NABCO

NABCO Automatic Door

Pedestrian Flow Solution

NABCO, Japan No.1 automatic door brand, strives to offer the entire value-chain services to our customers from extensive product lineup, finely tuned sales, installation and to maintenance service. We offer users of all ages, regardless of ability or disability, a more comfortable, safe, and efficient environment by providing optimal solutions tailored to the needs of each situation, under the slogan "Pedestrian Flow Solution."

CONTENTS

Automatic Door Solutions

Sensors & Accessories

Function represented by the icon

■ Location

Only for outdoor use

Only for indoor use

For outdoor and indoor use

■ Function

Energy Saving

Hermetic

Sound Proof

NABCO Network System

13-14

NATRUS Standard

In the future society, entrances providing safety and confort are
In order to build such society, NABCO has launched a new standard
developed by NABCO, based on 60 years of experience in technologies,

Responsible for safety

As modern society becomes an aging society, products that can offer
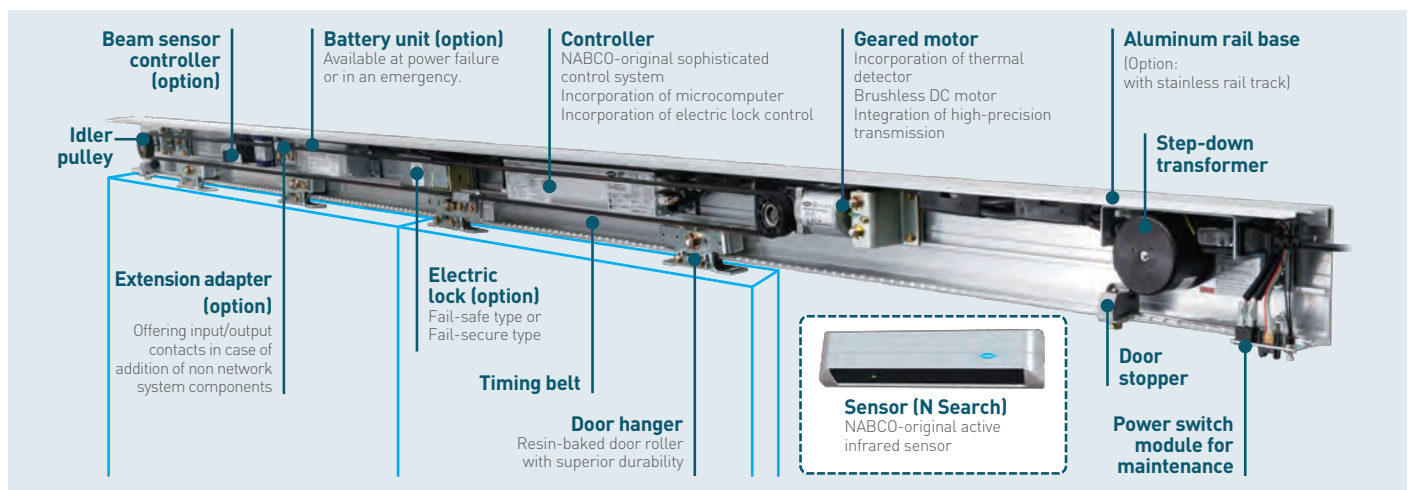a higher level of safety are becoming more sought after.

"Safety" is the key element that everyone needs to consider.

Although safety is incorporated into conventional automatic doors,
the improvement of safety performance is a never-ending task.

Automatic doors must be safe for all people including pedestrians
as well as building managers and owners.

Everyone desires a safe future.

Full model change for top level of safety

Beam sensor controller (option)

Battery unit (option)
Available at power failure
or in an emergency.

Controller
NABCO-original sophisticated
control system
Incorporation of microcomputer
Incorporation of electric lock control

Geared motor
Incorporation of thermal
detector
Brushless DC motor
Integration of high-precision
transmission

Aluminum rail base
(Option:
with stainless rail track)

Idler pulley

Step-down transformer

Extension adapter (option)
Offering input/output
contacts in case of
addition of non network
system components

Electric lock (option)
Fail-safe type or
Fail-secure type

Timing belt

Door hanger
Resin-baked door roller
with superior durability

Sensor (N Search)
NABCO-original active
infrared sensor

Door stopper

Power switch module for maintenance

NABCO network system besed on CAN communication

Self-diagnosis function allows the automatic door to monitor safety automously. If a problem occurs,
it can be identified immediately and the fail-safe mechanism will work to prevent an accident.

Idler
Pulley

Activation / Safety
sensor

Controller

Geared motor

NET
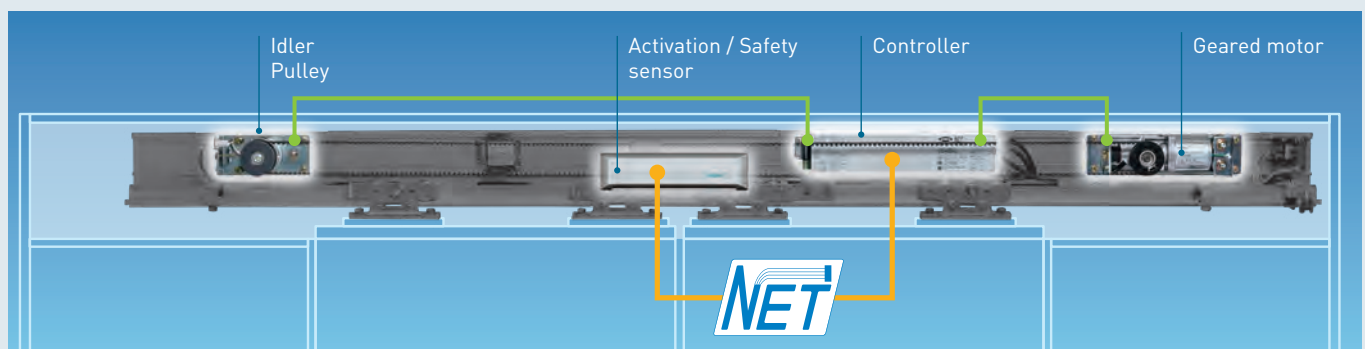
required for all people, from children to the elerly, as a matter of course. product, NATRUS. NATRUS is a true "in-a-class-of-its-own" product services and safety standards.
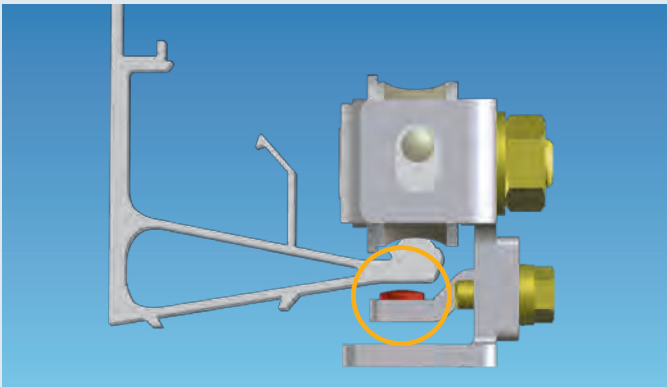
NATRUS

Technology	• NABCO network system • Long-life design
Service	• Precise maintenance
Experience	• Experience and sales performance for over 60 years • Solutions proposals
Safety	• NABCO original safety standards • Conformance to EN 16005 and JIS A 4722

Doors for everyone

Long-life design and low running costs

Special design based on our abundant experience provides high durability.

