

IRONMONGERY

GENERAL ARCHITECTURAL HARDWARE GUIDE BOOK

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OLIVARI LEVER

LEVER HANDLE

LOCK & CYLINDER

HANDLE & KNOB SET

DOOR HANDLE

DOOR CLOSER

FLOOR SPRING

PANIC DEVICE

HINGE

ACCESSORIES

SLIDING SYSTEM

ACOUSTIC HARDWARE

ELECTRONIC ACCESS

CONTENT











NT products have been synonymous in the building industry that distributes one of the most comprehensive coordinated architectural hardware around the world. Has earned a reputation for reliable top-quality products, which have been specified and installed throughout the world.

Tested to the highest standards worldwide, quality is built in at every stage of manufacture. This uncompromising approach has found a reputation for reliability and durability ensuring products that can be specified with total confidence.

Products designed for the commercial, institutional, industrial and residential markets include hinges, locksets, door closers, exit devices, security key systems, electronic access control systems and supplemental hardware including custom-made. It offers the largest range of quality hardware to suit any project application supported by advanced manufacturing facilities and international reputation.

We guarantee products offered to be of good quality and designed to give optimum value and can therefore be selected to satisfy most selection criteria related to aesthetics, quality, durability, performance standards and costs perimeters.

And most importantly, unrivalled customer service levels.

2	<p>Olivari Lever</p> 	14	<p>Knob Set</p> 	19	<p>Door Closer</p> 
4	<p>Lever Handle</p> 	16	<p>Door Handle</p> 	22	<p>Panic Device</p> 
12	<p>Lock & Cylinder</p> 	18	<p>Floor Spring</p> 	25	<p>Hinge</p> 
				26	<p>Door Accessories</p> 

Dal 1911 Olivari realizza maniglie in Italia, all'interno dei propri stabilimenti, dove si svolge l'intero ciclo produttivo. Partendo da barre in ottone, le maniglie vengono cromate e marchiate al laser. Olivari ha ottenuto le certificazioni ISO 9001 e ISO 14001 e si avvale delle tecnologie più evolute, ma ha mantenuto tutta la sapienza artigianale accumulata in cento anni di storia.

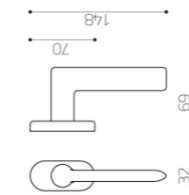
Since 1911 Olivari has been manufacturing handles at its own factories in Italy where the entire production process takes place. Starting with brass billets, the handles are forged, milled, polished, buffed, chrome-plated and hallmarked with a laser.

Olivari has attained ISO 9001 and ISO 14001 certifications.

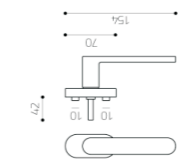
Though it uses the most advanced technology, Olivari preserves all the artisanal wisdom it has accumulated in 100 years of history.



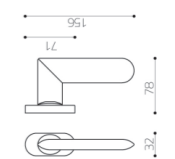
Tecno



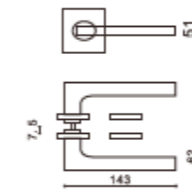
Radial



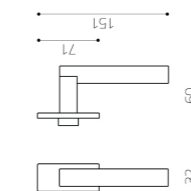
Alexandra



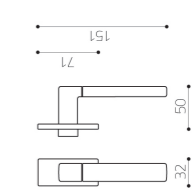
Lotus Q



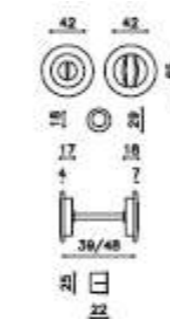
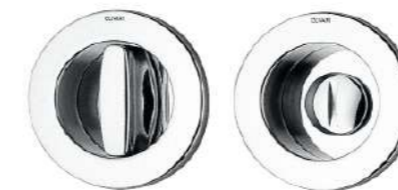
Euclide Q



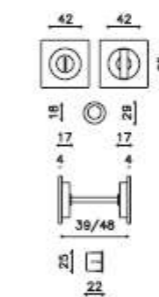
Planet Q



Flush Handle



D122



D127

Available Finishing

ottone/brass

- ZL superoro lucido/supergold bright
- CR cromato /chrome
- CO cromato opaco/mat chrome
- CA cromato-cromato opaco/chrome-mat chrome
- EL biocromo lucido/biochrome bright
- NS supernichel satinato/supernickel satin
- IS superinox satinato/superstainlesssteel satin
- US superantracite satinato/superanthracite satin

* Warranty: up to 30 years

LEVER HANDLE

Hollow series

LEVER HANDLE

Hollow series



VR SERIES

The VR series lever is among our most popular levers that represent the epitome of European inspired styling. has earned a reputation for reliable top quality products that have been specified and installed throughout the world.

The door furniture is manufactured and engineered to the highest tolerances demanded by today's quality and performance standards.



The lever furniture are made of high quality stainless steel grade 304 or *316 only upon request. An ideal material when durability or hygiene is a demand.

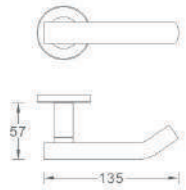
Ideally suited for apartments, office fit-outs, hotels/ motels and high quality residential homes.

Our VR series lever range are available in either satin stainless steel or polished or combination of both finishes.

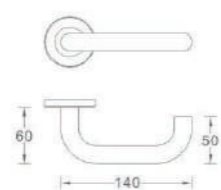
- Tested to 200,000 cycles.
- Tested to En1906 standards
- Tested to TUV -PSB SS332.2007 standards
- Fire tested
- 2 years warranty



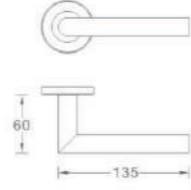
VR 11



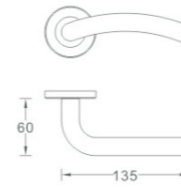
VR 21



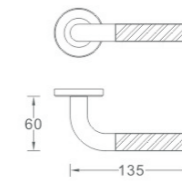
VR 31 ●
VR 41 ●



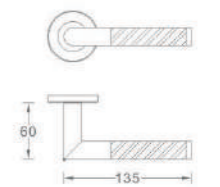
VR 64



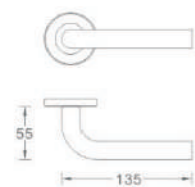
VR 65



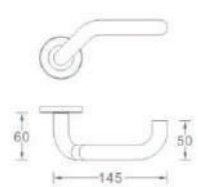
VR 66



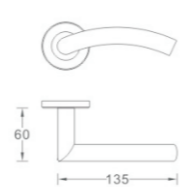
VR 51



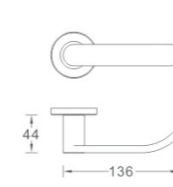
VR 61



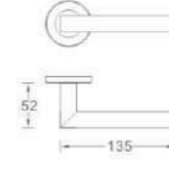
VR 62



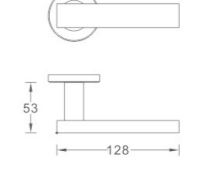
VR 70



VR 71



VR 72
VR 73 L (Large)



LEVER HANDLE

Solid series

LEVER HANDLE

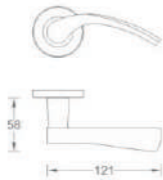
Solid series



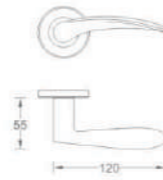
VRC001



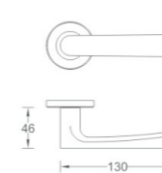
VRC002



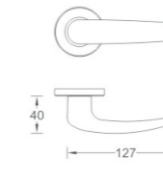
VRC003



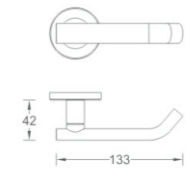
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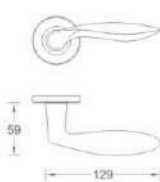
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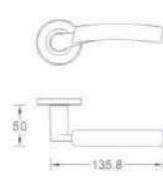
VRC012



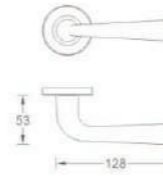
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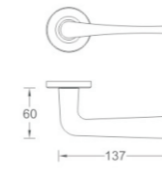
VRC005



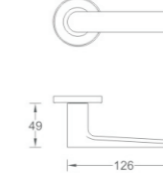
VRC006



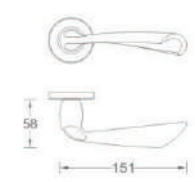
VRC013



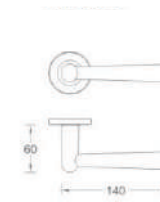
VRC014



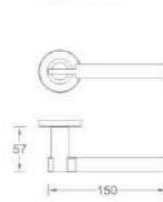
VRC016



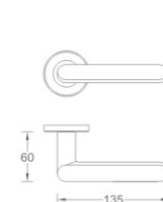
VRC007



VRC008



VRC009



Material: SUS304 S.S.

