your ordering.

Functions					
Mountable cylinder	Model	Outside	Sketch	Inside	Applications
U9 WR PR LB JN	TRF-1 TRT-1	Cylinder		Thumb-turn	Tempered glass hinged doors
U9 WR PR LB JN	TRF-2 TRT-2	Cylinder		None	Tempered glass hinged doors
	TRF-3 TRT-3	None		Thumb-turn	Tempered glass hinged doors
U9 WR PR LB JN	TRF-4 TRT-4	Cylinder		Cylinder	Tempered glass hinged doors
	TRF-5 TRT-5	Thumb-turn		Thumb-turn	Evacuation doors

Note: When using LB cylinder, the case for top rail differ from the case for bottom rail.

TRF: For top rail is LBTRFU-□, and for bottom rail is LBTRFD-□.

TRT: For top rail is LBTRTU-□, and for bottom rail is LBTRTD-□.

□ indicates function symbols 1-4.

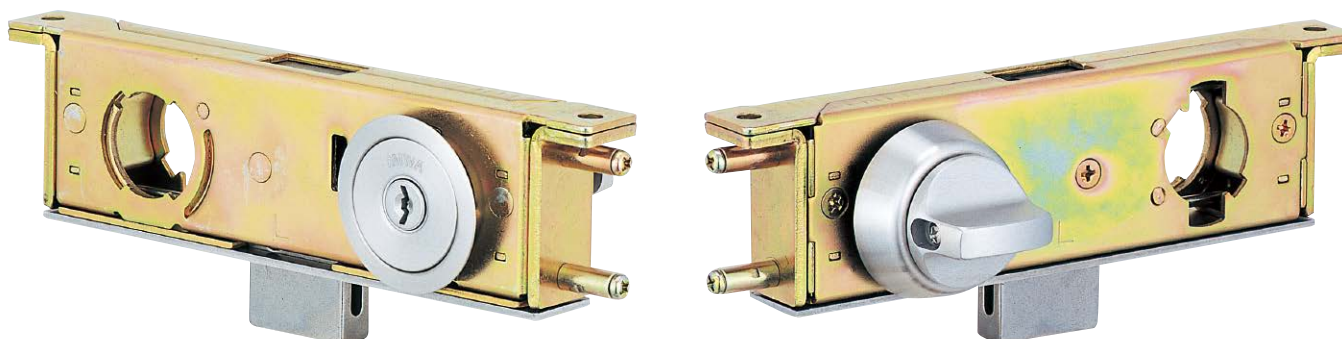
Materials and finishes		Stainless steel			
Model	ST	SB	CB	CD	
TRF, TRT	●	●	●	●	
(Refer to pages 92, 93 for colors)					

Specifications

Door thickness range (mm)	25-29, 29-33, 33-42, 42-50, 50-58, 58-66
---------------------------	--

TRU SERIES MORTISE LOCKS FOR TEMPERED GLASS DOORS

Applications: Tempered glass sliding doors.



Type U9TRU-1 (ST)
(left-hand model)

The cylinder for this tempered glass door lock has a short projection.

Both left-hand and right-hand models are available.

Strike are optional.

Functions					
Mountable cylinder	Model	Outside	Sketch	Inside	Applications
U9 WR PR LB JN	TRU-1	Cylinder		Thumb-turn	Tempered glass hinged doors
U9 WR PR LB JN	TRU-2	Cylinder		None	Tempered glass hinged doors
	TRU-3D	None (With dummy trim)		Thumb-turn	Tempered glass hinged doors
U9 WR PR LB JN	TRU-4	Cylinder		Cylinder	Tempered glass hinged doors

Note 1: Make sure that you choose the correct cylinder.

Note 2: That the cylinder and thumb-turn preparations for the door vary according to door thickness and lock functions.

Note 3: When LB cylinder is used with the common keying system, it should be used only for a common side.

Materials and finishes		Stainless steel			
Model	Materials and finishes	ST	SB	CB	CD
TRU		●	●	●	●

(Refer to pages 92, 93 for colors)

Correlation between Model and Door Thickness				
Door thickness range (mm) \ Model	TRU-1	TRU-2	TRU-3D	TRU-4
28	①	③	①	—
40–46	②	④	②	⑤

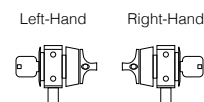
Note: Model TRU-4 is not available for a 28 mm door thickness. The number in the table correspond to the reference diagram on page 144.

Specifications

Backset (mm)	48, 100, 125, 150
Door thickness range (mm)	28, 40–46

Determining Whether You Need a "Left-Hand" or a "Right-Hand" Version

Look at the door from its door front. If the cylinder (for the functions model 4), the cylinder that is at the leading of the door) is on the right side, you need a "Right-Hand". If the cylinder is on the left side, you need a "Left-Hand".



DG2 SERIES MORTISE LOCKS FOR AUTOMATIC DOOR

Applications: Automatic doors.



Type U9DG2D-1 (ST)

Flat Cylinder and thumb-turn lock for Automatic Doors with high security and ease of installation.

Short Projection from Door

Due to its short projection of cylinder and thumb-turn from the door surface, doors can be closed completely to the end of frames.

High Security against breaking

Also, deadbolt has more than 10,000N durability of pressure from squeezing and side pressure for the great strength against violent destroying.

No need to detach doors when replacing cylinder and thumb-turn.

Cylinder and thumb-turn can be installed from the door front.

If you intend to use in the environment of the coast, etc., products with improved corrosion resistance are also available.

Model: DG2DRP

Strikes are optional.

Functions					
Mountable cylinder	Model	Outside	Sketch	Inside	Applications
U9 WR PR LB JN	DG2D-1	Cylinder		Thumb-turn	Automatic door
U9 WR PR LB JN	DG2D-2	Cylinder		None	Automatic door
	DG2D-3	None		Thumb-turn	Automatic door
U9 WR PR LB JN	DG2D-4	Cylinder		Cylinder	Automatic door
	DG2D-5	Thumb-turn		Thumb-turn	Automatic door

Note 1: Please be careful when making cutout hole on the doors. Axis of cylinder and thumb-turn is not the same. (Please refer the drawing)

Note 2: Door preparation size is different depending on which cylinder will be used.

Note 3: When LB cylinder is used with the common keying system, it must be used only for a common side.

Note 4: This model is available only for installing at bottom of the door.

Note 5: We also offer a dummy cylinder type. Please write a "D" at the end of the unit code when ordering the set. Model example: Type DG2D-2D

Materials and finishes (Refer to pages 92, 93 for colors)

18-8 Stainless steel (SUS304)	·Honed finish (ST)
	·Polished finish (SB)
	·Ceramic bronze finish (CB)
	·Ceramic dark gray finish (CD)
	·Matt black painted (BK)

Specifications

Backset (mm)	51
Door thickness range (mm)	37-42, 42-46, 46-50, 50-54, 54-58, 58-62, 62-66

Note: PR and LB cylinders can be fitted to the doors with 40 mm or thicker.

MDA SERIES LOCKS FOR STILE DOORS

Applications: Stile doors, Soundproof doors.



Type U9MDA-1 (ST)

To be used only on swinging doors, these locks offer higher security and ease of operation and can be installed on either the upper or lower doorframe.

The cylinder and thumb-turn can be installed from the door front.

Strikes are optional.

Switch type thumb-turns with high security and simple operation are also available.

Note: When installing, do not use an impact screwdriver. Also, don't forget to tighten any set screws in the cylinder.

Functions					
Mountable cylinder	Model	Outside	Sketch	Inside	Applications
U9 WR PR(-J) LB(-J) JN	MDA-1	Cylinder		Thumb-turn	Stile door Soundproof door
U9 WR PR(-J) LB(-J) JN	MDA-2	Cylinder		None	Stile door Soundproof door
	MDA-3	None		Thumb-turn	Stile door Soundproof door
U9 WR PR(-J) LB(-J) JN	MDA-4	Cylinder		Cylinder	Stile door Soundproof door

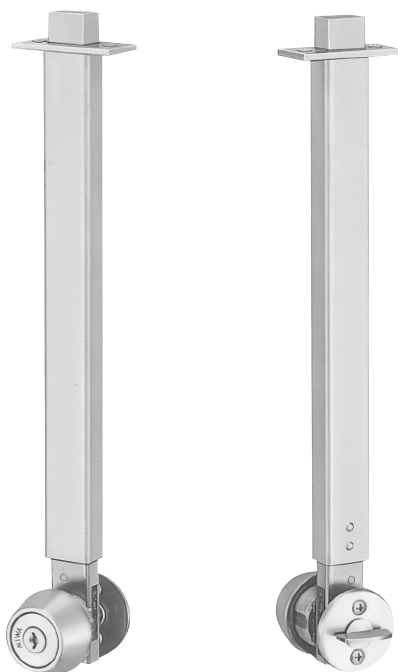
Materials and finishes		● : Available					
Model	Materials and finishes	Stainless steel				Brass	
		ST	SB	CB	CD	BS	YB
MDA		●	●	●	●	●	●

(Refer to pages 92, 93 for colors)

Specifications	
Backset (mm)	51, 64, 76, 100
Door thickness range (mm)	29-33, 33-42, 42-50, 50-58, 58-66

POSTE_{SERIES} DEADBOLT TUBULAR LOCKS

Applications: Double swinging doors, hanger doors.



Type U9POSTE-1

Deadbolt Tubular Locks that Can Be Easily Installed.

Suited for double swinging doors and hanger doors

Because this type of lock is to be installed in either the upper or lower part of a door, the backset comes in a large size. (We estimate that a 600 mm backset is necessary for installation in the upper part of a door, and that a 300 mm backset is necessary for the lower part of a door.)

Because this type of lock is to be installed in either the upper or lower part of a door, it is suited for use as a lock on double swinging doors.

For hanger doors, there is no need to cut in anything (including the rubber buffer) because there isn't a cutting hole on the door front.

POSTE

Functions					
Mountable cylinder	Model	Outside	Sketch	Inside	Applications
U9 WR PR	POSTE-1	Cylinder		Thumb-turn	Double swinging doors Hanger doors
U9 WR PR	POSTE-2	Cylinder		Face plate	Double swinging doors Hanger doors
	POSTE-3	Dummy trim		Thumb-turn	Double swinging doors Hanger doors
U9 WR	POSTE-4	Cylinder		Cylinder	Double swinging doors Hanger doors
	POSTE-8	Emergency device with indicator		Thumb-turn	Double swinging doors Hanger doors

Note: Please note that depending on the model, there will be differences in the external measurements and in the thumb-turn notch.

Materials and finishes	
Cylinder, Models 1, 2, and 8:	18-8 Stainless steel (SUS304) Satin finish
Cylinder, Model 4:	Brass White bronze plating
Thumb-turn, Face plate front, Strike	18-8 Stainless steel (SUS304) Satin finish

Specifications	
Backset (mm)	300, 600 ^(Note 1)
	Model 3: 30-62, Model 8: 30-46
Door thickness range (mm)	U9, WR Cylinder Models 1, 2: 30-62, Model 4: 40
	PR Cylinder Models 1, 2: 30-46

Note 1: Other than backset of 300 mm or 600 mm is built-to-order.

Note 2: It is not possible to calculate the thickness range for every model, so please specify the exact door thickness.

NDZ SERIES DEADBOLT RIM LOCKS

Applications: Partitions, inspection doors, trunk rooms.



Type U9NDZ-1 (ST)

Excellent durable deadbolt rim lock.

Note: This product can be installed to allow locking and unlocking (rotation direction of key or thumb turn) in either left-handed or right-handed configurations, depending on the installation method. When installing on multiple doors within the same property, please ensure to pay attention to the rotation direction and install accordingly.

Functions					
Mountable cylinder	Model	Outside	Sketch	Inside	Applications
U9 WR PR LB JN	NDZ-1	Cylinder		Thumb-turn	Partitions Inspection doors Trunk rooms
U9 WR PR LB JN	NDZ-2	Cylinder		None	Partitions Inspection doors Trunk rooms
	NDZ-3	None		Thumb-turn	Partitions Inspection doors Trunk rooms

Materials and finishes	
18-8 Stainless steel (SUS304)	·Honed finish (ST) ·Ceramic bronze finish (CB) ·Ceramic dark gray finish (CD)

Specifications	
Door thickness range (mm)	NDZ : 25-33, 33-42, 42-50, 50-54, 54-58, 58-62, 62-66 NDZ-AT: 33-42

Note: If you do not indicate us, we will ship the strike of SK2 type.
Please indicate SK1 type in the case of inward opening door.

NDZ-AT2 SERIES DEADBOLT RIM LOCKS

Applications: Inspection doors, airtight doors.



Type U9NDZ-AT2 (ST)

Excellent durable deadbolt rim lock.

Most suitable for inspection doors

Short projection from the door makes most suitable for inspection doors.

For use on airtight doors

However, it can be installed only to doors that open outward.

Can also be used on doors which are not airtight

This model is also suitable to be used at inspection doors.

Strikes are optional

Note: This product can be installed to allow locking and unlocking (rotation direction of key or thumb turn) in either left-handed or right-handed configurations, depending on the installation method. When installing on multiple doors within the same property, please ensure to pay attention to the rotation direction and install accordingly.

Functions					
Mountable cylinder	Model	Outside	Sketch	Inside	Applications
U9 WR PR JN	NDZ-1AT2	Cylinder		Thumb-turn	Inspection doors Airtight doors
U9 WR PR JN	NDZ-2AT2	Cylinder		None	Inspection doors Airtight doors

Note 1: LB cylinder is not available for this lock.

Note 2: Please note that the amount the cylinder projection from a door with a thickness of 33-37 mm is different from the amount cylinder projection from a door with a thickness of 37-50 mm.

Materials and finishes	
18-8 Stainless steel (SUS304)	<ul style="list-style-type: none"> ·Honed finish (ST) ·Ceramic bronze finish (CB) ·Ceramic dark gray finish (CD)

Specifications	
Door thickness range (mm)	33-37, 37-42, 42-46, 46-50

PCL_{SERIES} CAM LOCK

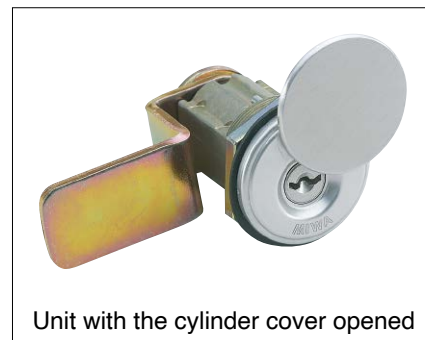
Applications: Inspection doors, trunk rooms.



Type PCL01A
(With cylinder cover/Offset CAM)



Type PCL01B
(With cylinder cover/Straight CAM)



Unit with the cylinder cover opened



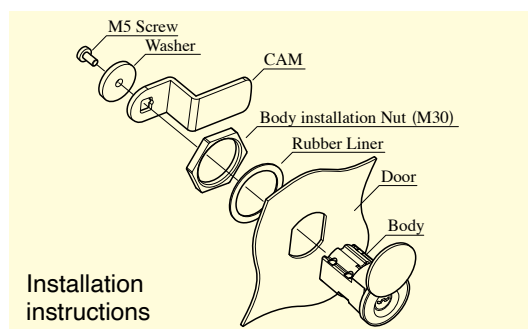
Type PCL02B
(Without cylinder cover/Straight CAM)



Standard screw type



Thumbscrew type



Installation instructions

CAM locks most suitable for inspection doors and trunk rooms.

Adjustable to various key systems

Because they can be mounted with U9, WR, PR, and JN cylinders, it is possible to assemble a variety of key systems.

Models with and without cylinder cover are available

Models with a cylinder cover have high durability against dirt and dust.

Models: PCL01/PCL11 (with cylinder cover)
PCL02/PCL12 (without cylinder cover)

No more forgetting to lock

The lock's structure makes it impossible to remove the key unless the door is locked.

Models: PCL01 (with cylinder cover)
PCL02 (without cylinder cover)

Key removal model during unlocked position is also available (Available only for U9 and WR Cylinder)

Be aware that this feature is not available with PR and JN cylinders.

Models: PCL11 (with cylinder cover)
PCL12 (without cylinder cover)

Door hand

Please specify door hand when placing an order.

A CAM is included

Two types are available: an offset CAM (A type) and a straight CAM (B type).

CAM mounting screws are available in two types: standard or thumbscrew.

A thumbscrew type that allows easy removal of the CAM as a measure against trapping inside room is also available. For the product with wing bolt, please add "TS" after the model name. Example of unit code: PCL01TS

Note: Do not use the key inserted in the cylinder or the cylinder cover as a handle to open and close the door.

Specifications

Mountable cylinder	U9, WR, PR, JN
Key turn angle	right 90°, left 90°
Key insert position	PCL01/PCL02 1 place (locking position only) PCL11/PCL12 2 place (locking position and unlocking position)
Door thickness range (mm)	1-10
Door hand	PCL01, PCL02: L/R compatible PCL11, PCL12: U9 : L/R must be specified WR: L/R compatible

Note 1: LB cylinder is not available for this lock.

