



**KTH K-2**

# **AUTOMATIC DOOR SYSTEM**



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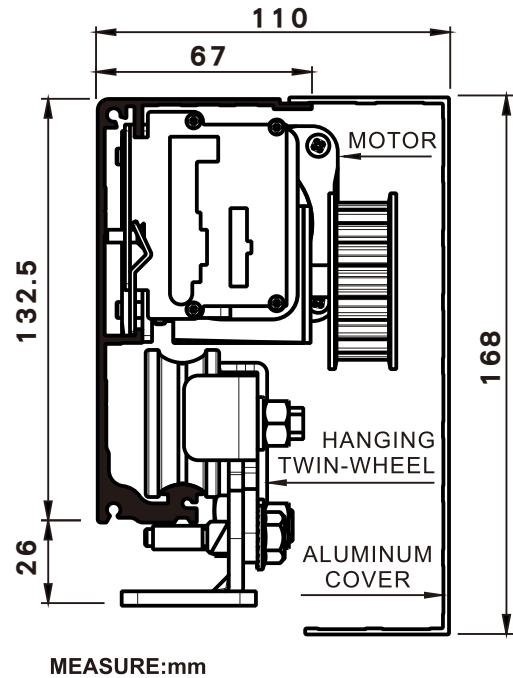
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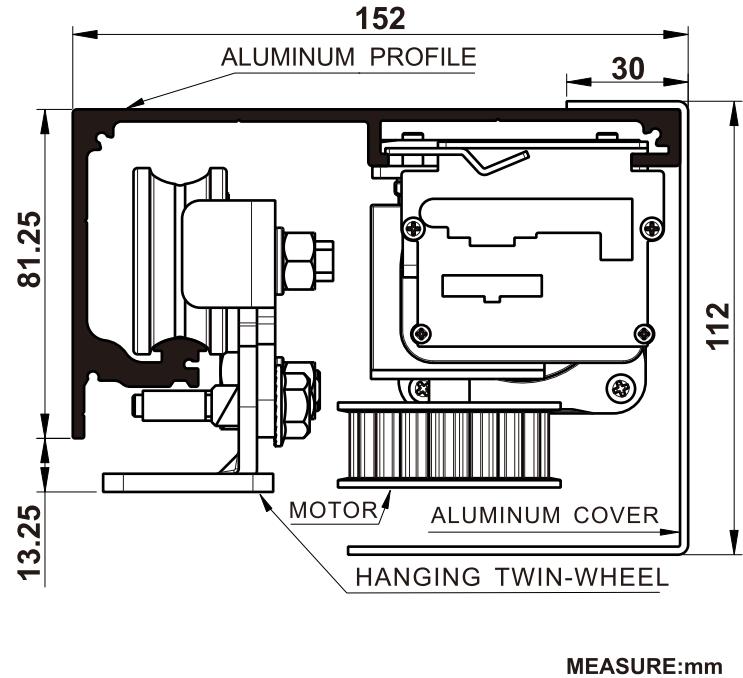
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## SPECIFICATION&PROFILE

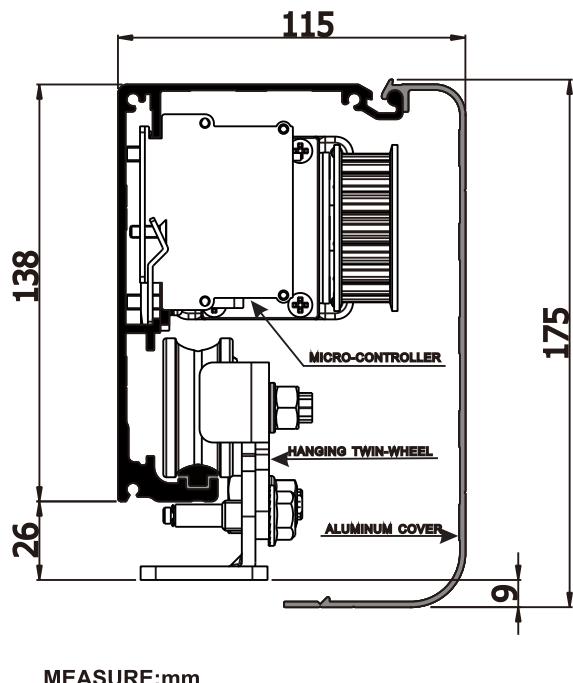
### Standard



### Slim



### Noiseless



TYPE	K-2
MODEL	SINGLE-WINGED      BI-PARTING
DOOR WEIGHT	120kg X1(door)      100kg X2(door)
DOOR WIDTH	DW=500mm~2500mm      DW=500mm~2500mm
INSTALL WAY	Surface install      Surface install
MOTOR	DC24V 75W WORM GEAR MOTOR
CONTROL	MICRO-CONTROLLER
POWER CONSUMPTION	75W
VOLTAGE	AC100V~240V
ENVIRONMENTAL TEMPERATURE	-20°C~+50°C
VOLUME	60 decibel(max.)
STARTING SPEED	200~550mm/second
STARTING TIMES	0~20 sec. (regulable)
TRANSMISSION IMPORTANT CONDITION	RACK BELT S8M
OPENING DOOR RANGE	FULL/HALF-OPEN (regulable)
TRACTION FORCE	3kg