Soft resin (polyurethane)

Aluminum alloy
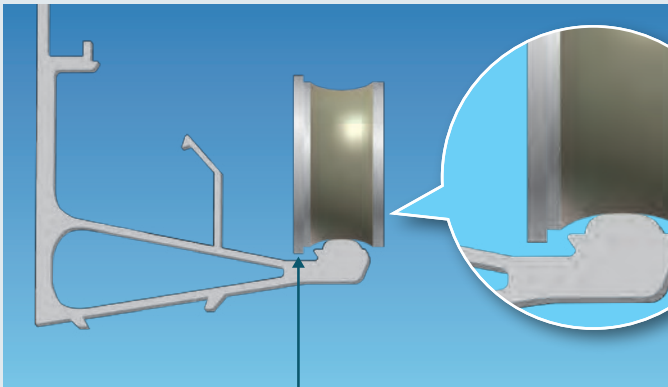
Employment of resin-baked doors roller and complete improvement of the door rollers and rail provide high durability and make it noiseless.
The optimal design of the door roller and rail increases the antiderailing performance and ensures safety in case of a possible collision of a pedestrian / object with the door.

Auti-derailing performance

To prevent derailing, the door roller is equipped withe an anti-derailing mechanism as standard.

The flange design on one side is improved to increase the anti-derailing performance of the door.

Door Operator

V-SL Sliding Door

NATRUS NET

NABCO high performance sliding door operator is applicable to wide range of door requirements

- A self-test function provides sensor inspection to detect the protection area correctly.
- NABCO CAN communication network system is highly trustable in transmitting information.
- Various setups achieve comfortable environment at any location.
- Long-life designed door roller provides high durability and low running cost through anti-derailing mechanism.

Specifications

Door Type	Single					
Product Name*1	V-60SL	V-85SL	V-150SL		V-250SL	
Header Type	VS-60	VS-85	VS-150		VS-250	
Header Type	S / HM / F		S / HM / F	F / M *4	M	F
Applicable Door Mass (kg) x Door Quantity*2	75×1	100×1	120×1	150×1	250×1	500×1
Applicable Door Width : DW (mm)	650 - 2500				1200〜3100	1200〜2700
Ratio of Door Height / Width : DH / DW *3	Max. 4				Max.3	
Required Power Capacity	230VAC ± 10% 2.5A *5					
Door Operation Speed (m/sec)	0.1-0.7 *6					
Wind Load (m/sec)	15m/s or less					

Door Type	Bi-Parting					
Product Name*1	V-60SL	V-85SL	V-150SL		V-250SL	
Geared Motor Type	VS-60	VS-85	VS-150		VS-250	
Header Type	S / HM / F		S / HM / F	F / M *4	M	F
Applicable Door Mass (kg) x Door Quantity*2	60×2	85×2	120×2	150×2	250×2	250×2
Applicable Door Width : DW (mm)	650-2500				1200-3100	900-2700
Ratio of Door Height / Width : DH / DW *3	Max. 4				Max.3	
Required Power Capacity	230VAC ± 10% 2.5A *5					
Door Operation Speed (m/sec)	0.1-0.7 *6					
Wind Load (m/sec)	15m/s or less					

*1 Product name is combined with header type.
*2 The door should be used under conditions where the door unit weight will not exceed the value defined in the specification.
   If the weight exceeds the specification, malfunction or accident will occur.
*3 The unit door aspect ratio should not exceed the value defined in the specification.
   If the aspect ratio exceeds the specification, the specified performance will be impaired.
*4 Not applicable to V-150 SL-F (N rail base design).
*5 With a transformer specified by NABCO
*6 The speed varies according to the door weight or site environment.

Header Configurations

Product Name	V-60SL / V-85SL / V-150SL			V-250SL
Header Type	S	HM	F *1	F
Installation	Surface mount	Surface mount	Concealed flat bar mount	Concealed flat bar mount
Header Height	150 mm	100 mm	200mm	330 mm
Header Depth	100 mm	150 mm	97mm *2	107.5 mm *2

*1 There are two types of rail base applied to V-150SL; N rail base up to 120kg per door and F rail base up to 150kg per door.
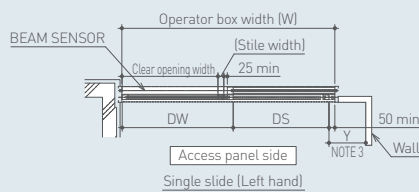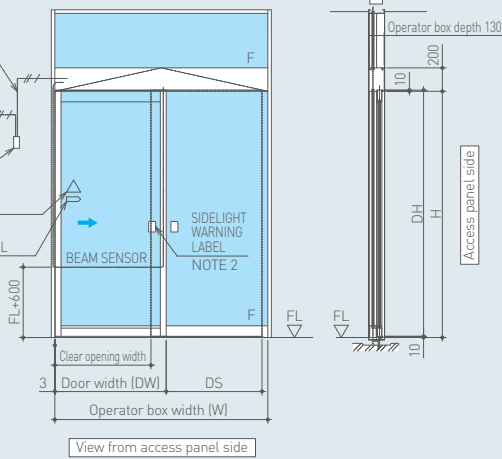*2 Operating unit depth

Dimension(mm)

Single

POWER SOURCE
230VAC±10% 2.5A
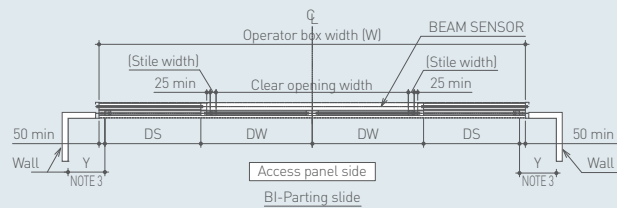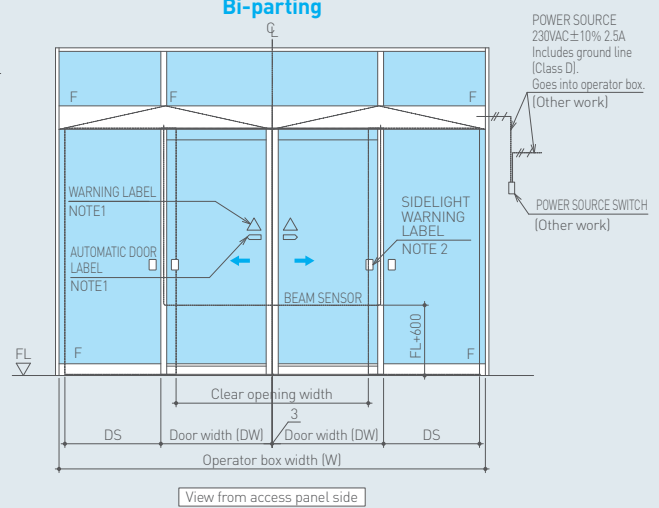Includes ground line
(Class D).
Goes into operator box.
(Other work)

POWER SOURCE SWITCH
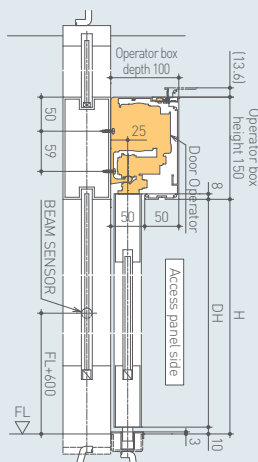(Other work)

WARNING LABEL
NOTE1

AUTOMATIC DOOR LABEL
NOTE1

BEAM SENSOR

SIDELIGHT
WARNING
LABEL
NOTE 2

Operator box depth 130

Access panel side

FL+600

Clear opening width

3 | Door width (DW) | DS

Operator box width (W)