Note 2: Key removal model during unlocked position is not available with PR and JN cylinder.

Materials and finishes

Cylinder cover	18-8 Stainless steel (SUS304)	·Satin finish (ST) ·Polished finish (SB)
Cylinder face	18-8 Stainless steel (SUS304)	Honed finish
Body	Zinc die-cast	

Ordering

When ordering, please specify the Model as following.

PR	PCL01(02)	A	U9	PCL11(12)	R	B
Cylinder type	Model	CAM type	Cylinder type	Model	Door hand	CAM type
			WR	PCL11(12)	B	
			Cylinder type	Model		CAM type

Recommended Tightening Torque

Body Installation Nut: 3.0-3.5 N.m
CAM Installation Screw: 2.9-3.4 N.m

MOT, RIM SERIES MORTISE CYLINDER

Applications: Exit devices.



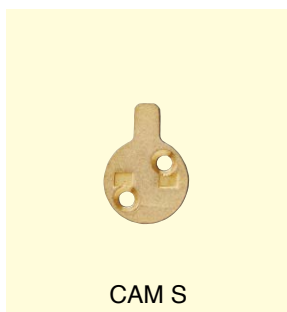
Type U9MOT.CY (ST)



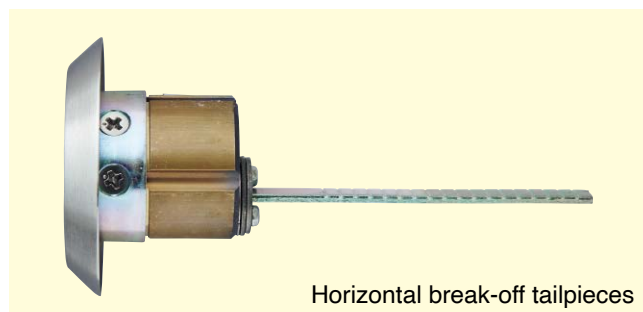
Type U9RIM.CY (ST)



CAM L



CAM S



Horizontal break-off tailpieces

To be specified for exit devices in order to unify the entire MIWA installation under the same keying system.

Can also be specified as a security addition to an installation specified in another manufacturer's mortise locks, or as a replacement cylinder for existing installations, where the security features of the MIWA system are required.

Mortise Cylinder

The mortise cylinder is compatible with almost all ANSI standard mortise locks, narrow-stile door locks, and exit devices.

Solid steel blocking rings are provided to allow adjustment for variations in lock depth, as well as the amount of recess.

There is two CAMs which are small and large size, and there are chosen according to CAM size of an ANSI lock case. CAM size has to be specified when purchasing order.

Specifications	
Model	U9MOT.CY
Finishes	<ul style="list-style-type: none"> ·Stainless steel Satin (ST) ·Brass CB Coated (CB) ·Brass Polished (YB)
Door thickness range (mm)	38-51

RIM Cylinder

The RIM cylinder is similar in construction and specifications to the Mortise cylinder, and is compatible with almost ANSI standard exit devices and auxiliary locks with standard preparation.

There is supplied with horizontal break-off tailpieces, and it can be adjusted according to door thickness when installing.

Specifications	
Model	U9RIM.CY
Finishes	<ul style="list-style-type: none"> ·Stainless steel Satin (ST) ·Brass CB Coated (CB) ·Brass Polished (YB)
Door thickness range (mm)	38-62

GT60

SERIES

EXTENSION BOLT LOCKS FOR SOUNDPROOF DOORS

Applications: Soundproof doors.



Type U9GT6192-1

Note 1: It is possible to install the straight part of the round rose towards the door edge to match the GT50 series, etc.

Note 2: The GT60 series does not include types such as upper and lower dead cases, cassette cases, or electric locks. If these types are required, please select the GT50 series.

Standard Cremone Lock

Soft Action

A resin handle (Type 92) on the back side makes for an action with a soft feel.

Lighter Handle Pressure

To lighten the amount of pressure needed to turn the handle, our design features a time a lag between the operations of the deadbolt and rods (extension of the rods begins before the deadbolt is thrown).

Incorrect handle operation is prevented.

An adjustable protrusion (set-up piece) is added to the strike so that the Cremon lock is operated only in the correct position.

Removable handle

Model GT61 (62, 612, 61F) * – ☐ UH

(Plate handle type: removable only when the deadbolt is projecting)

Model GT61 (62, 612, 61F) * – ☐ DH

(Plate handle type: removable only when the deadbolt is projecting)

Model GT61 (62, 612, 61F) * – ☐ RH

Please use it if you do not want to put a handle on the outdoor side for the reason of design.

As it is impossible to define the range of door thickness, please provide the exact door thickness.

Note: Please make a separate order for UH/DH type handle.

(Handle parts for DH and UH type is a common product.)

Single-Side Handle

Model GT61 (62, 612, 61F) * – ☐ H

When you want a handle only one side of the door, choose this model.

Code:

GT61.DCS (Lockcase and rod guide)

GT64.WSS (Strike and rod receiver)

When ordering, please specify the D dimension (door height) and M dimension (Length from door bottom to handle center). If these dimensions are not specified, 2 rods making for a total length (accounting for all hardware) of L = 1,200 mm will be supplied, and we would ask that this measurement be supplied to the door manufacturer as a fixed measurement.

Upper: L1 = D – M – 116.4 Lower: L2 = M – 14.4

Materials and finishes

● : Available ● : Available as a special product

Model	Materials and finishes		Stainless steel				Zinc die-cast			
	50	51	52	66	91(R)	92	99(R)	100		
Common for GT60 (50) and ALG50 series	●	●	●	●	●	●	●	●		
GT60 (50)/ALG50-H type (Single-side handle)	●	●	●	●	●	●	●	●		
" " –UH type (Detachable handle)	●	●	●	●	●	●	●	●		
" " –DH type (Detachable handle)	●	●	●	●	●	●	●	●		
" " –RH type (Detachable handle)	●	●	●	●	●	●	●	●		
GT55 (52) C*–ZT2	●	●	●	●	●	●	●	●		

Note: The ALG50 series does not include the detachable handle DH type configuration.

Type U9GT6292-1



Type U9GT61※ –1UH (DH)
(handle detaching)



(handle attaching)



Type U9GT61※ –1RH
(handle detaching)



(handle attaching)



Lever Handle designs

If type 91R or 99R are used on the inside, the revolving angle of the 91 or 99 handle on the outside will be determined by the tightening action of the roller tightening.



GT60 Series Type

Model	Sketch	Content	Applications
GT61※-□		With deadbolt With auxiliary latch Cremon lock	·Installation in single door. ·Installation on only one side of double doors. (Either the GT62 type or Flush bolts are necessary for the other side.)
GT62※-□		With receiving hole for deadbolt With auxiliary latch Cremon lock	·The Cremon lock, which has a receiving hole for a deadbolt of GT61 type, is used in combination with GT61 type for double doors.
GT612※-□		Combines GT61 and GT62 in one unit Note: The auxiliary door side is a fixed function 0 model	·Installation in double doors. (Use a cremon lock for both doors)
GT61F※-□		Combines GT61 and flush bolt in one unit	·Installation in double doors. (Use a flush bolt for the auxiliary door)

Note 1: ※ indicates handle designs. □ indicates function symbol (0-4).

Note 2: For GT61F, measure and specify the distance from the upper and lower edges of the door to the center of the flush bolt.

Functions

Mountable cylinder	Model	Outside	Sketch	Inside	Operation
U9 WR PR LB JN	GT*※-1	Cylinder Lever handle		Thumb-turn Lever handle	·Rods (and deadbolt) operated by lever handle. ·Locked and unlocked with key from outside and with thumb-turn from inside.
U9 WR PR LB JN	GT*※-2	Cylinder Lever handle		None Lever handle	·Rods (and deadbolt) operated by lever handle. ·Locked and unlocked with key from outside. ·Impossible to lock and unlock from inside.
	GT*※-3	None Lever handle		Thumb-turn Lever handle	·Rods (and deadbolt) operated by lever handle. ·Impossible to lock and unlock from outside. ·Locked and unlocked with thumb-turn from inside.
U9 WR PR LB JN	GT*※-4	Cylinder Lever handle		Cylinder Lever handle	·Rods (and deadbolt) operated by lever handle. ·Locked and unlocked with key from both outside and inside.
	GT*※-0	None Lever handle		None Lever handle	·Rods (and deadbolt) operated by lever handle. ·Impossible to lock.

Note 1: *indicates GT60 series type (61, 62, 612, 61F). ※indicates handle designs 91, 92, 91R, 99, 99R, 100, 50, 51, 52 and 66.

Note 2: Parentheses in operation indicates model GT61.

Note 3: The 92 Model handle is for use on interior doors. It cannot be used on exterior doors which might be difficult to open at times due to such factors as wind pressure.

Materials and finishes

Available lever handles: 91, 92, 91R, 99, 99R, 100	Zinc die-cast ·Nickel-chrome plating
Available lever handles: 50, 51, 52, 66	18-8 stainless steel (SUS304) ·Satin finish (ST) ·Polished finish (SB)

Specifications

Backset (mm)	70
Spacing (mm)	115
Door thickness range (mm)	33-42, 42-50, 50-58, 58-66

Note 1: It is not possible to define the range of door thickness when using a removable handle, so please provide the exact specifications. Removable handle UH/DH type can be applied on the door thickness more than 40 mm.

Note 2: Specify the D (door height) and M (from the door's bottom edge to the center of the handle) dimensions when placing an order. (See P.152 when the dimensions are to be determined by the door manufacturer.) The minimum dimensions of D and M are D ≥ 442 mm/M ≥ 203 mm, respectively. Dimensions less than these values are not available. Cannot be manufactured if D - M < 239

GT50 SERIES

EXTENSION BOLT LOCKS FOR SOUNDPROOF DOORS

Applications: Soundproof doors.

GT51, 52



Type U9GT5191-1

Cremone Locks for Soundproof Doors

Cassette system Allows Installation or Removal of the Main unit Case Without Removing the Door

Maintenance can easily be performed even without removing the door. To get this feature, add a "C" to the product code. e.g.) U9GT51C91-1

Please use this product on doors that are at least 40 mm thickness.

Simple Cylinder and Thumb-Turn Installation

The cylinder and thumb-turn are attached to the front of the lock case using pins (U-shaped pins built into the case), so installation is simple and foolproof.

Lighter Handle Pressure

To lighten the amount of pressure needed to turn the handle, our design features a time lag between the operations of the deadbolt and rods (extension of the rods begins before the deadbolt is thrown).

Removable handle

Model GT51 (52, 51F) ※ - ☐ UH

(Plate handle type: removable only when the deadbolt is projecting)

Model GT51 (52, 51F) ※ - ☐ DH

(Plate handle type: removable both when the deadbolt is projecting and withdrawing)

Model GT51 (52, 51F) ※ - ☐ RH

Please use it if you do not want to put a handle on the outdoor side for the reason of design.

As it is impossible to define the range of door thickness, please provide the exact door thickness.

Note: Please make a separate order for UH/DH type handle.

(Handle parts for DH and UH type is a common product.)

Single-Side Handle

Model GT51 (52, 51F) ※ - ☐ H

When you want a handle on only one side of the door, choose this model.

When ordering, please specify the D dimension (door height) and M dimension (Length from door bottom to handle center). If these dimensions are not specified, 2 rods each of L = 1,200 mm (including tip fittings) will be supplied, and we would ask that this measurement be provided to the door manufacturer as a fixed measurement.

[Formula for Rod Length Calculation]

· Without cassette:

Upper part: $L1 = D - M - 110$

Lower part: $L2 = M - 67$

· With cassette (optional):

Upper part: $L1 = D - M - 166$

Lower part: $L2 = M - 123$

[Minimum Dimensions D, M]

Without cassette: $D \geq 442\text{mm}$ / $M \geq 203\text{mm}$

Note 1: Cannot be manufactured if $D - M < 239$.

With cassette: $D \geq 554\text{mm}$ / $M \geq 259\text{mm}$

Note 2: Cannot be manufactured if $D - M < 295$.

Note: Please refer to P.152 for delivery lead times.

Type U9GT52



Type U9GT51 ※-1UH (DH)
(handle detaching)



(handle attaching)



Type U9GT51 ※-1RH
(handle detaching)



(handle attaching)



Lever Handle designs

If type 91R or 99R are used on the inside, the revolving angle of the 91 or 99 handle on the outside will be determined by the tightening action of the roller tightening.



GT50 Series Type

Model	Sketch	Content	Applications
GT51※-□		With deadbolt With auxiliary latch Cremon lock	·Installation in single door. ·Installation on only one side of double doors. (Either the GT52 type or Flush bolts are necessary for the other side.)
GT52※-□		With receiving hole for deadbolt With auxiliary latch Cremon lock	·The Cremon lock, which has a receiving hole for a deadbolt of GT51 type, is used in combination with GT51 type for double doors.
GT512※-□		Combines GT51 and GT52 in one unit Note: The auxiliary door side is a fixed function 0 model	·Installation in double doors. (Use a cremon lock for both doors)
GT51F※-□		Combines GT51 and flush bolt in one unit	·Installation in double doors. (Use a flush bolt for the auxiliary door)

Note 1: ※ indicates handle designs. □ indicates function symbol (0-4).

Note 2: For GT51F, measure and specify the distance from the upper and lower edges of the door to the center of the flush bolt.

Functions

Mountable cylinder	Model	Outside	Sketch	Inside	Operation
U9 WR PR LB JN	GT*※-1	Cylinder Lever handle		Thumb-turn Lever handle	·Rods (and deadbolt) operated by lever handle. ·Locked and unlocked with key from outside and with thumb-turn from inside.
U9 WR PR LB JN	GT*※-2	Cylinder Lever handle		None Lever handle	·Rods (and deadbolt) operated by lever handle. ·Locked and unlocked with key from outside. ·Impossible to lock and unlock from inside.
	GT*※-3	None Lever handle		Thumb-turn Lever handle	·Rods (and deadbolt) operated by lever handle. ·Impossible to lock and unlock from outside. ·Locked and unlocked with thumb-turn from inside.
U9 WR PR LB JN	GT*※-4	Cylinder Lever handle		Cylinder Lever handle	·Rods (and deadbolt) operated by lever handle. ·Locked and unlocked with key from both outside and inside.
	GT*※-0	None Lever handle		None Lever handle	·Rods (and deadbolt) operated by lever handle. ·Impossible to lock.

Note 1: *indicates GT50 series type(51, 52, 512, 51F). ※indicates handle designs 91, 92, 91R, 99, 99R, 100, 50, 51, 52 and 66.

Note 2: Parentheses in operation indicates model GT51.

Note 3: The 92 Model handle is for use on interior doors. It cannot be used on exterior doors which might be difficult to open at times due to such factors as wind pressure.

Materials and finishes

Available lever handles: 91, 92, 91R, 99, 99R, 100	Zinc die-cast ·Nickel-chrome plating
Available lever handles: 50, 51, 52, 66	18-8 stainless steel (SUS304) ·Satin finish (ST) ·Polished finish (SB)

Specifications

Backset (mm)	64
Spacing (mm)	80
Door thickness range (mm)	33-42, 42-50, 50-58, 58-66

Note 1: The precise door thickness must be specified when ordering a model with a detachable handle. For the UH and DH type detachable handles, the available door thicknesses are 40 mm or greater. (45 mm or greater for cassette case types).

Note 2: Specify the D (door height) and M (from the door's bottom edge to the center of the handle) dimensions when placing an order. (See P.154 when the dimensions are to be determined by the door manufacturer.)

GT50 SERIES

EXTENSION BOLT LOCKS FOR SOUNDPROOF DOORS

Applications: Soundproof doors.

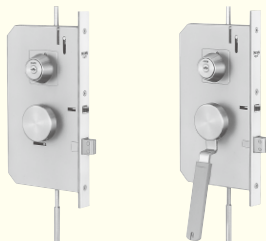
GT55, 56



Type U9GT5599–1

Type U9GT56100–1

Type U9GT55 ※ –1UH (DH)
(handle detaching) (handle attaching)



Type U9GT55 ※ –1RH
(handle detaching) (handle attaching)



The Ultimate Cremone Locks for the Protection of Floors and for Tall Doors

With the GT55 Series, the Lower Rod Doesn't Extend Past the Bottom of the Door

Use this series when you want to avoid installing a strike in the floor, so as to prevent marring of the floor or problems with rainwater or dirt.

GT56 Series Offers Four Locking Points-Upper and Lower Rods, Deadbolt, and Upper Deadbolt
Use this series for tall doors

Cassette system Design Allows Installation or Removal of the Main Unit Case Without Removing the Door

Maintenance can easily be performed even without removing the door. To get this feature, add a "C" to the product code. e.g.) U9GT55C91–1

Please use this product on doors that are at least 40 mm thickness.

Simple Cylinder and Thumb-Turn Installation

The cylinder and thumb-turn are attached to the front of the lock case using pins (U-shaped pins built into the case), so installation is simple and foolproof.

