

NABCO

NABCO Automatic Door

# NATRUS<sup>+e</sup> W

Pedestrian Flow Solutions

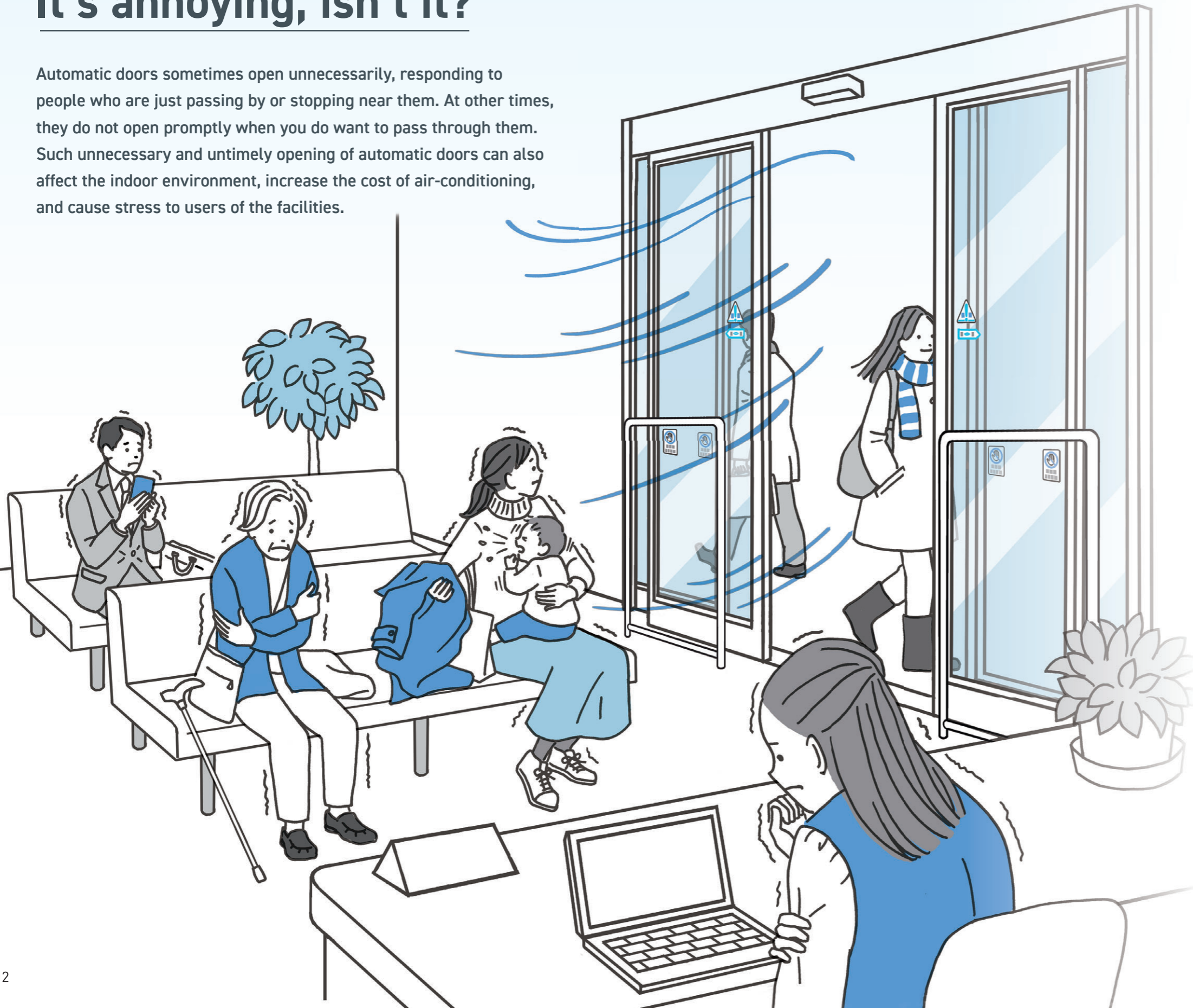


Scan the code for  
the product  
introduction video.



# Unnecessary opening of automatic doors— It's annoying, isn't it?

Automatic doors sometimes open unnecessarily, responding to people who are just passing by or stopping near them. At other times, they do not open promptly when you do want to pass through them. Such unnecessary and untimely opening of automatic doors can also affect the indoor environment, increase the cost of air-conditioning, and cause stress to users of the facilities.