View from access panel side

BEAM SENSOR

Operator box width (W)

(Stile width)
25 min

Clear opening width

DW | DS | 50 min

Y
NOTE 3

Wall

Access panel side

Single slide (Left hand)

Bi-parting

POWER SOURCE
230VAC±10% 2.5A
Includes ground line
(Class D).
Goes into operator box.
(Other work)

POWER SOURCE SWITCH
(Other work)

WARNING LABEL
NOTE1

AUTOMATIC DOOR
LABEL
NOTE1

BEAM SENSOR

SIDELIGHT
WARNING
LABEL
NOTE 2

FL+600

Clear opening width

DS | Door width (DW) | 3 | Door width (DW) | DS

Operator box width (W)

View from access panel side

Operator box width (W)

BEAM SENSOR

(Stile width)
25 min

Clear opening width

(Stile width)
25 min

50 min | DS | DW | DW | DS | 50 min

Wall | Y NOTE 3 | Access panel side | Y NOTE 3 | Wall

BI-Parting slide

Surface mounted type

S type
V-60/85/150SL-S

Operator box depth 100

Operator box height 150

BEAM SENSOR

Door Operator

Access panel side

FL+600

FL

HM type
V-60/85/150SL-HM

Operator box depth 150

Door Operator

Operator box height 100

BEAM SENSOR

Access panel side

FL+600

FL

M type
V-150SL-M

Operator box depth 220

Door Operator

Operator box height 170

BEAM SENSOR

Access panel side

FL+600

FL

M type
V-250SL-M

Operator box depth 220

Door Operator

Operator box height 170

BEAM SENSOR

Access panel side

FL+600

FL
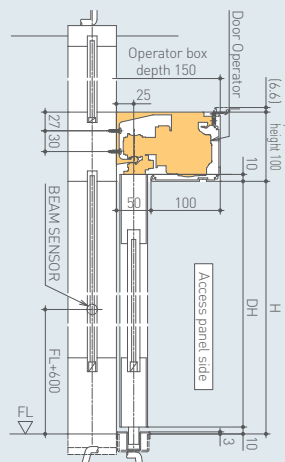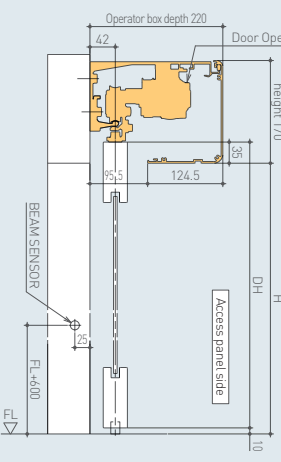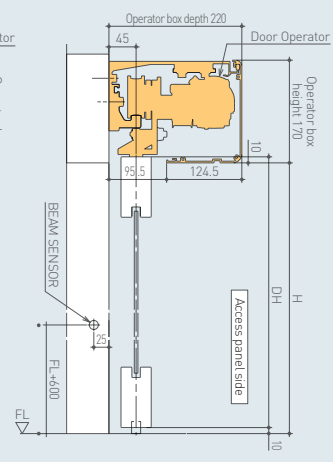
Flat bar mounted type

F type
(N rail base)
V-60/85/150SL-F

Sash Depth 94min

Door Operator

62.5

Operator Box Height 170

Door Thickness (DT)

BEAM SENSOR

Operator Box Depth 100

Access panel side

FL+600

FL
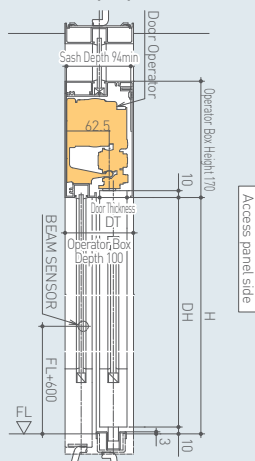
F type
(F rail base)
V-150SL-F

Sash depth 97min

Door Operator

65

Operator box height 200

Inner dimension of sash 152 min

FB

BEAM SENSOR

Operator box depth 130

Access panel side

FL+600

FL

F type
V-250SL-F

Operating unit depth 107.5 min

Door Operator

40

Operating unit height 250 min

Operator box height 330

BEAM SENSOR

Operator box depth 210

Access panel side

FL+600

FL
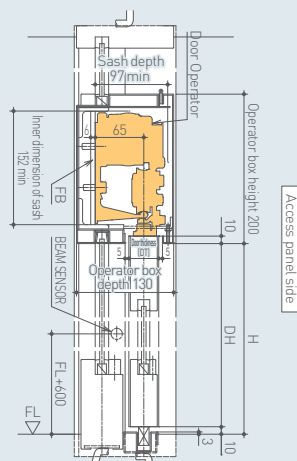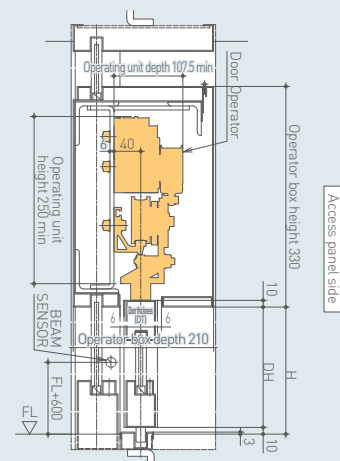
Door Operator

V-TL Telescopic Door

NATRUS NET

Even when the frontage is narrow, the door opening is as wide as possible.

● Telescopic door opens 1.3 times wider than standard sliding door and provides a remarkable solution for a limited space.

● Specification

Door Type	Single			Bi-Parting		
Product Name	V-60TL	V-85TL	V-150TL	V-60TL	V-85TL	V-150TL
Geared Motor Type	VS-60	VS-85	VS-150	VS-60	VS-85	VS-150
Applicable Door Mass (kg) x Door Quantity [1]	50×2	65×2	100×2	40×4	55×4	100×4
Applicable Door Area : DW x DH (m) : DW×DH(m^2)	1.6	2.1	2.4	1.4	1.9	2.2
Applicable Door Width : DW (mm)	500〜600	500〜800	500〜1000	500〜550	500〜650	500〜1000
Ratio of Door Height / Width : DH / DW [2]	Max. 4.2			Max. 4.2		
Required Power Capacity	230VAC ± 10% 2.5A [3]			230VAC ± 10% 2.5A [3]		
Door Operation Speed (m/sec)	0.1-0.7 [4]			0.1-0.7 [4]		
Wind Load (m/sec)	7m/s or less [5]	15m/s or less	15m/s or less	7m/s or less [5]	15m/s or less	15m/s or less

[1] The door should be used under conditions where the door unit weight will not exceed the value defined in the specification. If the weight exceeds the specification, malfunction or accident will occur.
[2] The unit door aspect ratio should not exceed the value defined in the specification. If the aspect ratio exceeds the specification, the specified performance will be impaired.
[3] With a transformer specified by NABCO
[4] The speed varies according to the door weight or site environment.
[5] V-60TL is for interior use only.

