



Create space value

Save power , Save energy, Quality control

happy gate
monban 門番®

General Catalog

KOMATSU ELECTRIC INDUSTRY CO.,LTD.



小松電機産業株式会社
KOMATSU ELECTRIC INDUSTRY CO.,LTD.

HEAD OFFICE Matsue-Konan-Technopark, 735-188 Nogifukutomicho, Matsue-shi, Shimane, Japan
Tel : 050-3161-2487

TOKYO BRANCH OFFICE 5Fl., Takakuwa Build., 1-18-13 Hamamatsu-cho, Minato-ku, Tokyo, Japan
Tel : 050-3161-2483

OSAKA BUSINESS OFFICE 2-6-37 Nakashinkai, Higashiosaka-shi, Osaka, Japan
Tel : 050-3161-2484

THAILAND OFFICE 388 Exchange Tower, 29th Floor, Unit 2901-2904, Uthumvit Road,
Klongtoey sub-district, Klongtoey District, Bangkok 10110 THAILAND
TEL 66-2-104-9161

KOMATSU KOREA 505-1ho, Sihwa Industrial Complex 3Na, 223,
Jeongwangcheon-ro, Siheung-si, Gyeonggi-do, Republic of Korea
TEL 82-31-498-6655

<https://www.komatsuelec.co.jp/monban/>

※Appearance and Specification of may be change for improvement the quality without prior notice.
※The contents of this catalog is current as of April 2019.

Received
award

1991 : Medium and small business research prize
1991 : The highest prize of new business Grand-Prix
1993 : Regional Companies contributor Award
1995 : Science and technology agency
"The selection as remarkable invention"
2007 : Minister of land, Infrastructure and Transport prize
2012 : The Japanese Grand-prix prize for an excellent work
2012 : Japanese Grand-prix Prize for an excellent work. Creation of new industries
2016 : Global Innovation Company Commendation (KOMATSU KOREA)

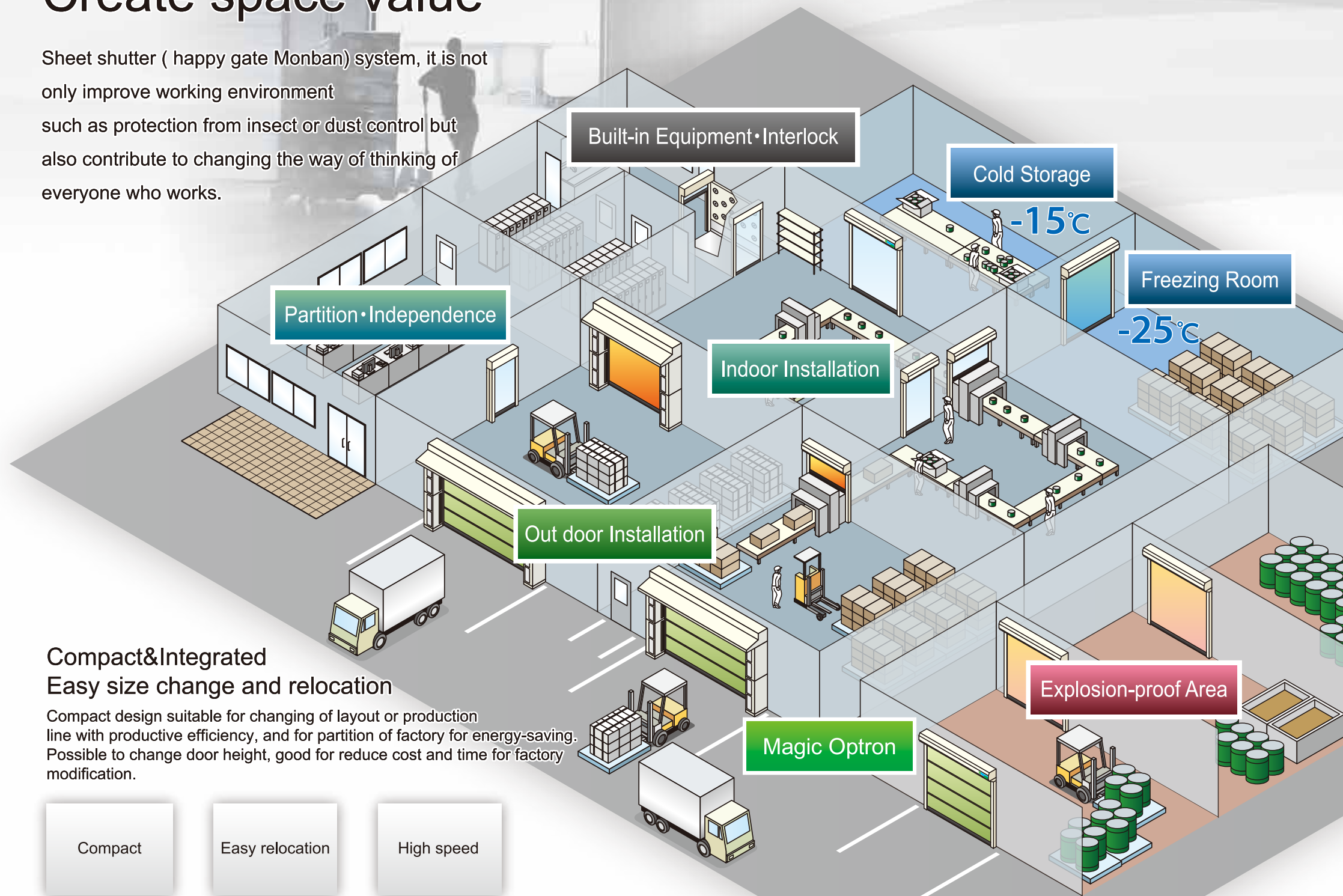
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Patent pending