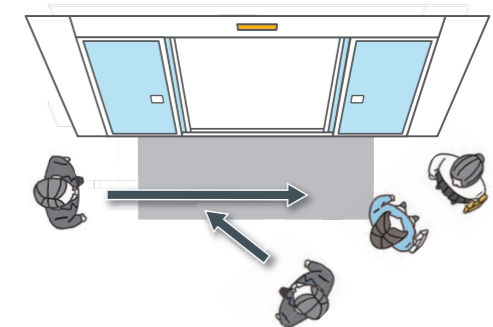


## With global warming, it is important to utilize energy resources wisely.

It is necessary to implement measures against the winter cold and summer heat. Recent increases in temperature are causing energy consumption and the cost of air-conditioning to increase.

Under such circumstances, preventing the unnecessary opening of automatic doors can help save energy.

The doors open whenever someone passes by...



→ Movement of people who are not heading toward the doors    ■ Conventional detection area

# Reducing Unnecessary Openings to Provide a Comfortable Space



# Providing Accessibility According to the Movement of People

The NATRUS<sup>+</sup> W doors will open when you want to pass through them and will not open even if you stop near them or pass by. The doors will appropriately detect people's movements to reduce unnecessary openings.

The NATRUS<sup>+</sup> W doors will open by predicting the vector (speed and direction) of approaching people and objects. The doors monitor the movement of people to provide them with excellent accessibility by opening at a better timing.

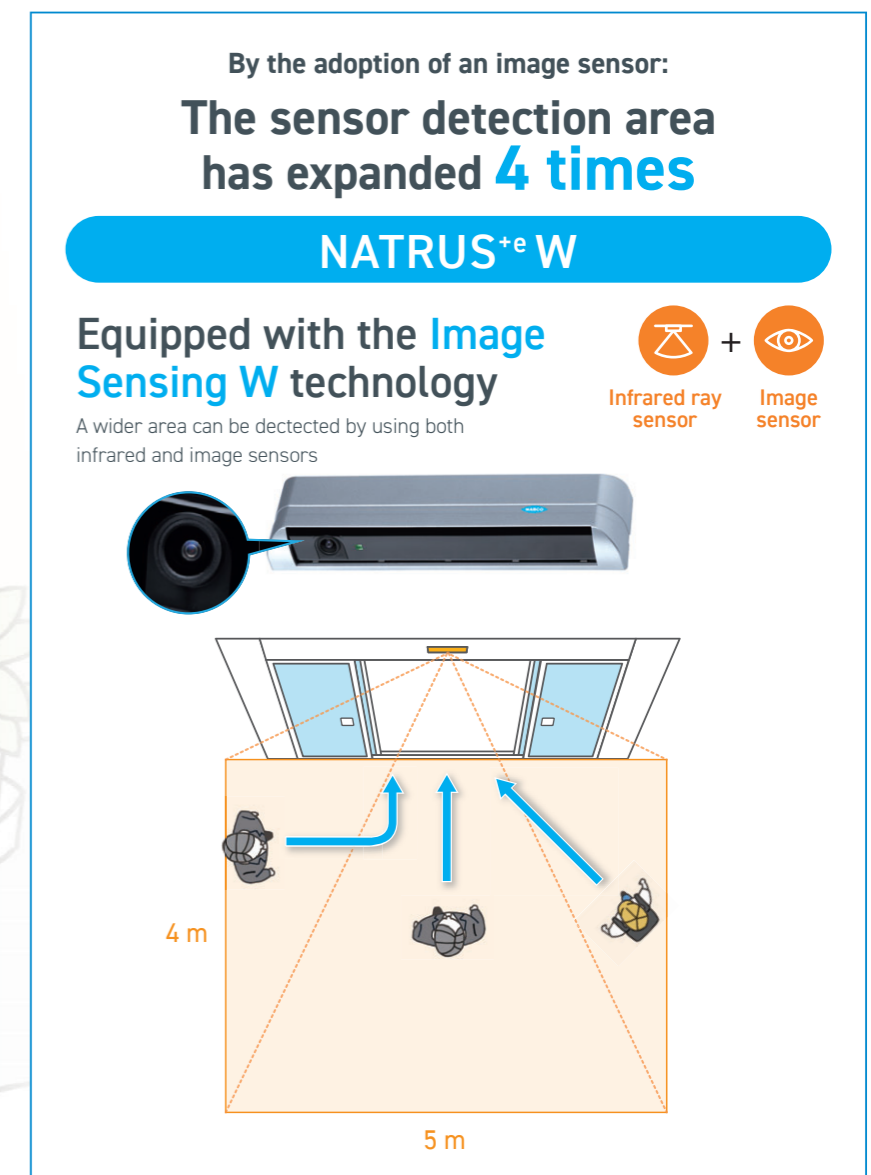
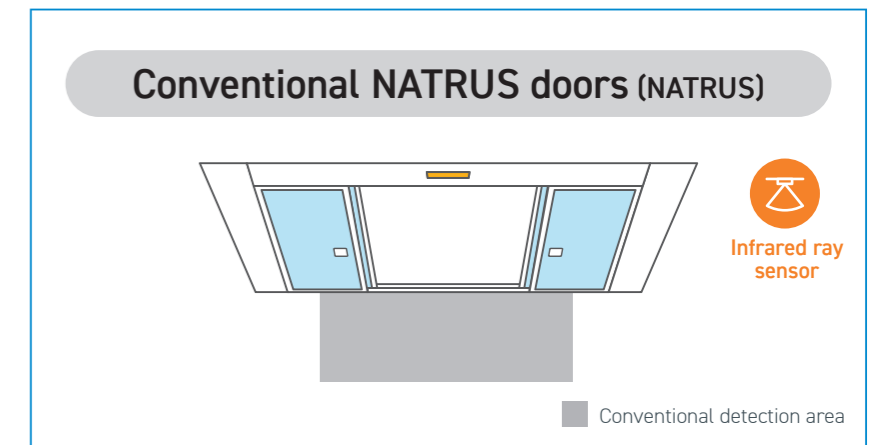
Unnecessary opening time<sup>1</sup>  
**Reduced**