Dimension(mm)
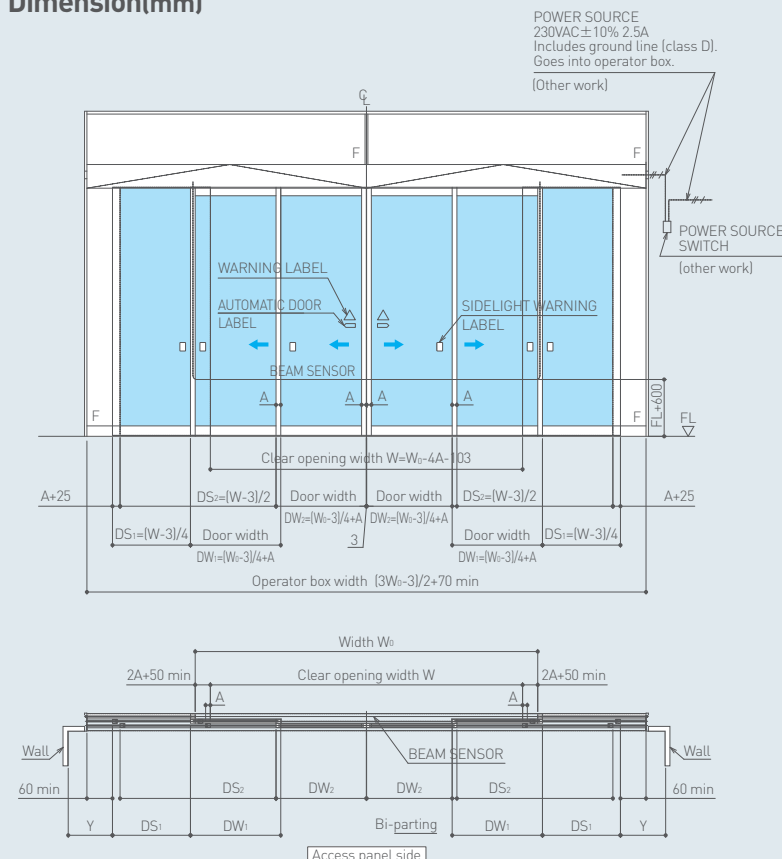
Surface mounted type
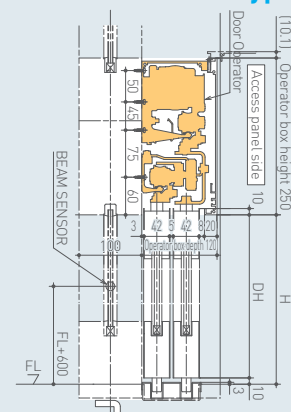
Flat bar mounted type

V-CU Circular Door

NATRUS NET
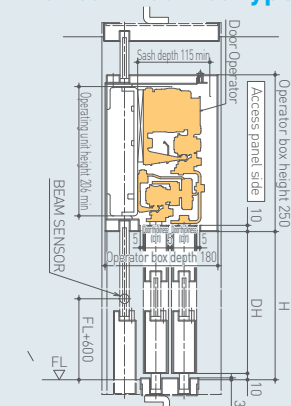
Beautiful curved surface in design

● The door offers a large choice of radiuses, from 1200 mm.
● The ultrasonic support sensor enhances safety in the doorway area.

The National Museum of Art, OSAKA

● Specification

Door Type	Single		Bi-Parting	
Product Name	V-85CU	V-150CU	V-85CU	V-150CU
Geared Motor Type	VS-85	VS-150	VS-85	VS-150
Applicable Door Mass (kg) x Door Quantity *1	75×1	100×1	75×2	100×2
Applicable Door Area : DW x DH (m)：DW×DH(㎡)	Max. 2.6			
Applicable Door Width : DW (mm)	762～1067			
Ratio of Door Height / Width : DH / DW *2	Max. 3.0			
Applicable Door Radius	1200R			
Required Power Capacity	230V AC ± 10% 2.5A *4			
Door Operation Speed (m/sec)	0.1-0.7 *3			
Wind Load (m/sec)	10			

*1 When applying to Tempered glass Door
*2 The unit door aspect ratio should not exceed the value defined in the specification. If the aspect ratio exceeds the specification, the specified performance will be impaired.
*3 The speed varies according to the door weight or operating environment.
*4 With a transformer specified by NABCO.

Dimension(mm)
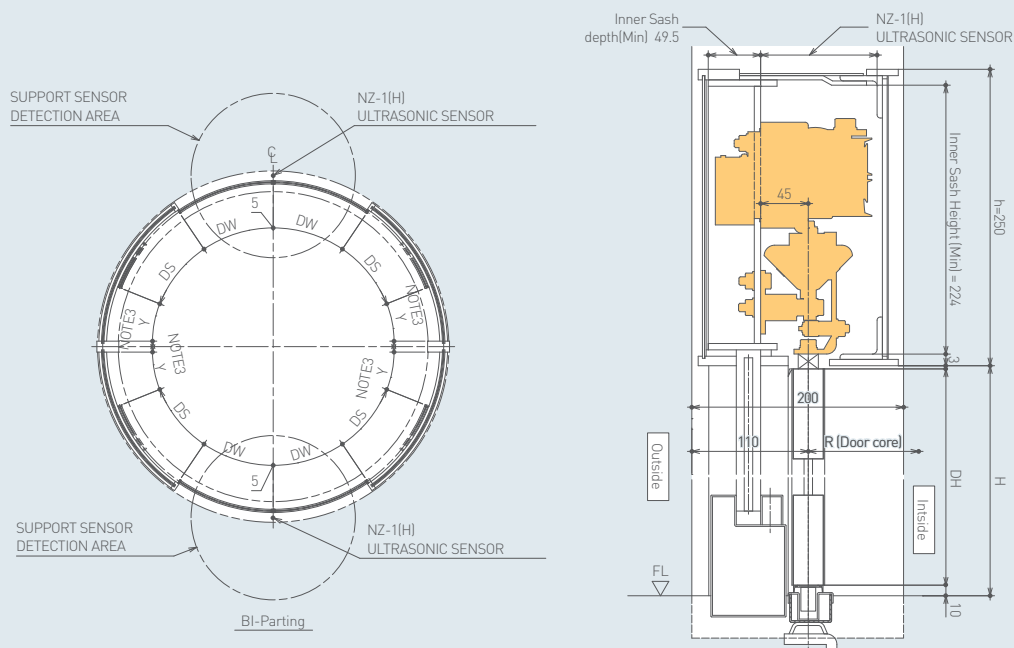
Door Operator

DSN-500 Heavy Sliding Door

Available to large sized or heavy duty industrial doors

● Suitable for bi-parting doors of up to 500 kg per door and single sliding doors of up to 1000 kg

● Auxiliary reduction gears enable the operation of doors up to 2000 kg (single sliding)

● Specification

Door Type	Single	Bi-Parting
Geared Motor Type	DSN-500	DSN-500
Applicable Door Mass (kg) x Door Quantity	1000 x 1	500 x 2
Applicable Door Area : DW×DH (m²)	27.5	14
Applicable Door Width : DW (mm)	6100	3100
Ratio of Door Height / Width : DH / DW	Max. 3.0	Max. 3.0
Required Power Capacity	200V AC ・6A	200V AC ・6A
Door Operation Speed (m/sec)	0.1-0.5 *1	0.1-0.5 *1
Wind Load (m/sec)	15	15

*1 The speed varies according to the door weight or operating environment.

Dimension(mm)

Concealed flat bar mount for Stainless steel sash

DSN-500
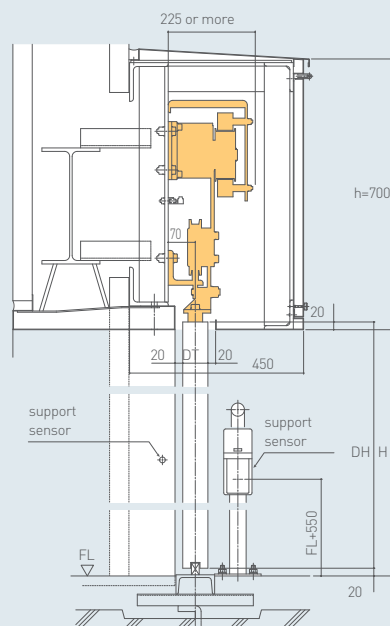
NAX Hermetic / Sound Proof Door

NATRUS NET

Provides high air tightness, aesthetic and safety.