Applicable: door thickness up to 38mm for wooden or metal door

Spindle: 8mm

Remark: available for produce based on project

Accessories

Back Plate

Rose

Lockcase

Cylinder

Finished

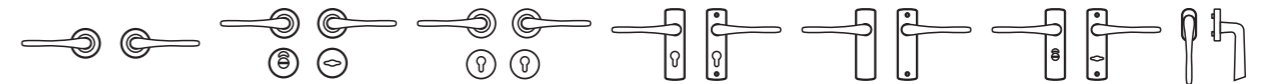
SSS

PSS

PVD

TGP

AB



Passage Lock/
Decorative lockset

Bathroom lockset

Internal door lockset/
Entrance door lockset

Internal door lockset/
Entrance door lockset

Passage Lock/
Decorative lockset

Bathroom lockset

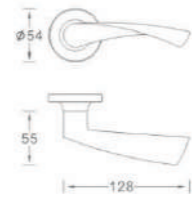
Window handle

LEVER HANDLE

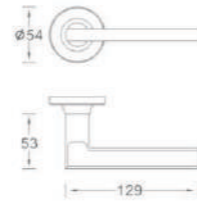
Ball Bearing series



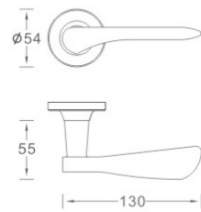
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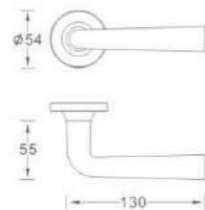
VRCB068



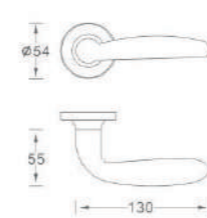
VRCB058



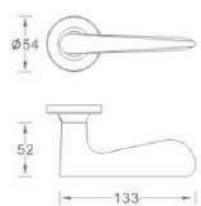
VRCB064



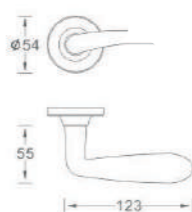
VRCB067



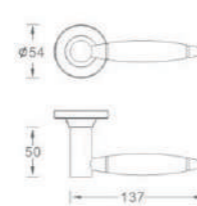
VRCB120



VRCB167



VRCB198

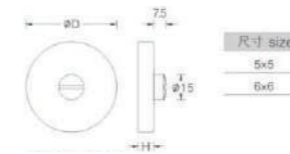


LEVER HANDLE

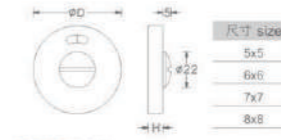
Bathroom series



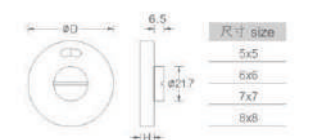
SKA002



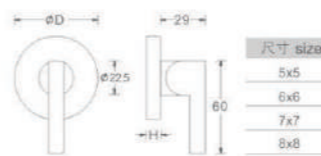
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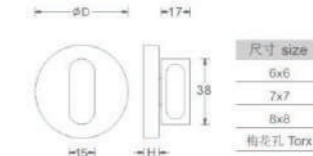
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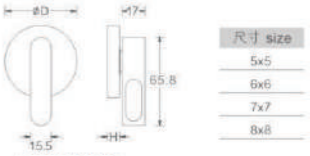
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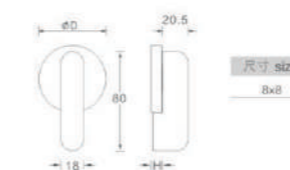
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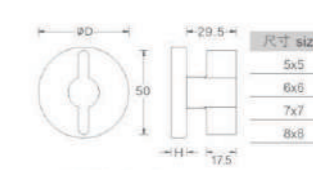
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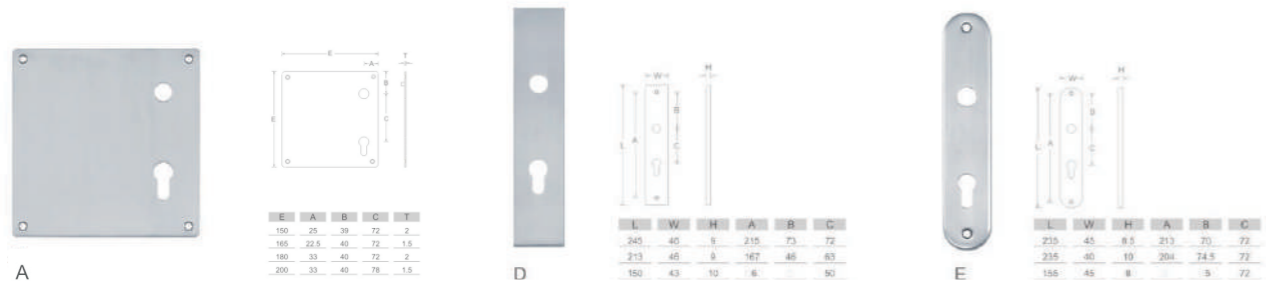


SKA008

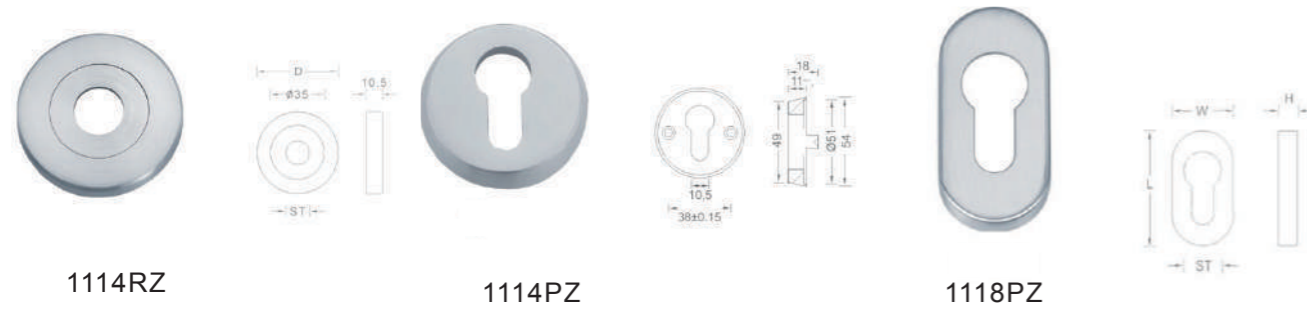


SKA009





Rose series



Varieties of lockset

Sorted by outline: stainless steel lockset with plate, stainless steel lockset with roses and escutcheons

Sorted by functions: entrance lockset series, privacy lockset series, passage lockset, bathroom lockset, fire-proof lockset, window lockset

Handle Selection

Pay attention to the followings when choosing lockset

- ◆ design and safety standard
- ◆ environmental properties
- ◆ occasion properties
- ◆ characteristics of people who use
- ◆ weight and width of the door

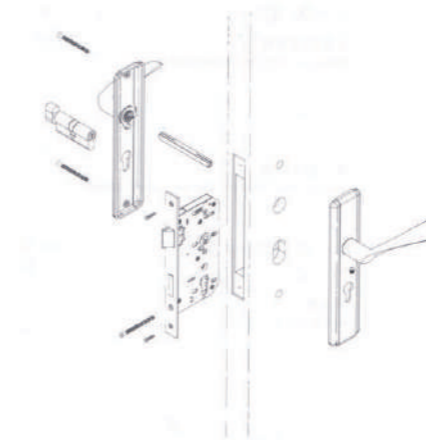
Installation and maintenance of locks

Confirmation before installing locks: painting on the door must get dry for the painting will destroy the surface of the products. Checking directions of the door and the lock are the same. Confirm the fixing height of the lock (usually 1000mm height from the floor). Take out the fixing instructions, read it carefully and prepare the fixing tools. Take out the perforated paper, paste it on the door, set the mounting position and size then drill holes on the door. At last, install the lock on the door according to the instructions diagram and dry to make it flow smoothly.

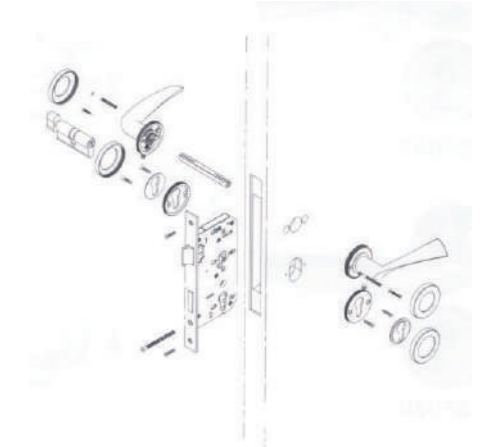
Maintenance of lock

- ◆ Hitting the surface of the lock with hammer, hard object or sharp object is not allowed.
- ◆ Open the door by handles when the key or the thumb is turned in place. Do not push the door by the key which is inserted in the cylinder or it will destroy the lock.
- ◆ It is better to maintain the lock once half year, such as strengthening the screws, cleaning the surface which is touch not too often. Filling lubricant into the turning position, adding carbon powder or graphite into cylinder hole to ensure the key goes in and out smoothly. Checking the gap between the lock and lock plate, it is better to be 1.5-2.5mm. If not, it should be adjusted.
- ◆ When cleaning the lock, use soft cloth with water or neutral detergent. Corrosive detergent or strong detergent is not allowed.

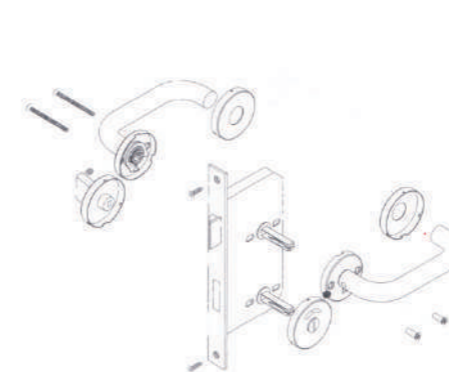
Installation diagram of lockset with plate



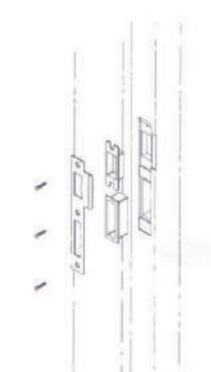
Installation diagram of lockset with rose



Installation diagram of bathroom lockset



Installation diagram of lockplate



MORTISE LOCK



NT 7000 series lockcase is tested to meet the European standard EN12209 and the dimensional criteria of DIN 18251, you can be assured that an uncompromising attention to details that has been given to every state of design and manufacture.