Create space value

Sheet shutter (happy gate Monban) system, it is not only improve working environment such as protection from insect or dust control but also contribute to changing the way of thinking of everyone who works.



Compact&Integrated Easy size change and relocation

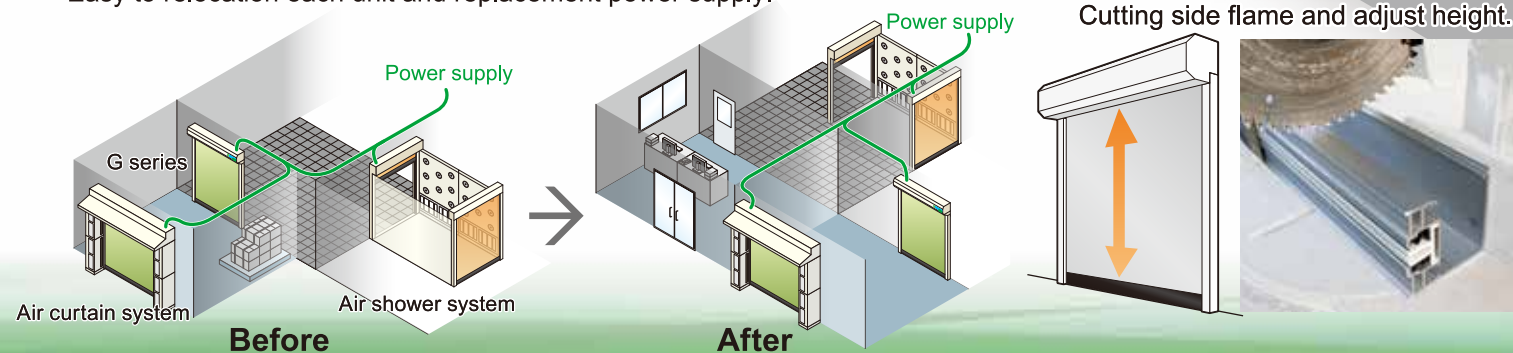
Compact design suitable for changing of layout or production line with productive efficiency, and for partition of factory for energy-saving. Possible to change door height, good for reduce cost and time for factory modification.

Compact

Easy relocation

High speed

Easy to relocation each unit and replacement power supply.



For receive your wish of Monban that meet to the purpose.

Please see the following steps in order to receive your wish the best of Monban to the consideration environmental of customer.