## ■ COMPONENTS



**MICRO-CONTROLLER**



**COMBINED  
TERMINAL BLOCK  
(OPTIONAL DEVICE)**



**BELT ROLLER  
1 PCS**



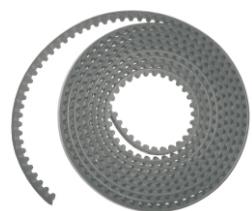
**DC WORM GEAR MOTOR**



**MICRO-CONTROLLER  
FOR EN16005**



**SENSORS  
(OPTIONAL DEVICE)**



**RACK BELT**

**COMBINED TERMINAL BLOCK FOR EN16005**

## (BI-PARTING) HANGERS & IRON PARTS



**ACTIVE BRACE  
1 PCS**



**PASSIVE BRACE  
1 PCS**



**HANGING  
BRACE-4 PCS**

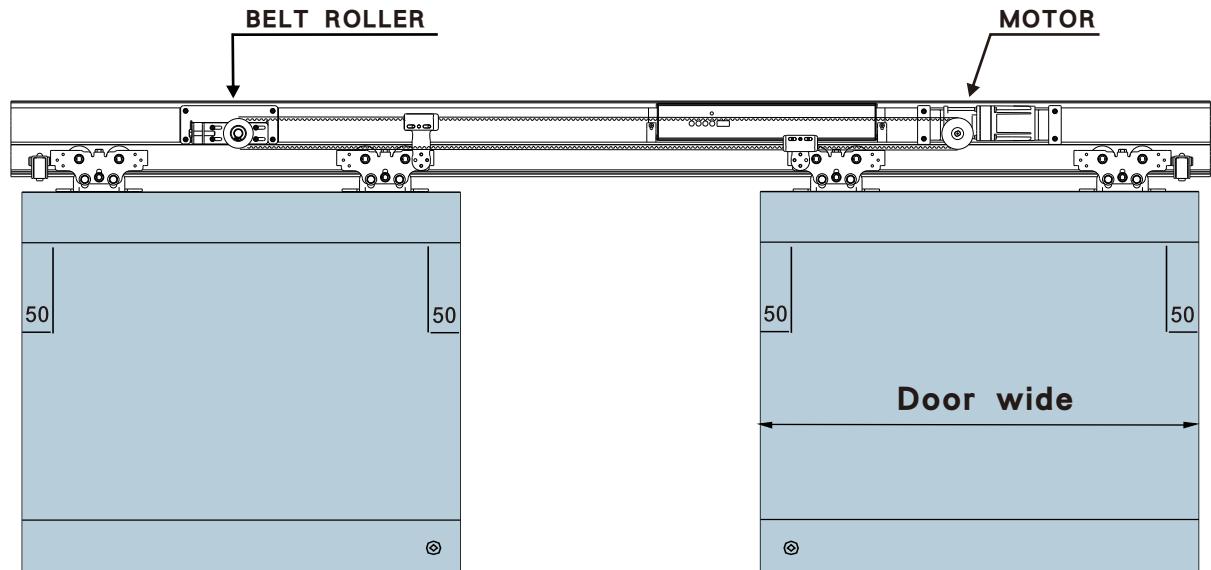


**BELT BRACE**



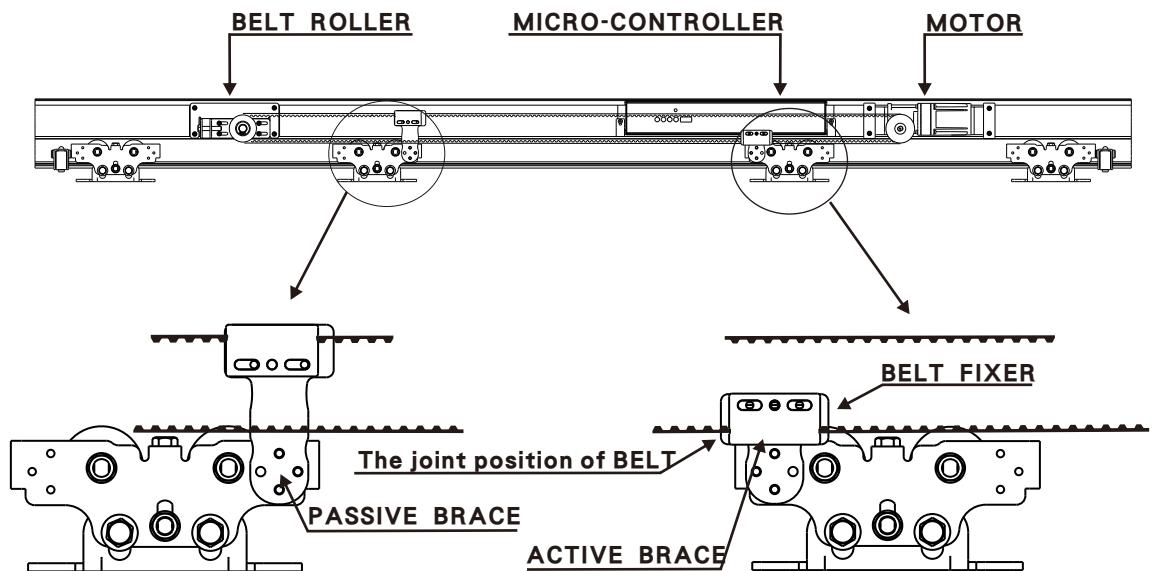
**HANGING  
TWIN-WHEEL4 PCS**

## THE POSITION OF THE HANGING TWIN-WHEEL



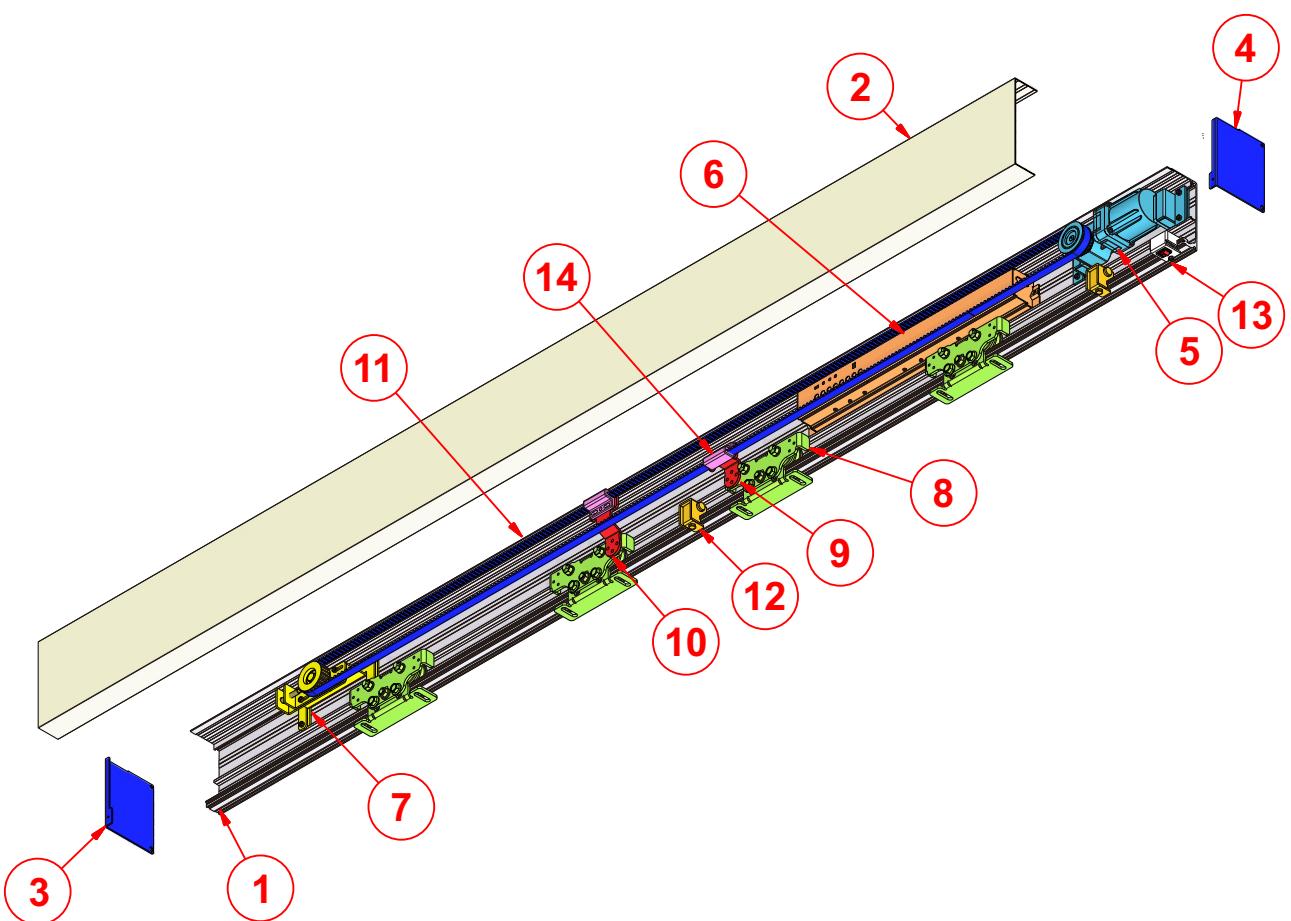