Wide ranging in it's scope, it prescribes the wide number of physical properties including cycle testing, door size/mass, suitability for use on fire door, security and corrosion resistance.



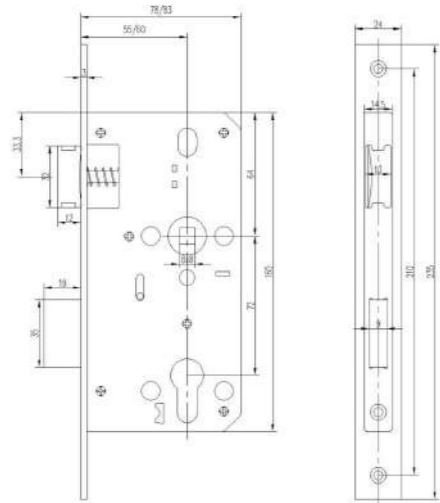
SPECIFICATION

7000 Series

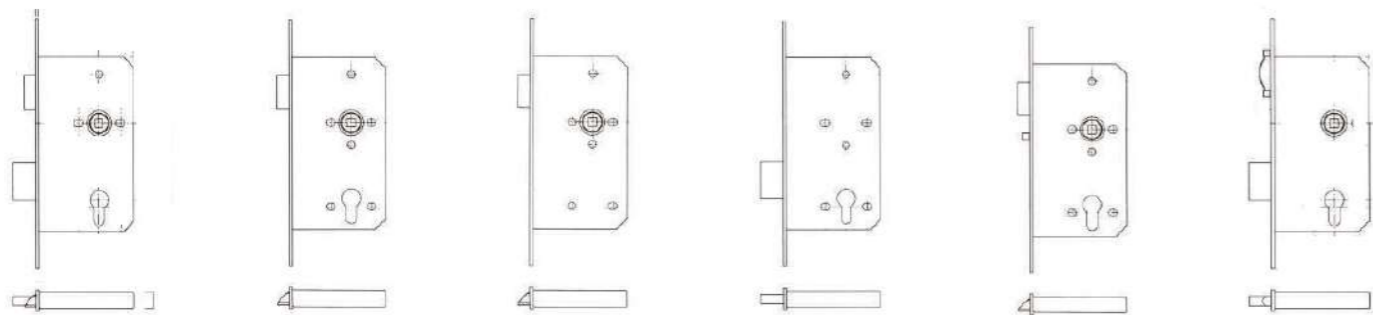
- ✓ Cast stainless steel latch & bolt
- ✓ SS front & striker plate with dust-box
- ✓ Optional grade 316 available upon request
- ✓ Slide and guide deadbolt mechanism for smoother locking and unlocking operation
- ✓ Reversible latch for left or right handed doors
- ✓ Latch projection of 12.5mm meets fire regulation requirements
- ✓ Fire Tested
- ✓ Tested to EN12209 standards
- ✓ Tested to TUV-PSB SS332.2007 standards
- ✓ 2 years warranty

5000 Series Contract Locks

- ✓ Cast alloy latch & bolt
- ✓ SS front & striker plate with dust-box
- ✓ Slide and guide deadbolt mechanism for smoother locking and unlocking operation
- ✓ Reversible latch for left or right handed doors
- ✓ 2 years warranty



Function

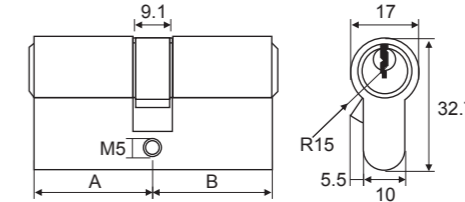


7630 Sashlock 7651 Nightlatch 7600 Passage 7660 Deadlock 7690 Classroom 7630R Roller Lock

CYLINDER

NT EC series cylinder lock is very flexible and sophisticated means of providing security at most doors. The two part assembly uses a lockcase, which is either morticed into the door or surface mounted, and a locking cylinder which is used to lock and unlock the lockcase.

Enable sophisticated masterkeying and key control capabilities where access to multiple doors can be allowed or restricted to varying personnel.



SPECIFICATION

- 5 and 6 pin security cylinders in euro profile, oval profile, rim, threaded and padlock versions
- Universal turn suitable for standard applications and for elderly or disabled people
- Standard length of 30/30mm(60mm). Available with an incremental length of 5mm from either side
- Tested to 100,000 cycles
- Fire tested
- Tested to EN12209 standards
- Tested to TUV-PSB SS332.2007 standards
- 2 years warranty



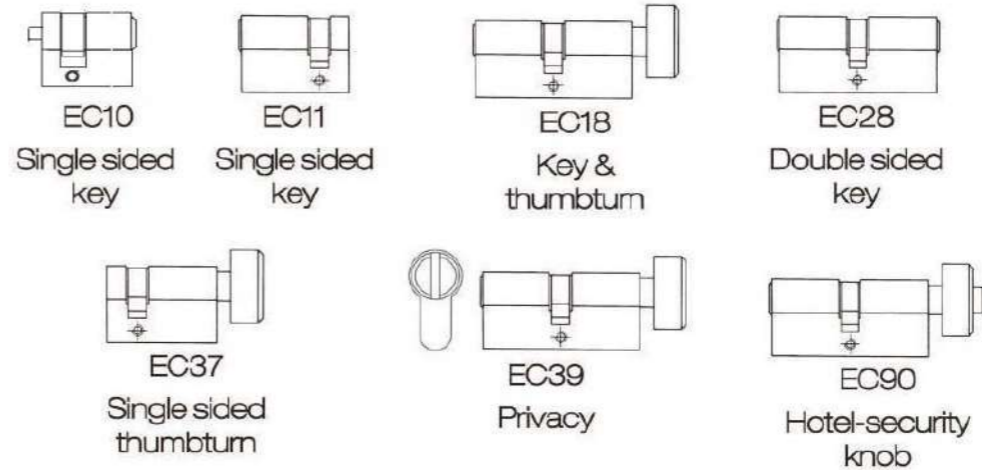
Various Length Available

- A + B = 60mm
- A + B = 65mm
- A + B = 70mm
- A + B = 80mm
- A + B = 90mm
- A + B = 100mm
- A + B = 120mm

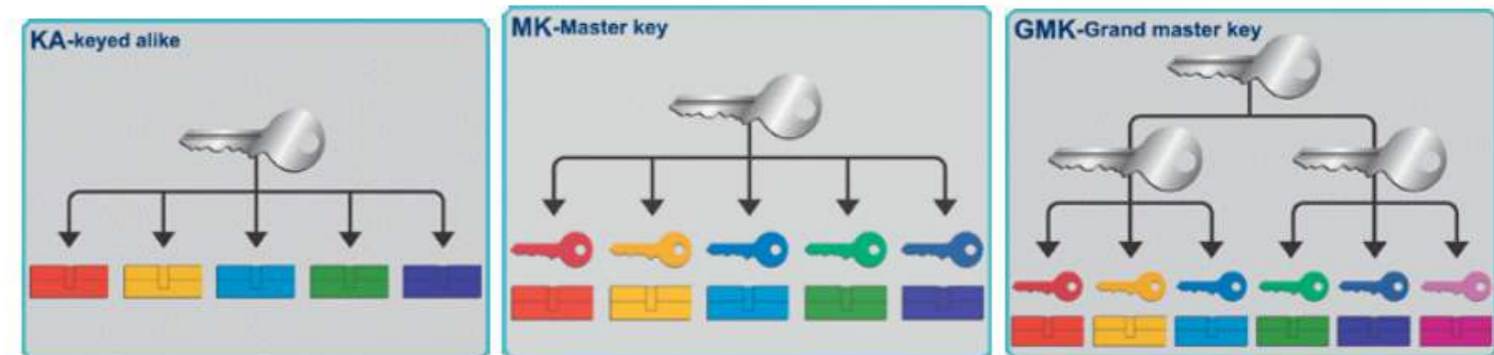
Available Finishing :

- Satin Black
- Satin Chrome
- Polish Chrome
- Satin Nickel
- Polish Brass

Function



Keying System



CYLINDRICAL LOCK

TUBULAR LOCK



Knobset - ADS Series

Specification

Material : SUS 304 Stainless Steel
 Color Available : AB, AC, PB, SS
 Standard Latch : 70mm,
 60mm available

Function:

ADS18 - Entry
 ADS35 - Storeroom
 ADS36 - Passage
 ADS39 - Privacy



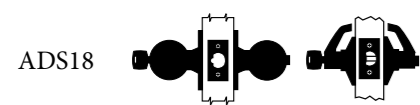
Deadbolt - DB Series

Specification

Material : SUS 304 Stainless Steel Color
 Available : AB, AC, PB, SS
 Standard Latch : 70mm / 60mm available

Function: DB18 - Entry (Key/Thumbturn)
 DB28 -Entry (Double Side Key)

FUNCTIONS



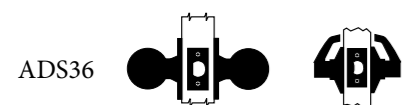
Entry

Latchbolt retracted by knob / lever from either side. Outside key or inside push button / thumbturn lock or unlock outside knob / lever.



Storeroom

Latchbolt retracted only by key from outside. Inside knob / lever always free to exit.



Passage

Latchbolt retracted by knob / lever from either side at all times. Non lockable.



Privacy

Latchbolt retracted by knob / lever from either side unless lock by inside push button / thumbturn. Outside coin-slot for emergency unlocking.

