NABCO

NABCO SENSORS ACCESSORIES

For AUTOMATIC DOORS

Nabtesco

Accurate Eye of Microcomputer

Importance of Sensors

Sensors are the important elements of automatic doors.

Sensors are called the eyes and ears of automatic doors, as they constantly examine the conditions of surrounding areas and send them to the brain of automatic doors. The performance of the sensor significantly enhances the function of automatic doors.

Even in the high-performance automatic doors, improper sensors may hamper the performance of the entire system. Therefore, the selection of the sensor is important in achieving the full performance of automatic doors.

NABCO sensors

Nabtesco (formerly named as NABCO Ltd.) has led the automatic door industry since 1956.

We have been striving to manufacture the superior products by continuous R & D activities. Our extensive experience ensures the supply of high-quality and high-performance sensors for automatic doors.

With a wide range of high-quality products, our sensors are receiving the reputation as the best solution for automatic doors around the world.

Line up of sensors

Transom mount

NH-N600 PALSEARCH
With doorway detection
With High-touch function

➡P3

ND-602 HYBRID SENSOR
Dual detection principles;
Microwave, Near-Infrared

➡P6

NH-60 PALSEARCH
Wide detection near the door

➡P5

NH-605 ALPHA SEARCH
Suitable for circular and folding doors

➡P5

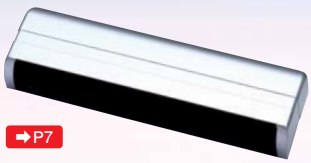
NH-604 HIGH-TOUCH SENSOR
“Contact-free” touch sensor

➡P8

NH-502 PALSEARCH
For limited space

➡P6

SSP-1 SUPER SENSOR
With doorway detection

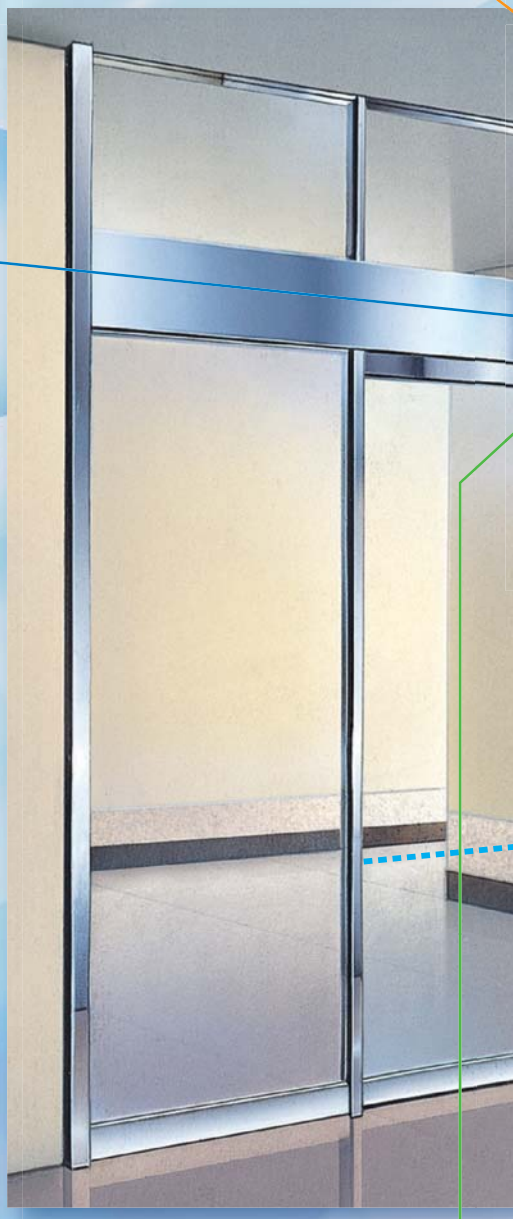


➡P7

Ceiling mount

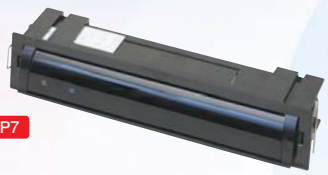
NH-N400 / NH-400 PALSEARCH
With doorway detection

➡P3、7



Transom embedded

SSP-12 SUPER SENSOR
With doorway detection



➡P7

and accessories

ACCESSORIES

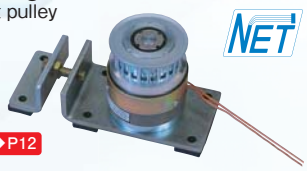
APS-N1 / APS-1 ADVANCED PROGRAM SWITCH
For optimal door operation
➡P12

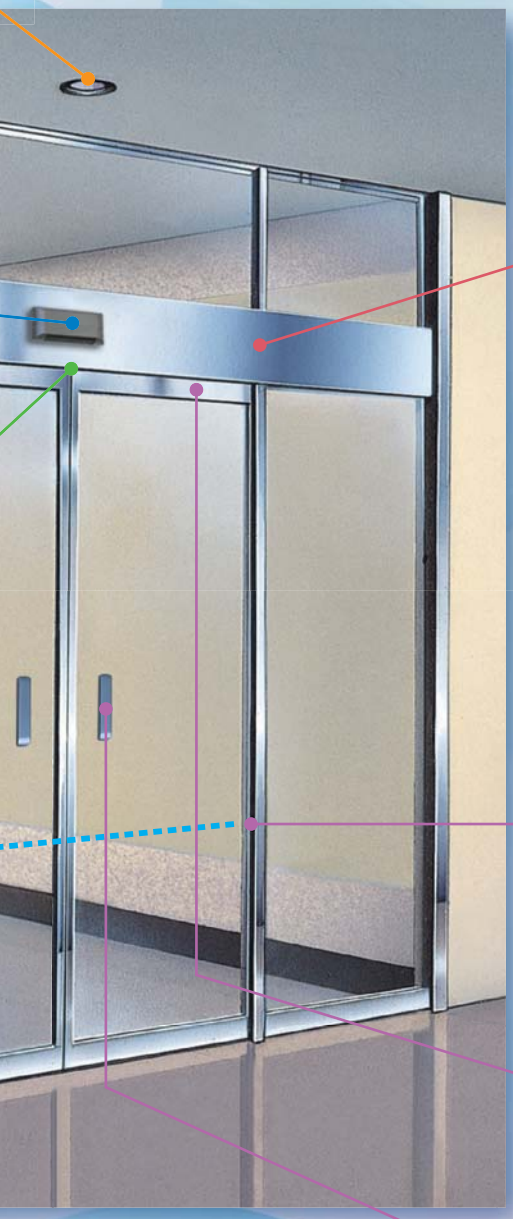
SKD-2 ELECTRIC LOCK
Compact and durable
➡P11