**POSITION OF HANGING TWIN-WHEEL:**  
Two sides of Door-deaf keeps the distance of 50mm to make sure the safety of installation

## INSTALL THE RACK BELT

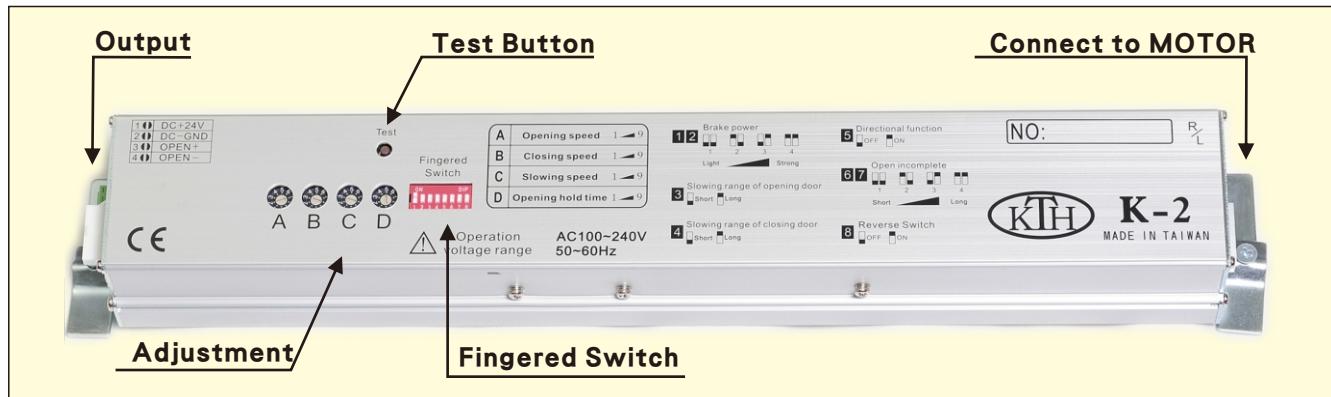


## ■ LEGEND OF PART DRAWING

Parts List		
No.	Parts Name	Quantity
1	"Standard" Aluminum Profile	1
2	"Standard" Aluminum Cover	1
3	Left Side end cap	1
4	Right Side end cap	1
5	Motor	1
6	Controller	1
7	Belt roller	1
8	Hanging-wheel	4
9	Active brace	1
10	Passive brace	1
11	Rack Belt	1
12	Stopper	2
13	Power switch	1
14	Belt Fixer	2



## ■ TEST & ADJUST(STANDARD)



### A The opening speed of the door

Adjust the OPEN SPEED. Higher number, faster speed.