Installation
Environmental
&Open Size
Select type&size
P2 — 11

Color
Select sheet&Body color
P12

Movement&
Open-Close
Method
Select peripheral
equipment etc.
P13 — 14

Line up

Indoor

Lightweight, Slim,
Compact, Pipe less

G062/022/114/024/119/219/GF17/22

Width **600 ~ 4500**
Height **600 ~ 4500** mm



G
Series

→
P3

Independent

No need base,
short time construction,
Pipe less

G12S/14S

Width **800 ~ 2500**
Height **1800 ~ 2500** mm



G
Series

→
P5

Outdoor

High air pressure pipe

R054/109/209/309/409/RF50/R30W/40W/R30T/40T

Width **600 ~ 10000**
Height **1000 ~ 6000** mm



R
Series

→
P7

Cold Storage Freezer

G11F/R10F

Width **800 ~ 3500**
Height **1000 ~ 3500** mm



G
R
Cooling
device

→
P9

Explosion-proof Area

G11A/21A/31A/11E/21E/31E

Width **800 ~ 4000**
Height **2000 ~ 4000** mm



G
Explosion
proof

→
P10

Built-in Equipment Monban Unit

BUILT-IN



→
P11

Indoor

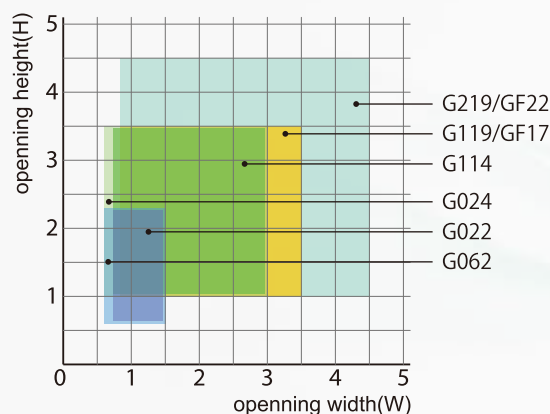
light weight.slim.
compact Pipeless Type



G062/022/114/024/119/219/GF17/22

Width 600 ~ 4500
Height 600 ~ 4500 Unit:mm

The scope of fabrication



※G022/024 the internal controller in the wind-up box
※G114/119/219 the internal controller in Side frame
※GF17/22 model of different in atmospheric pressure
※ Please use a different place controller if you want to install to the location where the assumed influence of water, such as rain or condensation is assumed.

The model of internal controller in wind-up box

G022 / 062(controller in each place) / 024
※Only aluminium Frame

The model of internal controller in side frame

G114 / 119 / 219
※Only aluminium Frame

Fully closed
Within 10Pa

The model of environment that difference in atmospheric pressure The model of different placed controller

GF17 / 22
※Only steel / stainless steel frame
In the sanitary controlled room that indoor pressure less than or equal 20pa

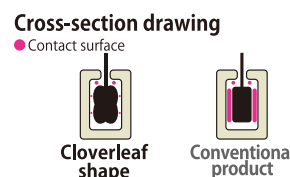
Fully closed
Within 20Pa

Slippery and high flexible tube type

Both sides Sheet are adopted by the original tube that silent and prevent damage for instead of conventional fasteners



Operating noise reduced **10%**



contact area is narrow, friction is few High durability, dust, abrasion and light Silencing effect up with integral molding (quiet performance, damage prevention) The improvement of pressure resistance performance. it does not fall out by light touch when compared with the round shape

The rate of increasing in the fastest business field

The operation of start up sensor or switch will be ran by machine usually driving shorten opening time, efficiency operation is developed concurrently with the improvement of preventing of insect, dust, outside air and energy saving

The highest opening speed in the industry

3.2 m/sec (G119 fastest speed)

Normal operation by operation sensors or switch

Reverse opening for safety

middle speed **1.5 m/sec**
phototube sensor detecting, scan, going up except the lowest position

low speed **0.5 m/sec**
detect touching or bear while machine is running

Compact design

40% compacter than the conventional model Suitable for the entrance of the factory and office



※Dimensions is vary according to format

Relocation of easy unit type

To built in the controller in the winding box and the side frame.



G022 / 024
Winding unit

G114 / 119 / 219
Frame unit
※G062/GF17/22 is controller separate placement.