● Air Tightness :
  High class of air tightness
  【EU】 BS EN12207 : Class 4
  【JAPAN】 JIS A4702 : ClassA-4

● Aesthetic :
  - Smallest header size in the industry
  - Wide range of door leaves and handle

● Safety :
  - Possible to be fully opened without any clearance left
  - Easy to open manually in case of a power failure

● Specification

Use Applications			Air tightness + Sound insulation		Air tightness + Sound insulation + X-ray shield	
Door Leaf			Aluminum / Stainless steel / Glass		Aluminum	Stainless steel
Door Type			Single	Bi parting	Single	Single
Clear Openings (mm) *1	Width (W)		700 - 2000	1200 - 2800	700 - 1600	700 - 1100
	Height (H)		1900 - 2500	1900 - 2500	1900 - 2500	1900 - 2500
Max Weight			150kg			
Opening Operation Speed (m/sec)			0.1-0.7*2			
Hold Open Time			adjustable			
Ambient Temperature			-10°C to 50°C			
Power Supply			230VAC +6/-10% 50/60Hz*3			
Power Consumption			45Wh			
Relative Humidity			20% to 85% RH			
Air Permeability			Class 4 (BS EN12207)*4 A-4 (JIS A 4702)			
Sound Insulation			T-1 (JIS A 4702)*5		T-1 (JIS A 4702)	
X-ray Shield			—		◯ (Lead plate 2mm)	
Electric Lock				◯		

*1 Applicable size of the clear opening varies depending on the skin material type.
*2 The speed varies according to the door weight or operating environment.
*3 With transformer specified by NABCO
*4 Class 4 (BS EN12207) is applicable to single sliding door only.
*5 The type of glass door leaf has T-2 class of sound insulation. If T-2 class is required for aluminum/stainless door leaf, please contact our sales distributor.

Dimension(mm)

Elevation

【Stainless steel】There is a joint line when the door width is over 1100.
【Aluminum】There is a joint line when the door width is over 1400.

Window
H=300
W=550

Touch-less switch (OAH-100)
Recessed handle

Support sensor

Foot switch (FT-10)

Clear opening W
DW

Clear opening H
DH

Unit: mm

Section

210.5
170

Support sensor
FL+600
33 10 Dt
5

DH
Clear opening H
22
5

*The section shows when the door is fully opened

*Handle, waist plate, kick plate and lock are optional
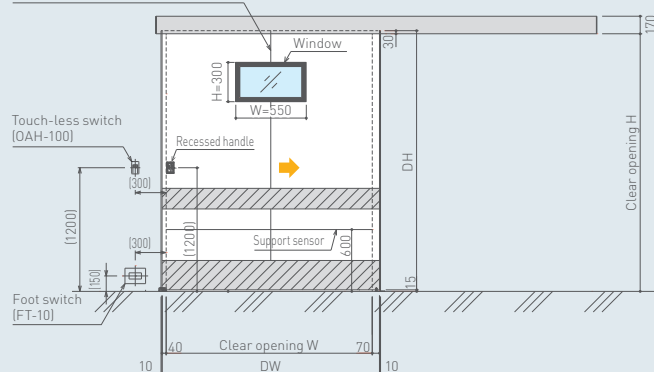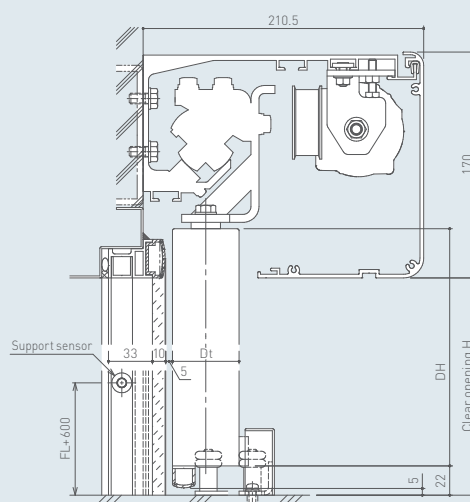
Best suited NABCO sensor can be selected by function,

Products for each mounting place
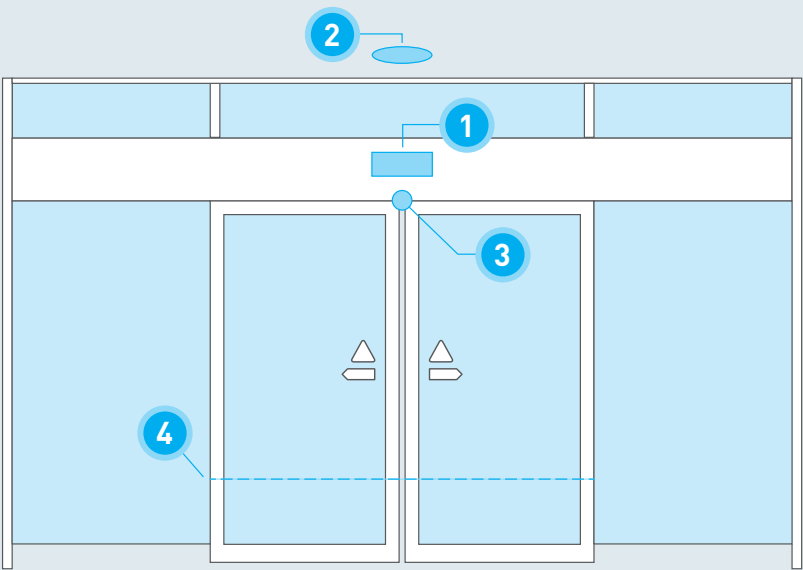
6 Accessories

5 Wall / Piller

❶ Transom mount

NS-A01 N Search

❷ Ceiling mount

NS-A04 N Search

❸ Transom embedded / Transom bottom- mount

NS-A02 N Search

NS-A03 N Search

NZ-1 ULTRASONIC SENSOR

Suitable for circular and folding doors as support sensor

❹ Mullion / Jamb

NH-101 Side Beam Sensor

NP-01 / NP-01L
Photoelectric Beam Sensor

❺ Wall / Piller

FT-30A Foot Switch

HDS-4P
Multi Purpose Toilet

❻ Accessories

PL type Electric lock

Locking mechanism functions as a belt pulley

EOS Emergency Operating System

To operate door in emergency condition

SKD type Electric lock

Compact electric deadbolt lock

Adcanced Program Switch

APS-A10

APS-N1

mounting type, and design from a wide variety of products.

NABCO Sensor Selection Chart

Mounting position	Product name	Type Exposed	Type Embedded	Object Motion	Object Presence	Mounting height Height(m)	Detection area Width(m)	Detection area Depth(m)	at mounting hight of
Transom mount	NS-A01 N Search	●		●	●	4.0	2.68	1.84	2.2
Transom embedded	NS-A02 N Search		●	●	●	4.0	2.68	1.84	2.2
Transom bottom-mount	NS-A03 N Search	●		●	●	4.0	2.68	1.84	2.2
Ceiling mount	NS-A04 N Search		●	●	●	4.0	2.72	1.89	2.4
Wall mount	FT-A30 Foot Switch	●							
Wall mount	HDS-4P Toilet Switch	●							
Support Sensor	NH-101 Side Beam Sensor	●		●	●		0.5~1.5		
Support Sensor	NP-01 Beam Sensor		●	●	●				
Support Sensor	NZ-1 Ultrasonic Sensor		●	●	●	2.5	φ1.5		

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.