CAUTION: please adjust the number one by one from low to high.



### B The closing speed of the door

Adjust the CLOSED SPEED. Higher number, faster speed.

CAUTION: please adjust the number one by one from low to high.



### C The slowing speed of the door

Adjust the SLOW SPEED. Higher number, faster speed.

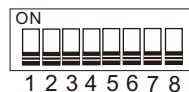
CAUTION: please adjust the number one by one from low to high.



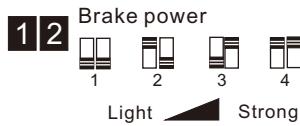
### D Opening hold time

Adjust the HOLD OPEN TIME. Higher number, the hold time is longer.

NUMBER	0	1	2	3	4	5	6	7	8	9
SECOND	0	1	2	3	4	5	6	10	15	20



Fingered Switch

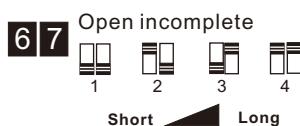


3 Slowing range of opening door  
 Short  Long

4 Slowing range of closing door  
 Short  Long

5 Directional function  
 OFF  ON

Operation  
OFF: Normal mode.  
ON: push once, open the door.  
Push again, close the door.



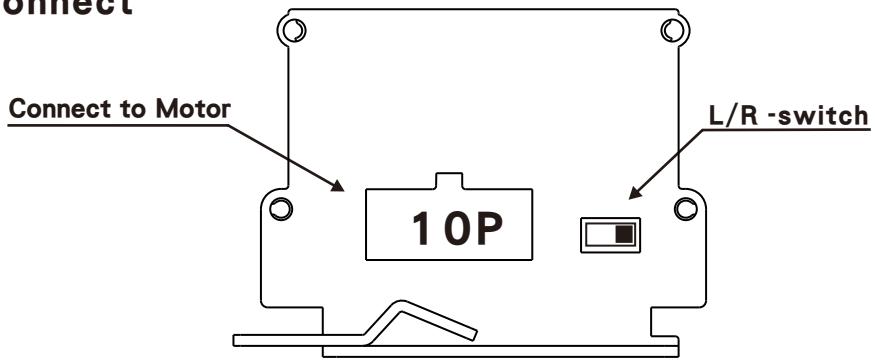
6 7 Reverse Switch: in order to control opening and closing direction of the Door-Leaf after power resumes.  
 OFF  ON

Operation  
OFF: Normal mode, after power resumes, the Door-Leaf opens the door first.  
ON: suitable for Security System, after power resumes, the Door-Leaf closes the door first.

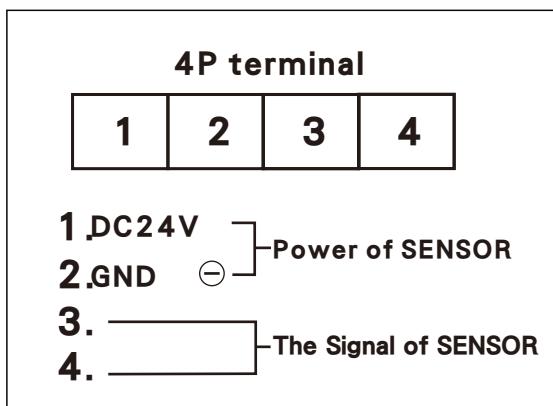
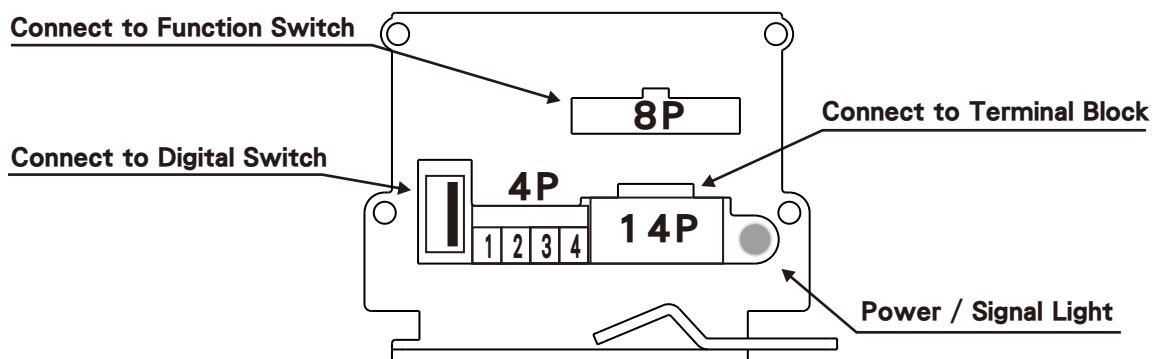
## ■ CONNECTION