Sheet out by collision is automatically return to the rails easily

Collision by lift and truck during the operation, the sheet will stop a while and slowly going up (0.5m/s) automatically return into the rails. The structure designed to convenience in case of power failure, woman can also easily get out by simply lifting the sheet.



Multi monitor

panel and multi are installed inside of countdown monitor.

Display and entry-exit count

The Method of display operation of the passed number .
The number of entry : STOP+OPEN
The number of exit : STOP+DOWN
※It is necessary 1 pair front-back PHB Phototube sensor.



High airtight structure

The structure of high effective repellent and dustproof. It is suitable for various clean environment.

Positive pressure **5.76 m³/h·m²**

Negative pressure **8.35 m³/h·m²**

※Ventilation amount of difference in 10Pa atmospheric pressure
※Using JISA1516 for airtight experiment inside company
※Our products shows the numerical values equipped with air tight seal.(Optional order)

It is suitable for the environmental that small impact of wind and atmospheric pressure in the partition room.

※The performanc of breakdown voltage is different depending on the size.
For more information, please check to person in charge

Flat switches and sensors and a cover that does not remain dust

Hygiene switch that don't remain dust when built-in frame. To prevent remain dust on winding box that hard to reach. (Optional order)



Obstacle detect sensor

Untouched switch
※There are both 1 point and 3 points switch.

Inclination cover (Optional order)

Independence

No need base, Quick construction, Pipe less.
※Indoor Specification Series

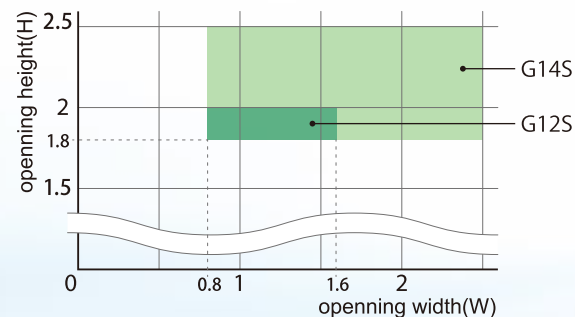


G12S / 14S

Width 800 ~ 2500

Height 1800 ~ 2500 Unit:mm

The scope of fabrication



Independence Model
G12S / 14S

Suite for various kinds of places such as begin from cooking food until resturant.



Good slide and high flexible tube type.

contact area is narrow, friction is few High durability, dust, abrasion and light Silencing effect up with integral molding (quiet performance, damage prevention)
The improvement of pressure resistance performance. it does not fall out by light touch when compared with the round shape

Operating noise reduced

10%

Cross-section drawing
Contact surface



Cloverleaf shape



Conventional product

Both sides Sheet are adopted by the original tube that silent and prevent damage for instead of conventional fasteners

Standard equipment: Obstacle detective sensor and Untouched Switch

Standard equipment : Untouched Switch

Good looking built in design; able to protect any dust goes inside

Multi monitor

panel and multi are installed inside of countdown monitor.



Obstacle detect sensor



Untouched switch

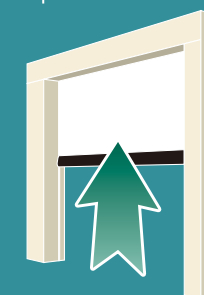


multi monitor

Pipe less and soft lower end side

Safety reversal equipment when touch.

Secure design; there's any hard impact in case touched the shutting down shutter cause the shutter will be reversed to upside. You can rely in security.



High speed 2.6 m/sec (setting highest speed)

the operation of start up sensor or switch will be ran by usually machine driving

Middle speed 1.5 m/sec

phototube sensor detecting scan rising from not the lowest position

Low speed 0.5 m/sec

detect touching or bear while machine is running

High airtight structure

The structure of high effective repellent and dustproof. It is suitable for various clean environment.

Positive pressure 5.76 m³/h · m²

Negative pressure 8.35 m³/h · m²

※Ventilation amount of difference in 10Pa atmospheric pressure
※Using JISA1516 for airtight experiment inside company
※Our products shows the numerical values equipped with air tight seal.(Optional order)

It is suitable for the environmental that small impact of wind and atmospheric pressure in the partition room.