EL-01U / EL-01L ELECTRIC LOCK
Built-in Lock controller
➡P11

EOS EMERGENCY OPERATING SYSTEM
To operate door in emergency condition
➡P13

PL-1U PULLEY LOCK
Locking mechanism funcitions as a belt pulley
➡P12





Mullion / Jamb

NP-10B / NP-10LB PHOTOELECTRIC BEAM SENSOR
Enhance safety
➡P9

NH-101 SIDE BEAM SENSOR
Useful for entrance with store curtain
➡P10

Door (Swing door)

NH-202 ACUGARD
Exclusively for swing doors
➡P10

Door / Wall

NZ-1 ULTRASONIC SENSOR
Suitable for circular and folding doors as support sensor
➡P9

NW-800 / HW TOUCH SWITCH
For doors facing a street in front
➡P8

Symbols

The sensor should be selected in consideration of the type of the automatic door and the site condition.
Please select the best sensor for the site to enhance the safety and performance.

Near-infrared sensor
Detects persons and objects by the reflection of infrared New technology applying high sensitive active sensor

Microwave sensor
Detects moving persons and objects by the reflection of microwave

Ultrasonic sensor
Detects persons and objects by the reflection of ultrasonic wave and can be used as a support sensor

Photoelectric beam sensor
Is applicable to wide range of usage from a activation sensor to a support sensor

Program switch
Allows easy selection of the most suitable door operation

Touch sensor
Is mounted on the door or wall and operated by pushing the plate

Electric lock
Secures an entrance with low operation sound

Emergency operating system
Operatesthe door at a power failure or when it receives an emergency signal

Exposed
Sensors mounted on the transom, ceiling Sensor is observable

Embedded
Sensors embedded in the ceiling, wall, mullion A part of sensor is obserable

Colors

The standard of each color depend on the product.

CL Clear	W White	DG Dark gray
HL Hairline finishing	M Mirror	BK Black
S Silver	BZ Bronze	SUS Stainless Steel

● Actual colors may be different from this brochure.

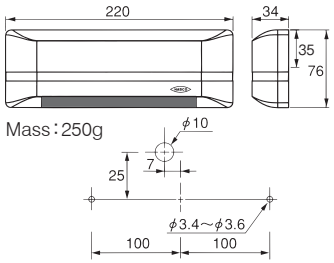
NET-DS sensors

NABCO NET-DS sensors are for NET-DS system developed based on the concept of safety, comfort, reliability and multipurpose.

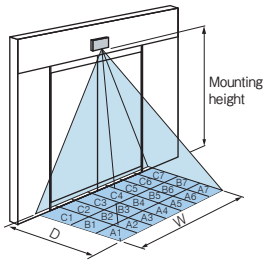
Transom mount

NH-N600 PALSEARCH NET

Dimensions (mm)



Detection area



Doorway detection and High-touch function

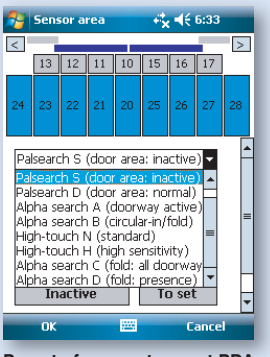
Detection method	Near Infrared reflection method (Motion and Presence Detection)
Mounting height	Max. 3.2m (3.0m at High-touch mode)
Detection area	Max. W 3.0m x D 2.1m [at mounting height 3.2m]
Power voltage	12VDC ± 10%
Current consumption	75mA or less
Output ratings	NET-DS connector
Exposed	S BZ W M BK SUS

Detection area size (reference value)

Mounting height (m)		H=2.2	H=2.7	H=3.2
Depth (m)	Setting 1 (C)	0.2	0.2	0.3
	Setting 2 (B+C)	0.5	0.6	0.7
	Setting 3 (A*+B+C)	0.8	1.0	1.2
	Setting 4 (A**+B+C)	1.1	1.3	1.6
	Setting 5 (A***+B+C)	1.5	1.8	2.1
Width (m)		0.2 to 2.2	0.2 to 2.6	0.3 to 3.0

Features

- Suitable for Standard sliding, Circular, and Folding door
  "NH-60 PALSEARCH", "NH-604 HIGH-TOUCH SENSOR" and "NH-605 ALPHA SEARCH" are integrated into NH-N600.
- Doorway detection
  By memorizing door movement, its detection area can cover the doorway.
- High-touch function
  This function enables to use the sensor as contact free Touch Sensor.
  By using near-infrared reflection method, the sensor will detect hands or objects approaching the Touch Stickers. (For sliding door only)

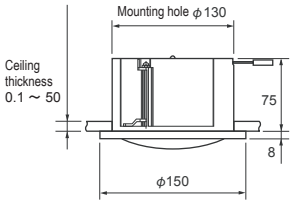


Preset of sensor types at PDA

Ceiling mount

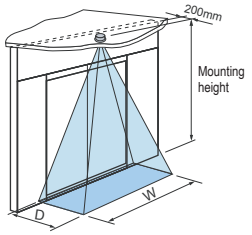
NH-N400 PALSEARCH NET

Dimensions (mm)



Mass :350g

Detection area



Detection area size (reference value)

Mounting height (m)	Max. detection area (m)
2.4	W2.2 x D1.2
4.0	W2.7 x D1.5
MAX. 4.0	W3.3 x D2.0