# MICRO-CONTROLLER

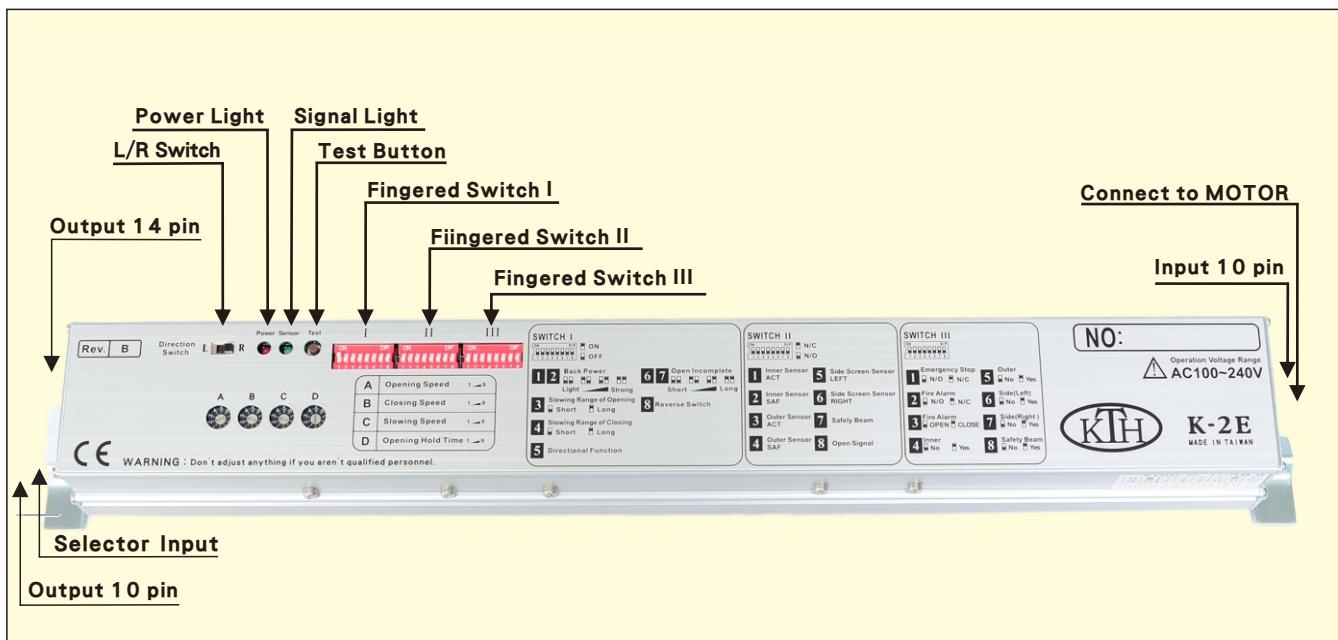
### Input connect



### Output connect



## TEST & ADJUST(EN16005)



**Red LED-Power is connected.**

**Green LED-Input the open door signal.**

**L/R switch-The direction of the door opening: right/lift(R/L).**

## ADJUST CONTROLLER-1



### A The opening speed of the door

Adjust the OPEN SPEED. Higher number, faster speed.

CAUTION: please adjust the number one by one from low to high.



### B The closing speed of the door

Adjust the CLOSED SPEED. Higher number, faster speed.

CAUTION: please adjust the number one by one from low to high.



### C The slowing speed of the door

Adjust the SLOW SPEED. Higher number, faster speed.

CAUTION: please adjust the number one by one from low to high.



### D Opening hold time

Adjust the HOLD OPEN TIME. Higher number, the hold time is longer.

NUMBER	0	1	2	3	4	5	6	7	8	9
SECOND	0	1	2	3	4	5	6	10	15	20

## ■ ADJUST CONTROLLER-2

The Slowing Range of Opening and Closing Door is controlled by "Fingered Switch". There are two kinds of choice: SHORT and LONG range.(The setting of production is SHORT ange).



**Switch I**

**1 2 Barke Power**



**3 Slowing Range of Opening**



**4 Slowing range of closing**



**5 Directional function**



OFF: Normal mode.

ON: Push once , open the door.  
Push again, close the door.

**6 7 Open incomplete**



**8 Reverse Switch:**

in order to control opening and closing direction of the Door-Leaf after power resumes.



OFF: Normal mode, after power resumes, the Door-Leaf opens the door first.

ON: suitable for Security System, after power resumes the Door-Leaf closes the door first.