Fully closed Within 10 Pa

※The performanc of breakdown voltage is different depending on the size.
For more information, please check to person in charge

Sheet out by collision is automatically return to the rails easily

Collision by lift and truck during the operation, the sheet will stop a while and slowly going up (0.5m/s) automatically return into the rails. The structure designed to convenience in case of power failure, woman can also easily get out by simply lifting the sheet.



Self-repairing system



size • standardized goods and option

World class super fast transportation shipping within 3 days (Japan only)

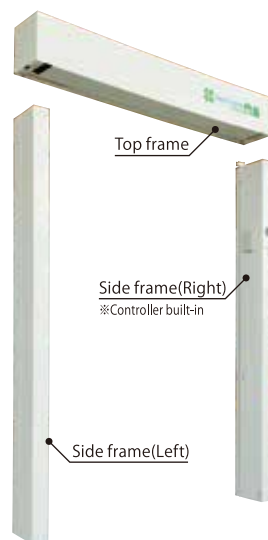
size/ option goods(sensor switch) 3 types of standard products be sent within 3 days

Style(G12S)	Mtype(G14S)	Ltype(G14S)
W900 × H2000	W1200 × H2000	W1800 × H2000

color: oyster white
sheet's color: SS clear
Optional parts: 2sets of PHB photocell sensor,
2 units of touchless switch (each on front and back)

※Above-mentioned sheet (no window)
※In case of non-standard, the shipping's time is around 7~10days
※For the schedule of installation, please contract later.

Unit Construction Quick Construction



Unnecessary foundation

Saving wiring and easy design

The structure have 2 units of wiring box unit and flame&controller so it can save much more time.
No need the underlying steel frame, just set up the supporter in the area where you desire.

Maintenance time is also short!

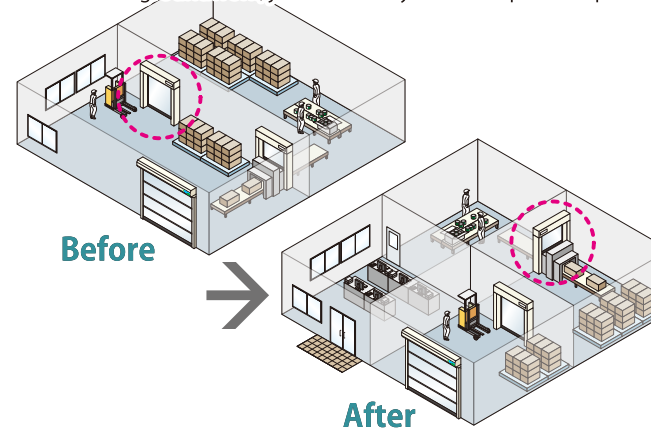
Able to change sheet and motor without bring shutter box down.

※Above-mentioned installation time is the average time when set up the single unit in general floor.
For installation time will be different depend on installation environment.

Relocation layout is so simple by unit design and change electrical power input.

simple moving

anything you would like to move such as layout it's so easy to do! No need groundwork, just move only electrical power input



Before

After

Outdoor

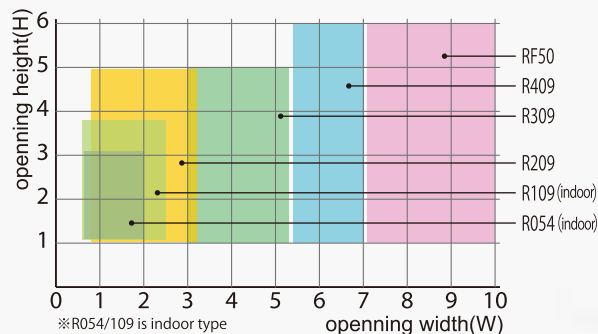
strong pipe type
on wind pressure

R
Series

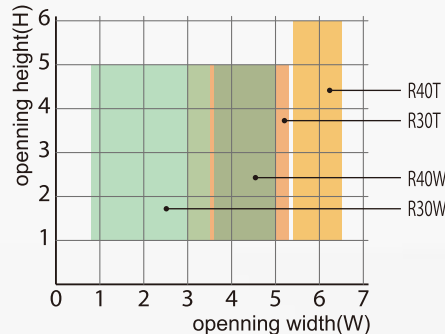
R054/109/209/309/409/RF50
R30W/40W/R30T/40T

Width 600 ~ 10000
Height 1000 ~ 6000 Unit:mm

The scope of fabrication



High pressure resistance,high wind resistance/ 3phase 200v power supply model



※Please use a different place controller if you want to install to the location where the assumed influence of water, such as rain or condensation is assumed.