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

NABCO is the automatic door brand produced by Nabtesco Corporation, which produced the first automatic door in Japan, and has Japan's largest market share.
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.

N Search Sensor

NATRUS NET

Header mount sensor **NS-A01**

Header recessed sensor **NS-A02**

Header bottom-mount sensor **NS-A03**

Ceiling mount sensor **NS-A04**

● Specifications

Type	N Search	
	NS-A01/A02/A03	**NS-A04**
Detecton Method	Motion & Presence Detection（active infrared sensor）	
Mounting height	When used as activation sensor : 2.0 to 4.0m When used as safety sensor : 2.0 to 3.5m	When used as activation sensor : 2.0 to 4.0m When used as safety sensor : 2.0 to 4.0m
Detection area	When mount height is 2.5m : 3.05m（width）× 2.09m（depth）(reference)	When mount height is 3.0m : 3.04m（width）× 2.37m（depth）(reference)
Sensor cover color （type 01 and 03）	Silver / Bronze / White / Black / Mirror / Stainless steel color	――
Sensor color （type 02 and 04）	Black	Black
Function	Spot-by-spot setup, Safety test before closing. Trouble indication, Full-color LED display, Eco mode, Snow / Insects mode, Touchless switch mode	Spot-by-spot setup, Safety test before closing. Trouble indication, Full-color LED display, Eco mode, Snow / Insects mode

Dimension(mm)
● NS-A01   ● NS-A02   ● NS-A03   ● NS-A04

265 40 65

255 54 2 40.2 52

296 40.5 54.4

φ124 5.8 58 5.8 φ150
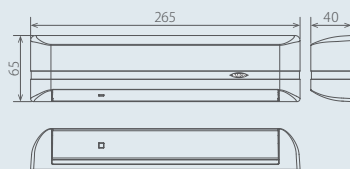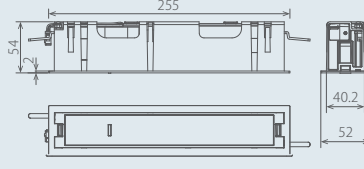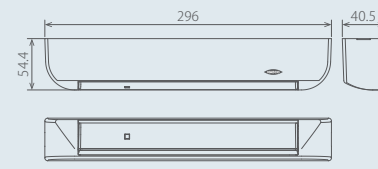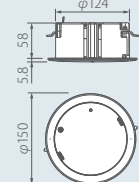
Detection area (72 independent spots)

Mounting height

A B C D E F

1 2 3 4 5 6

G H I
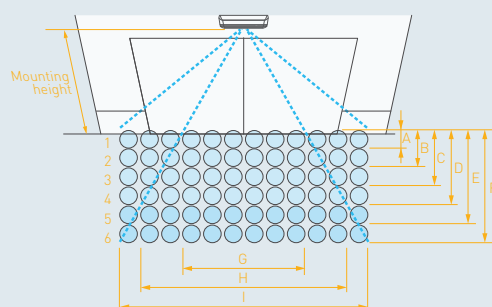
※Mounting height shows the height of where sensor is mounted.

● Detection area size（Reference）
(mm)

Mounting height		2.0m	2.2m	2.5m	3.0m	3.5m	4.0m
Depth	A	180	198	225	270	315	360
	B	450	490	560	670	780	890
	C	710	790	890	1,070	1,250	1,430
	D	970	1,070	1,220	1,460	1,700	1,950
	E	1,270	1,400	1,590	1,910	2,230	2,550
	F	1,670	1,840	2,090	2,510	2,930	3,350
Width	G	1,110	1,220	1,380	1,660	1,940	2,210
	H	1,970	2,170	2,470	2,960	3,450	3,950
	I	2,440	2,680	3,050	3,660	4,270	4,880

※ The above values are obtained when the area adjuster is set at zero degree.
※ For NS-A01 / A02 / A03

Self-test feature

The door system conducts a self-test in every operation to check whether sensors are working to detect the protection area correctly.

Before closing
(door is at fully opened position)

Self-test for Protection area

pass | fail

Door is closed as usual | Door is stopped to ensure safety

Trouble indication on sensor

Activation area
Protection area — Beam sensor
Protection area
Activation area

If there is any trouble with the sensors, the system stops the door to ensure safety.
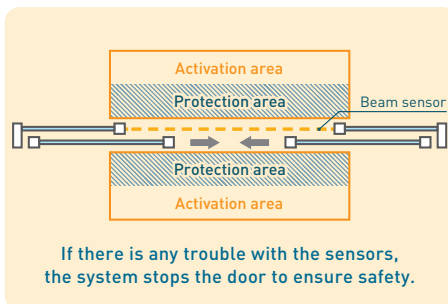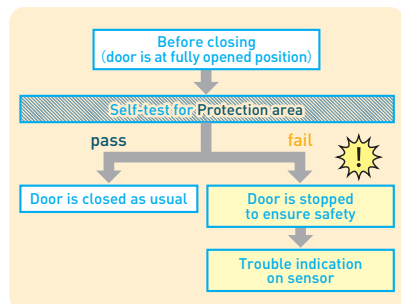
Trouble indication on sensor Advantage

Fail-safe mechanism works for any sensor troubles, and the LED starts blinking to show "network component error" so that building owners can easily comprehend the current situation. In the case the sensor shows the LED blinking, please contact your local distributor of NABCO.

LED blinks to show occurrence of trouble

ECO mode Advantage

The door system judges pedestrian's movement and, after the pedestrian passes through the door, starts the closing action earlier, contributing to energy saving.

Conventional sensor

N Search

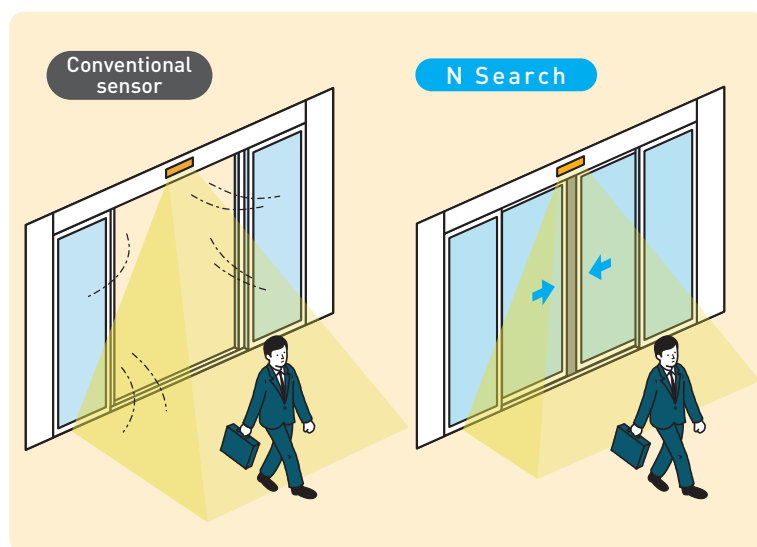## Spot-by-spot setup of sensor with 72 independent spots Advantage

Since sensor detection spots can be set one by one according to the actual site environment, it is possible to reduce unnecessary door operation. The interior environment is improved and operational efficiency is maintained.

inactive

active
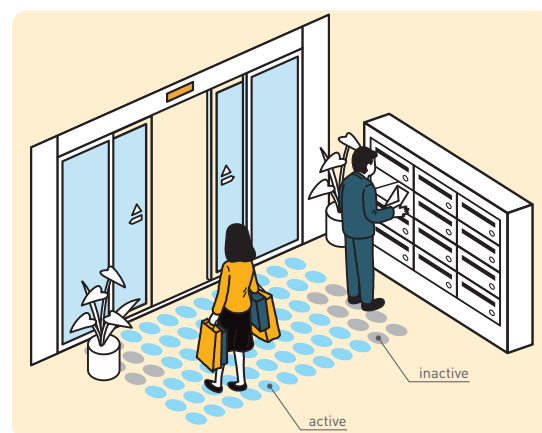
Touchless switch mode Advantage

In case the door keeps opening unnecessarily due to continually passing by the door, the setting can be changed to Touchless switch mode（only NS-A 01 / 02 / 03）.