NT ADL 9000 Series tubular handle is great ideal for bedroom, bathroom doors

Available finish: AB, BN, SN, SS

Specification

Exposed trim: levers are made of zinc die casting, and rose are stainless steel or brass based to match finishes indicated.

Door range: 35-45mm standard

Backset: 70mm, 60mm available



9803-AB



9805-SN



9807-BN



9810-SN



9812-SS



9815-SS



9816-AB



9817-SN



9818-SS



9820-SN



9821-BN



9822-BN

PULL HANDLE

PULL HANDLE

D	C	H
φ25	300	75
φ25	450	75
φ32	600	80
φ32	800	80

GH101

D	C	H	E
φ25	250	75	190
φ25	300	75	215
φ32	300	80	245
φ32	400	80	300

GH103

A	B	C	H	L
25	25	450	70	475
25	25	600	70	625

GH160

A	B	C	H	L
25	13	450	70	475
38	25	600	83	638

GH265

D	C	H	E
φ25	300	75	130
φ25	400	75	130
φ32	450	80	140
φ32	600	80	140

GH108

D	C	H	E
φ25	400	75	308
φ32	300	80	244
φ32	424	80	332

GH120

A	B	C	H	L
13	25	450	58	463
38	25	600	83	638

GH268

A	B	C	H
25	13	275	58
25	13	350	58
30	15	450	60
30	15	600	60

GH269

D	C	E	L
25	100	75	205

GH125

D	C	H	L	F
φ25	350	75	400	φ22
φ25	450	75	525	φ22
φ32	450	80	525	φ25
φ32	600	80	700	φ25

GH130

D	C	H	L	F
φ25	300	70	400	φ22
φ25	450	70	600	φ22
φ32	350	77	500	φ25
φ32	600	77	800	φ25

GH309

D	C	H	L	B
φ25	425	60	600	310
φ25	600	60	800	450
φ32	600	72	1000	600

GH359

D	C	H	R
φ25	350	75	775
φ25	450	80	837
φ32	600	80	1372

GH140

D	C	H	L	R	F
φ25	300	70	400	400	φ22
φ25	400	70	550	400	φ22
φ32	400	77	550	400	φ25

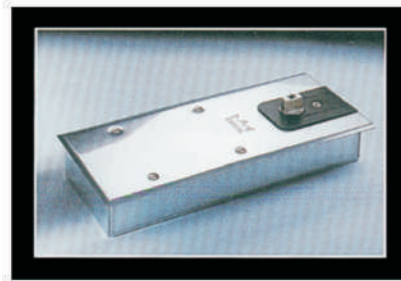
GH150

D	C1	C2	H1	H2
φ25	500	300	75	75
φ32	600	300	80	80

GH499

A	B	C	H	C1
25	13	450	58	150
25	13	600	58	180
30	15	600	60	180
30	15	800	60	200

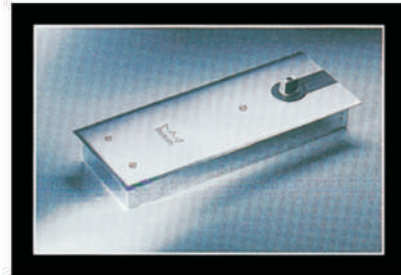
GH599



DORMA
BTS 60

Technical Data		BTS 60
Spring strength	Size	3
Standard doors ^{*)}	< 1000 mm	•
Max. door weight in kg		80
Closing speed variable by valve adjustment	130° - 15°	•
	15° - 0°	•
Backcheck		-
Hold-open point 90°		o
Weight in kg, approx.		4.4
Dimensions in mm	Length	274
	Width	97
	Height	40

• Yes - No Option



BTS 84

Technical Data		BTS 84		
Spring strength		EN 2	EN 3	EN 4
Standard	up to 850 mm	•	-	-
and external doors ^{*)}	950 mm	-	•	-
	1100 mm	-	-	•
Closing speed variable by valve adjustment				•
Backcheck				-
Hold-open point 90°				o
Weight in kg, approx.				5.0
Dimensions in mm	Length			306
	Width			108
	Height			40
Door closer tested to EN 1154				•

• Yes - No Option



BTS 75

Data and features		BTS 80	BTS 75V
Spring strength(EN)		3 4 6	1-4
Spring strength adjustment		- - -	•
Standard	< 950 mm	•	-
external doors ^{*)}	< 1100 mm	-	•
	< 1400 mm	-	•
For fire and smoke check doors		-	•
Max. leaf weight(kg)		300	120
Closing speed adjustable by valve	175° - 0°	-	•
	175° - 15°	-	•
	15° - 0°	-	•
Backcheck, mechanical		•	•
Delayed action adjustable by valve to the hold-open feature		•	-
Hold-open	Adjustable	•	-
	Fixed 90°	-	•
	Fixed 105°	-	•
Coverplate secured to	cement box	-	•
	floor spring	•	-
Weight in kg		7.1	3.0
Dimensions in mm	Length	341	285
	Overall depth	78	82
	Height	60	50
Floor spring tested to EN 1154		•	•

• Yes - No

^{*)}For particularly heavy doors and doors which have to close against wind resistance, we recommend the DORMA BTS 80.

BTS 80



The door closer you specify is an important link in the security and safety of the building and its occupants. It is an essential element in controlling the spread of fire and smoke thereby enabling safe evacuation.

To be effective, the door must close firmly and securely into the frame and be held there until the intumescent seal is activated; leaving no escape route for flames or deadly smoke.

Apart from fire door applications, a door closer might also be specified to ensure the door is kept closed for other reasons, such as privacy, sound insulation, draught and weather insulation on external doors or to maintain security.

The NT brand name has always been synonymous with high quality and precision engineered products. A name that combines every aspect of excellence in door controls. It offers a comprehensive range of overhead closers designed and developed specifically to meet and exceed the demanding requirements of the latest European standards EN 1154.



78 SERIES

78 (2-4) SERIES EXPOSED DOOR CLOSER

Dimension	: 180mm (L) x 44mm (H) x 65mm (W)
Closing force	: EN 2, 3 or 4 (adjustable by position)
Door width	: 850mm to 1100mm
Door weight	: 35kg to 80kg



88 SERIES

88 (2-4) SERIES EXPOSED DOOR CLOSER

Dimension	: 220mm (L) x 53.5mm (H) x 45mm (W)
Closing force	: EN 2, 3 or 4 (adjustable by position)
Door width	: 850mm to 1100mm
Door weight	: 35kg to 85kg



980 SERIES

980 SERIES EXPOSED DOOR CLOSER

Dimension	: 207mm (L) x 55mm (H) x 40mm (W) (For Size 2, 3 and 4)			
	: 236mm (L) x 60mm (H) x 38.5mm (W) (For Size 5 and 6)			

CLOSER STRENGTH FOR 980 SERIES

Closer Model	982	983	984	985	986
Door width (mm)	850	950	1100	1250	1400
Door weight (kg)	45	60	80	110	150



380 SERIES

380 SERIES CONCEALED DOOR CLOSER

Dimension	: 183mm (L) x 47mm (H) x 37mm (W)
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CLOSER STRENGTH FOR 380 SERIES (DIE CAST)

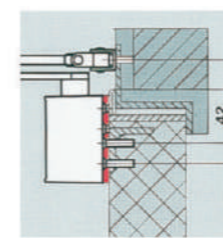
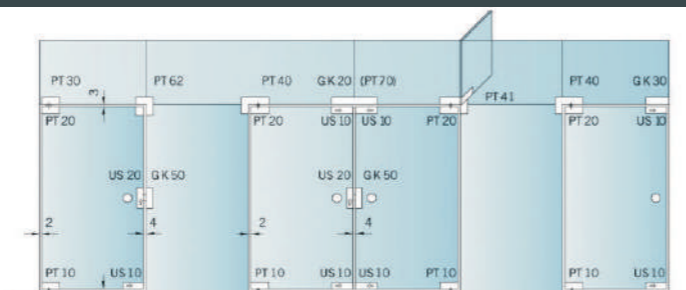
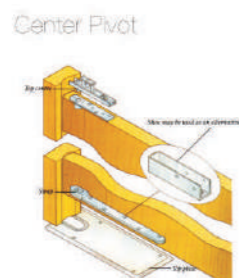
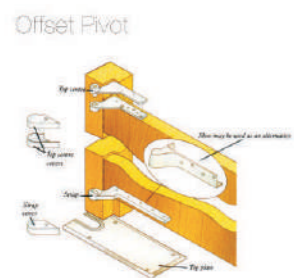
Closer Model	382	383	384
Door width (mm)	850	950	1100
Door weight (kg)	45	60	80



ACCESSORIES

PATCHFITINGS

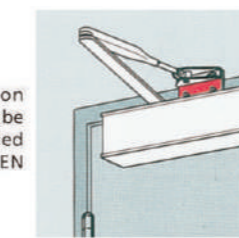
ACCESSORIES (For exposed door closer)



MOUNTING BACKPLATE

For fixing to doors on which the closer cannot be directly installed. Drilled hole pattern as per EN 1154, Supplement 1.

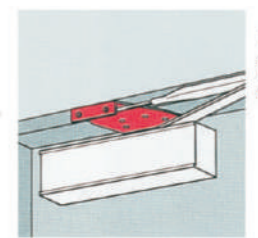
Figure 1



UPSTAND HINGE BRACKET

For fixing the arm to particularly narrow door frames.

Figure 2



FIXING BRACKET

For the parallel-arm configuration.

Figure 3

GEZE door closers are some of the best known in the world. Daily, millions of people enjoy the obvious conveniences of automatic door systems. Individual and building-specific special constructions, for example, revolving doors or all glass systems are implemented by a subsidiary. Product solutions from GEZE can be found in renowned buildings across the entire world.