**Switch II**

**1 Inner Sensor ACT**  N/O  N/C

**5 Side Screen Sensor LEFT**  N/O  N/C

**2 Inner Sensor SAF**  N/O  N/C

**6 Side Screen Sensor Right**  N/O  N/C

**3 Outer Sensor ACT**  N/O  N/C

**7 Safely Beam**  N/O  N/C

**4 Outer Sensor SAF**  N/O  N/C

**8 Open Signal**  N/O  N/C



**Switch III**

**1 Emergency Stop**  N.O.  N.C.

**5 Outer**  No  Yes

**2 Fire Alarm**  N.O.  N.C.

**6 Side(Left)**  No  Yes

**3 Fire Alarm**  OPEN  CLOSE

**7 Side(Right)**  No  Yes

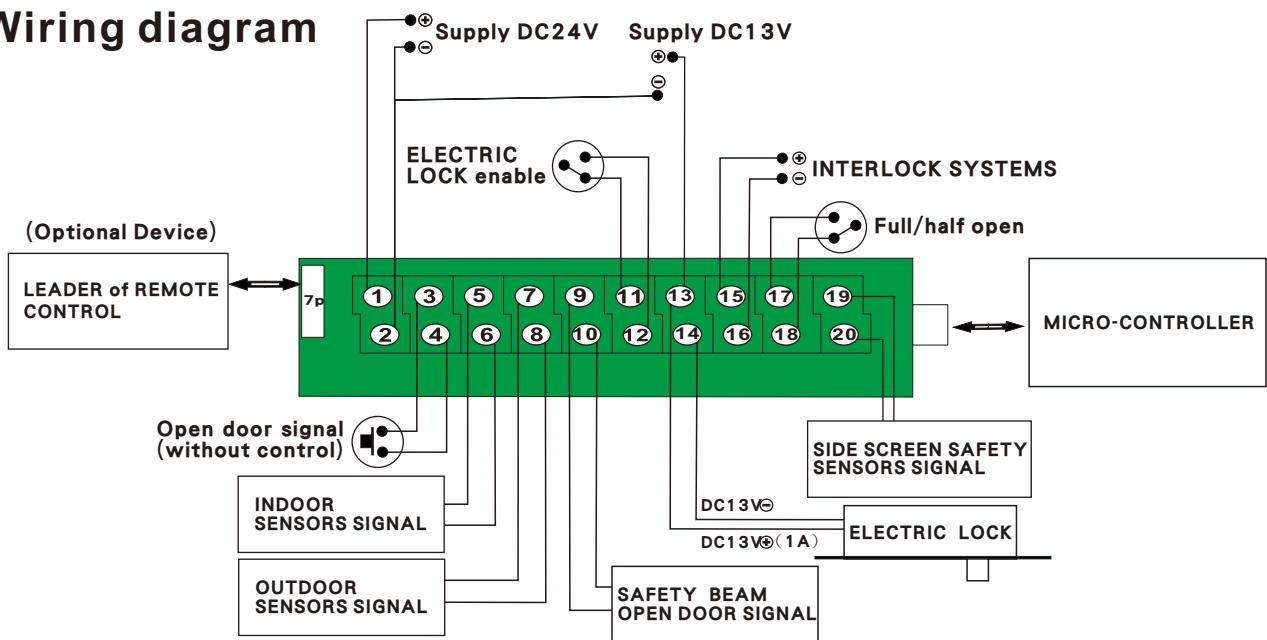
**4 Inner**  No  Yes

**8 Safety Beam**  No  Yes

Fyi. (4)-(7) are for the function of Monitored Sensor.

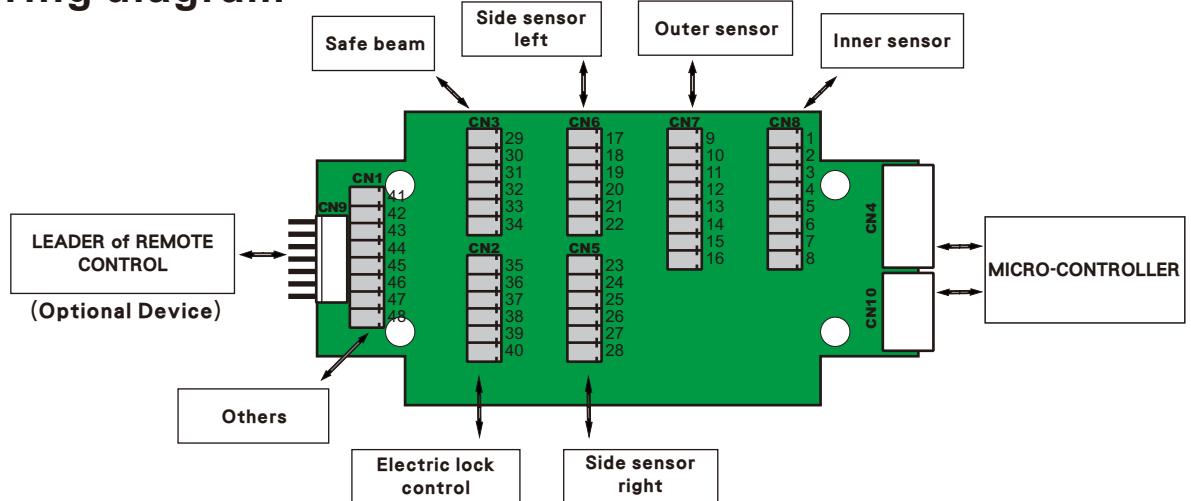
## ■ WIRING DIAGRAM OF TH-100(STANDARD)

### Wiring diagram



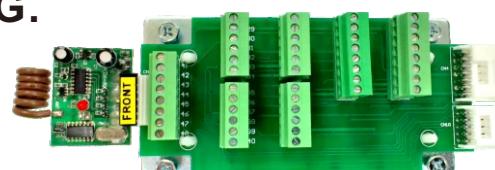
## ■ WIRING DIAGRAM OF TH-100(EN16005)

### Wiring diagram



### The ILLUSTRATED of WIRING.

REMOTE CONTROL  
(OPTIONAL DEVICE)