Doorway detection

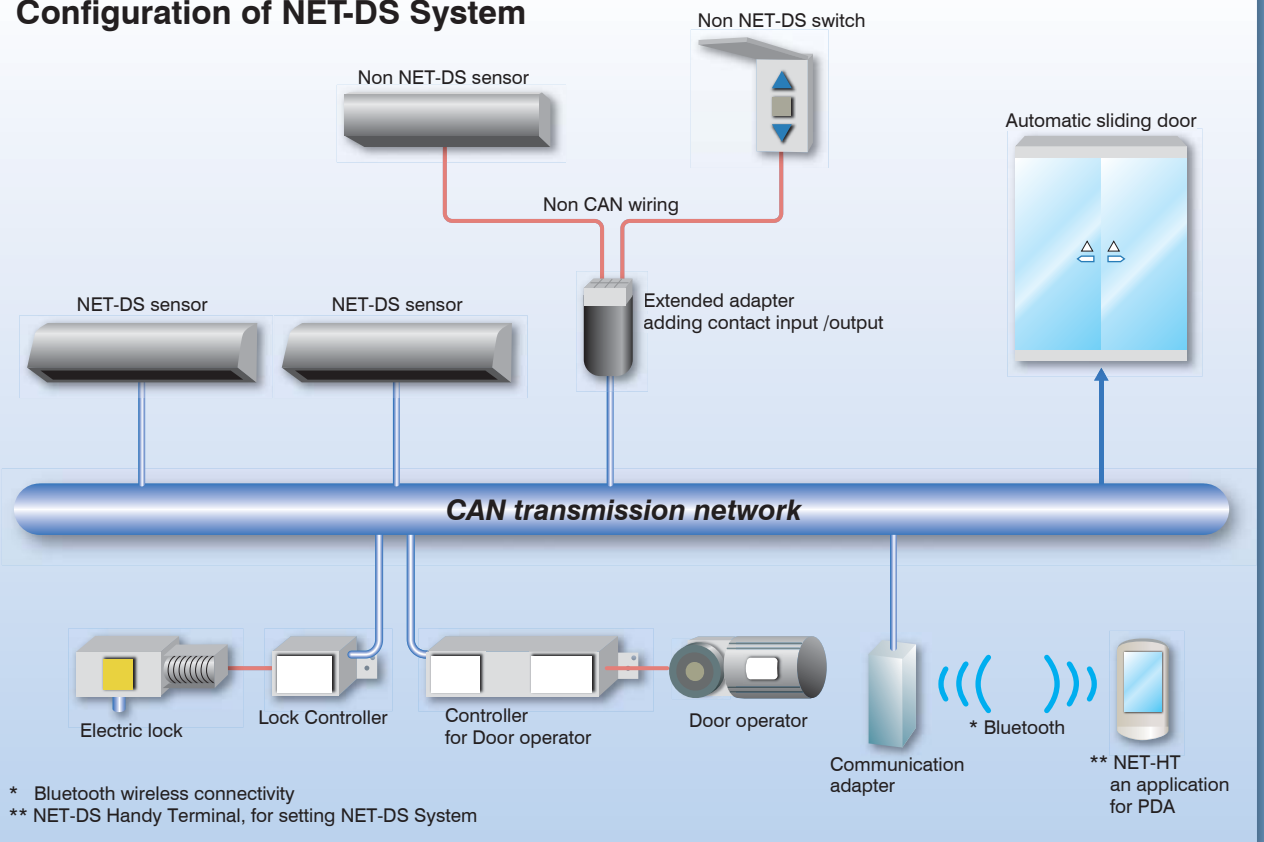
Detection method	Near Infrared reflection method (Motion and Presence Detection)
Mounting height	Max. 4.0m
Detection area	Max. W 3.3m x D 2.0m [at mounting height 4.0m]
Power voltage	12VDC ± 10%
Current consumption	75mA or less
Output ratings	NET-DS connector
Embedded	S

Features

- Doorway detection
  By memorizing door movement, its detection area can cover the doorway.

NET-DS system is the automatic door operating unit, which connects door operator controller, sensors and optional devices with CAN transmission.
Upgraded functionality, higher safety and reliability together with easier installation and maintenance are realized.

Configuration of NET-DS System

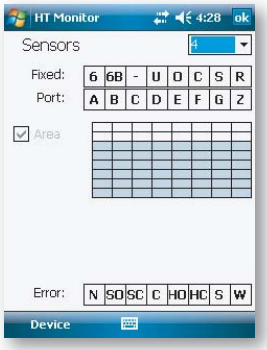


* Bluetooth wireless connectivity
** NET-DS Handy Terminal, for setting NET-DS System

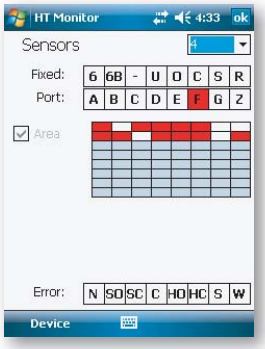
Area monitoring

NET-DS Sensors tell you where an object is through PDA.

Standby

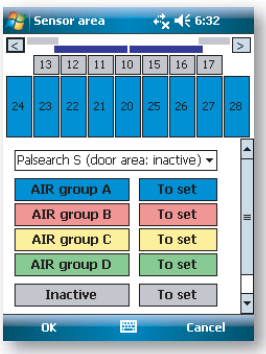


Activating



Area setting

Standby



NET-DS Sensors can be set at individual detection area.
Detection area is partitioned into 16 AIR field on PDA display.

TRANSOM MOUNT

Motion sensors detect a moving object, such as a pedestrian or a shopping cart. Motion sensors can typically detect only the objects moving toward the door to save the energy consumption of the air conditioning. However, they cannot detect the still objects such as a person stopping in the opening or closing path of the door.

Presence sensors detect the objects in motion and without motion in the detection area by using the reflected light of the infrared beam. NABCO sensors utilize the infrared technology for the presence sensors.

A hybrid sensor has the functions of both motion sensors and presence sensors.

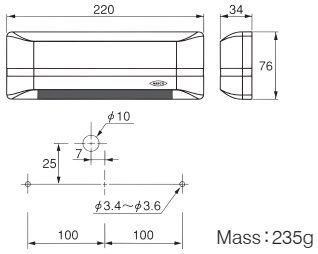
Sensors mounted on the transom have little influence to the installation of the ceiling or floor. Various colored and shaped sensors are available to meet wide range of requirement.

NH-60 PALSEARCH

Wide detection area in both fixed & variable

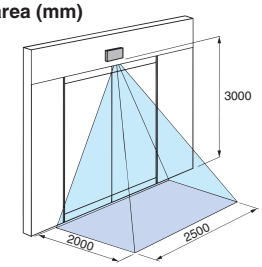
Detection method	Near Infrared reflection method (Motion and Presence Detection)
Mounting height	Max. 3.0m
Detection area	Max. W 2.5m x D 2.0m [at mounting height 3.0m]
Power voltage	12V to 100VAC/DC ± 10%
Current consumption	3.0VA or less (at 100VAC), 70mA or less (at 12VDC)
Output ratings	Semiconductor relay output 400VAC[peak]/DC 0.12A or less (resistance load)
Exposed	S BZ W M BK SUS

Dimensions (mm)



Mass：235g

Detection area (mm)