1 In the case of Touchless switch mode, pedestrians walking or objects moving pass the passageway are not detected.

2 When a hand is placed near the touch plate, the door opens.

● Example of touch plate

AUTO
Touch to open

3 After the door opens, the detection area is enlarged around the door to detect pedestrians.

4 When no more pedestrians are detected, the door closes and the detection area returns to be limited.
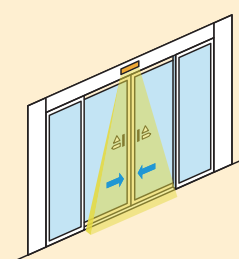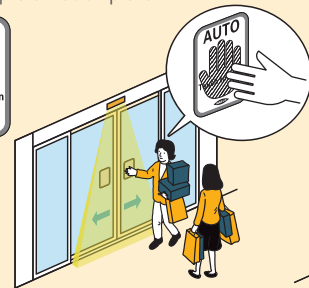
Note : All these functions are available when used with NATRUS Automatic door operator made by Nabtesco.

NH-101
Side Beam Sensor

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

BK

Dimensions (mm)

32   29

70

Mass : 120g

Detection area (mm)

500～1500

500～1500

0～90°

Product name	NH-101 Side Beam Sensor
Detection method	Presence / Motion Detection (Near Infrared method)
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)

FT-A30
Foot Switch

NET

- The embedded type switch does not affect appearance and is easy installed.
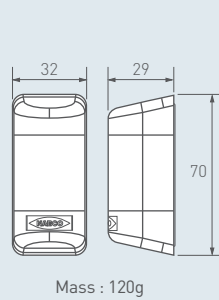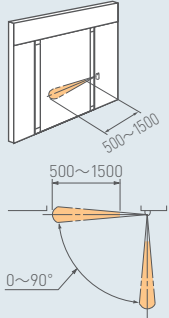- The swtich is suitable for operating room in hospitals because the foot switch offers hygienic hands-free operation.

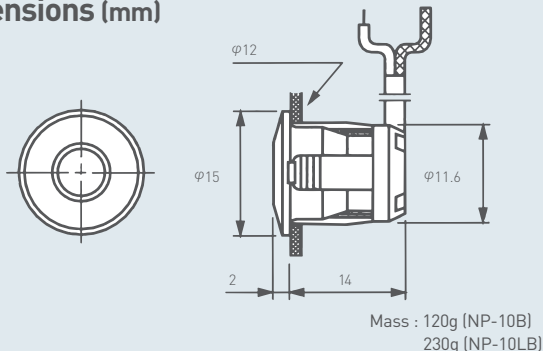| Product name	FT-A30
Detection method	Photoelectric type
Power voltage	12VDC
Current consumption	65mA or less

NP-01
Beam Sensor

NATRUS NET

–The doors open when a photo-electric beam between a transmitter and a receiver in mullions or fixed frames is interrupted by pedestrians or objects.

–The door remains open as long as interrupted.

CL

Type	Photoelectric sensor	
	NP-01	
Detecton Method	Motion / Presence Detection	
Mount height	Standard height: Floor Level +600mm	
Installation distance	0.9 - 8m (Transmission mode)	
Remarks	2 units of NP-01 are available with NP-A001 controller	

Dimensions (mm)

φ12

φ15

φ11.6

2   14

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

※To be used with Beam Sensor controller

NZ-01
Ultrasonic Sensor

NET

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

–Support sensor monitoring doorway with three dimensional detection area

Product name	NZ-1 Ultrasonic Sensor
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)

Dimensions (mm)

NZ-1R

NZ-1U (A=14)
NZ-1H (A=40)

M6

20
15

A

21

31

50

22

24

40

φ8

φ22
2-M4

Mass : 50g / 60g / 65g

Detection area (mm)

Detection area

1900

φD
at FL+1.0m

400
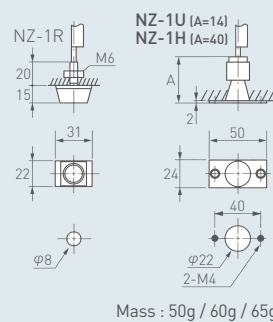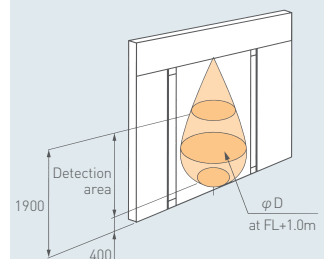
HDS-4P Multipurpose Toilet Switch

Accessible toilet for wheel chair users or baby carriage users

HDS-4P Push Button Switch

Universally designed door operation switch for public toilets achieves both harmony with toilet space and usability.

● Guidance by illumination
 - The button to be pushed next lights up
 - Pushing button makes beep sound for confirmation of operation.

● Due consideration for visual impediment
 - Due consideration for the visually impaired people
 - Higher visibility for people with red-green color vision deficiency

● Due consideration to people in wheelchairs and the elderly

● Audio guidance is available(English/Japanese/Chinese/Korean)

Detection Method	Pressure detection (Push-button type)
Operation Force	Approx. 5N
Indicator Light	White LED Stand-by: Off Occupied: On
Installation	Embedded in the wall ※Option: exposed on the wall

Inside switch   Outside switch
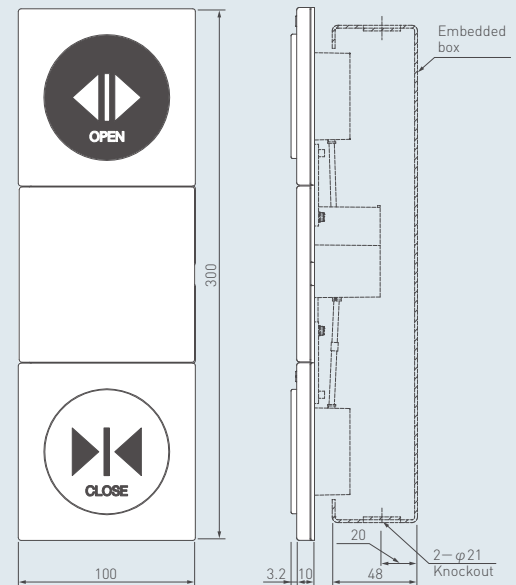
Dimension(mm)