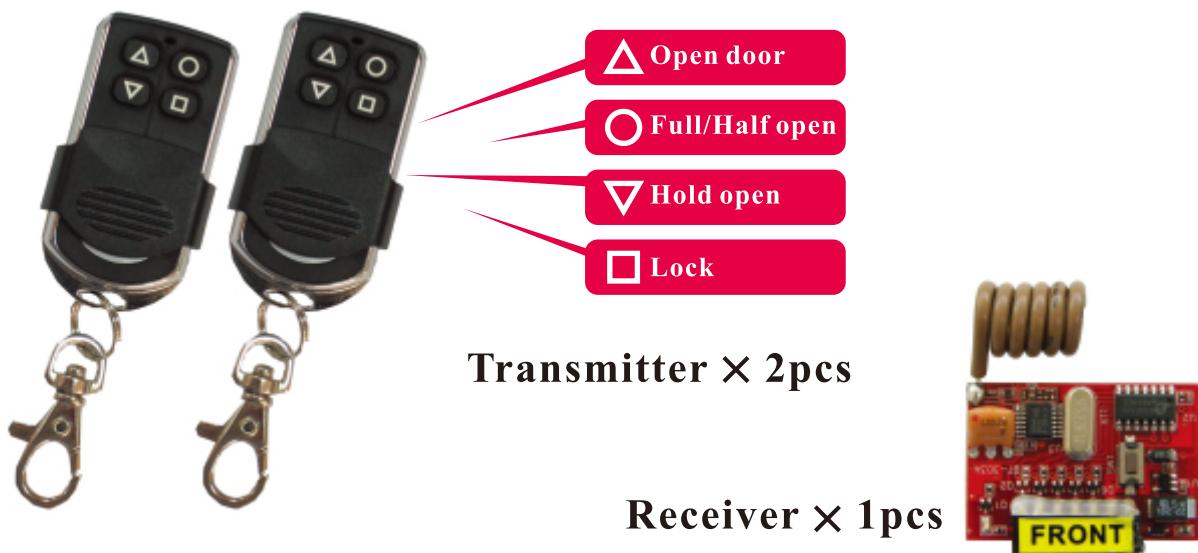
COMBINED TERMINAL BLOCK



MICRO-CONTROLLER

## ■ TH-125 (NEW)-REMOTE CONTROL

1. Transmitter is 20 bit digital code that is much safety and use fix-frequency component to transmit signal. The frequency of transmitter won't be affected by battery consumption and outside environment.
2. Wireless receiver use super-heterodyne from U.S.A..  
The receiver is stably, anti-interference, no extra-wave.
3. Control unit is 8 bit single chip. The order is accurate and action is correct.



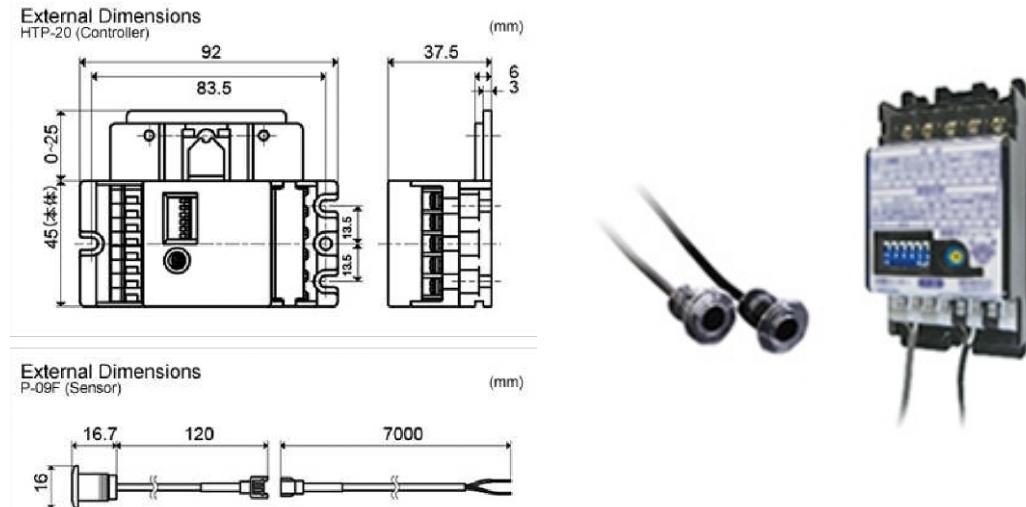
## ■ TH-136-MULTIFUNCTION DIGITAL SWITCH

1. Particular Memory Mode according different sessions to work.
2. Safety Alarm by itself to avoid danger happening.
3. Optional Language for easier operate in your location
4. Date and Time setting
5. Easy to install and program.
6. Beautiful and clear LCD panel
7. With buttons lock-on function

VOLUME	124.5X80X38.5(mm)
NET WEIGHT	0.46kg
ACCESSORIES	One piece of 5M cable



## ■ HTP-21C-SAFETY BEAM(HOTRON)



1. Beam sensor consisting of a controller and a single or dual set of infrared beams.
2. No need to use tools for wiring connection with compact controller.
3. Available to select penetration set-up or direct reflection set-up by setting switch.
4. Blink (under penetration setting), ON or OFF of LED tells you about the most suitable setting of volume adjustment by microcomputer control.

## ■ HR942D-INFRARED RAY SENSOR



1. The sensor body can be angled at up to 10° to ensure timely detection of fast moving traffic.
2. Presence timer settings adjustable to 2, 15 60 and 180 seconds.
3. The sensor microprocessor automatically takes countermeasures against adverse conditions such as falling snow and strong sunrays and electrical noise.
4. Quick installation and easy to adjust.
5. Active area is very specific with high degree of adjustment flexibility.
6. 12-24V AC-DC operations, Normal Open relay.
7. Simple design to suit with every Automatic Door.

## ■ HR100-CT-ACTIVATION+MONITORED SAFETY(HOTRON)

Advanced Unidirectional Detection Sensor with Monitored Safety and Unique "Door Learn" Ability



Pioneering super sensor offers pedestrian door activation and unprecedented safety at mounting heights of up to 3m



- **Energy Efficient**

Intelligent unidirectional detection ability reduces door hold open time by 20% and building energy loss by 6% in a standard installation.

- **Unparalleled Pedestrian Safety**

Unique ability to memorize door motion allows the infrared safety curtain to be focused inside the moving door leaf resulting in unparalleled pedestrian safety.