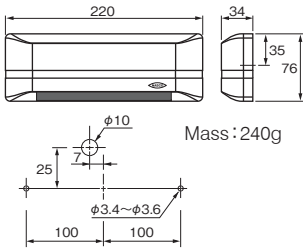


NH-605 ALPHA SEARCH

For circular and folding doors

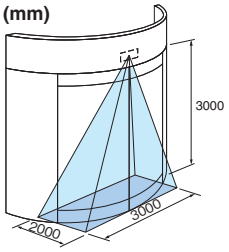
Detection method	Near Infrared reflection method (Motion and Presence Detection)
Mounting height	Max. 3.0m
Detection area	Max. W 3.0m x D 2.0m [at mounting height 3.0m]
Power voltage	12V to 100VAC/DC ± 10%
Current consumption	3.0VA or less (at 100VAC), 80mA or less (at 12VDC)
Output ratings	Semiconductor relay output 100VAC/DC 0.1A or less (resistance load) Open collector, 50VDC 0.1A (resistance load)
Exposed	S BZ W M BK SUS

Dimensions (mm)

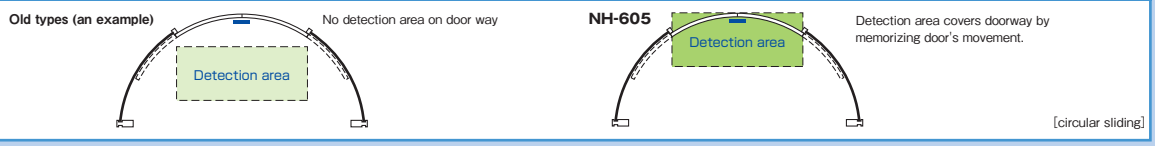


Mass：240g

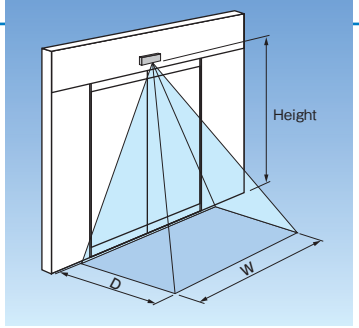
Detection area (mm)



DETECTION AREA

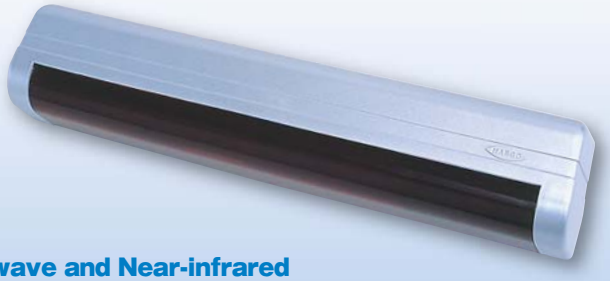


Detection area chart(reference)



Height : Height of sensor installation on floor side
W : Detection area width of sensor
D : Detection area depth of sensor

ND-602 HYBRID SENSOR

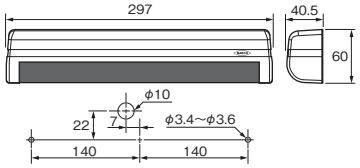


Microwave and Near-infrared
Suitable for shopping malls, airports, etc.

Detection method	Microwave Doppler method and Active Near-Infrared reflection (Motion and Presence Detection)
Mounting height	Max. 3.0m
Detection area	[Microwave] Max. W 5.0m x D 2.6m [at mounting height 3.0m] [Infrared] Max. W 3.3m x D 0.9m [at mounting height 3.0m]
Power voltage	100VAC ± 10%
Power consumption	5VA or less (at 100VAC)
Output ratings	① : Semiconductor relay output 100VAC/DC 0.1A or less (Resistance load) ② : Semiconductor relay output 50VAC/DC 0.1A or less (Resistance load)
Exposed	S BZ BK

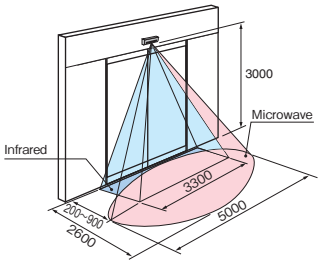
※ND-602 is applicable to the technical standard (ARIB STD-T73) of SPECIFIED LOW POWER RADIO STATION in Japan. Be sure to confirm local regulations for use.

Dimensions (mm)



Mass：320g

Detection area (mm)

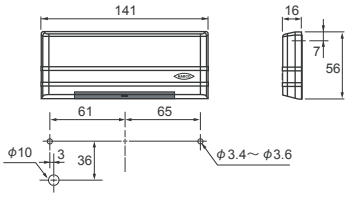


NH-502 PALSEARCH

Suitable for narrow passage

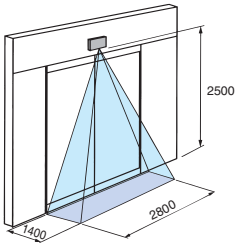
Detection method	Near Infrared reflection method (Motion and Presence Detection)
Mounting height	Max. 2.5m
Detection area	Max. W 2.8m x D 1.4m [at mounting height 2.5m]
Power voltage	12VDC ± 10%
Current consumption	60mA or less
Output ratings	Open collector, 50VDC 0.1A (resistance load)
Exposed	S BZ W BK

Dimensions (mm)



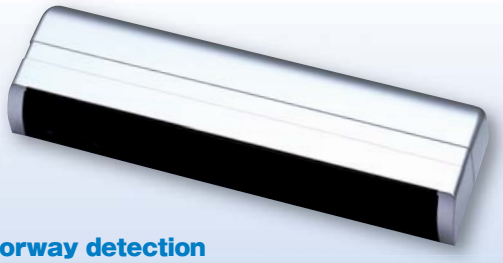
Mass：80g

Detection area (mm)



TRANSOM MOUNT

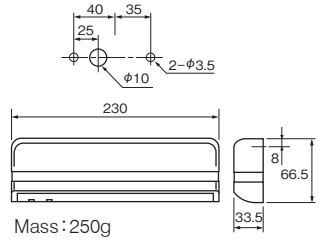
SSP-1 SUPER SENSOR



Doorway detection

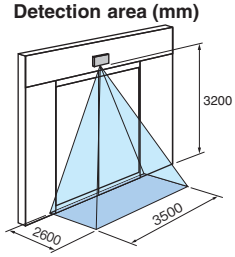
Detection method	Near Infrared reflection method (Motion and Presence Detection)
Mounting height	Max. 3.2m
Detection area	Max. W 3.5m x D 2.6m [at mounting height 3.2m]
Power voltage	12V to 110VAC/DC ± 10%
Current consumption	3.8VA or less (at 100VAC), 120mA or less (at 12VDC)
Output ratings	No-voltage relay contact 1a, 50VDC/0.1A (resistance load)
Exposed	S BZ W M BK SUS
Embedded	—

Dimensions (mm)



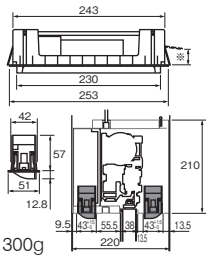
Mass：250g

Detection area (mm)



※: The detection area can cover the door way.