MADE IN GERMANY



TS1000



Product features	GEZE TS 1000 C closer	GEZE TS 1500 closer
Closing force in accordance with EN 1154	2/3	3/4
Leaf width recommended up to	950 mm	1100 mm
Identical version DIN-L and DIN-R	●	●
Product tested in accordance with	Door closer tested in accordance with EN 1154	Door closer tested in accordance with EN 1154
Length	215 mm	177 mm
Installation depth	44 mm	39 mm
Height	52 mm	50 mm

TS1500



Functions	GEZE TS 1000 C closer	GEZE TS 1500 closer
Adjustable closing force	● Via mounting	● Via mounting
Adjustable closing speed	●	●
Adjustable latching action	● Via valve	● Via valve
Integrated back check	○	Optional
Closing force adjustment position	Mounting position	Mounting position

● = Yes ○ = No

Boxer



Product features	GEZE Boxer 2-4 closer	GEZE Boxer 3-6 closer
Closing force in accordance with EN 1154	2 - 4	3 - 6
Leaf width recommended up to	1100 mm	1400 mm
Leaf weight recommended up to	130 kg	180 kg
Minimum leaf thickness	40	50
Identical version DIN-L and DIN-R	●	●
Product tested in accordance with	Door closer tested in accordance with EN 1154	
Suitable for fire protection doors	●	●
Length	286 mm	293 mm
Installation depth	32 mm	40 mm
Height	45 mm	54 mm

Functions	GEZE Boxer 2-4 closer	GEZE Boxer 3-6 closer
Adjustable closing force	Yes, infinitely variable	
Adjustable closing speed	●	●
Adjustable latching action	Yes, via valve	
Integrated back check	Yes, hydraulically adjustable	
Closing force adjustment position	Top	
Safety valve as protection against vandalism	●	●

● = Yes ○ = No

NT 900 series shower hinge are widely specified by architects and designers for use in entrance glass door, for wet kitchen, wash areas, poolside fences, as the best solution to the common problem of water seepage into the cement box of a floor closer.

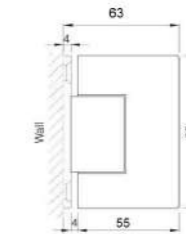
Specification:

- * Suitable for 8-12mm thick glass panel
- * Maximum door weight: 60 kg
- * Maximum door width: 90mm
- * Maximum door height: 2400mm

- * Maximum door opening: 90 degree
- * Material: Brass
- * Finish: Chrome
- * 90 degree Hold Open



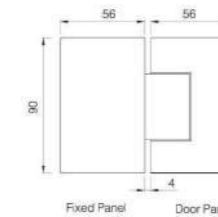
SH901



Glass to wall



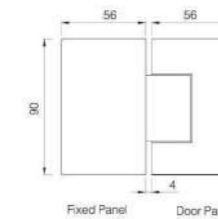
SH902



Glass to glass



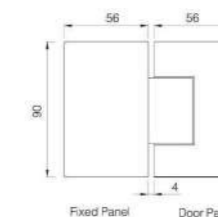
SH903



Glass to glass



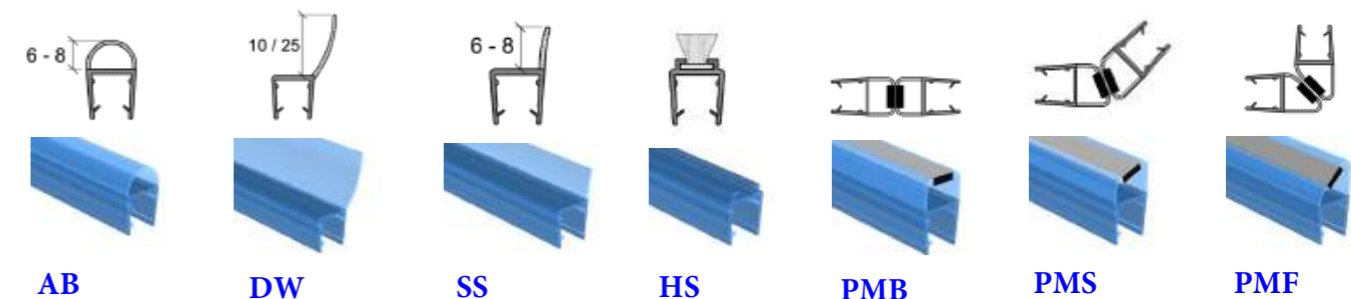
SH904



Glass to glass



Vinyl Seals





Briton

A series of panic exit hardware designed and tested to meet the latest European Standards for panic and emergency exit devices to EN 1125.2008.

For example, in areas where personnel have no prior knowledge of, and have not been trained in the location and operation of the buildings exit devices or where members of the public have access, exit devices conforming to EN 1125.2008 must be specified and installed. Backed by Manufacturer 5 Years Warranty.

Tested to 600,000 cycles - 3 times the standard requirements! Suitable for:

- Theatres
- Hospitals
- Office Buildings
- Shops
- Cinemas
- Schools



377E



379E



378E



376E

ACCESSORIES



539 ADD-ALARM
(for use with 376 only handed LH or RH)

Vertical bolt add alarm is a self contained, battery operated local alarm.

When fitted to a vertical bolt and audible alarm (of up to 85dba at 1m) is sounded if the crossbar is depressed, or if there is an attempt to remove the alarm cover. Once the alarm is initiated only the keyholder can switch it off.



1413LE
Lever



RM Rim
Cylinder

- Choice of interchangeable knob, or lever (available separately) allowing the most appropriate method of operation to be selected for the building users.
- Suitable for doors between 40mm and 70mm thick
- Tested to 200,000 cycles.

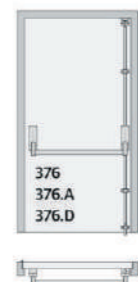
APPLICATION GUIDES



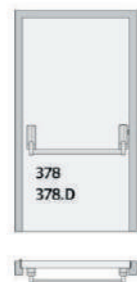
Clockwise closing
Left hand
ISO. 5.0



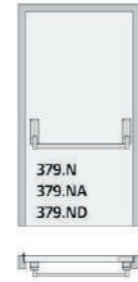
Anti-clockwise closing
Right hand
ISO. 6.0



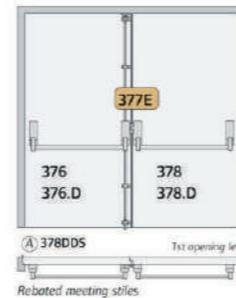
376
376.A
376.D



378
378.D



379.N
379.NA
379.ND



377E
376
376.D
378
378.D
378DD5

Rebated meeting stiles
Test opening leaf

Benefits

- Code-compliant, battery alarmed, rugged panic hardware with deadbolt provides managed security for secondary
- Reduces employee and customer theft
- Proven durability, reliability and long service life at a reasonable price
- "Best in class" attack resistance from the outside; withstands over 2200 lbs. static load (outside pull force)
- Time tested construction resists attack from the inside.
- Operation is straightforward, requiring no special knowledge
- Easy to install
- Exceeds life safety, ADA, CA Title 19, ANSI/BHMA requirements for all building codes
- U.L. listed panic hardware

Features

- Single point deadbolt locking device deters unauthorized access from the outside while allowing emergency egress from the inside.
- 1" throw bolt provides resistance to crowbar attacks from the outside.
- Rugged housing with key lock, saw-resistant bolt and corrosion-resistant alloy lock body resist defeat from the inside.
- Pressing the exit bar as an unauthorized use of an exit door sounds a high decibel, 100dB minimum, alarm, commanding attention even in the noisiest environments.
- Inside and outside key control capabilities allow authorized alarm bypass.
- Use of control key permits unlocking the door without sounding the alarm.
- Locking the deadbolt mechanism always arms the alarm system.
- Resetting the alarm can only be accomplished with a control key that also throws the deadbolt for maximum security.
- Bright push pad signage deters unauthorized exit.
- Non-handed lock and bars which require no cutting makes installation easy.
- Accepts 5-pin through 7-pin standard and interchangeable core cylinders
- ECL-230D may be used on narrow doors and ECL-230D-PH (long bar version) on 36"-48" wide doors.

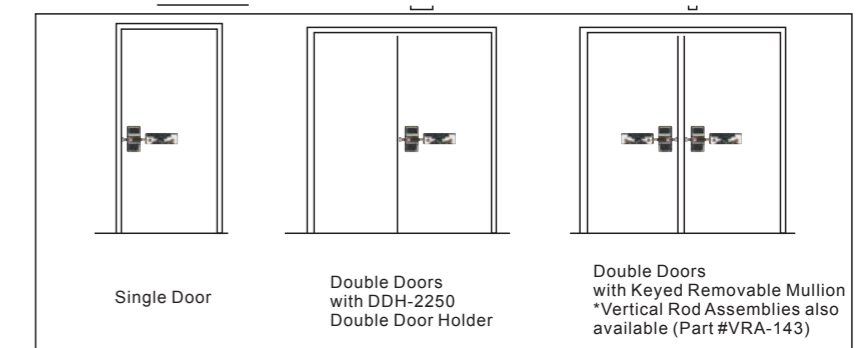


ECL-230D - Short Bar
(Cylinder Not Included)



ECL-230D - PH - Long Bar
(Cylinder Not Included)

APPLICATION GUIDES



HINGE



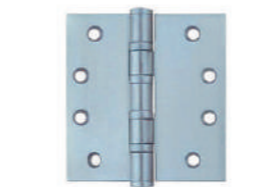
HIGH PERFORMANCE HINGES

A comprehensive ranges of other butt hinges and special application hinges including projecting butts, rising butts, cabinet hinges is available to suit specific requirements. please contact your technical consultant for advice on correct specification.