Power consumption  
**Reduced**

<sup>1</sup> Unnecessary opening time: Time in which the doors are kept open even though nobody is passing through them.



Smooth operation  
**Better accessibility**



For **human** and the **earth**,  
Your best choice for automatic doors

# NATRUS<sup>+e</sup> W

Equipped with two sensors, NATRUS<sup>+e</sup> W doors precisely detect the movement of people in the **Wide** detection area.

Through the reduction of **unnecessary door opening** and provision of **excellent accessibility**, the automatic doors will contribute to improving the indoor environment and **Well-being** of people.

In addition to providing both excellent accessibility and comfort, the automatic doors also contribute to curbing global warming.

## NATRUS<sup>+e</sup>

# W

Energy conservation  
Improvement of the  
indoor environment



Comfort  
Accessibility



Optimal choice for the following facilities

### Airports

Air-conditioning costs are rising due to the unnecessary opening of automatic doors.

### Hospitals

Unnecessary opening of automatic doors brings cold/heat from outside into the waiting area, and it makes people there uncomfortable.

### Commercial facilities

Automatic doors are kept open due to people standing and talking near the entrance, reducing the effect of air-conditioning.

### Streetside stores

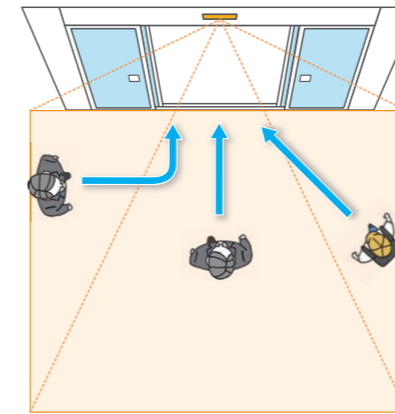
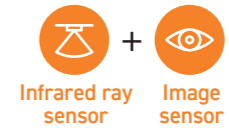
Unnecessary door opening reduces the effect of air-conditioning.



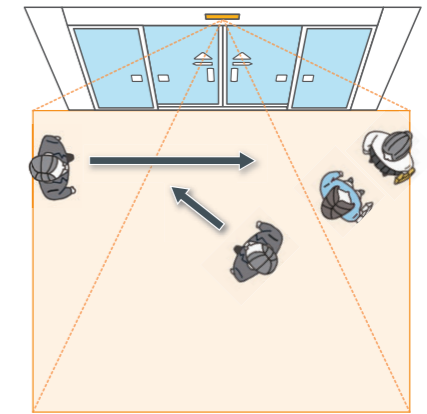
## Reducing unnecessary openings

### Pedestrian flow detection to determine if the doors will open or not.

Image Sensing W



The doors will **open**.



The doors will **not open**.

Within the wide pedestrian flow detection area (5 m in width x 4 m in depth), the state-of-the-art sensing technology detects the movement of people to provide greater detection performance. That allows automatic doors to discern who is intending to pass through and who is just standing by or passing by. The doors then open only for people wanting to pass through.