Dimension of Multipurpose Toilet Door Unit (mm)

support sensor

FL+600

FL

Occupancy sensor

operation switch

operation switch

automatic door
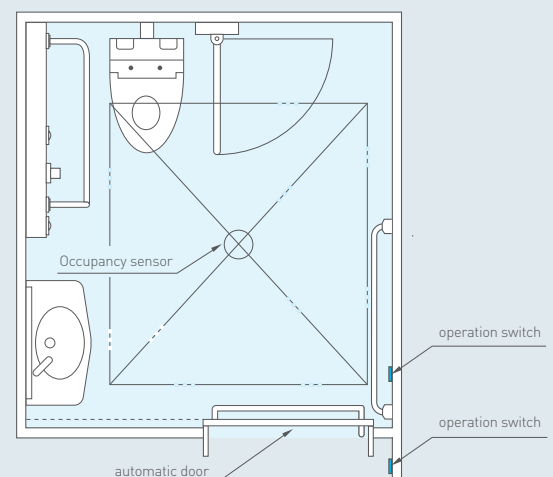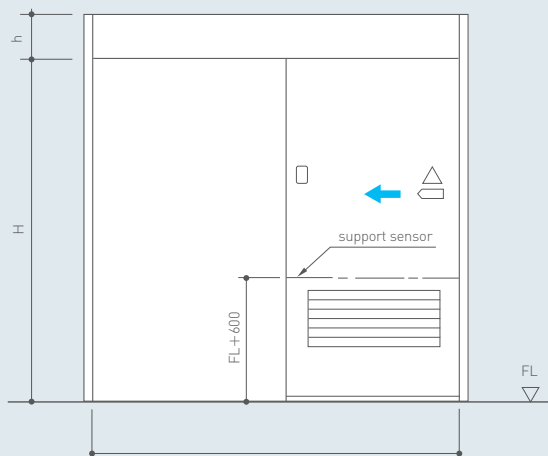
PL-type electric lock

The PL-type electric lock is a device that keeps the door closed by restraining the driving belt firmly coupled to the door with the electromagnetic lock built into the idler pulley.
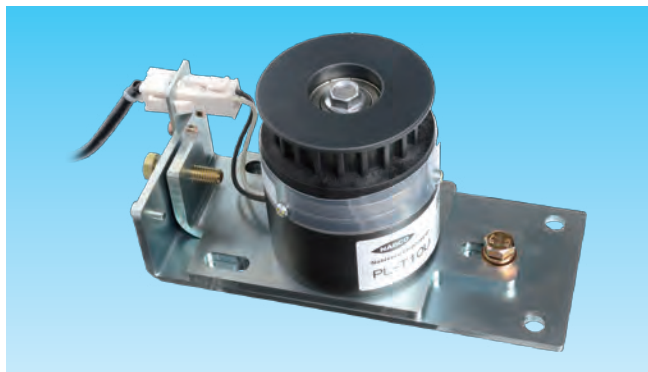
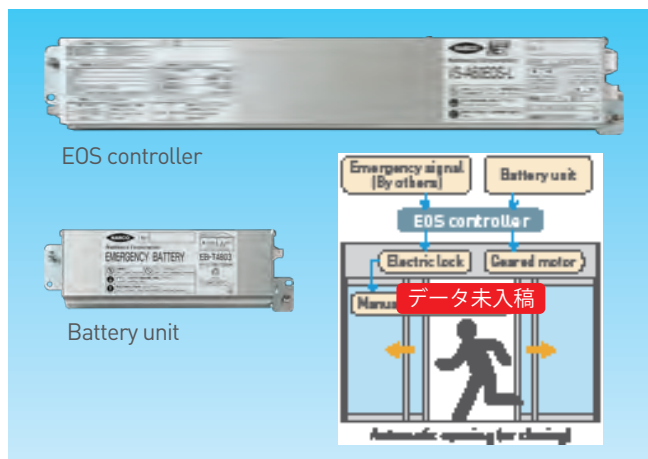| Locking / unlocking condition	Fail safe (unlock at power off)
Structure of locking mechanism	Electromagnetic brake with tooth
Locking / unlocking monitor output	When the power is on : Make or Break can be selected.
Forced unlocking input	Non-voltage a/b contact

APS-type Program Switch

APS-A10

Color LCD offers excellent visibility for switching the automatic door mode.

Application operators	NATRUS / NET-DS
Program mode	Auto, Hold open, One-way, Manual, Night (Lock)
Languages	English, Chinese, Korean, Thai, Vietnamese, Indonesian, Russian
Security Code	Passcode

EOS Emergency Operation System

EOS controller

Battery unit

Emergency signal (By others) | Battery unit

EOS controller

Electric lock | Geared motor

データ未入稿

The EOS Emergency Operation System is a control unit that detects the emergency signal or the interruption of power to open (or close) the door in an emergency. When the door is manually opened while in emergency closing mode, it is automatically closed again. (This function is excluded from the requirements of escape routes and emergency exits in EN 16005.)

Emergency input signal	Non-voltage or 24VDC voltage
Battery capacity	30-cycle or 30-minute emergency operations
EOS operation monitor output	When the power is on: Make or Break can be selected.
Buzzer output	When EOS is working, buzzer activation mode can be selected.

SKD-type electric lock
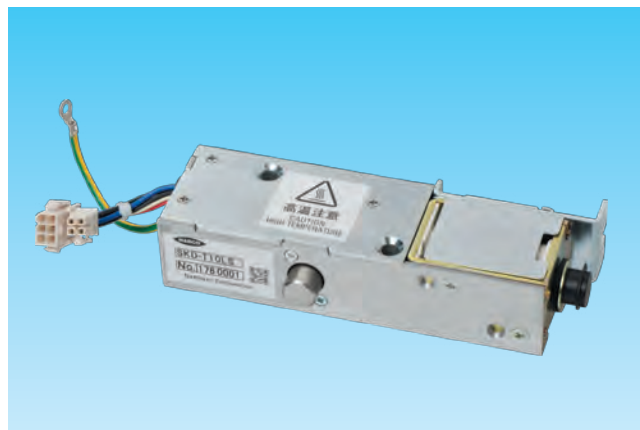
The SKD-type electric lock operates the dead bolt by supplying power to the solenoid to lock and unlock the door. It is possible to provide the locking / unlocking monitor output even during a power interruption (option).

Locking / unlocking condition	Fail secure / safe (lock / unlock at power off)
Structure of locking mechanism	Dead bolt
Locking / unlocking monitor output	When the power is on: Make or Break can be selected. When the power is off: Non-voltage 1c contact (option)
Forced unlocking input	Non-voltage a/b contact
Manual unlocking devic	Option for unlocking at power off

About NABCO

NABCO manufactured the first automatic door in Japan and it has No.1 share in Japan over the years. NABCO is now the major automatic door manufacturer in the world.

Since NABCO manufactured the first automatic door in Japan in the 1950s, we have developed a vast range of products for different applications and provided best services to our customers, which has made NABCO the "Only One" automatic door solution provider.

NABCO Value Diamond

With the largest number of people passing through our doors,
we have Japan's largest market share.

We produced the first
automatic door in Japan.

**No.1
Share**

Share

**1st
Manufacturer
in Japan**

History

Coverage

**Largest
Coverage**

Our maintenance service area
covers everywhere in Japan.

The only one
with
all the No.1s

Innovation

Support

Innovation

Our innovative spirit has
been challenging the
possibilities for
new doors.

Line-up

**Best
Support**

**Best
Product**

Available 24 hours-a-day,
7 days-a-week, our maintenance
service provides the fastest
possible response time.

Response capabilities to various products,
technologies and openings have been accumulated
from around the world.

Global Business

NABCO has started its overseas business since the 1960s. Since then, our business has extended to various countries. In the healthcare field, NABCO has been providing premium entrance systems and services and earned a reputation from our customers around the world.

**Pedestrain
Flow
Solution**

Nabtesco Corporation

Accessibility Innovations Company

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