Lighter Handle Pressuren

To lighten the amount of pressure needed to turn the handle, our design features a time lag between the operations of the deadbolt and rods (extension of the rods begins before the deadbolt is thrown).

Removable handle

Model GT55 (56) ※ – ☐ UH

(Plate handle type: removable only when the deadbolt is projecting)

Model GT55 (56) ※ – ☐ DH

(Plate handle type: removable both when the deadbolt is projecting and withdrawing)

Model GT55 (56) ※ – ☐ RH

Please use it if you do not want to put a handle on the outdoor side for the reason of design.

As it is impossible to define the range of door thickness, please provide the exact door thickness.

Note: Please make a separate order for UH/DH type handle.
(Handle parts for DH and UH type is a common product.)

Single-Side Handle Model GT55 (56) ※ – ☐ H



When you want a handle on only one side of the door, choose this model.

When ordering, please specify the D dimension (door height) and M dimension (Length from door bottom to handle center).

Note: We will ship Types 55 and 56 assuming a set of given measurements, so please be sure to specify the D and M dimensions you need.






Note: Please refer to P.152 for delivery lead times.

GT50 Series Type

Model	Sketch	Content	Applications
GT55※-□		With deadbolt With auxiliary latch Cremon lock	·Installation in single door. ·Installation on only one side of double doors. (Either the GT52※ type or Flush bolts are necessary for the other side.)
GT56※-□		With deadbolt With auxiliary latch Cremon lock	·Installation in single door. ·Installation on only one side of double doors. (Either the GT52※ type or Flush bolts are necessary for the other side.)

Note: ※ indicates handle designs. □ indicates function symbol (0–4).

Functions

Mountable cylinder	Model	Outside	Sketch	Inside	Operation
U9 WR PR LB JN	GT*※-1	Cylinder Lever handle		Thumb-turn Lever handle	·Rods and deadbolt operated by lever handle. ·Locked and unlocked with key from outside and with thumb-turn from inside.
U9 WR PR LB JN	GT*※-2	Cylinder Lever handle		None Lever handle	·Rods and deadbolt operated by lever handle. ·Locked and unlocked with key from outside. ·Impossible to lock and unlock from inside.
	GT*※-3	None Lever handle		Thumb-turn Lever handle	·Rods and deadbolt operated by lever handle. ·Impossible to lock and unlock from outside. ·Locked and unlocked with thumb-turn from inside.
U9 WR PR LB JN	GT*※-4	Cylinder Lever handle		Cylinder Lever handle	·Rods and deadbolt operated by lever handle. ·Locked and unlocked with key from both outside and inside.
	GT*※-0	None Lever handle		None Lever handle	·Rods and deadbolt operated by lever handle. ·Impossible to lock.

Note 1: * indicates GT50 series type (55, 56). ※ indicates handle designs 91, 92, 91R, 99, 99R, 100, 50, 51, 52 and 66.

Note 2: The 92 Model handle is for use on interior doors. It cannot be used on exterior doors which might be difficult to open at times due to such factors as wind pressure.

Materials and finishes

Available lever handles: 91, 92, 91R, 99, 99R, 100	Zinc die-cast ·Nickel-chrome plating
Available lever handles: 50, 51, 52, 66	18–8 stainless steel (SUS304) ·Satin finish (ST) ·Polished finish (SB)

Specifications

Backset (mm)	64
Spacing (mm)	80
Door thickness range (mm)	33–42, 42–50, 50–58, 58–66

Note 1: The precise door thickness must be specified when ordering a model with a detachable handle. For the UH and DH type detachable handles, the available door thicknesses are 40 mm or greater. (45 mm or greater for cassette case types)

Note 2: Specify the D (door height) and M (from the door's bottom edge to the center of the handle) dimensions when placing an order.
Contact us for minimum dimensions.

Waterproof lower rod keeper

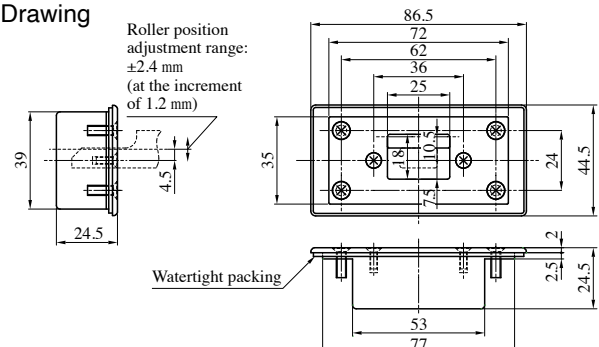
(Common to GT60, GT50, and ALG50 series locks)



Type GT51WP.ウケD

This product is a waterproof lower rod keeper. Installing an integrated resin strike box onto the face prevents entry of rainwater into the body.

Drawing



GT10 SERIES

EXTENSION BOLT LOCKS FOR SOUNDPROOF DOORS

Applications: Soundproof doors.



Type U9GT1151-1

This is a soundproof lock for narrow frames.

Most appropriate for narrow frame aluminum doors

This lock's compactly designed case suits it for use in doors less than 2,200 mm high.

Excellent soundproofing

The upper and lower rods and the deadbolt projected by the lever handle bring the door and jamb into close contact for optimum soundproofing.

Easy installation

Upper and lower rods are on the same axis, making installation easy.

Detachable outside handle type:

Model GT*※-□RH (※ indicates inside handle designs)

Note: When ordering, please specify the correct door thickness.

Materials and finishes		Stainless steel							
		Satin (ST)				Polished (SB)			
Model		50	51	52	66	50	51	52	66
GT11※-□ type		●	●	●	●	●	●	●	●
GT11※-□ RH type (Detachable handle)		●	●	●	●	●	●	●	●
GT1151Z type (Fixed handle)		●	●	●	●	●	●	●	●
GT13※-□ type		●	●	●	●	●	●	●	●
GT13※-□ RH type (Detachable handle)		●	●	●	●	●	●	●	●

Note: ※ indicates handle designs. □ indicates a function symbol (0-4).

※ indicates inside handle designs in case of detachable handle (-RH type).

Type U9GT1351-1



Type U9GT11 ※-1RH (handle detaching)



(handle attaching)



Lever Handle designs



Type 50



Type 51



Type 52



Type 66

GT10 Series Types

Model	Sketch	Content	Applications
GT11※-□		With deadbolt With trigger bolt Cremon lock	·Installation is single door ·Installation on only one side of double doors
GT13※-□		No deadbolt No trigger bolt Cremon lock	·Installation on both doors of double doors (Usually, two locksets are necessary.)

Note: ※ indicates handle designs. □ indicates function symbol (0-4).

Functions

Mountable cylinder	Model	Outside	Sketch	Inside	Operation
U9 WR JN	GT*※-1	Cylinder Lever handle		Thumb-turn Lever handle	·Rods (and deadbolt) operated by lever handle. ·Locked and unlocked with key from outside and with thumb-turn from inside.
U9 WR JN	GT*※-2	Cylinder Lever handle		None Lever handle	·Rods (and deadbolt) operated by lever handle. ·Locked and unlocked with key from outside. ·Impossible to lock and unlock from inside.
	GT*※-3	None Lever handle		Thumb-turn Lever handle	·Rods (and deadbolt) operated by lever handle. ·Impossible to lock and unlock from outside. ·Locked and unlocked with thumb-turn from inside.
U9 WR JN	GT*※-4	Cylinder Lever handle		Cylinder Lever handle	·Rods (and deadbolt) operated by lever handle. ·Locked and unlocked with key from both outside and inside.
	GT*※-0	None Lever handle		None Lever handle	·Rods (and deadbolt) operated by lever handle. ·Impossible to lock.
	GT1151Z	None Fixed handle		None Fixed handle	·Dummy trim inside and outside.

Note 1: ※ indicates GT10 Series type (11, 13). ※ indicates handle designs 50, 51, 52 and 66.

Note 2: () in operation indicates model GT11.

Note 3: Please note that PR and LB cylinders cannot be installed on this product.

Materials and finishes

18-8 Stainless steel (SUS304) ·Satin finish (ST)
·Polished finish (SB)

Available lever handles 50, 51, 52, 66

Note: The detachable handle is finished ST only.

Specifications

Backset (mm)	40
Spacing (mm)	50
Door thickness range (mm)	33-42, 42-50, 50-58

· When using detachable handles, the minimum door thickness is 36mm.

· Please specify the dimensions D (door height) and M (distance from the bottom of the door to the handle center) when placing your order. If no specifications are provided, two rods with a total length (including end fittings) of L = 1,200mm will be delivered. We kindly ask that the door manufacturer confirm the exact measurements.

The minimum dimensions for D and M are D ≥ 374mm and M ≥ 201mm. Production is not possible if D - M is less than 173.

Rod calculation formula:

Upper part: L1 = D - M - 68

Lower part: L2 = M - 90

Choosing locks with emergency opening device according to place of use

Select an emergency device according to the fire prevention regulations of each area when select an emergency lock.

Push Open Bars

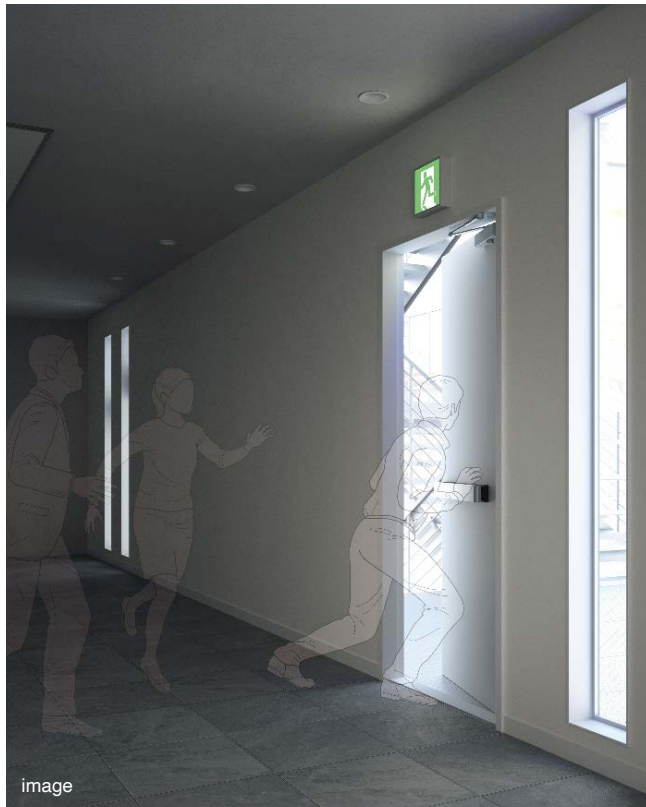
Emergency exits in large facilities such as hospitals, public facilities, airports, and commercial facilities

- Intended for use in facilities where users will likely have no knowledge of operation in an emergency.
- Ideal for emergency exits where large crowds will likely rush to in an evacuation.



Type U9APBT50S-2

Push open bars were designed with panic situations in mind and can be unlocked/opened with a single action. This allows for safe evacuation in emergency situations.

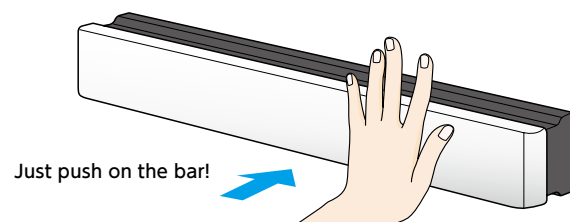


Although locks with emergency opening devices are most common, many international countries require installation of a push open bar for large-scale facilities with more than a specified number of occupants in anticipation of a panic situation in the event of a disaster.

Panic open bar type

Even if a door is equipped with a lever handle used on a daily basis, operation may not be possible in a state of panic caused by an emergency. Push open bars can be unlocked/opened with a single action.

The width of the bar is close to that of the door, allowing the door to be opened even with a large crowd in front of the emergency exit or in the dark by simply pressing one's body against the door.



For double swing door




AFB02 which is automatic flush bolt is recommended to adopt for a double swing door.

When the main door of the double swing door is opened, the AFB02 upper and lower deadbolts of another door will automatically retract and unlock. When the main door is closed, the deadbolts of another door automatically protrude and lock. (Refer to P.237)

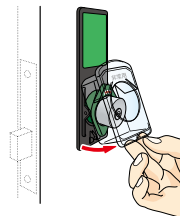
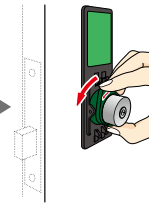
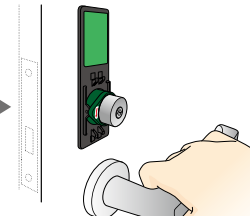
Locks with Emergency Opening Devices

Emergency exits in offices, etc. with limited users

- Limited to facilities capable of informing users how to operate the lock in an emergency.
- Intended for small-scale facilities where only a limited number of people will be evacuating.

	Unlocking method	Compatible locks				
		Deadbolt locks	Case locks	Cremon locks	Hook lock	Electric locks
	To unlock and open the door, press the plate of the emergency device to retract the deadbolt.	DA-EP				AL4M-EP
	After removing the plastic cover and turning the green lever, turn the handle to open the door. (Only the deadbolt locks, it is not necessary to turn the handle.)	DA-E	LHS (A)-E MHS (A)-E LA-E MA-E LAT-E LAL-E UUT-E	GT60-E GT50-E	FG3-E	AUS-E AUT-E AUTA-E AL4M-E
	After turning the thumb-turn in the cylindrical plastic cover to unlock, turn the handle to open the door. (Only in the deadbolt locks, it is not necessary to turn the handle.)	DA-M DH-M	HM-M 145HM-M MHS-M MHT-M MA-M LHS-M LHT-M LA-M			

How to use emergency devices (-E Type)

- 1. Detach the plastic cover.
- 2. Turn the green lever (to unlock).
- 3. Use the handle to open the door.

Procedure for resetting after emergency unlocking (for type -E):

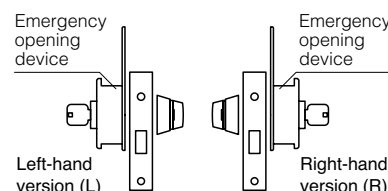
- Perform locking operation using the key or thumb turn. The green knob will return to its pre-emergency unlocked state during the locking operation. Note: For automatic locking types, refer to the respective main text P.s as the operation differs.
- Attach the emergency cover until it clicks into place on the cover mounting plate. (Emergency covers cannot be reused in type BE.)

Both left-hand and right-hand versions are available

Specify whether the desired emergency opening device is to be installed on the left or on the right when viewed from the front side. (If the emergency opening device is to be installed on the left, specify left-hand, and if it is the right, specify right-hand.) For the 2EDE Models, specify whether the cylinder is to be installed on the left or on the right. The 4EDE Models can be used on either side.

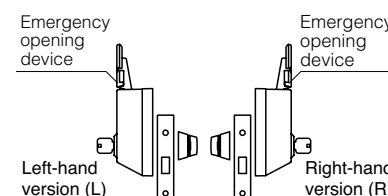
Left-hand or right-hand in turnlever types

Note: If the case is installed upside down (top-bottom reversed), please note that the left and right instructions mentioned above will be reversed accordingly. (For cases where the emergency opening device is on the right side, it will be considered as left-hand (L) orientation, and when on the left side, it will be considered as right-hand (R) orientation.)



For locks with a one-push emergency opening device, specify whether the one-push emergency opening device is to be installed on the left or on the right when viewed from the front side.

Left-hand or right-hand in push-plate types



ost ARK^{SERIES} PUSH OPEN BARS

Applications: Emergency exits.



Push open bars were designed with panic situations in mind and can be unlocked/opened with a single action.

Can be unlocked/opened with only by a single action

In the event of a fire or earthquake in a commercial facility or other location with an unspecified large number of occupants, a large portion of the occupants will likely rush to the emergency exit, resulting in a panic situation. In such panic situations, push open bars make it possible for virtually anyone to open the door easily even without knowing beforehand how to operate the door. Moreover, simply pressing on the push open bar with your body makes it possible to open the door if a large crowd is converging on the door or if the lights have gone out.

Small protruding part and smooth horizontal movement for less possibility of pinching

The bar on the indoor side is designed to move horizontally, thereby reducing the risk of fingers being pinched or the like. Moreover, the protruding part is designed to stand as little as possible from the door surface, helping to ensure passersby do not get hit by or come into contact with the bar when passing through. The bar's simple design does not impede upon the interior design.

Electric locks available

During construction/installation, locks that can open or close when energized can be selected. This function is included in two lock types—the APBT and ABPR—both of which use the same casing. The switch located inside the front of the lock casing makes it easy to switch functionality.

Emergency unlock signal for notification if door is opened using the bar available in EH types

EH type locks output an emergency unlock signal in the event the indoor-side push open bar is operated in an emergency. Alarm notifications can also be retained using a monitoring board or the like if necessary.

Switchable to be always unlocked

Although the lock features an automatic locking function, a switch located inside the front of the lock casing makes it possible to set the lock to be always unlocked for general use.