FIRE RESISTING DOORS

The UK Building Regulations 1985 Approved Document B 2/3/4 Appendix F5 states "Any hinge on which a fire Resistant Door is hung should be made entirely from a Non-Combustible material having a melting point of at least 800°C.

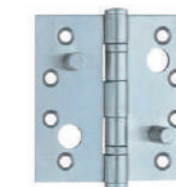
- Fire tested to 4 hours (Selected models)
- Tested to 200,000 cycles (Selected models)
- Tested to TUV-PSB SS332.2007 standards



5" x 3.5" (2.5~3.0mm)
4 Ball Bearing Hinge



4" x 4" (3.0~4.0mm)
2 Ball Bearing Hinge



4.5" x 4" (3.0mm)
2 Ball Bearing Security Hinge



4" x 3" (2.0mm)
Pain Joint Hinge



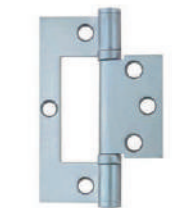
5" x 4" (3.0mm)
Flag Hinge



4" x 3" (2.0~3.0mm)
Lift Off Hinge



4" x 3.5" (3.0mm)
Journal Hinge



4" x 3" (2.5mm)
Flush Hinge



5" x 4" (3.0mm)
3 Knuckle Hinge



4" x 3" (2.0~3.0mm)
Crank Hinge

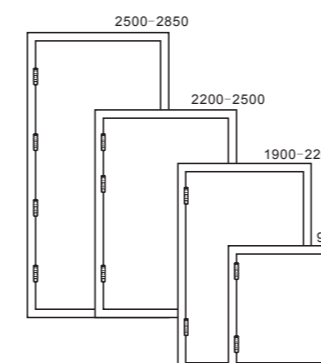


4" x 3.5" (3.0mm)
String Hinge



CH202
Concealed Hinge

SPECIFICATION



Door size and the matching hinge QTY
Stainless steel hinge load table

t=2.0mm	20-30kg	950mmBelow
t=2.5mm	30-40kg	950-1900mm
t=3.0mm	40-66kg	1900-2200mm
t=3.5mm	66-88kg	2200-2500mm
t=4.0mm	88-132kg	2200-2500mm

Remarks:the above data is based on 3 hinges per door.

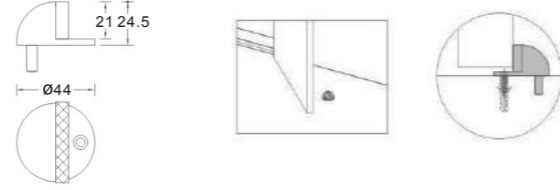
Hinge Selection
Choose hinge according to the following:
Properly increase the door weight for access instead of the door thickness
Door actual weight:
Suitable for civil building or public buildings
Door material
Door opening frequency
Door of the size(whether ultra-high or ultra-wide)
Open direction(whether open outwards)
Door hinge installation location or arrangement
Closing door antivibration or door closer mounting
In public buildings,it needs to increase a certain pressure margin

Door Stopper Series

A **doorstop** (also **door stopper** or **door stop**) is an object or device used to hold a door open or closed, or to prevent a door from opening too widely. Alternatively, a doorstop can be a thin slat built inside a door frame to prevent a door from swinging through when closed. A door stop (applied) may also be a small bracket or 90 degree piece of metal applied to the frame of a door to stop the door from swinging (bi-directional) and converting that door to a single direction (in-swing push or out-swing pull).

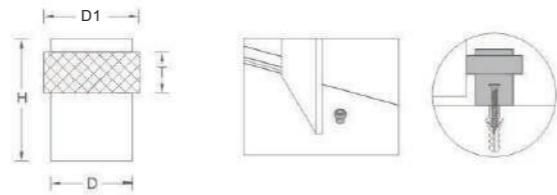


DS001



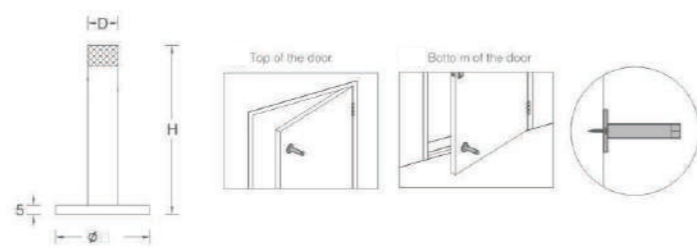
DS002

D	H	Ø	T
Ø	□	Ø	□
Ø	□	Ø	□
Ø	□	Ø	□
Ø	□	Ø	□



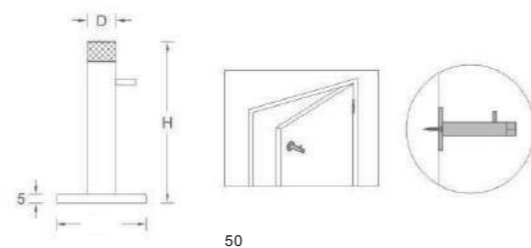
DS004

D	H
Ø	□
Ø	□
Ø	□
Ø	□

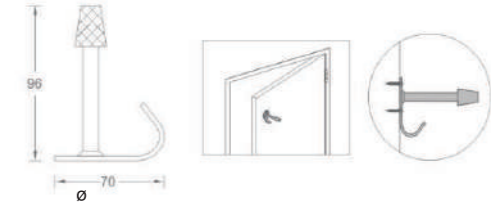


DS004-H

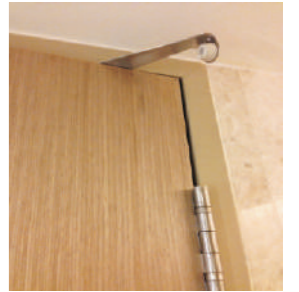
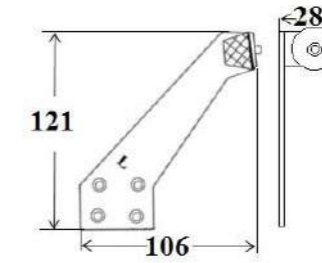
D	H
Ø	□
Ø	□
Ø	□
Ø	□



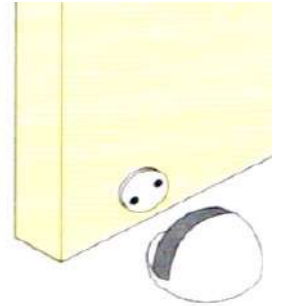
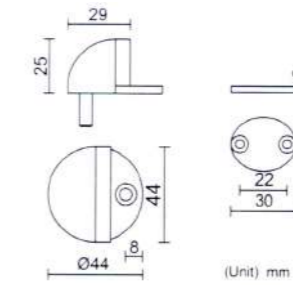
DS006



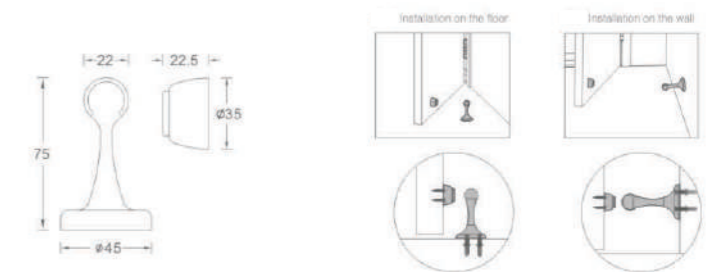
DS009



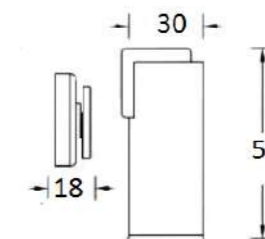
DS101



DS107



DS109



DOOR ACCESSORIES

Flush Handle



FH65R-T



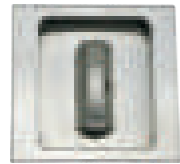
FH65R-BK



FH65R-K



FH65R-D



FH65S-T



FH65S-K



FH100



FH123



CH76D



CH80



FH212K



EP100

MISCELLANEOUS LOCK



HL015



HL648



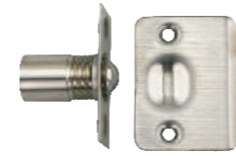
LP990



NL2335

DOOR ACCESSORIES

Bolt & Latch



BC01



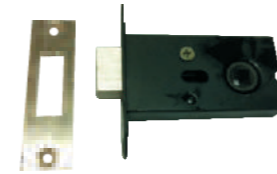
BC60



3722



464/465



2515



JL303



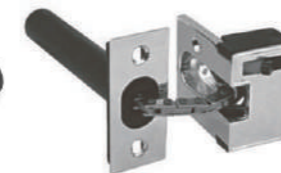
ID Series
Laboratory bolt



DG001
Door Guard



DG001-B
Door Guard



DG002
Concealed Door Chain



DG003 Series
Door Chain



2180
Eye Viewer



FB Series
Extension Flushbolt



FB Series
Concealed Flushbolt



AS Series
Dust Socket



DS Series
Door Coordinator



SL60WD/SL100WD/SL160WD/SL250WD/SL140GL The unrivalled sliding door gears for wooden and glass doors

NT sliding door gears offer four-wheeled hangers to cover a wide range of residential and commercial applications. The standard-duty system is able to take a maximum door weight of up to 60kg, and the heavy-duty system, up to 250kg for wooden doors, and up to 140kg for glass doors, and door thickness from 27mm. The track is available in 2000mm or 3000mm length, and comes complete with the necessary wall plugs and screws. Wall brackets for track and corner mounting brackets for door panels are also available.