Dimensions (mm)



Mass：300g

SSP-12 SUPER SENSOR

Transom embedded type with doorway detection

Detection method	Near Infrared reflection method (Motion and Presence Detection)
Mounting height	Max. 3.2m
Detection area	Max. W 3.5m x D 2.6m [at mounting height 3.2m]
Power voltage	12V to 110VAC/DC ± 10%
Current consumption	3.8VA or less (at 100VAC), 120mA or less (at 12VDC)
Output ratings	No-voltage relay contact 1a, 50VDC/0.1A (resistance load)
Exposed	S BZ W M BK SUS
Embedded	—

CEILING MOUNT

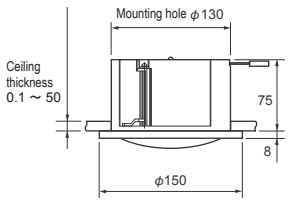
Sensors installed in the ceiling maintain the original design of the entrance.
Note: Please pay attention to the mounting height limitation of sensors and the thickness of the ceiling materials.

NH-400 PALSEARCH

Standard for ceiling-mount

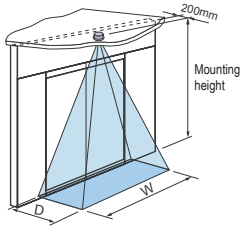
Detection method	Near Infrared reflection method (Motion and Presence Detection)
Mounting height	Max. 4.0m
Detection area	Max. W 3.3m x D 2.0m [at mounting height 4.0m]
Power voltage	12V to 100VDC ± 10% [12V to 100VAC ± 10%]
Current [Power] consumption	70mA or less (at 12VDC) [3W or less (at 100VAC)]
Output ratings	Semiconductor relay output 100VAC/DC 0.1A or less (resistance load)
Embedded	S

Dimensions (mm)



Mass :370g

Detection area



Detection area size (reference value)

Mounting height (m)	Max. detection area (m)
2.4	W2.2 x D1.2
4.0	W2.7 x D1.5
MAX. 4.0	W3.3 x D2.0

TOUCH SENSOR / SWITCH

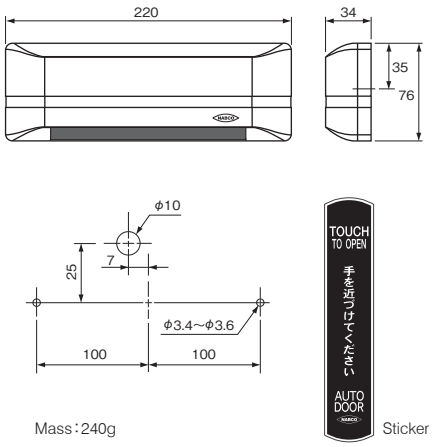
Touch switches installed onto the surface of the door or the wall are the activating device to open the door by pushing the touch plates. The automatic door system employing a touch sensor / switch can prevent unnecessary operations because the sensor does not detect the pedestrians who do not intend to pass through the automatic door. The stores in front of streets commonly use the touch sensor / switch.
Note: Please install the transom or ceiling mount sensor in addition to the support sensor in case using the touch sensor / switch as the activating device.

NH-604 HIGH-TOUCH SENSOR

Transom-mount "contact-free" type touch sensor

Detection method	Near Infrared reflection method (Motion and Presence Detection)
Mounting height	Max. 3.0m
Detection area	Combination : Max. W 3.0m x D 2.0m [at mounting height 3.0m] Touch : Max. W 1.0m x 0.15m
Power voltage	12V to 100VAC/DC ± 10%
Current consumption	3.0VA or less (at 100VAC), 70mA or less (at 12VDC)
Output ratings	Semiconductor relay output 100VAC/DC 0.1A or less (resistance load)
Exposed	S BZ W M BK SUS

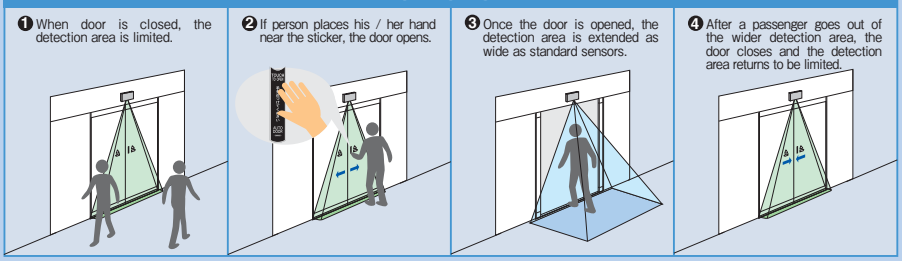
Dimensions (mm)



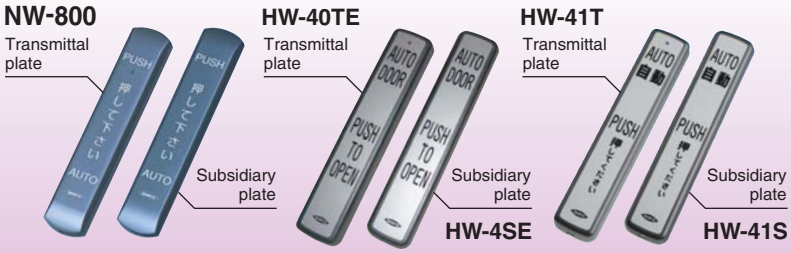
Mass：240g

Sticker

HOW TO WORK



NW-800 / HW TOUCH SWITCH

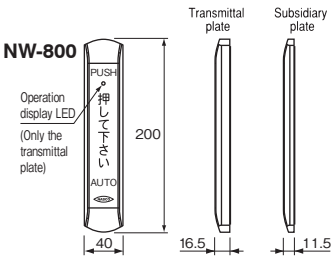


To prevent unnecessary operations

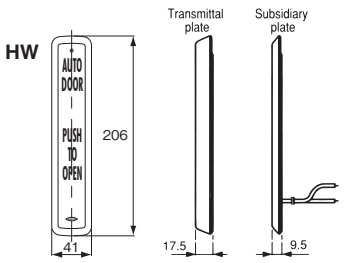
Name	NW-800 TOUCH SWITCH	HW-40TE/4SE	HW-41T/41S
Plane sign	English and Japanese	English	English and Japanese
Detection method	Pressure detection (Plate)		
Power voltage	Receiver : 12V to 100V AC/DC ± 10% Transmitter : AAA Alkaline battery		
Current [Power] consumption	Receiver : 2VA or less (at 100VAC), 50mA or less (at 12VDC) Transmitter : 8mA or less	Receiver : 2VA or less (at 100VAC), 60mA or less (at 12VDC) Transmitter : 4mA or less	
Output ratings	Semiconductor relay output 100VAC/DC 0.1A or less (resistance load)	No-voltage relay contact 1a, 50VDC / 0.1A (resistance load)	
Exposed	DG	S	

※HW-40TE and HW-41T are applicable to the Technical Regulations Confirmity Certification in Japan. Be sure to comfirm local regulations for use of above touch switches.