Master key system-compatible

By installing a MIWA LOCK U9, WR, PR, LB, or JN cylinder, the lock can be configured to support existing key plans for large-scale facilities.



Photo is a computer-generated indoor side of a door.

The operability and safety of such a facility was verified under real-world supervision provided by the Jitsuken actual user research organization.

Specifications (Common for Mechanical lock and Electric lock)

Backset (mm)	76
Case depth (mm)	128
Spacing (mm)	95
Door thickness range (mm)	35–36, 36–38, 38–40, 40–42, 42–44, 44–46, 46–48, 48–50, 50–52, 52–54, 54–56, 56–58, 58–60, 60–62, 62–64, 64–66
Requisite clearance (mm)	1–6
Right or left hand	Common

Note 1: For doors with a thickness of 35–36 mm, lay the liner (t 1.5) included with the product under the round rose.

Note 2: An automatic flush bolt is recommended for double doors.

Note 3: Be sure to use a self-closing mechanism (door closer, etc.) on the door.

Note 4: The recommended mounting position for the push open bar is 900 mm from the floor.

Note 5: Doors with widths of 700–1,500 mm are supported.

· The push open bar is 600 mm wide.

· The width of the push open bar should be at least 60% that of the door.

Note 6: To ensure operation even when lateral pressure is applied to the door such as during an emergency evacuation, the release force set forth in EN standards (release at 80 N or less with no load, or 220 N or less with a lateral load of 1,000 N) has been satisfied.

· The force required for opening the door will depend on the weight of the door, the closing force of the door closer, and the position at which the opening force is applied.

Note 7: For the wiring distance between the electric lock and the electric lock controller, confirm the page of the electric lock controller.

Note 8: 9-pin harness is not included. Please order it separately if needed.

Common for Mechanical lock

PBT*S-□

Specifications

Mountable cylinder	Model	Outside	Sketch	Inside
U9 WR PR LB JN	PBT*S-2	Cylinder		None
		Lever handle		Push Open Bar
	PBT*S-0	None		None
		Lever handle		Push Open Bar

Note: * indicates lever handle designs. □ indicates function symbols.

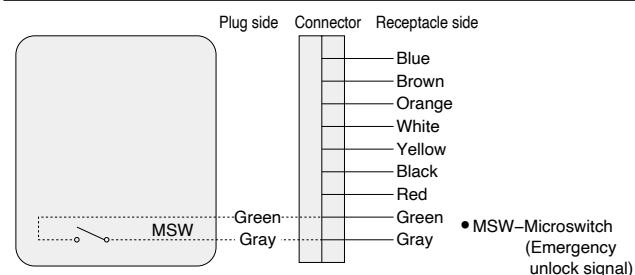
PBT*S-□EH (Signal output type for emergency open)

Electrical Specifications

Name	Rating		
Microswitch	Voltage DC 24V	Current 2mA–100mA	Output only during push open bar operation
Lead wire	Length: 250 mm (with 9P connector) AWG-24 UL1007 heat-resistant vinyl covered wire		
Permitted temperature range	–10°C to +50°C (no condensation)		

Note: * indicates lever handle designs. □ indicates function symbols.

Internal Circuits



(The diagram shows the emergency unlock function not being used.)

Materials and finishes (Common for Mechanical lock and Electric lock)

Lever handle	Materials and finishes	Stainless steel
		ST
50		●
51		●
52		●
53		●
55		●
57		●
59		●
64		●
66		●
		(Refer to pages 29–32 for colors)

● : Available as a special product

Electric lock

APBT/R*S-□, APBT/R*S-□EH (Signal output type for emergency open)

Specifications

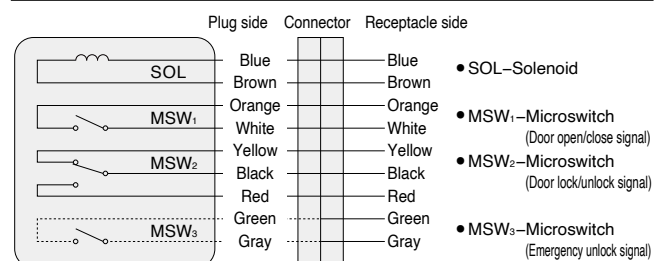
Mountable cylinder	Model	Outside	Sketch	Inside
U9 WR PR LB JN	APBT*S-2 APBR*S-2	Cylinder		None
		Lever handle		Push Open Bar
	APBT*S-0 APBR*S-0	None		None
		Lever handle		Push Open Bar

Note: * indicates lever handle designs. □ indicates function symbols.

Electrical Specifications

Name	Rating			
Solenoid	Voltage DC 24V (±20%)	Current 0.3 A(±20%)	Load duration continuous	Duty cycle 1
Microswitch 1	Voltage DC 24V	Current 2 mA–100 mA	Clearance No more than 6 mm	
Microswitch 2	Voltage DC 24V	Current 2 mA–100 mA	Output only during push open bar operation	
Microswitch 3	Voltage DC 24V	Current 2 mA–100 mA		
Lead wire	Length: 250 mm (with 9P connector) AWG-24 UL1007 heat-resistant vinyl covered wire			
Permitted temperature range	–10°C to +50°C (no condensation)			

Internal Circuits



(The diagram shows an unlocked door with the emergency unlock function not being used.)
Dashed lines apply to APBT / R*S-□EH.

ESPGF

SERIES **PUSH-PULL LOCKS (GRIP TYPE)**



Type U9ESPGF714W-1 (SF)

High security push-pull locks equipped with a claw bolt

Since the claw bolt is used and the strike is strengthened, the lock exhibits high security performance against attacks by using tools such as pry bars. The claw bolt is very robust so that the anti-press strength and the lateral force resistance are 10,000N or more.

The door can be opened easily just by “pushing /pulling” the handle.

The simple design, giving an impression of uniformity with the door, enhances the grade of the front door.

In order to achieve high security performance, the cylinder is fixed to the lock case with pins even if the grip handle is pulled away.

There are two types of lock, for outward opening door and for inward opening door.

Outward opening: ESPGF714W-1

Inward opening : ESPGF714W-1N

Note: An impact driver should not be used for installation. If the lock is installed with an impact driver, it may be difficult to dismantle or may not function well due to over tightening.

Functions			
Mountable cylinder	Model	Outside	Inside
U9	ESPGF714W-1 ESPGF714W-1N	Cylinder	Thumb-turn
		Grip	Grip

Specification	
Backset (mm)	64
Door thickness range (mm)	36-38, 38-40, 42-45, 46-55
Materials	Die-cast aluminum

Finishes

●: Available



ESPGF714W (SF)

Finishes: Stainless color painted
Materials: Die-cast aluminum



ESPGF714W (RV)

Finishes: Light silver painted
Materials: Die-cast aluminum



ESPGF714W (CG)

Finishes: Champagne gold painted
Materials: Die-cast aluminum



ESPGF714W (GL)

Finishes: Gold painted
Materials: Die-cast aluminum



ESPGF714W (BK)

Finishes: Matt black painted
Materials: Die-cast aluminum

POM SERIES PUSH-PULL LATCHES (PLATE TYPE)

Applications: Entryways, others.



User-friendly

The door can be opened easily just by “pushing /pulling” the handle.

Since the POM series are of the latch type, they can be used in combination with the DA2F series.

Note 1: The locks can be used for an out-swinging door only.
Note 2: An impact driver should not be used for installation. If the lock is installed with an impact driver, it may be difficult to dismantle or may not function well due to over-tightening.

Specifications

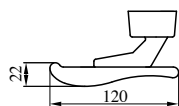
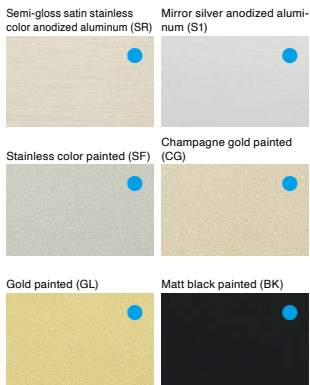
Backset (mm)	64
Door thickness range (mm)	Type 811–813, 818: 33–42, 42–50, 50–58, 58–66 Type 801–804 : 33–42, 42–50
Materials	Aluminum
Finishes	Type 811: Semi-gloss satin stainless color anodized aluminum (SR) Mirror silver anodized aluminum (S1) Stainless color painted (SF) Champagne gold painted (CG) Gold painted (GL) Matt black painted (BK) Type 812: Semi-gloss satin stainless color anodized aluminum (SR) Type 813: anodized aluminum (SR) Type 818: Stainless color painted (SF) Champagne gold painted (CG) Semi-gloss satin gold color anodized aluminum (GD) Bisection gloss CD color painted (CD) Matt black painted (BK) Type 801: Mirror silver anodized aluminum (S1) Mirror gold anodized aluminum (G1) Stainless color painted (SF) Champagne gold painted (CG) Gold painted (GL) Type 802: Semi-gloss satin stainless color anodized aluminum (SR) –804: Stainless color painted (SF) Light silver painted (RV) Champagne gold painted (CG)

Variation of plate handle designs (Type 811–813, 818)

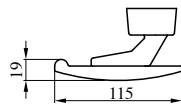
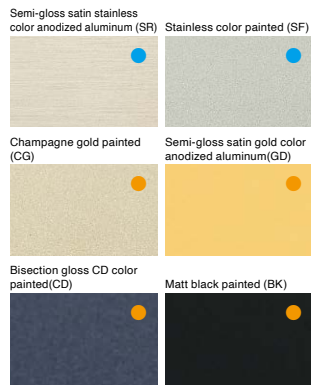
●: Available ●: Available as a special product



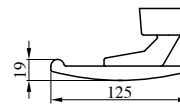
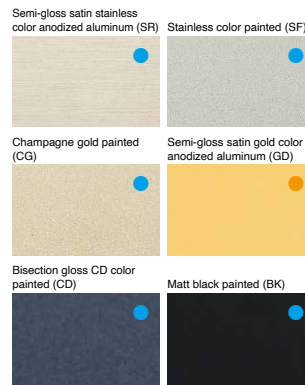
Color variation



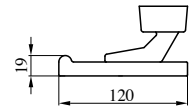
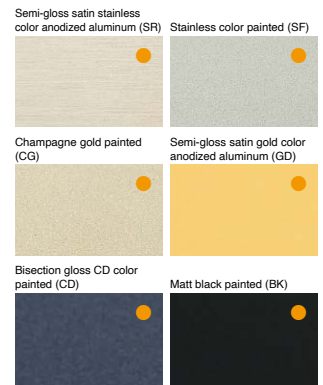
Color variation



Color variation



Color variation

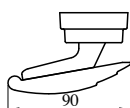
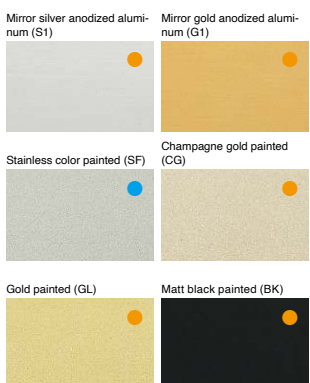


Variation of plate handle designs (Type 801–804)

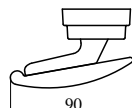
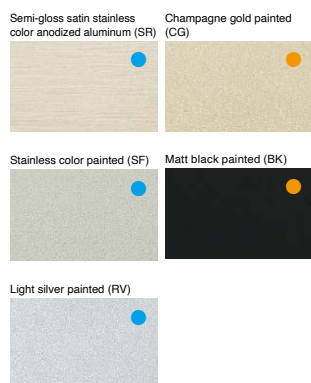
●: Available ●: Available as a special product



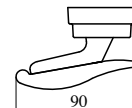
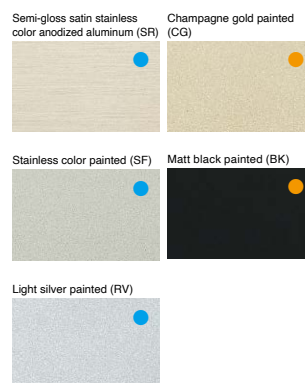
Color variation



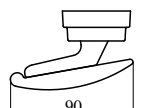
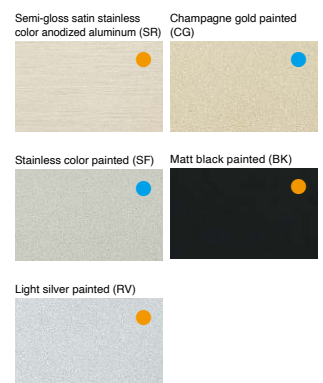
Color variation



Color variation



Color variation



SQUARE CYLINDERS









Coordinated design with cylinder, housing, and push-pull plate.

Square Cylinder matching POM series square design.

Note: Thumb-turn (room side) comes in round shape only.

Specification (General type) ● : Available ● : Available as a special product	
Types	DA2F- □ SQ (L2) (□ shows the function number 1, 2 and 4)
Mountable cylinder	PR
Locks	DA2F series
Door thickness range (mm)	33-42, 42-50
Materials	Cylinder cover: Resin Cylinder cap: Aluminum
Finishes	Stainless color painted (SF) ● Light silver painted (RV) ● Champagne gold painted (CG) ● Gold painted (GL) ● Bisection gloss CD color painted (CD) ● Matt black painted (BK) ●

Color variation		
		
Stainless color painted (SF)	Light silver painted (RV)	Champagne gold painted (CG)
		
Gold painted (GL)	Bisection gloss CD color painted (CD)	Matt black painted (BK)

POM SERIES PUSH-PULL LATCHES (BAR TYPE)

Applications: Entryways, others.



The series are push-pull latches with simple, slim design of the bar handle.

User-friendly

The door can be opened easily just by "pushing/pulling" the handle.

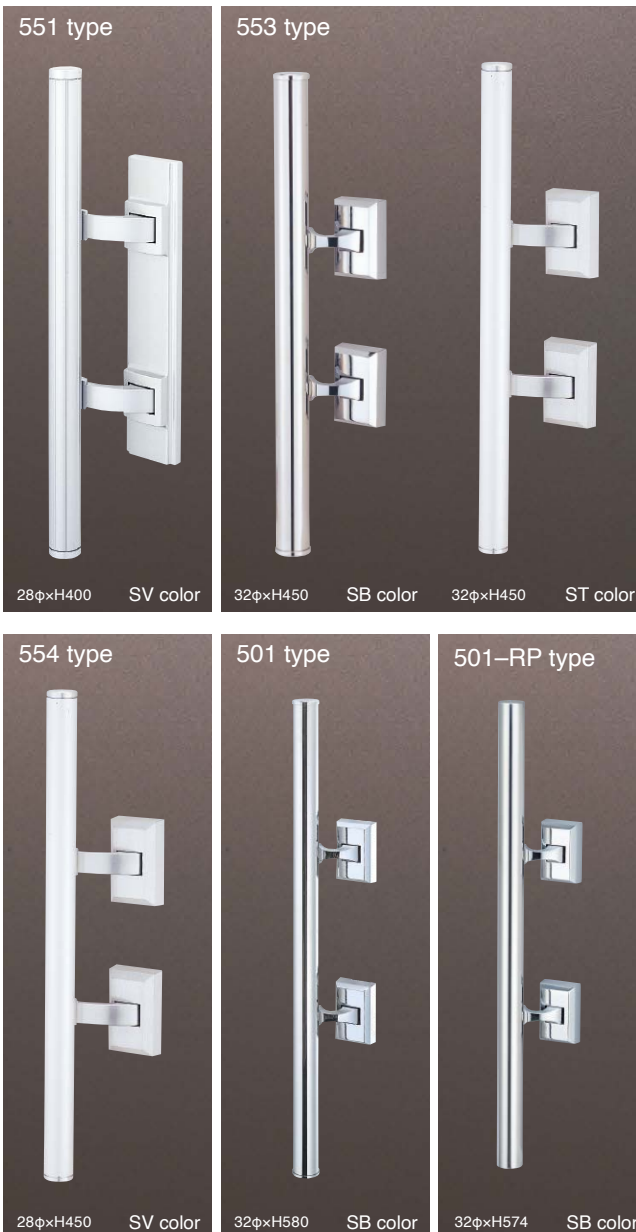
Since the POM series are of the latch type, they can be used in combination with the DA series (P.122). It is impossible to use with the DA2F series because the backset is 64 mm only.

For use in coastal or similar environments, a model with enhanced corrosion resistance is also available.

Unit code: POM501-RP

Specification		● Available	● Available as a special product
Backset (mm)	51		
Door thickness range (mm)	Type 551, 553, 554: 33-42, 42-50		
	Type 501 (-RP) : 33-42, 42-50, 50-58, 58-66		

Variation of bar handle designs



Note 1: The locks can be used for an out-swinging door only.

Note 2: An impact driver should not be used for installation. If the lock is installed with an impact driver, it may be difficult to dismantle or may not function well due to over-tightening.