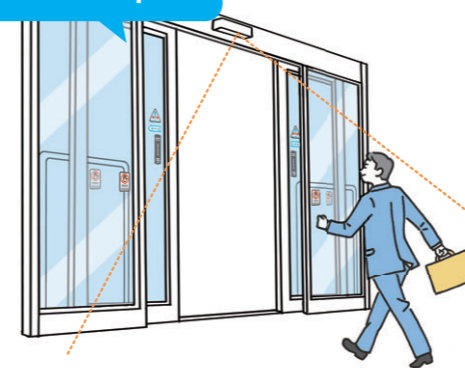
→ Movement of people who will head toward the doors    → Movement of people who will not head toward the doors    □ Sensor detection area

## Providing accessibility according to the movement

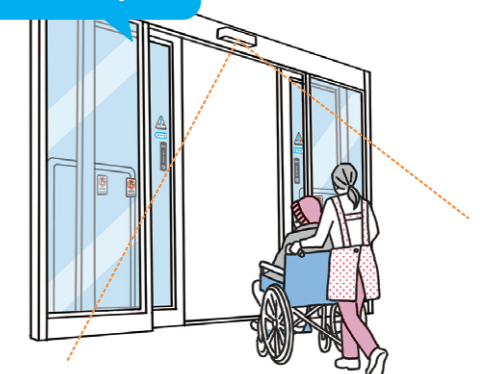
### The doors will predict the pedestrian's flow for smooth opening

The doors will open by predicting the vector (speed and direction) of people and objects

At a normal speed



At a slow speed



The Image Sensing W system appropriately estimates walking speed. By predicting the time required for the person to reach the doors, the doors will open in a timely fashion both for people walking at a normal pace and those approaching more slowly. Even for a person using a wheelchair or a cart, the doors will open at the right time to allow the person to pass through without any fuss.

Note: When a person approaches the doors from the front, the doors will open at the right time based on the person's vector (speed and direction) of approach. When a person approaches the doors from different angles, for example, from the side, the doors may open at a different timing.

## A new standard for automatic doors

# Easily Expand Functionality by Just Replacing the Sensors

The newly developed NATRUS<sup>+e</sup> W sensor is the same size as that of the conventional NATRUS sensor, so you can easily replace the conventional sensor with the new one.



Type & name	NSW-A01 N Search W	NSW-A02 N Search W	NSW-A03 N Search W
Mounting position	Mounted on the transom	Embedded in the transom	Mounted beneath the transom
Detection method	Motion & presence detection (Image Sensing W) Pedestrian flow detection <sup>1,2</sup> using both infrared and image sensors Adoption of near infrared reflectance method in the protection area near the door		
Mounting height <sup>3</sup>	2.0 to 3.5 m		
Detection area <sup>4</sup>	5 m in width x 4 m in depth (fixed regardless of the mount height)		
Power voltage & power consumption	DC12v 200mA and below		
Output ratings	NET dedicated output		
Remarks	Functions to: prevent snow, rain, fog, etc. from causing erroneous operations; to prevent the doors from being kept open due to changes made to the floor; to conduct a safety test for each opening & closing; to signal a machine problem; to monitor the doorway; full-color LED display		

- 1 Images captured by the product are used only for the purpose of predicting movement, speed and direction based on the size of the target object. Data derived from the images does not contain any information pertaining to personal characteristics or that could be used to identify individuals. Captured images are deleted immediately.
- 2 The movement detection timing may vary depending on the brightness of the surrounding area.
- 3 The mount height may be limited depending on the installation environment.
- 4 For the detection area for which the near infrared reflectance method is adopted, specifications set for the N Search sensor will be applied.

Contributing to the SDGs with NATRUS<sup>+e</sup> W!



### Improvement of the indoor environment

Reducing unnecessary automatic door openings helps reduce the inflow of hot/cold air from outside into the indoor space, thereby contributing to providing users with a stress-free and comfortable indoor environment.



### Better Accessibility

Based on the prediction of the vector (speed and direction) of approaching people and objects, the doors will open in a right time, even for those using a wheelchair or a cart.



### Barrier-free

No need to press the button to open the door, making it easier for the wheelchair users and cart users to pass through the doors. The doors are thus suitable for use at facilities that need to be barrier-free, such as stations, station buildings, commercial facilities and educational institutions.

# Nabtesco

Nabtesco Corporation  
Accessibility Innovations Company

JA Kyosai Bldg., 7-9,  
Hirakawacho 2-chome,  
Chiyoda-ku, Tokyo 102-0093,  
Japan  
Tel.: 81-3-5213-1156



ISO 9001 & ISO 14001 certified



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