- **Versatile**

Flexibility to adjust the door activation and pedestrian safety detection zones independently makes the HR100-CT the ideal sensor for every sliding door installation

- **Ease of Installation**

All the information necessary to install the HR100-CT sensor is printed on the sensor body

## ■ HR94D1-C1- MONITORED SAFETY(HOTRON)

Monitored Sliding Door Side Screen or Door Threshold  
Pedestrian Safety Sensor.



ACCESSORY FOR EN16005 OPERATORS



**Versatile and simple to set up, the HR94D1-C1 protects pedestrians from the dangers of both opening and closing sliding doors at mounting heights of up to 3m**

- **Sliding Door Side Screen Pedestrian Safety**

Protect pedestrians from the dangerous leading door edge during door open cycles with a dense curtain of infrared safety

- **Door Threshold Pedestrian Safety**

Safeguard pedestrians from hazardous door closures due to a shallow but wide infrared safety curtain that is monitored once per door cycle

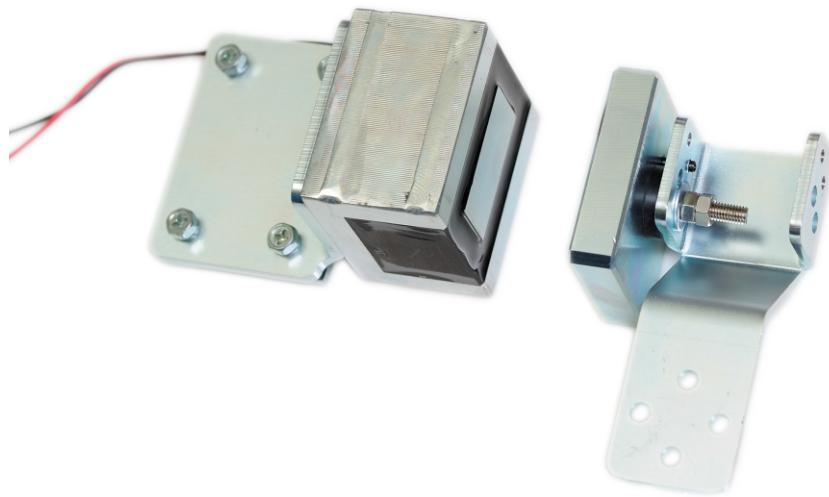
- **Solid & Reliable**

Avoid the risk of loss or damage to individual sensor parts through a one piece sensor body construction

- **Simple to Install**

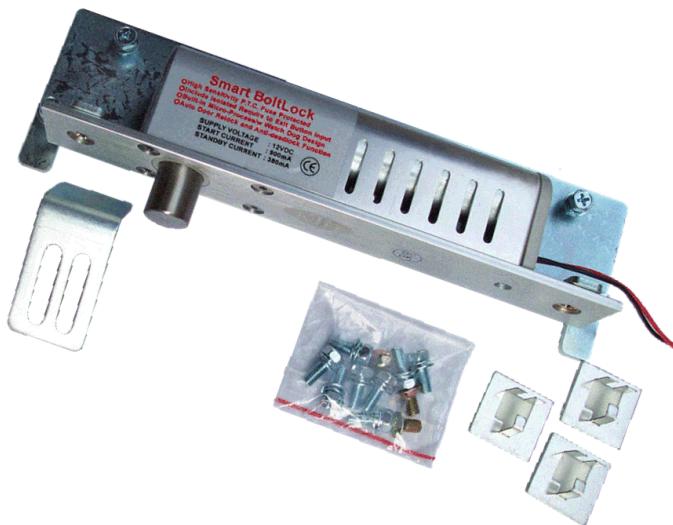
Install with ease without the need for a remote control thanks to comprehensive instructions printed on the sensor body

## ■ TH-201-MAGNETIC LOCKS



1. Main subject molded integrally and it can simplify installation procedures
2. Use aluminum alloy frame, strong crashworthy
3. Compact size, it can follow the installation (door type, sliding type)

## ■ TH-200LK-ELECTRIC BOLT



1. Don't increase the temperature while it running and working.
2. Tough and durable. There is no problems about the lock be lodged.

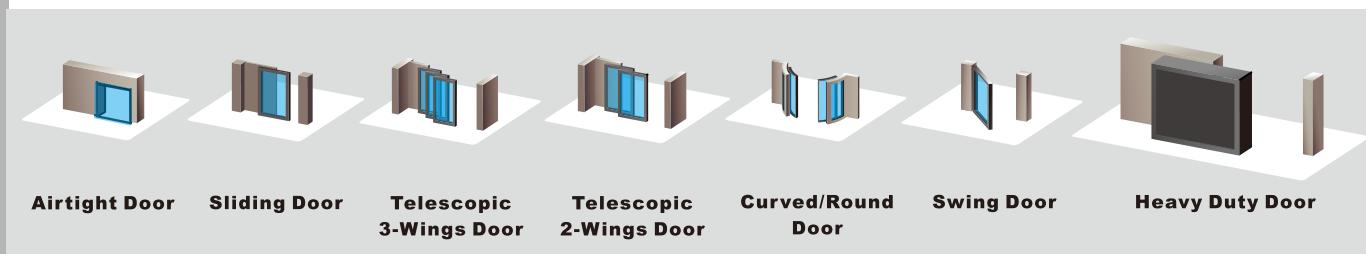
## ■ TH-135-FUNCTION KEY SWITCH



1. It's is suitable any Door Operator of KTH.
2. Easy to install and adjust.

### • SIX PRESS FUNCTION

1. DOOR OPEN	2. IN ONE-WAY
3. AUTO	4. OUT ONE-WAY
5. DOOR CLOSE	6. FULL/HALF



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