Dimensions (mm)



Mass：120g/65g



Mass：130g/110g

SUPPORT SENSOR (BEAM and ULTRASONIC SENSOR)

Enhance safety of automatic door
Protects pedestrians from being struck by the closing doors.

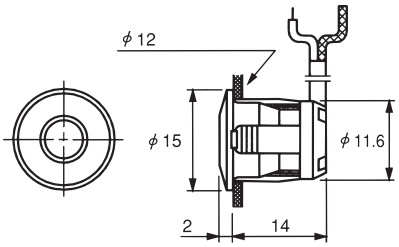
NP-10B/NP-10LB BEAM SENSOR

Simple and reliable

Name	NP-10B	NP-10LB
Detection method	Near Infrared reflection method (Motion and Presence Detection)	
Detection range	Between photocells 0.9m to 5.0m	Between photocells 5.0m to 8.0m
Embedded	CL	CL ※To be used with Beam Sensor controller

Dimensions (mm)

NP-10B / NP-10LB



Mass : NP-10B 120g
: NP-10LB 230g

The doors open when a photoelectric beam between a transmitter and a receiver in mullions or fixed frames is interrupted by pedestrians or objects.
The door will remain open as long as interrupted.

NZ-1 ULTRASONIC SENSOR

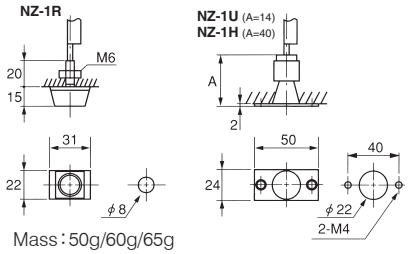
NZ-1R NZ-1U NZ-1H

Installed in the transom

Detection method	Ultrasonic reflection still object detection method
Mounting height	NZ-1R, NZ-1U : Max. 2.5m NZ-1H : Max. 3.0m
Detection area	NZ-1R, NZ-1U : Max. ϕ 1.5m NZ-1H : Max. ϕ 1.3m
Power voltage	100VAC ± 10%
Current consumption	4.0VA or less
Output ratings	No-voltage relay contact 1a, 50VDC/0.1A (resistance load)
Exposed Embedded	NZ-1R S BZ / NZ-1U NZ-1H S BZ HL M

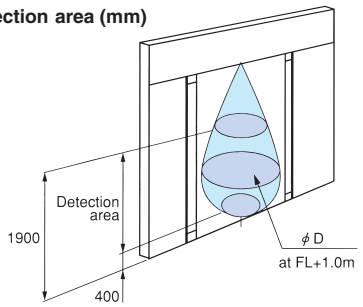
Three-dimensional detection area

Dimensions (mm)



Mass : 50g/60g/65g

Detection area (mm)



Model	Detection area (mm)
NZ-1R	D=ϕ1500
NZ-1U	D=ϕ1500
NZ-1H	D=ϕ1300

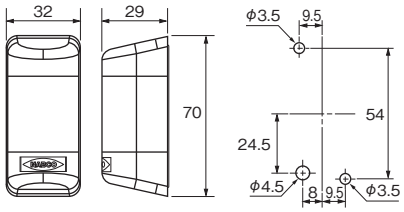
SIDE BEAM SENSOR / DOOR MOUNT SENSOR

NH-101 SIDE BEAM SENSOR

A mullion-mount sensor, utilizing a Near-Infrared ray

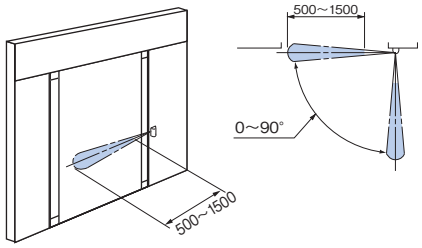
Name	**NH-101 SIDE BEAM SENSOR**
Detection method	Near Infrared method (Perfect Presence Detection)
Detection distance	0.5 to 1.5m
Power voltage	12VDC ± 10%
Current consumption	50mA or less
Output ratings	Open collector, 50VDC 0.1A (resistance load)
Exposed	BK S BZ

Dimensions (mm)



Mass：120g

Detection area (mm)



Useful for a narrow passage or an entrance where a store curtain is hanged, preventing unnecessary door's activation

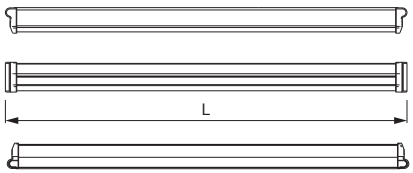
NH-202 ACUGARD

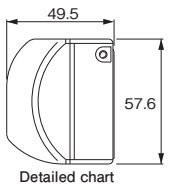
Exclusively for swing doors
A door mount sensor in order to prevent the door from hitting a passenger

Name	**NH-202 ACUGARD**
Detection method	Near Infrared distance surveying (Presence Detection only)
Mounting height	1.7m to 2.5m
Power voltage	12V to 24VDC ± 10% or 24VAC ± 10%
Current consumption	3.0VA or less (at 24VAC), 85mA or less (at 12VDC)
Output ratings	Semiconductor relay output 50VAC/DC 0.1A or less (resistance load)
Exposed	BK

※To be used with the controller for swing door operator

Dimensions (mm)