The sturdy extruded aluminium closed track gives reliable and smooth operation whilst protecting the carriers from dust and dirt. The independently-connected rollers allow individual rotation to ensure optimum operation and protection of the running surface from excessive wear.

The sliding door gears ensures optimum visual harmony, offers extended scope for enhanced aesthetic elegance, and transforms doors into contributory design elements.

SL160WD Sliding Door Gear for Wooden Door

Technical Data

- Max door weight = 160 kg
- Min door thickness = 35 mm
- Max door height = 2800 mm

Standard roller package

- Roller carriers with hanger bracket = 2 pcs
- Stopper cum buffer = 2 pcs
- Floor guide = 1 pc

Standard track package

- Silver anodized finish
- Stock length 2000mm or 3000mm (come packed with wall plugs & screws)

Optional items

- Wall brackets for track
- Corner mounting brackets for door panels

SL60WD Sliding Door Gear for Wooden Door

Technical Data

- Max door weight = 60 kg
- Min door thickness = 27 mm
- Max door height = 2500 mm

Standard roller package

- Roller carriers with hanger bracket = 2 pcs
- Stopper cum buffer = 2 pcs
- Floor guide = 1 pc

Standard track package

- Silver anodized finish
- Stock length 2000mm or 3000mm (come packed with wall plugs & screws)

Optional items

- Wall brackets for track
- Corner mounting brackets for door panels

SL250WD Sliding Door Gear for Wooden Door

Technical Data

- Max door weight = 250 kg
- Min door thickness = 35 mm
- Max door height = 2800 mm

Standard roller package

- Roller carriers with hanger bracket = 2 pcs
- Stopper cum buffer = 2 pcs
- Floor guide = 1 pc

Standard track package

- Silver anodized finish
- Stock length 2000mm or 3000mm (come packed with wall plugs & screws)

Optional items

- Wall brackets for track
- Corner mounting brackets for door panels

SL100WD Sliding Door Gear for Wooden Door

Technical Data

- Max door weight = 100 kg
- Min door thickness = 27 mm
- Max door height = 2800 mm

Standard roller package

- Roller carriers with hanger bracket = 2 pcs
- Stopper cum buffer = 2 pcs
- Floor guide = 1 pc

Standard track package

- Silver anodized finish
- Stock length 2000mm or 3000mm (come packed with wall plugs & screws)

Optional items

- Wall brackets for track
- Corner mounting brackets for door panels

SL140GL Sliding Door Gear for Glass Door

Technical Data

- Max door weight = 140 kg
- Glass door thickness = 10 or 12 mm
- Max door height = 2800 mm

Standard roller package

- Roller carriers with glass clamps = 2 pcs
- Stopper cum buffer = 2 pcs
- Floor guide = 1 pc

Standard track package

- Silver anodized finish
- Stock length 2000mm or 3000mm (come packed with wall plugs & screws)

Optional items

- Wall brackets for track



Raven acoustic seals also help isolate buildings from external noise, for example, the noise generated from roads, railways and airports. They also help isolate rooms from airborne noise generated within a building. For example, from plant and machinery, theatres, cinemas, crèches, dental and doctors' surgeries, stairwells, passages, interconnected hotel rooms and adjoining apartments. It may be necessary to check with local regulatory authorities to see if any regulations or standards apply to your application.

Icons

Icons have been used to identify and make product selection easier.

Noise - Acoustic

Ambient (cold) Smoke
up to 70°C

Medium Temp. Smoke
200°C for 30 minutes
(Smoke Doors)

Fire and Hot Smoke
Fully developed fires
exceeding 600°C
(Intumescent Fire Seals)

Insects and Vermin

Weather

Duty Levels

Raven seals have been designed to accommodate a variety of duty levels:

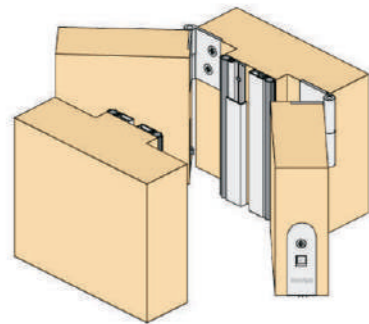
L **Light duty**
seals are used in residential and light traffic areas.

M **Medium duty** seals are used in commercial and medium traffic areas.

H **Heavy duty** seals are used in public heavy traffic areas with pedestrian and wheeled traffic.

Interconnecting Doors

RP94 Si RP8 Si

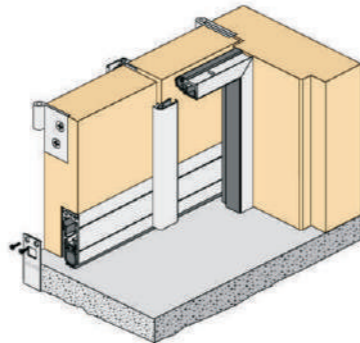


40mm Door	
STC	Rw
No Door Seals	24 28
Fully Caulked Door	40 40
Tested Assembly	38 38

Frequency (Hertz) vs STL (dB)	
Hz	STL (dB)
125	25
150	27
200	28.5
250	30
315	31.5
400	33
500	34.5
630	36
800	37.5
1000	39
1250	40.5
1600	42
2000	43.5
2500	45
3150	46.5
4000	48
5000	49.5
6300	51
8000	52.5
10000	54

Pair of Doors

RP10 or RP10 Si RP99 Si RP16 Si



35mm Door		44mm Door	
STC	Rw	STC	Rw
No Door Seals	17 18	15 16	
Fully Caulked Door	30 30	33 33	
Tested Assembly	30 30	32 32	

Frequency (Hertz) vs STL (dB)	
Hz	STL (dB)
125	20.5
150	21.8
200	23.7
250	24.7
315	26.4
400	27.4
500	28.4
630	29.4
800	30.4
1000	31.4
1250	32.4
1600	33.4
2000	34.4
2500	35.4
3150	36.4
4000	37.4
5000	38.4
6300	39.4
8000	40.4
10000	41.4

Heavy Duty - Fully Adjustable

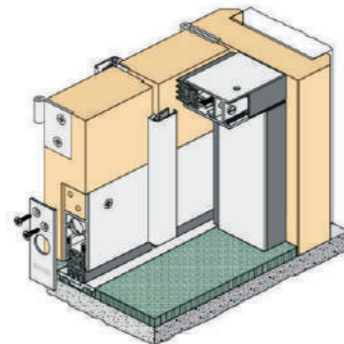
An effective combination of seals for solid core butt hinged doors in situations requiring a consistently high acoustic performance rating (such as in music rooms, plant rooms and ante-rooms in broadcasting facilities), and where these ratings must be maintained by an adjustment facility, is:

RP24 RP38 RP16 Si RP66

Door Frame Seal
RP24

Door Bottom Seal
RP38
(plain meeting stiles)

Astragal
RP16 Si
or RP71 (if both leaves are active)



Door Frame / Perimeter Seal Door Bottom Seal Astragal (Meeting Stile Seal) Threshold Plate Seal / Threshold Plate

Available Brands: Pemko, Raven & Zero

Door Sealing Systems

Heavy Duty

An effective combination of seals for solid core butt hinged doors is;

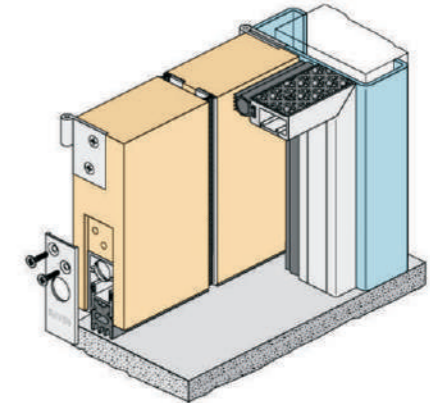
RP47 Si RP70 RP71

Door Frame Seal
RP47 Si

Door Bottom Seal
RP70
or RP99 Si (morticed).

Astragal
RP71 (if both leaves are active)
or RP16 Si
(plain meeting stiles)

Threshold Plate
RP66 (optional)
(not illustrated)



Medium Duty

An effective combination of seals for solid core butt hinged doors in situations such as offices, school rooms, hotel rooms and consulting rooms is;

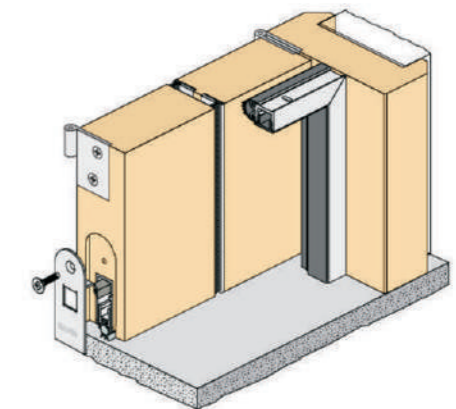
RP10 RP8 Si RP71

Door Frame Seal
RP10

Door Bottom Seal
RP8 Si

Astragal
RP71 ...
or RP16 Si

Threshold Plate
RP66 (optional)
(not illustrated)



Clean Room - Acoustic

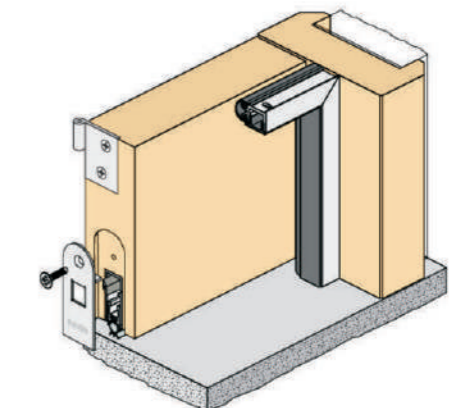
An effective combination of acoustic seals for a clean room, butt hinged door is;