Materials and finishes

Type 551	Materials: Grip=Aluminum, Housing=Brass Finishes : Silver (SV)
Type 553	Materials: Grip=Stainless steel, Housing=Brass Finishes : Stainless satin (ST)/Stainless buffed (SB)
Type 554	Materials: Grip=Aluminum, Housing=Aluminum Finishes : Silver (SV)
Type 501 (-RP)	Materials: Grip=Stainless steel, Housing=Brass Finishes : Stainless buffed (SB)

FG3 SERIES SLIDING DOOR LOCKS

Applications: Warehouses, toilets, gates, others.



Type U9FG3-1 (ST)



HAS (Large Thumb-turn)

A robust sliding door hook locks the door silently.

High quietness

Achieved a dramatically high quietness compared to conventional products. Suitable for the office and living room sought for the quietness.

Attached with trigger bolt for error prevention

Since this product has a trigger bolt, it cannot be locked when the door is open.

Available for the toilet: Type FG3-8 attached with display device, emergency unlocking device, large thumb-turn; Type FG3-8BG attached with a large emergency unlocking device.

Note: Because emergency unlocking device of Type FG3-8BG is large in size, please make sure not to hit against the door head rubber or frame.



Middle size AH thumb-turn is also available.

Model: FG3-1AH



Cylinder with indicator: Type FG3-□ W

This cylinder allows you to understand the locking or unlocking status by indicator.

This lock is operated with a key from the outside. The combination of cylinder and indicator is optimal choice for public buildings, commercial buildings, and facilities whose usage is restricted (doors are locked during nighttime and holidays), such as restrooms and dressing rooms.

Model	FG3-□ W (□ represents the function number type 1 or 2)
Mountable cylinder	U9, WR, PR, JN
Door thickness range (mm)	29-50

Note 1: Cylinder with indicator is only ST finish.

Note 2: There are left-hand and right-hand variations. Specify the orientation when placing an order.

- Viewed from the front, if the display unit is on the right side: right-hand orientation
- Viewed from the front, if the display unit is on the left side: left-hand orientation



Type U9FG3-1W (ST)

Type attached with front trike for processing a router is also available.

Model: FG3D-□
(front width 22 mm)



Emergency unlocking device attached type FG3-□ E.

Even if you have no key in an emergency, you can unlock by removing the plastic cover and turning the green knob only. (For details, refer to page 182)



Functions					
Mountable cylinder	Model	Outside	Sketch	Inside	Applications
U9 WR PR(-J) LB(-J) JN	FG3-1	Cylinder		Thumb-turn	Office, Living room
U9 WR PR(-J) LB(-J) JN	FG3-2	Cylinder		None	Office, Living room
	FG3-3	None		Thumb-turn	Terraces
U9 WR PR(-J) LB(-J) JN	FG3-4	Cylinder		Cylinder	Gates
	FG3-5	Thumb-turn		Thumb-turn	Evacuation doors
	FG3-8	Emergency device with indicator		Large thumb-turn	Restrooms, toilets
	FG3-8BG	Emergency device (large size) with indicator		Large thumb-turn	Restrooms, toilets
U9 WR PR(-J) LB(-J) JN	FG3-1HAS	Cylinder		Large thumb-turn	Office, Living room
U9 WR PR(-J) LB(-J) JN	FG3-1AH	Cylinder		Middle size thumb-turn	Office, Living room

Note 1 : Operate the thumb-turn definitely because FG3-8BG and FG3-1HAS is Large thumb-turn.

Note 2 : We also offer a dummy cylinder type. Please write a "D" at the end of the unit code when ordering the set.

Model example: Type FG3-2D

Materials and finishes		Stainless steel			
Model	Materials and finishes	ST	SB	CB	CD
FG3 (Other than the following items)		●	●	●	●
FG3-8		●	●	●	●
FG3-8BG		●	●	●	●
FG3-1HAS/1AH		●	●	●	●

(Refer to pages 20 for colors)

Note: CB finish of FG3-8BG is similar color paint.

Specifications

Backset (mm)	51
Door thickness range (mm)	29-33, 33-42, 42-50, 50-58, 58-66
Requisite clearance (mm)	1-4

FGT SERIES AUTOMATIC-LOCKING SLIDING DOOR LOCKS

Applications: Waste-collection point in apartment, bicycle parking lot, others.



Type PRFGT-1 (ST)

The hook locks can be automatically locked by closing the door.

When the door is closed, the trigger bolt is pushed in and the hook bolt automatically comes out of the lock.

To unlock, use a key or a thumb-turn.

The same door preparations as with the FG3 series.

Cases are deeper than those of the FG3 series.

This model locks automatically, a self-door-closing device such as a door-closer must be used.

The self-closing device with 15N or more of the minimum closing force should be used.

The maximum door weight is 120kg or less.

The locks cannot be used for a door heavier than the above ($\geq 120\text{kg}$).

Note 1: Since the product automatically locks, the strength of the stay for installation of the door and frame should be assured.

Note 2: When the door is closed, excessive impacts should be avoided.

FGT-1BF model with large resin thumb-turn.

The thumb-turn's large size makes it easier to use. The PR and LB cylinders come with a concave.



Large resin thumb-turn

Functions

Mountable cylinder	Model	Outside	Sketch	Inside	Applications
U9 WR PR(-J) LB(-J) JN	FGT-1	Cylinder		Thumb-turn	Waste-collection point in apartment Bicycle parking lot
U9 WR PR(-J) LB(-J) JN	FGT-4	Cylinder		Cylinder	Waste-collection point in apartment Bicycle parking lot

Materials and finishes

● : Available

Model	Materials and finishes	Stainless steel			
		ST	SB	CB	CD
FGT		●	●	●	●

(Refer to pages 20 for colors)

Specifications

Backset (mm)	51
Door thickness range (mm)	29-33, 33-42, 42-50, 50-58
Applicable door misalignment (mm)	Sliding direction: 0-4 Vertical direction, depth direction: ± 3

SL77 SERIES SLIDING DOOR LOCKS

Applications: Warehouses, toilets, gates, others.



Type U9SL77-1



Type SL77-8



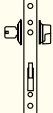
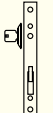
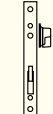
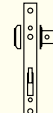
Type SL77-8
Emergency device with indicator

With its compact size, the SL77 series is ideal for sliding narrow stile doors.

Pulling feature

When the hook bolt comes out, the door and frame are simultaneously pulled together. This prevents the door from rattling.

The "front" and "strike" suitable for door preparations with routers are also provided (model: SL77D-1).

Functions					
Mountable cylinder	Model	Outside	Sketch	Inside	Applications
U9 WR	SL77-1	Cylinder		Thumb-turn	Warehouses
U9 WR	SL77-2	Cylinder		None	Warehouses
	SL77-3	None		Thumb-turn	Terraces
	SL77-8	Emergency device with indicator		Thumb-turn	Restrooms, Toilets

Materials and finishes

18-8 Stainless steel (SUS304) / Gloss barrel

Specifications

Backset (mm)	24
Door thickness range (mm)	Type1 and 3: 25-33, 33-41 Type2: 29-33 (aluminum and steel doors only), 33-41 Type8: 29-33, 33-37, 37-42, 42-46
Requisite clearance (mm)	Surface mounted: 1-4 Flush with door mounted: 1

UD SERIES EXTENSION BOLT LOCKS

Applications: Hanging doors, others.



Type U9UD12-1 (ST)

The UD Series of locks for sliding doors is locked by a rod.

Locked by a rod

Since the UD Series is locked by a rod, there is no need to work on the door frame where the door strikes when using a hanging door, and the like.

Upper trigger

An upper trigger makes it possible to set the lock only when the position is correct. This ensures that the floor, rails, and the like will not be damaged.



Upper trigger

UD Series models

There are two models in the UD Series. With model UD12, rods project through the top and bottom of the case. With UD11, a rod is projected through the top only.



Type UD-8 (Emergency device with indicator)

Functions

Mountable cylinder	Model	Outside	Sketch	Inside	Applications
U9 WR JN	UD*-1	Cylinder		Thumb-turn	Hanging doors, others
U9 WR JN	UD*-2	Cylinder		None	Hanging doors, others
	UD*-3	None		Thumb-turn	Hanging doors, others
U9 JN	UD*-4	Cylinder		Cylinder	Hanging doors, others
	UD*-5	Thumb-turn		Thumb-turn	Evacuation doors
	UD*-6	Emergency device		Thumb-turn	Toilets, Restroom
	UD*-8	Emergency device with indicator		Thumb-turn	Toilets, Restroom

Note 1: Model UD*-HAS equipped with a cylinder on the outside and a large thumb-turn on the inside.

*indicates the UD series types (11, 12).

Note 2: The maximum rod bar length is 2,000 mm. If you want longer rod bar, consult us.

Note 3: Please note that PR and LB cylinders cannot be installed on this product.

Materials and finishes

● : Available ● : Available as a special product

Model	Stainless steel				Brass ^{Note}	
	ST	SB	CB	CD	BS	YB
UD	●	●	●	●	●	●

(Refer to pages 20 for colors)

Note: Except for model HAS

Specifications

Backset (mm)	51
Door thickness range (mm)	29-33, 33-42, 42-50, 50-58, 58-66

Note: Please specify door height and length from bottom of door to handle center when placing order.

Rod length calculation formula Upper rod: $L1 = D - M - 35$

Lower rod: $L2 = M - 35$

FN SERIES SLIDING DOOR LOCKS

Applications: Connecting doors, toilets.



Type U9FN-1 (ST)

Locks for Sliding Doors with Narrow Frames.

Compact Size

At 35 mm, the backset is small, so this lock can be used for sliding doors with narrow frames.

Also available, FN-6 Model with emergency opening device for bathroom doors and the FN-8 Model with emergency opening device with indicator.

Medium-size AH thumb-turn also available.



Type FN-8



AH (Medium thumb-turn)

Functions

Mountable cylinder	Model	Outside	Sketch	Inside	Applications
U9 WR PR LB JN	FN-1	Cylinder		Thumb-turn	Connecting doors
U9 WR PR LB JN	FN-2	Cylinder		None	Closets
	FN-3	None		Thumb-turn	Terraces
U9 WR PR LB JN	FN-4	Cylinder		Cylinder	Connecting doors
	FN-5	Thumb-turn		Thumb-turn	Connecting doors
	FN-6	Emergency device		Thumb-turn	Toilets, Restroom
	FN-8	Emergency device with indicator		Thumb-turn	Toilets, Restroom
U9 WR PR LB JN	FN-1HAS	Cylinder		Large thumb-turn	Connecting doors
U9 WR PR LB JN	FN-1AH	Cylinder		Medium thumb-turn	Connecting doors

Note: We also offer a dummy cylinder type. Please write a "D" at the end of the unit code when ordering the set.
Model example: Type FN-2D

Materials and finishes

● : Available ● : Available as a special product

Model	Stainless steel			
	ST	SB	CB	CD
FN	●	●	●	●
FN-HAS	●			
FN-AH	●	●	●	

(Refer to pages 20 for colors)

Specifications

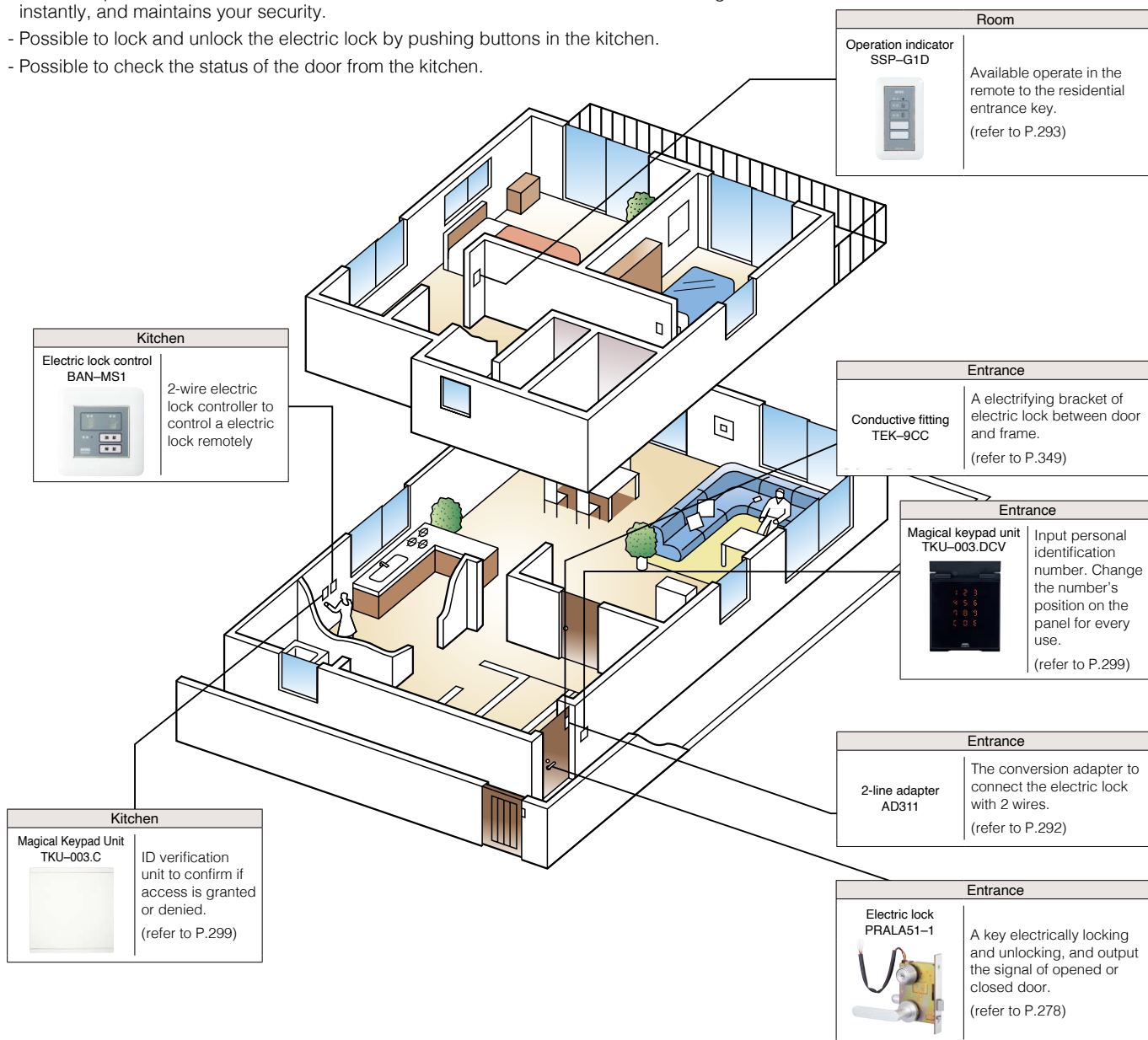
Backset (mm)	35
Door thickness range (mm)	25-33, 33-42, 42-50, 50-58, 58-66
Requisite clearance (mm)	2

RESIDENCE: Magical ten-key system

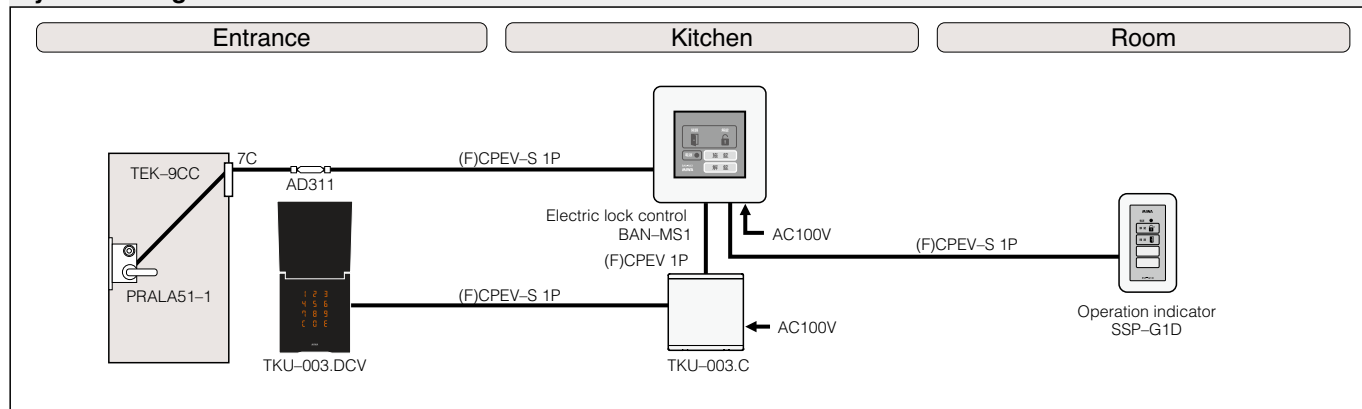
Create a life — no need to carry the key.

Benefits of the system

- Possible to unlock in the personal identification number, not need to have a key.
- Even if a personal identification number was known to others, available to change the number instantly, and maintains your security.
- Possible to lock and unlock the electric lock by pushing buttons in the kitchen.
- Possible to check the status of the door from the kitchen.