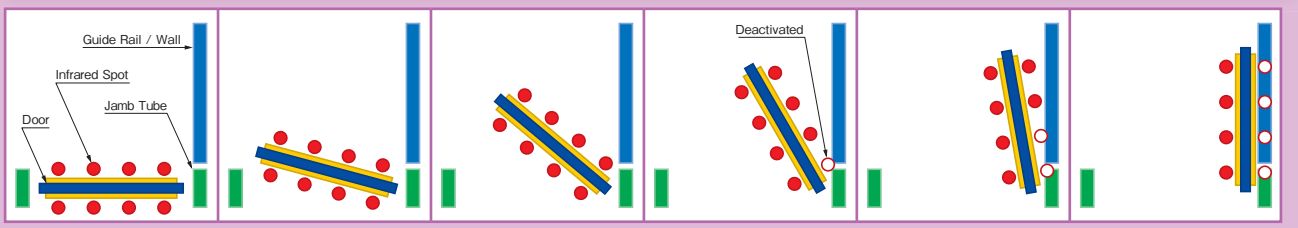




Detailed chart

Mass：1,500g

A new sensor system that utilizes proven technology with leading edge microprocessor control
A door mount sensor in order to prevent the door from hitting a passenger

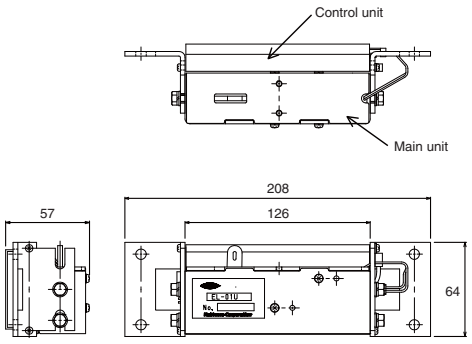


ACCESSORIES

Increasing the functionality of automatic doors

NEW EL-01U / EL-01L ELECTRIC LOCK

Dimensions (mm)



Mass：900g

Built-in Lock controller
Fail-safe type and Fail-secure type are available

Name	EL-01U	EL-01L
Locking condition	Fail-safe (Unlock at power off)	Fail-secure (Lock at power off)
Manual release	Available (Option)	
Power voltage	100VAC ± 10% 50/60Hz	
Current consumption	Operation: 0.6A , Holding: 0.3A (at 100VAC), Max. 30mA (at 12VDC)	

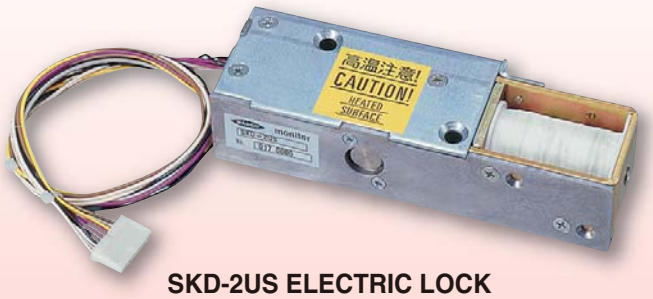
※Scheduled to be launched in the early 2010

EL-01U/L is the electric lock devise which is used together with APS-N1 for the sliding door.
If selecting "Close mode" on APS-N1,
EL-01U/L locks.

Features

- Manual release function is available as an option in case of emergency (Wire/handle is required.)

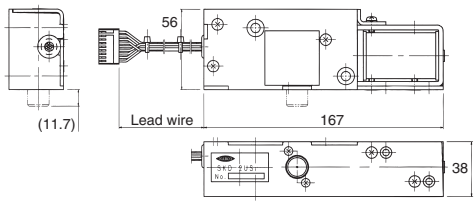
SKD-2 ELECTRIC LOCK NET



SKD-2US ELECTRIC LOCK

Dimensions (mm)

SKD-2U/US



Mass：SKD-2U/SKD-2US：1,000g
SKD-2L/SKD-2LS：1,100g

Compact and durable
Fail-safe type and Fail-secure type are available

Name	SKD-2U SKD-2US	SKD-2UE SKD-2UES	SKD-2L SKD-2LS
Locking condition	Fail safe (Unlock at power off)		Fail secure (Lock at power off)
Manual release	—	Available	
Hold-locking force	1000N more		
Operating time	Lock: 2.0s or less / 0.7s or less, Unlock: 0.6s or less/ 0.3s or less Lock: 3.0 to 0.7s, Unlock: 0.7s to 0.3s (for NET-DS Lock controller)		
Durability	Over 1,000,000 times		

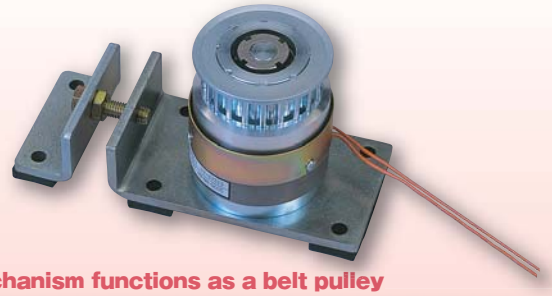
※To be used with Lock controller.

SKD-2 is a compact electric deadbolt lock for sliding door.
Lock controller is exclusively required for SKD-2.

Features

- Low noise and low vibration
- Answer-back function (SKD-2US/UES, SKD-2LS) Lock/unlock signal and full close signal are output.
- Manual release function (SKD-2UE/UES, SKD-2L/LS) Available in case of emergency (Wire/handle is necessary.)

PL-1U PULLEY LOCK NET

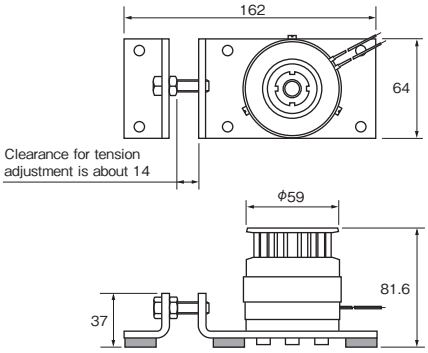


Locking mechanism functions as a belt pulley

Name	PL-1U PULLEY LOCK
Locking condition	Fail safe (Unlock at power off)
Hold-locking force	Approx. 800N
Mounting	Replaced with idler pulley

※To be used with Pulley Lock controller.

Dimensions (mm)



Mass：1,300g

PL-1U is the electrial locking and unlocking device with the built-in electro-magnetic lock within the idler pulley, which seizes the driving belt secured to door panel. Pulley Lock controller is exclusively required for PL-1U.

Features

- Simple replacement
  The installation dimensions are nearly same as those of standard idler pulley

APS-N1 / APS-1 ADVANCED PROGRAM SWITCH

Allows selection of the optimal door operation

Name	APS-N1	APS-1
Applicable controller	NET-DS controller	DS controller
Power voltage	12VDC±10%	
Current consumption	75mA or less	50mA or less
Security method	Passcode	

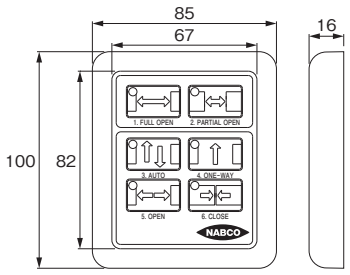
APS-(N)1 enables sliding doors much more convenient to be used. A program switch provides the most suitable operation for sliding door.