RP84 Si RP8 Si

Door Frame Seal
RP84 Si

Door Bottom Seal
RP8 Si

Threshold Plate
RP96 (optional)
(not illustrated)



Door Frame / Perimeter Seal Door Bottom Seal Astragal (Meeting Stile Seal) Threshold Plate Seal / Threshold Plate

Available Brands: Pemko, Raven & Zero



EM300-LED

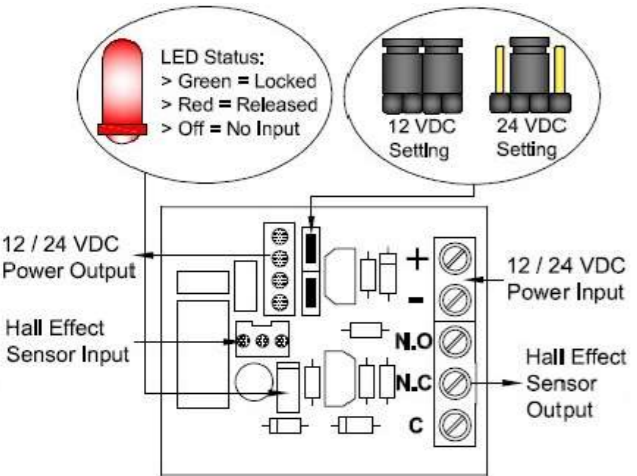
The NTA's EM series electromagnetic locks are renowned with its holding force in compact size and remarkable features.

The series with CE compliance are manufactured under the highest quality control to achieve the commitment to customer who always satisfied with quality and reliability.

EM300-LED

SPECIFICATIONS:

- ▶ **Voltage Input :** 12 VDC / 24 VDC
- ▶ **Current Draw :** 12V / 320mA ; 24V / 160mA (±5%)
- ▶ **Holding Force :** Up to 300 lbs (136 kg)
- ▶ **Hall Effect Contact :** SPDT rated 2A at 24 VDC
- ▶ **Anti-Rust Surface Treatment :** Blue Zinc Plating
- ▶ **Operating Temperature :** 0~55° C (32~131° F)
- ▶ **Operating Humidity :** 0~95% (non condensing)
- ▶ **Weight (Magnet) :** 0.7 kg (±1%)
- ▶ **Dimensions :** Magnet - (L)210x(W)35x(T)21 mm
Armature - (L)130x(W)33x(T)11 mm



EM600 - LED

Holding Force: up to 600 lbs

Dimension:

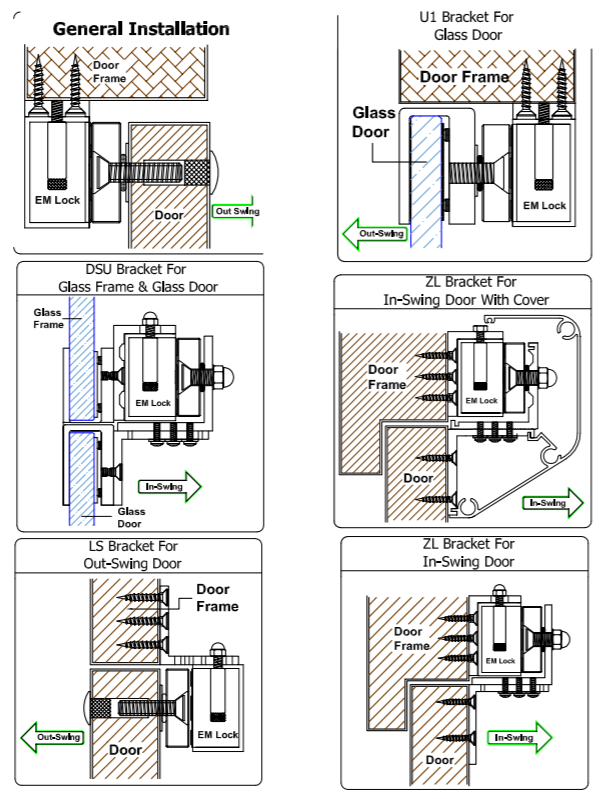
Magnet - (L)250x(W)42x(T)25 mm
Armature - (L)180x(W)38x(T)11 mm

EM1200 - LED

Holding Force: up to 1200 lbs

Dimension:

Magnet - (L)266x(W)67x(T)39 mm
Armature - (L)185x(W)61x(T)16.5 mm



DH-1224

ELECTROMAGNETIC DOOR HOLDER

The NTA's electromagnetic door holders are re-nown with its excellent reliability in fail-safe operation and the remarkable features.

The products are compliance to CE and are manufactured under the highest quality control to achieve the commitment to customer who always satisfied with maximum quality and reliability.



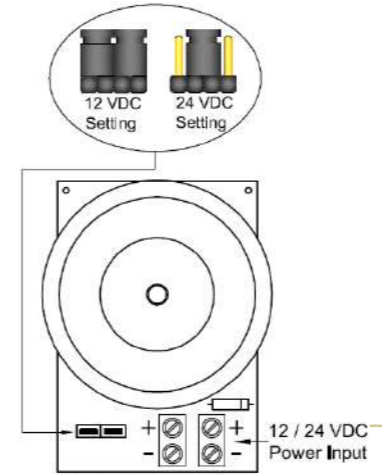
SPECIFICATIONS:

- ▶ **Voltage Input :** 12 VDC / 24 VDC
- ▶ **Current Draw :** 12V / 100mA ; 24V / 50mA (±5%)
- ▶ **Holding Force :** Up to 150 lbs (70 kg)
- ▶ **Anti-Rust Surface Treatment :** Blue Zinc Plating
- ▶ **Operating Temperature :** 0~55° C (32~131° F)
- ▶ **Operating Humidity :** 0~95% (non condensing)
- ▶ **Weight :** 0.7 kg (±1%)
- ▶ **Dimensions :** Magnet - (H)85x(W)70x(T)40 mm
Armature - (Φ)55x(T)8 mm

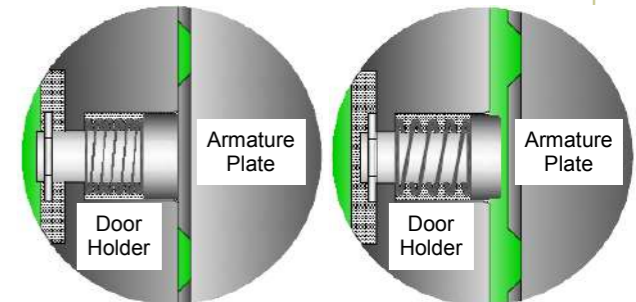


FEATURES:

- ▶ **Dual Voltage Selectable (12 VDC or 24 VDC)**
- ▶ **Emergency Release Button / Test Button**
- ▶ **Low Current Consumption**
- ▶ **Reliable Fail-Safe Mechanism**
- ▶ **Durable and Silence Operation**
- ▶ **Cosmetic Powder Coat Casing**
- ▶ **Compact Size for Most Type of Swing Doors**
- ▶ **Full Range of Optional Brackets**
- ▶ **Anti-Residual Magnetism Kick Off Button**



IMPORTANT!
Set the jumper position according to the power input correctly before switch ON the power.



EM Lock Energized EM Lock De-energized

Disclaimer :

NTA reserve the right to go ahead with any modifications of models or features or price without forewarning. All the information and specifications stated in this document are current at the time of publication.

DISTRIBUTING BRANDS

CATALOGUE

ABLOY


ASSA


Adams Rite


BALDWIN


Briton


Corbin Russwin


DAIKEN


DETEX


DORMA


ehmes


FALCON
Locks & Security Products


GHIDINI


IVES


LCN


IR LEGGE


MIWA


OLIVARI

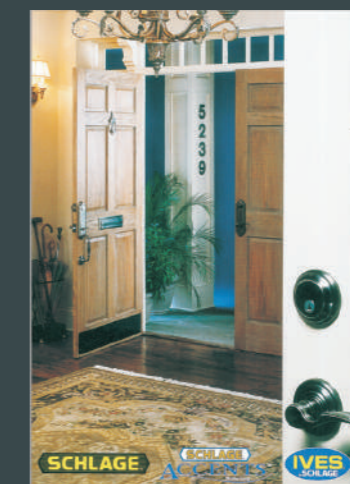
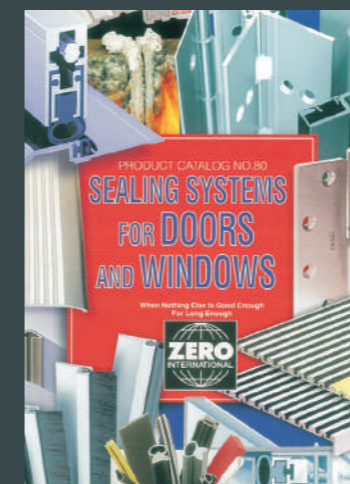
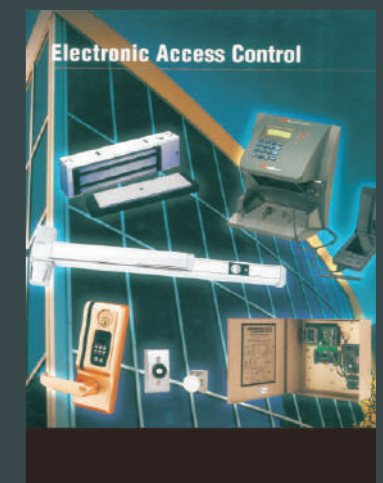

PEMKO


RAVEN


SHOWA


SCHLAGE


ZERO
SEALING SYSTEMS FOR DOORS
INSULATED AND SOUND BARRIERS

* Catalogue available upon