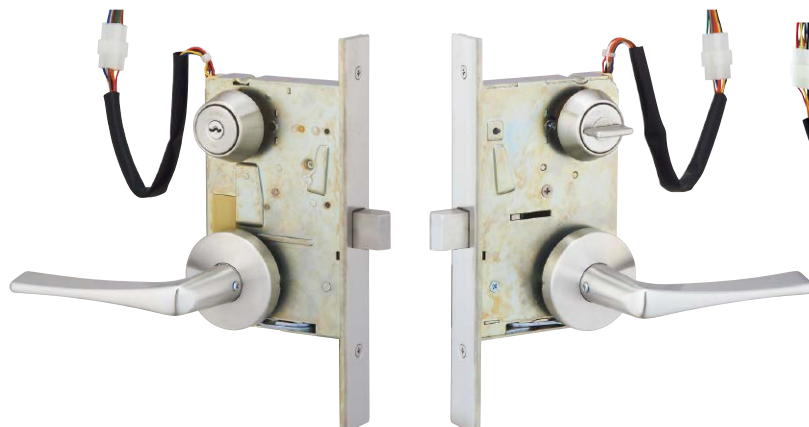
System configuration



AUS SERIES ELECTRIC LOCK FOR ENTRANCES

(Locked and unlocked by an instantaneous flow of current)

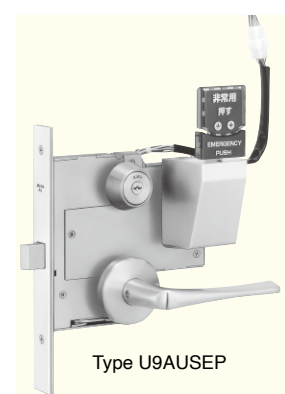
Applications: Office entrances, entryways, others.



Type U9AUS51-1 (ST)



Type U9AUSD-1 (ST)



Type U9AUSEP

The AUS electric lock is locked or unlocked by an instant current flow.

When door is opened, the dead-locking latch is in the retracted position (flat-latch structure), so physical exertion latching force is no longer necessary to close it. When door is closed, the latch automatically extends.

Door can be locked and unlocked with a key or thumb-turn.

Whether or not electric lock is locked and whether or not door is open can be confirmed electrically. (normally open contact output)

Knob (lever handle) is fixed when door is locked.

Functions			
Mountable cylinder	Model	Outside	Inside
U9 WR PR LB JN	AUS*-1	Cylinder Plain Knob (fixed when locked)	Thumb-turn Plain Knob (fixed when locked)
U9 WR PR LB JN	AUS*-2	Cylinder Plain Knob (fixed when locked)	None Plain Knob (fixed when locked)
	AUS*-3	None Plain Knob (fixed when locked)	Thumb-turn Plain Knob (fixed when locked)
U9 WR PR LB JN	AUS*-4	Cylinder Plain Knob (fixed when locked)	Cylinder Plain Knob (fixed when locked)

Note: * is knob or lever handle. As for available knobs and handles, refer to PP.26-27 or P.93.

Specifications	
Backset (mm)	76, 100 (backset 100 on made-to-order basis.)
Case depth (mm)	104, 128
Spacing (mm)	95
Door thickness range (mm)	Knob : 33-42, 42-50, 50-58, 58-66
	Lever handle: 33-35, 35-36, 36-38, 38-40, 40-42, 42-44, 44-46, 46-48, 48-50, 50-52, 52-54, 54-56, 56-58, 58-60, 60-62, 62-64, 64-66

Note 1: When door thickness range is 33-36 and to use the lever handle model, please install liner (t1.5) under the round rose.

Note 2: Liner is packed with a lockset.

Can be installed using the same preparation as that used for AMS models. Also, a version that fits the preparation for the ALS model is available.

In the event of a power outage, lock maintains the position it was in before the outage.

Type AUS is also available that is equipped with a one-touch operation emergency opening device.

·Note that the door preparation is different from that for AUS.

·When emergency unlocking operation is performed, it can be confirmed through electric output (Normally open contact output).

·After emergency unlocking, the lock remains unlocked until the cylinder and thumb turn are operated for locking.

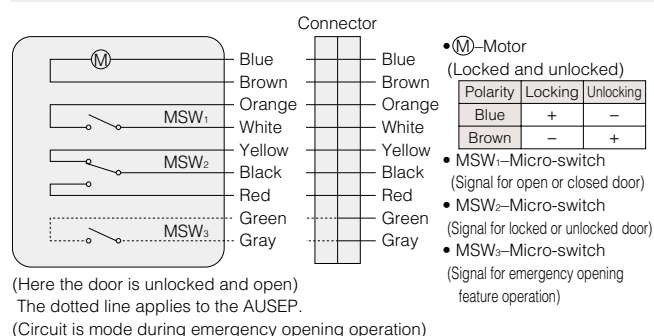
Note 1: The clearance between the door and the frame should be no more than 1-6 mm.

Note 2: 9-pin harness is not included. Please order it separately if needed.

Electrical specifications

Name	Ratings			
Motor (Locked and unlocked)	Voltage DC24V (±20%)	Current 0.3A (±20%)	Load duration time Instant (0.5–3 secondes)	Duty cycle 1/10
Micro-switch (Signal for open or closed door)	Voltage DC24V	Current 2mA– 100mA	Requisite clearance within 1–6 mm	
Micro-switch (Signal for locked or unlocked door)	Voltage DC24V	Current 2mA– 100mA		
Lead wire	Length = 250 mm (with 9P connector) AWG–24, UL1007 heat-resistant vinyl covered wire.			
Permitted temperature range for use	-10°C to +50°C (no condensation or congelation)			

Inner circuits



ALA SERIES ELECTRIC LOCK FOR ENTRANCES

(Locked and unlocked by an instantaneous flow of current)

Applications: Entryways, others.



Type PRALA33-1 (SV)

The ALA series of lever handle electric lock is locked or unlocked by an instant current flow.

The door is locked or unlocked by an instant current flow.

The door can be locked and unlocked with a key or thumb-turn.

Whether or not the door is open and whether or not the electric lock is locked can be confirmed through electric output (normally open contact output).

The lever handle is fixed when the door is locked.

During a power outage, the lock remains in the condition it was in before the power failure (either locked or unlocked).

Note 1: The requisite clearance between the door and the frame should be no more than 6 mm.

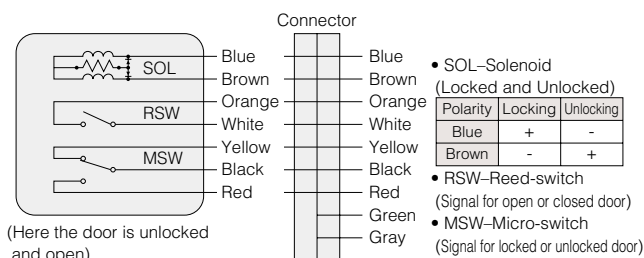
Note 2: Note that lock cases vary depending on the type of cylinder.

Note 3: 9-pin harness is not included. Please order it separately if needed.

Electrical specifications

Name	Ratings			
Solenoid (Locked and unlocked)	Voltage DC24V (±20%)	Current 0.4A (±20%)	Load duration time Instant (0.2–0.5 secondes)	Duty cycle 1/20
Reed-switch (Signal for open or closed door)	Voltage DC24V	Current 2mA–100mA	Requisite clearance within 6 mm	
Micro-switch (Signal for locked or unlocked door)	Voltage DC24V	Current 2mA–100mA		
Lead wire	Length = 250 mm (with 9P connector) AWG–22, UL1007 heat-resistant vinyl covered wire.			
Permitted temperature range for use	-10°C to +50°C (no condensation or congelation)			

Inner circuits



Specifications

Backset (mm)	64
Case depth (mm)	95
Spacing (mm)	80
Door thickness range (mm)	29–33, 33–42, 42–50, 50–58, 58–66

Functions

Mountable cylinder	Model	Outside	Inside
U9 PR(-J) LB(-J) JN	ALA*-1	Cylinder Lever handle (fixed when locked)	Thumb-turn Lever handle (fixed when locked)
U9 PR(-J) LB(-J) JN	ALA*-2	Cylinder Lever handle (fixed when locked)	None Lever handle (fixed when locked)
	ALA*-3	None Lever handle (fixed when locked)	Thumb-turn Lever handle (fixed when locked)
U9 PR(-J) LB(-J) JN	ALA*-4	Cylinder Lever handle (fixed when locked)	Cylinder Lever handle (fixed when locked)

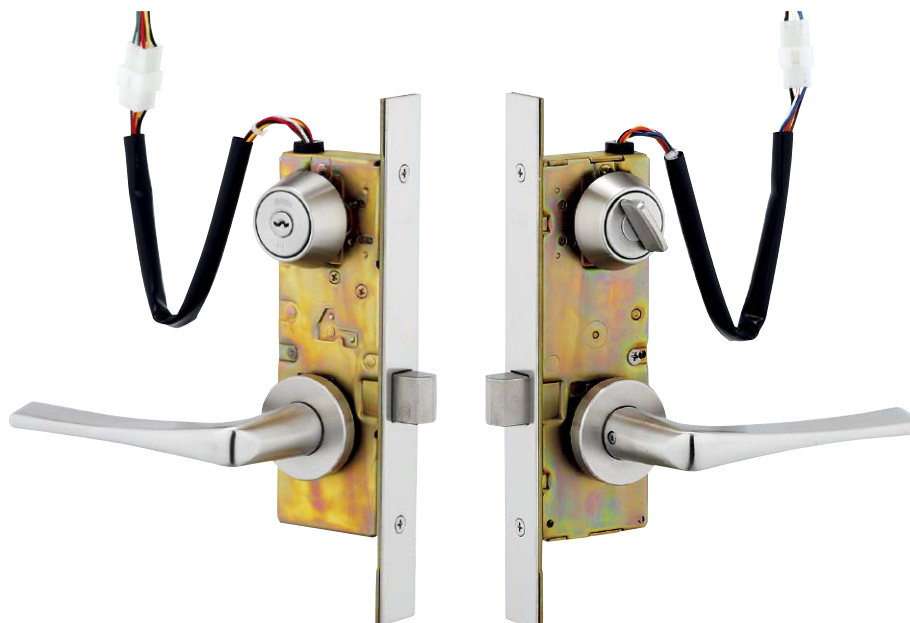
Note: * is lever handle. As for available handles, refer to PP.26–27.

ANS

ELECTRIC LOCK FOR ENTRANCES

SERIES (Locked and unlocked by an instantaneous flow of current)

Applications: Entryways, others.



Type U9ANS51-1 (ST)

The ANS electric lock is a lever handle lock with a 38 mm backset.

The door is locked or unlocked by an instant current flow.

The deadlock latch remains inside the lock when the door is opened. This makes it easier to close the door (latching force). The door locks automatically when it is closed.

The door can be locked and unlocked with a key or thumb-turn.

Whether or not the door is open and whether or not the electric lock is locked can be confirmed through electric output (normally open contact output).

During a power outage, the lock remains in the condition it was in before the power failure (either locked or unlocked).

Note 1: The requisite clearance between the door and the frame should be no more than 6 mm.

Note 2: Note that lock cases vary depending on the type of cylinder.

Note 3: 9-pin harness is not included. Please order it separately if needed.

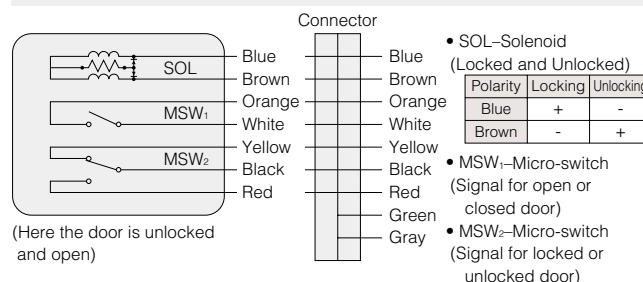
Functions			
Mountable cylinder	Model	Outside	Inside
U9 PR(-J) LB(-J) JN	ANS*-1	Cylinder Lever handle (fixed when locked)	Thumb-turn Lever handle (fixed when locked)
U9 PR(-J) LB(-J) JN	ANS*-2	Cylinder Lever handle (fixed when locked)	None Lever handle (fixed when locked)
	ANS*-3	None Lever handle (fixed when locked)	Thumb-turn Lever handle (fixed when locked)
U9 PR(-J) LB(-J) JN	ANS*-4	Cylinder Lever handle (fixed when locked)	Cylinder Lever handle (fixed when locked)

Note: * is lever handle. As for available handles, refer to PP.26-27.

Electrical specifications

Name	Ratings			
Solenoid (Locked and unlocked)	Voltage DC24V (±20%)	Current 0.4A (±20%)	Load duration time Instant (0.2–0.5 seconds)	Duty cycle 1/20
Reed-switch (Signal for open or closed door)	Voltage DC24V	Current 2mA–60mA	Requisite clearance within 6 mm	
Micro-switch (Signal for locked or unlocked door)	Voltage DC24V	Current 2mA–60mA		
Lead wire	Length = 250 mm (with 9P connector) AWG–24, UL1007 heat-resistant vinyl covered wire.			
Permitted temperature range for use	-10°C to +50°C (no condensation or congelation)			

Inner circuits



Specifications

Backset (mm)	38
Case depth (mm)	63
Spacing (mm)	95
Door thickness range (mm)	33-42, 42-50, 50-58, 58-66

AL4M SERIES ELECTRIC DEAD LOCK (Motorized Lock/Unlock)

Applications: Common entrances to condominiums, office entrances, emergency exits, and more



Type U9AL4M-1 (ST)



Type U9AL4M-4E



Type U9AL4M-4EP

Note 1: Right-handed and left-handed emergency exit devices are available. Please specify right-handed or left-handed when placing an order. (See P.173 for the view of right-handed and left-handed)

Note 2: The default configuration is for steel doors. To use the product for a wooden door, please consult separately.

AL4M series is a successor model of AL3M series with full compatibility and some product improvements.

The door is locked or unlocked by an electrically powered motor.

- The side pressure should be 5kg or less.
- Locking or unlocking, by the energized polarity.

The door can also be locked and unlocked with a key or thumb-turn.

If the thumb-turn operation is difficult, because of attaching the lock case to the lower part of door end relating to the door structure and handle shape, we recommend to unlock electrically combining with switch.

Door status and lock status can be confirmed remotely

In the event of a power failure, the lock remains in the same state it was in prior to the power failure.

During a power failure, a key or the thumb-turn can be used to lock or unlock the unit.

Type AL4M-E with an emergency exit device and Type AL4M-EP with a one-touch emergency exit device are also available. (Backset of 51 and 64 mm only).

- Right / left handed must be specified at order.
- LB cylinder is not available for Type AL4M-EP.
- Types AL4M-E and AL4M-EP allow the emergency covers to be reused. Types AL4M-BE and AL4M-BP with breakable emergency covers are also available.
- Use the TEK series for conductive fittings.
- When automatic locking operation is combined with the controller, the door is automatically locked when closed, but the emergency exit device can be used repeatedly.

Type AL4MR with an R shaped front plate is also available. (See P.363)

There are also Type HD and Type HD2 strike plates with a roller that allows for unlocking with little force even if side pressure is applied to the dead bolt. (See P.362)

- Type HD allows you to adjust the strike plate opening in increments of ± 2 mm.

Water resistance complies with JIS C0920 protection class 3 (rainproof type).

Only the lock body is waterproof. Waterproofing should be applied to the 2-wire conversion adapter and wiring. In addition, installing the lock body upside down or on the top or bottom frame will affect water resistance.

Note 1: The gap between the door and the frame should be within 6 mm.

Note 2: When using a floor hinge, use hinges that only open one way.

Note 3: Installing the lock body on the top frame or bottom frame may cause malfunction.

Note 4: 9-pin harness is not included. Please order it separately if needed.

Functions			
Mountable cylinder	Model	Outside	Inside
U9 WR PR(-J) LB(-J) JN	AL4M-1	Cylinder	Thumb-turn
U9 WR PR(-J) LB(-J) JN	AL4M-2	Cylinder	None
	AL4M-3	None	Thumb-turn
U9 WR PR(-J) LB(-J) JN	AL4M-4	Cylinder	Cylinder

Note: Also available with a dummy cylinder. When purchasing as a set, add "D" to the end of the type name. Example of type: AL4M-2D

Specifications	
Backset (mm)	38, 51, 64
Case depth (mm)	57, 70, 83
Door thickness range (mm)	33-42, 42-50, 50-58, 58-66

Note 1: See P.122 for a list of cylinder materials and finishes.

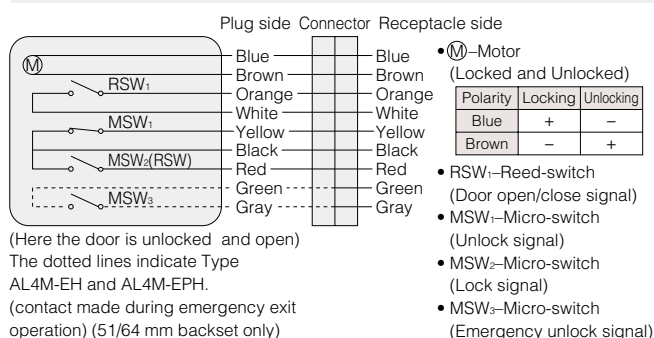
Note 2: Please note that the minimum door thickness of AL4M-E is 34 mm or more.