Features

- Touch panel
  The operation mode of automatic sliding door can be changed easily by switch operation.
- Low-profile device
  Suitable for surface mounting
- Passcode programming
  Passcode can prevent unauthorized operation.

Dimensions (mm)

APS-N1 / APS-1



Mass：270g

Door operation mode

① **AUTO**
The door operates as a normal automatic door.

② **OPEN**
The door opens and holds the full (partial) open position.Useful when moving cargo through the door.

③ **ONE-WAY**
When the door is in a closed position, only the indoor sensor is activated.

④ **CLOSE**
The door closes and all sensors are deactivated.

⑤ **FULL OPEN**
The door operates at the normal opening width.

⑥ **PARTIAL OPEN**
The opening width is partial. Useful in cold weather or during heavy wind / rain conditions.

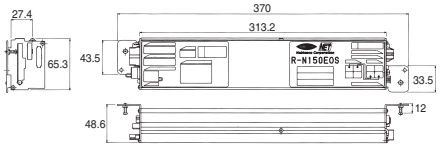
ACCESSORIES

Increasing the functionality of automatic doors

EOS EMERGENCY OPERATING SYSTEM

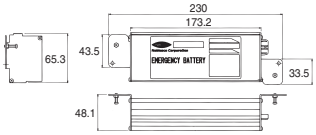
Dimensions (mm)

R-N150 EOS CONTROLLER



Mass：500g

BATTERY UNIT



Mass：600g

To operate door in emergency condition

Name	EOS Emergency Operating System
Power voltage	100V AC±10V, 50/60Hz, 5A
Emergency power voltage	Ni-Cd rechargeable battery
Ambient tempereature	-10 to 50 degrees Celsius
Operation at emergency	Panic-open or panic-close
Emergency input	No-voltage contact input / 24VDC input
Battery capacity	30 times or 30 minutes operation
Battery charging time	Approx. 12 hours

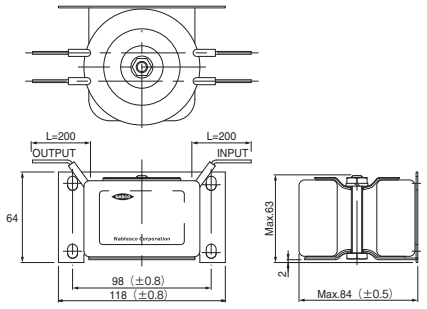
EOS Emergency Operating System operates sliding door at a power failure or in an emergency condition.

EOS controller and battery unit are required for the operation.

If a power failure or EOS controller receives an emergency signal, the system will operate the door either open or close using the power from the battery unit.

DS TRANSFORMER

Dimensions (mm)



Mass：1,500g

Ideal for NABCO operators

Name	DS DOWN TRANSFORMER
Input	220VAC, 50/60Hz
Output	100VAC, 1.0A

Features

- Compact and reliable
- Perfectly suitable for NABCO automatic door

Sensor list of NABCO automatic door

Mounting type	Product name	Type		Object		Mounting height	Detection area(reference only)						Page
						Height(m)	Width(m)		Depth(m)				
		Exposed	Embedded	Motion	Presence	1 2 3 4 m (Max.)	1 2 3 4 m (Max.)		1 2 3 m (Max.)				
Transom	NH-N600 PALSEARCH	●		●	●	3.2	3.0		2.1				3
	NH-60 PALSEARCH	●		●	●	3.0	2.5		2.0				5
	NH-605 ALPHA SEARCH	●		●	●	3.0	3.0		2.0				5
	ND-602 HYBRID SENSOR	●		●		3.0	5.0		2.6				6
				●	●		3.3		0.9				
	NH-502 PALSEARCH	●		●	●	2.5	2.8		1.4				6
	SSP-1 SUPER SENSOR	●		●	●	3.2	3.5		2.6				7
	NH-604 HIGH-TOUCH SENSOR	●		●	●	3.0	1.0※1		0.15※1				8
							3.0※2		2.0※2				
Transom embedded	SSP-12 SUPER SENSOR		●	●	●	3.2	3.5		2.6				7
	NZ-1 ULTRASONIC SENSOR		●	●	●	2.5	φ1.5		φ1.5				9
Ceiling	NH-(N)400 PALSEARCH		●	●	●	4.0	3.3		2.0				3·7
Door	NH-202 ACUGARD	●		●	●	1.7~2.5			0.7				10
Door / Wall	HW TOUCH SWITCH	●		Touch									8
	NW-800 TOUCH SWITCH	●		Touch									8
Mullion / Jamb	NP-10B BEAM SENSOR		●	●	●		5.0						9
	NP-10LB BEAM SENSOR		●	●	●		8.0						9
	NH-101 SIDE BEAM SENSOR	●		●	●		0.5~1.5		φ0.04				10

※1 : Touch area
※2 : Area of using together

Notes concerning sensor detection area for NABCO automatic door

⚠ The detection areas referenced in this brochure are measured by Nabtesco, and their charts are expressed only as an image.
They are not the actual value of the detection areas because the measurements may vary by the installation environment, the detected objects and the adjustment. Clothes, floor material as well as sensitivity adjustment may affect the detection area.
Please measure and confirm the actual detection area after the adjustment.

Cautions for safe operation

When using automatic door

The following actions would help you to prevent an accident.

1 Don't halt !

⚠ Do not stop on the door way.

2 Don't run in !

⚠ Do not rush through the door.
Do not cross the door diagonally.

3 Don't play near automatic door !

⚠ Do not stand talking near the door.
Do not let children play near the door.

4 Don't lean on the automatic door !

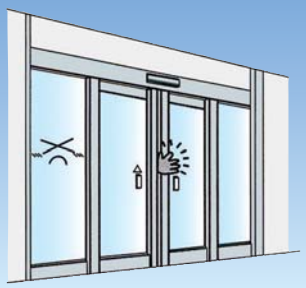
⚠ Do not lean on the door, the screen or the wall nearby nor step on them.

5 Accompany your children !

⚠ For small children, grownups should take their hands when passing through the door. Extra care should be taken for the handicapped and blind persons in going through the door.

6 Pay attention to the door !

⚠ Be careful so that fingers will not be caught in the leading or rear edge of the door.



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