Electrical specifications

Name	Ratings			
Motor (Lock/unlock operation)	Voltage 24 V DC (±20%)	Current 0.3 A (±20%) Note	Energization time AL4M (2 to 3 seconds) AL4M-E(P) (3 to 5 seconds)	Energiza- tion rate 1/5
Reed-switch (Door open/close signal)	Voltage 24 V DC	Current 2 mA to 100 mA	Requisite clearance 6 mm or less (AL4M-E and AL4M-EP lock signals also equivalent to the left)	
Micro-switch (Lock/unlock signal)	Voltage 24 V DC	Current 2 mA to 100 mA	AL4M-E and AL4M-EP unlock and emergency unlock signals also equivalent to the left	
Lead wire	250 mm long (9P connector included) AWG-24 UL1061 heat-resistant vinyl wire			
Operating temperature range	-10°C to +50°C (with no dew condensation or freezing)			

Note: This table shows the electrical specifications at a lateral pressure of 0 kg. If lateral pressure is applied to the dead bolt, a large current may be applied and affect the controller, etc. Therefore, installation should be performed so that no lateral pressure is applied.

Inner circuits

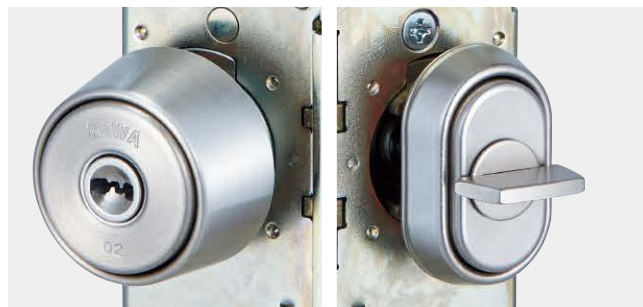


ALN SERIES ELECTRIC DEADBOLT LOCK FOR NARROW FRAME (Motorized Lock/Unlock)

Applications: Narrow frames for store entrances, residential back doors, and more



Type PRALN-1 (ST)



This product uses a special cylinder and thumb-turn set so it can be used on narrow frame doors.

This electric dead lock is ideal for narrow frame aluminum doors.

The 26 mm backset makes it ideal for narrow frame aluminum doors.

Make sure thumb-turn does not interfere with the door stop before installation.

This product is only for outward opening doors.

It can not be used on an inward opening door because the cylinder will interfere with the door stop.

An electric current powers the motor to lock or unlock the locking mechanism.

- Ensure that no side pressure is applied to the dead bolt.
- The electrical lock/unlock mechanism is durable for 400,000 operations.
(Equivalent to JIS A 1541 -2 performance grade 3 based on frequency of use.)

The door can also be locked and unlocked with a key or thumb-turn.

If the thumb-turn operation is difficult, because of attaching the lock case to the lower part of door end relating to the door structure and handle shape, we recommend to unlock electrically combining with switch.

Door status and lock status can be confirmed remotely

In the event of a power failure, the lock remains in the same state it was in prior to the power failure.

During a power failure, a key or the thumb-turn can be used to lock or unlock the unit.

Water resistance complies with JIS C0920 protection class 3 (rainproof type).

Only the lock body is waterproof. Waterproofing should be applied to the 2-wire conversion adapter and wiring. In addition, installing the lock body upside down or on the top or bottom frame will affect water resistance.

Note 1: The gap between the door and the frame should be within 6 mm.

Note 2: When connecting to a controller that does not have an automatic lock detection function, please check the lock type setting carefully before connecting. If the lock type is incorrectly set, problems such as continuous current may occur, resulting in malfunctions.

Note 3: When using a floor hinge, please use hinges that only open one way.

Note 4: Installing the lock body on the top frame or bottom frame may cause malfunction.

Note 5: Please note that the cutouts for the door surfaces are different inside and outside. (For double-side cylinders, the cutouts are of the same $\phi 34$ holes both inside and outside.)

Note 6: 9-pin harness is not included. Please order it separately if needed.

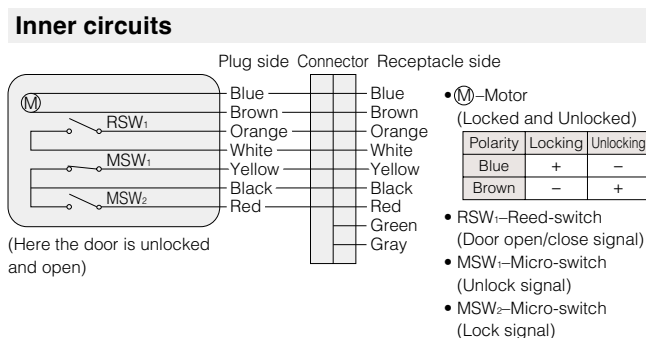
Functions			
Mountable cylinder	Model	Outside	Inside
U9 WR PR JN	ALN-1	Cylinder	Thumb-turn
U9 WR PR JN	ALN-2	Cylinder	None
	ALN-3	None	Thumb-turn
U9 WR PR JN	ALN-4	Cylinder	Cylinder

Specifications		
Backset (mm)	26	
Case depth (mm)	44	
Door thickness range (mm)	33-42	
Material/finish	Stainless Steel	Hairline Finish (Symbol ST) ^(Note) Matte Black Finish (Symbol BK)

Note: ST thumb-turns have a honed finish.

Electrical specifications				
Name	Ratings			
Motor (Lock/unlock operation)	Voltage 24 V DC (±20%)	Current 0.3 A (±20%) Note	Energization time 2 to 3 seconds	Energization rate 1/5
Reed-switch (Door open/close signal)	Voltage 24 V DC	Current 2 mA to 100 mA	Requisite clearance 6 mm or less	
Micro-switch (Lock/unlock signal)	Voltage 24 V DC	Current 2 mA to 100 mA		
Lead wire	240 mm long (9P connector included) AWG-24 UL1061 heat-resistant vinyl wire			
Operating temperature range	-10°C to +50°C (with no dew condensation or freezing)			

Note: This table shows the electrical specifications at a lateral pressure of 0 kg. If lateral pressure is applied to the dead bolt, a large current may be applied and affect the controller, etc. Therefore, installation should be performed so that no lateral pressure is applied.



AFG SERIES ELECTRIC HOOK LOCK FOR SLIDING DOORS (Motorized Lock/Unlock)

Applications: Residential entrances and more



Type U9AFG-1 (ST)

This is an electric hook lock for sliding doors that can be locked or unlocked electronically.

An electric current powers the motor to lock or unlock the locking mechanism.

- Use with a side pressure of 2 kg or less and a pulling pressure of 15 kg or less.
- The locking motor has polarity.

The hook fits into the strike plate more easily.

The clearance between the hook and the strike plate has been increased in order to reduce misalignment between the door and the frame.

In the event of a power failure, the lock remains in the same state it was in prior to the power failure.

During a power failure, a key or the thumb-turn can be used to lock or unlock the unit.

Door status and lock status can be confirmed remotely

Water resistance complies with JIS C0920 protection class 3 (rainproof type) ^(Note 4).

Use in combination with conductive fitting TER-9CC type for sliding doors. (Please discuss with the door manufacturer whether the TER-9CC type can be installed.)

It is also possible to install an electric hook lock for sliding doors on the door end side frame of a sliding door and install a strike plate on the door end.

Note 1: The gap between the door and the frame should be within 4 mm.

Note 2: When connecting to a controller that does not have an automatic lock detection function, please check the lock type setting carefully before connecting. If the lock type is incorrectly set, problems such as continuous current may occur, resulting in malfunctions.

Note 3: Only the lock body is waterproof. Waterproofing should be applied to the 2-wire conversion adapter and wiring.

Note 4: 9-pin harness is not included. Please order it separately if needed.

Functions			
Mountable cylinder	Model	Outside	Inside
U9 WR PR(-J) LB(-J) JN	AFG-1	Cylinder	Thumb-turn
U9 WR PR(-J) LB(-J) JN	AFG-2	Cylinder	None
	AFG-3	None	Thumb-turn
U9 WR PR(-J) LB(-J) JN	AFG-4	Cylinder	Cylinder

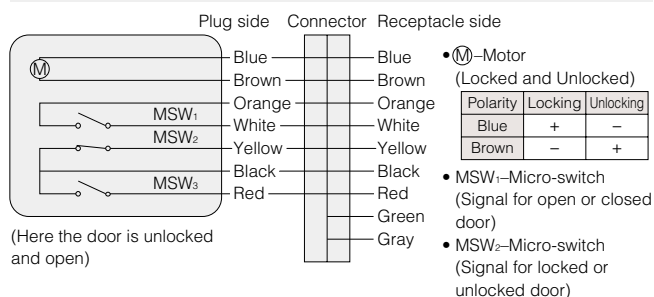
Note: Also available with a dummy cylinder. When purchasing as a set, please add "D" to the end of the type name. Example of type: AFG-2D

Specifications	
Backset (mm)	51
Case depth (mm)	100
Frame thickness range (mm)	33-42, 42-50, 50-58, 58-66

Electrical specifications				
Name	Ratings			
Motor (Lock/unlock operation)	Voltage 24 V DC (±20%)	Current 0.3 A (±20%) Note	Energization time 2 to 3 seconds	Energization rate 1/5
Micro-switch (Door open/close signal)	Voltage 24 V DC	Current 2 mA to 60 mA	Requisite clearance 4 mm or less	
Micro-switch (Lock/unlock signal)	Voltage 24 V DC	Current 2 mA to 60 mA		
Lead wire	250 mm long (9P connector included) AWG-24 UL1061 heat-resistant vinyl wire			
Operating temperature range	-10°C to +50°C (with no dew condensation or freezing)			

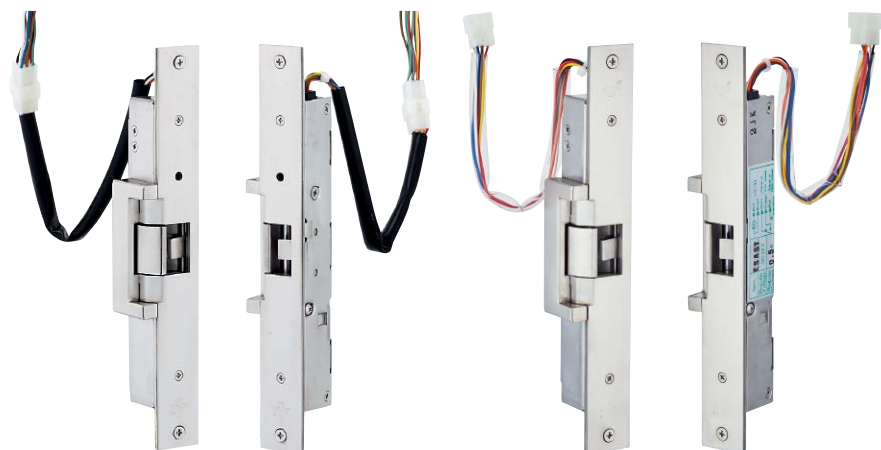
Note: This table shows the electrical specifications at a lateral pressure and pulling pressure of 0 kg. The motor current increases when lateral pressure and pulling pressure are applied. Please contact us for more details.

Inner circuits



AS SERIES ELECTRIC STRIKES

Applications: Common entrances of apartment, office entrances (AST), emergency exits (ASE, ASR)



Type ASE

Type ESAST



Example combined with AD series

Types and Applications

Model	Function	Combined lock	Applications
ASE (24 V)	Continuously lock and unlock mode	AD (Automatic locking deadbolt lock), HK (Cylindrical lock)	Emergency exits
AST (24 V) ESAST (12 V)	Fail secure mode	AD (Automatic locking deadbolt lock), HK (Cylindrical lock), LAL (Lever handle lock)	Common entrances of apartment, building doorways, others
ASR (24 V) ESASR (12 V)	Fail safe mode		Emergency exits

Electric strike can be released by remote control.

Usually, electric strike is used with auto locking mechanical lock.

Door status and lock status can be checked remotely.

ASE

Continuously lock and unlock mode.

AST/ESAST

Fail secure mode

ASR/ESASR

Fail safe mode

Note 1: The gap between the door and the frame should be within 6 mm.

Note 2: Refer to the page on the controller for the wiring distance between the electric strike and the controller.

Note 3: 9-pin harness is not included. Please order it separately if needed.

Electrical specifications

Electrical Specifications				
Name	Ratings (ASE)			
Solenoid (Unlocked)	Voltage DC24V (±20%)	Current 0.9A (±20%)	Load duration time Instant (0.5–3 seconds)	Duty cycle 1/10
Micro-switch (Door status)	Voltage DC24V	Current 2mA–100mA	Requisite clearance within 6 mm	
Micro-switch (Lock status)	Voltage DC24V	Current 2mA–100mA		
Lead wire	Length = 250 mm (with 9P connector) AWG-22, UL1007 heat-resistant vinyl covered wire.			
Permitted temperature range for use	-10°C to +50°C (no condensation or congelation)			

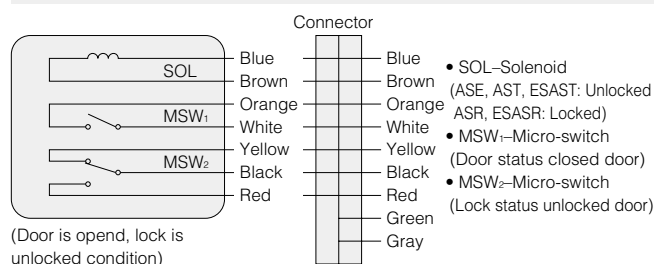
Name	Ratings (AST, ESAST, ASR, ESASR)			
Solenoid (AST, ESAST: Unlocked) (ASR, ESASR: Locked)	Voltage DC24V (±20%) <small>Note</small>	Current 0.3A (±20%)	Load duration time Continuous	Duty cycle 1
Micro-switch (Door status)	Voltage DC24V <small>Note</small>	Current 2mA– 100mA	Requisite clearance within 6 mm	
Micro-switch (Lock status)	Voltage DC24V <small>Note</small>	Current 2mA– 100mA		
Lead wire	Length = 250 mm (with 9P connector) AWG-22, UL1007 heat-resistant vinyl covered wire.			
Permitted temperature range for use	-10°C to +50°C (no condensation or congelation)			

Note: DC12V for ESAST and ESASR.

Specifications

Case depth (mm)	32
Door thickness range (mm)	33–42, 42–50, 50–58, 58–66

Inner circuits



EM2L SERIES MAGNETIC LOCK

Applications: Gates, others.



Type EM2L600

Electro-Magnetic Locks, suitable for exterior usage.

The EM2L is attached to the door frame, and the strike plate to the door to achieve a powerful electromagnetic lock. ^(Note 1)

Fail-safe magnetic lock. Unlocked when the power is turned off.

Holding force is 250 kgf.

This product can be connected to controllers BAN-DS1 (P.288)/-DS2 (P.290)/-DS2C/-AS (obsolete) and controllers BAN-VS4 to 32B (P.295) and access control device CMCU-801 to remotely operate the magnetic lock. The control panel allows the user to confirm lock status and door status.

Combination of this product with any control panel or other device other than those listed above may cause malfunction and should not be used.(including products from other companies)

Water resistance complies with JIS C0920 protection class 6 (water-resistant type) and dustproof performance complies with JIS C0920 protection class 6 (dust-resistant type). ^(Note 2)

Because there is no attraction force when there is a gap between the lock unit and the strike plate, fingers, etc. can not be caught in the lock.

Note 1: When used on a door located in an evacuation route, be sure to install the unlock switch inside the door.

Note 2: Only the lock unit is waterproof. Waterproofing should be applied to the 2-wire conversion adapter and the wiring at installation.

Note 3: If necessary, the door or frame in which the lock unit is to be installed should be reinforced to provide sufficient installation strength.

Note 4: Avoid strong impact to the main unit. This may damage the unit's built-in sensor.

Note 5: Install the lock so that the rubber washer between the bracket (or door) and the strike plate is approximately 5.7 mm when the door is fully closed. (See P.371) If the rubber washer is overly compressed, the impact of closing the door is more likely to be applied to the main unit, causing it to malfunction.

Note 6: The holding force of this product varies depending on the environment in which it is used, so please clean and maintain it regularly.

Note 7: Because this product contains an electromagnet, do not bring objects affected by magnetism within 10 cm of the main unit.

Note 8: Please note that brackets must be purchased separately.

Note 9: The mounting plate for the lock unit is not included. If necessary, please purchase separately.

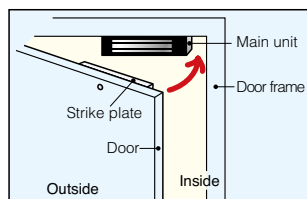
Required mounting plate: EM2L600.BP

Note 10: 9-pin harness is not included. Please order it separately if needed.

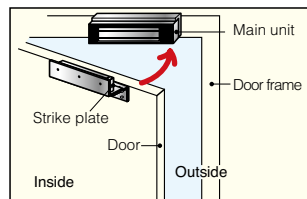
Note 11: Please refer to P.370 for compatibility between old and new products for EML600 and EM2L600 components.

Electrical specifications

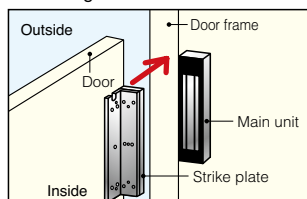
For outward opening door



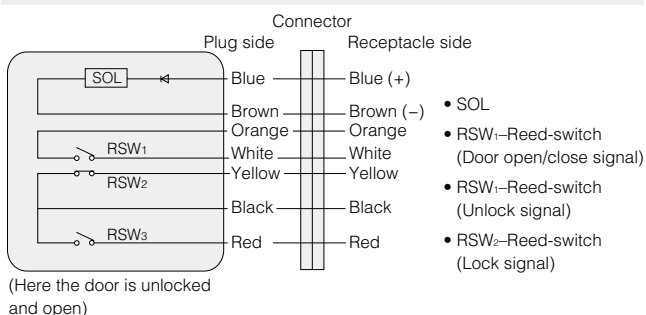
For inward opening door



For sliding door



Inner circuits



Electrical specifications

Name	Ratings		
Electromagnet (Locking Operation)	Voltage 24 V DC (±15%)	Current 0.25A (±15%)	
Switch (Door status Signal Lock status Signal)	Voltage 24 V DC	Current 100 mA	Operating range Longitudinal direction within ±9 mm Shorter direction within ±4 mm
Lead wire	AWG23 AWM21885 Heat-Resistant Vinyl Wire		

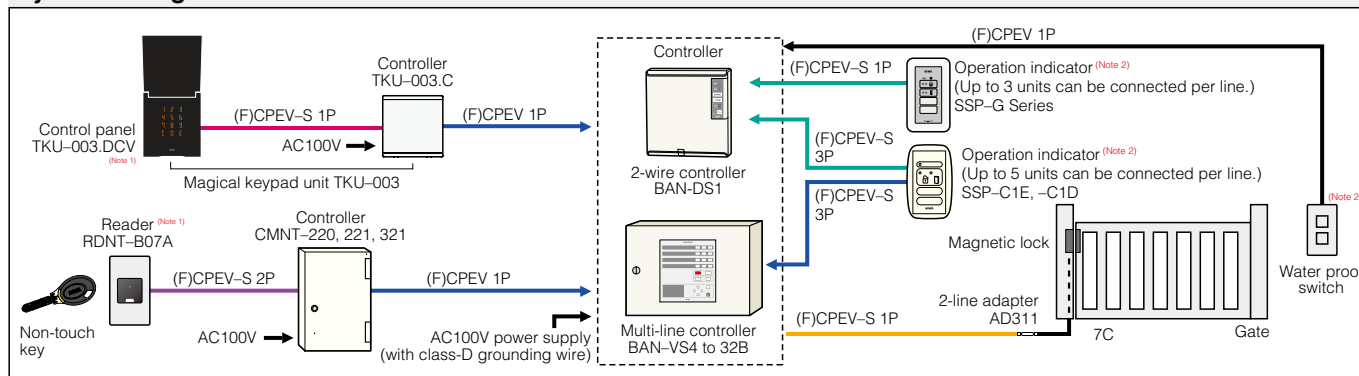
Specifications

Model	EM2L600 (Holding force ^{Note 1} 250 kgf or more)
Door Thickness (mm)	36–55 ^{Note 2}
Use temperature	-10–+50°C/no condensation
Operating range	Within ±9 mm in longitudinal direction and ±4 mm in shorter direction from the center position
Material	Main unit: SUS304 with hairline finish Strike plate: Carbon steel, zinc plated finish
Weight	Main unit set : Approx. 2.7 kg Mounting plate : Approx. 0.14 kg L type bracket : Approx. 0.35 kg Z type bracket : Approx. 0.6 kg

Note 1: Holding force is the actual value when 24VDC is applied and pulled perpendicularly to the magnetic surface with no position gap between the main unit and the strike plate. Holding force varies depending on installation conditions, usage environment, and aging.

Note 2: For installation where the strike plate is inserted into the door.

System configuration



When conductor diameter is 0.9 mm

- Control panel - various devices: within 100 m
- Control panel - controller: within 100 m
- Control panel - magnetic lock: within 120 m
- Reader - controller: within 100 m
- Total wiring distance: within 100 m

Note 1: When installing control panels, readers, and other devices outdoors, follow the installation instructions for each product.

Note 2: If the door must be unlocked from the inside, such as when installed in an evacuation route, install a commercially available exit unlock button. When installing an exit unlock button outdoors, use a commercially available waterproof switch. The output specifications of the switch must be in accordance with the specifications of the controller (electric lock controller).

Hospitality Locking Solution - Product specification

HOTEL CARD LOCK

M Type

Handle type	50, 66, 74, 476, 478
Mountable Cylinder	U9
Backset (mm)	70
Door thickness (mm)	40–46
Finishes	Refer to P.335
Usability	Left-hand and right-hand usable (inward opening)
Power Supply	4 AA alkaline batteries
Battery life	Approx. 1.5 years (10 times per day operation)
Environmental conditions	Operating temperature: 0–40°C (no condensation) Operating humidity: 35–85% RH
Installation location	A location that avoids direct sunlight and is not exposed to wind and rain.
Dust	Comparable to a standard office environment
Card in use	MIFARE
Card detection range	Approximately 22–30 mm ^{Note 1}
Smartphone detection range	Approximately 23–30 mm ^{Note 1}
Smartphone communication range	Less than 2 m ^{Note 1}

Note 1: The detection range of cards and smartphones, as well as the communication distance of smartphones, may vary depending on the environment and the performance of the smartphone.

Note 2: Wooden doors are not supported.

Slim type

Handle type	66, 74, 476, 478
Mountable Cylinder	U9
Backset (mm)	70
Door thickness (mm)	35–65
Finishes	Refer to P.338

P type

Handle type	66, 74, 476, 478
Mountable Cylinder	U9
Backset (mm)	70
Door thickness (mm)	35–65
Finishes	Refer to P.338

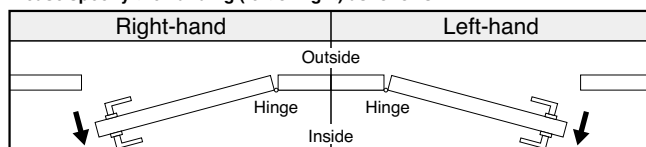
Common specification

Usability	Left-hand and right-hand usable (inward opening)
Power Supply	4 AA alkaline batteries
Battery life	Approximately 1.5 years (10 times per day operation)
Environmental conditions	Operating temperature: 0–40°C (no condensation) Operating humidity: 35–85% RH
Installation location	A location that avoids direct sunlight and is not exposed to wind and rain.
Dust	Comparable to a standard office environment
Card in use	MIFARE
Card detection range	Less than 12 mm ^{Note 1}
Smartphone detection range	Less than 12 mm ^{Note 1}
Smartphone communication range	Less than 2 m ^{Note 1}

Note 1: The detection range of cards and smartphones, as well as the communication distance of smartphones, may vary depending on the environment and the performance of the smartphone.

View of the right-hand or left-hand

Please specify the handing (left or right) as follows:



- Axis of the hinge can be seen on the right side when viewed from the side from which the door is opened: right-hand

- Axis of the hinge can be seen on the left side when viewed from the side from which the door is opened: left-hand

Gateway GWBT–LN01

External dimensions (mm)	37.2 (W) × 150 (H) × 150 (D)
Weight	0.275 kg
Power	PoE (IEEE802.3af)
Input voltage	37–57 V
Input power	Less than 12.95W
Environmental conditions	Operating temperature and humidity: 0–50°C, 0–90% RH (non-condensing)
Communication standard	BLE (Bluetooth Low Energy)
Communication distance	Within a radius of 10 m ^{Note 2}
Number of connected locks	Up to 15 locks ^{Note 3}

Note 2: The communication distance is the operating range under unobstructed line-of-sight conditions. The operating distance may vary depending on radio wave environment and usage conditions.

Note 3: The maximum number of connections may decrease depending on the distance between locks and other factors.

Card encoder DWHL–V3UA01

External dimensions (mm)	90 (W) × 28.8 (H) × 81 (D)
Weight	95 g
Power	Supplied by USB
Power consumption	Maximum 200W or less
Environmental conditions	Operating temperature and humidity: 0–40°C, 30–90% RH (non-condensing)
Card in use	MIFARE
Communication distance	Less than 10 mm

BLE encoder DWHL–V2BLE01

External dimensions (mm)	65 (W) × 105 (H) × 40.2 (D) (main unit only)
Weight	0.2 kg
Power	DC 5 V (supplied by USB)
Environmental conditions	Operating temperature: 0–50°C
Communication standard	BLE (Bluetooth Low Energy)
Frequency	2.4 GHz
Smartphone communication range	Approximately 2 m Note: Communication distance may vary depending on smartphone performance and environment.

Entrance/Elevator access card reader

Type CMHL–501 (Card reader controlling unit)

External dimensions (mm)	400 (W) × 300 (H) × 120 (D)
Weight	5 kg
Installation	Surface-mount
Power	AC 100 V–AC 240 V ± 10% 50 Hz/60 Hz/110 W
Power consumption	Maximum 75VA or less
Dry contact output	Non-voltage contact × 10 contacts (a/b switchable) (standard) Option: Up to 40 contacts Contact make time: Adjustable from 1 to 59 seconds Contact capacity: DC 30V 2A / AC 250V 2A
Environmental conditions	Operating temperature and humidity: 0–50°C, 30–95% RH (non-condensing)

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Card reader RDFL–B04H

Model	RDFL–B04H
Authentication media	Card
Waterproof performance	IPx3 (rainproof)
Card communication distance	Less than 20 mm

Card reader RDFL–B04BLE

Model	RDFL–B04BLE
Authentication media	Card, Smartphone
Waterproof performance	IPx3 (rainproof)
Card communication distance	Less than 20 mm
Smartphone communication range	Within 2 m Ensure a minimum distance of 4 meters between readers

Card reader RDFL–B04BLES

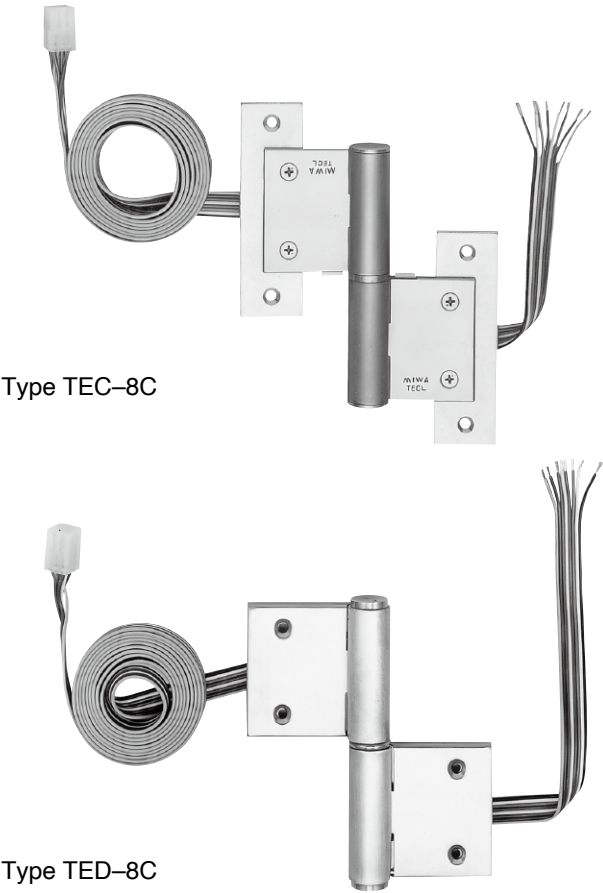
Model	RDFL–B04BLES
Authentication media	Card, Smartphone
Waterproof performance	IPx3 (rainproof)
Card communication distance	Less than 20 mm
Sensor detection distance	Proximity sensor: approximately 10 cm
Smartphone communication range	Less than 2 m

Card reader common specification

External dimensions (mm)	116 (W) × 120 (H) × 45 (D)
Weight	0.25kg
Installation	Install in a 2-gang deep switch box or plate.
Power	Supplied by control unit
Environmental conditions	Operating temperature and humidity: -5–50°C, 20–90% RH (non-condensing)

TEC, TEF, TED SERIES CONDUCTIVE FITTINGS

Applications: Residences, apartments, dormitories, buildings, hospitals, others.



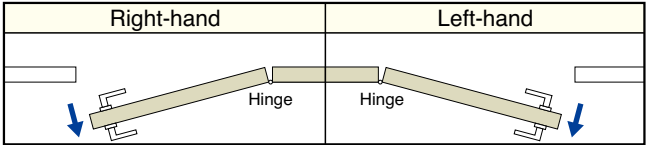
The leads are not exposed and so can be used between the door and the door frame.

From the outside, the system looks no different from a standard hinge axis center (although it cannot be used as a hinge axis center).

Both left-hand and right-hand versions are available. Be sure to specify the version you desire when ordering.

Models available		
Model	Lines	Lead wire specifications
TEC-8C TEF-8C TED-8C	8	Door side lead wires = 1,500 mm with 9-pin connector (receptacle) Frame side lead wires = 100 mm without connector AWG-22 UL1007 heat-resistant vinyl covered wires
TEC-8CC TEF-8CC TED-8CC	8	Door side lead wires = 1,500 mm with 9-pin connector (receptacle) Frame side lead wires = 250 mm with 9-pin connector (plug and receptacle) AWG-22 UL1007 heat-resistant vinyl covered wires
TEF-2C	2	Door side lead wires = 1,500 mm with 9-pin connector (receptacle) Frame side lead wires = 100 mm without connector AWG-22 UL1007 heat-resistant vinyl covered wires
TEF-2CC	2	Door side lead wires = 1,500 mm with 2-pin connector (receptacle) Frame side lead wires = 250 mm with 2-pin connector (plug and receptacle) AWG-22 UL1007 heat-resistant vinyl covered wires

View of the right-hand or left-hand
Please specify the handing (left or right) as follows:

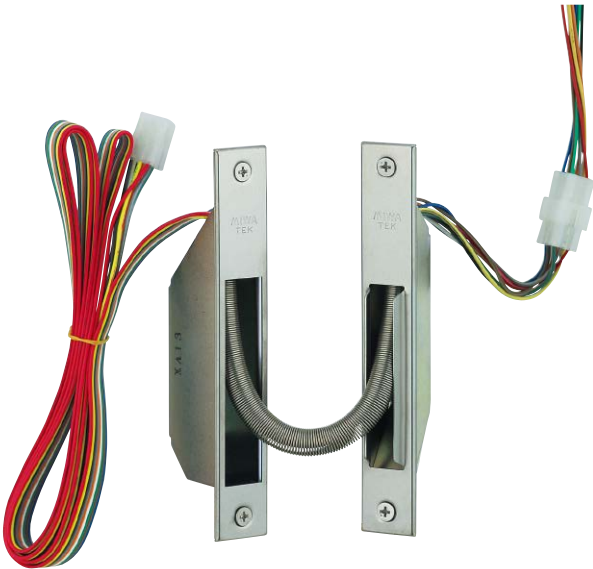


- Axis of the hinge can be seen on the right side when viewed from the side from which the door is opened: right-hand
- Axis of the hinge can be seen on the left side when viewed from the side from which the door is opened: left-hand

Drawing: P.406

TEK SERIES CONDUCTIVE FITTINGS

Applications: Residences, apartments, dormitories, buildings, hospitals, others.



Type TEK-9CC

The leads are not exposed when door is closed.

Note: Regarding strikes and latch bolts for electric locks, please note that dimensions other than those specified on each electric lock's drawing pages are not available.

Models available		
Model	Lines	Lead wire specifications
TEK-9C	9	Door side lead wires = 1,500 mm with 9-pin connector (receptacle) Frame side lead wires = 100 mm without connector AWG-22 heat-resistant vinyl covered wires
TEK-9CC TEK-9CC	9	Door side lead wires = 1,500 mm with 9-pin connector (receptacle) Frame side lead wires = 250 mm with 9-pin connector (plug and receptacle) AWG-22 heat-resistant vinyl covered wires
TEK-2C	2	Door side lead wires = 1,500 mm with 2-pin connector (receptacle) Frame side lead wires = 100 mm without connector AWG-22 heat-resistant vinyl covered wires
TEK-2CC	2	Door side lead wires = 1,500 mm with 2-pin connector (receptacle) Frame side lead wires = 250 mm with 2-pin connector (plug and receptacle) AWG-22 heat-resistant vinyl covered wires

Note: Do not use a for center-hung door.

TEC, TEF, TED, TEK

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