R054 / 109 / 209 / 309 / 409 / RF50

※To specify aluminium/color copper plate/stainless copper plate frame.
※RF50 is only color copper plate/stainless copper plate frame.
※Stainless copper plate is order specification.

Pipe type with wind and air pressure strong resistant

Tightly sealed to prevent a gap that can be from the bulge of the sheet by the wind and pressure difference. High grade airtight structure in the top frame and side frame.



Airtight seal at the top frame, at the side frame (Optional order)

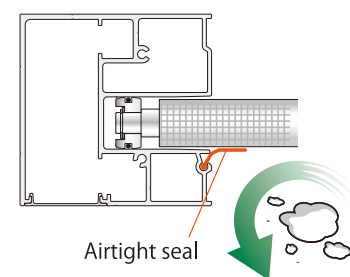
High effectiveness of insectproof and dustproof

To adopt the airtight concept of wind-up box,side frame. It is further improved air-tightness in combination with an air tight seal,prevent invasion of dust and insect when fully closed..To achieve a higher quality control and clean work environment.

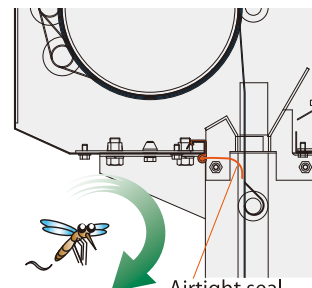
Positive pressure 10.21 Negative pressure 6.16
(Unit: m³/h·m²)

※Ventilation amount of difference in 10Pa atmospheric pressure
※Using JISA1516 for airtight experiment inside company
※Our products shows the numerical values equipped with air tight seal.(make order)

Airtight concept image



Airtight seal



Airtight seal

Setting compact

To refresh appearance and the controller do not obstacle internal work environment to frame in compact.



Multi monitor
Countdown display to inform the time until falling.

High air pressure resistance, wind resistance model

R30W / 40W

Be suitable for environment that affected by wind,such as the entrance of factory near beaches and wind gust such as monsoon.



3 phase 200v power supply model

R30T / 40T

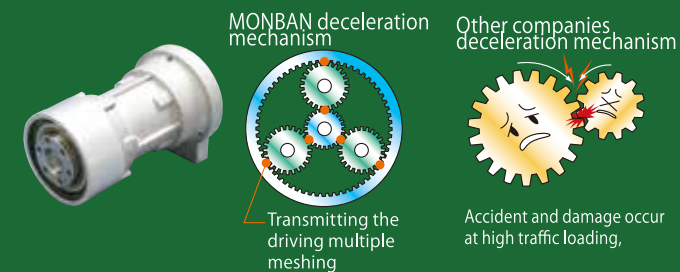
Lineup T type that support controller and motor to the 3 phase power supply with function of R series.

※controller size:W240×H400×D105

Happy Gate MONBAN R Series

High endurance.enhanced life.silent.saving energy
Newly developed engine
High speed opening and closing rising 2m/second by new type engine,by shortening the opening time of inlet and outlet, It is useful to improve the working environment at the same time.

Rising High speed
2m/sec
※Only R054/109



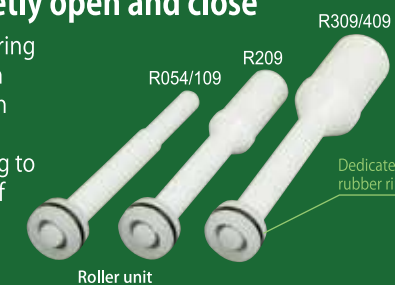
Effective of high visibility with high power saving
compare with conventional clear transparency is developed secure safty when pass through and keep room brightness by contribute energy saving.



※There are the case that Photo is de erent from actual.
※There are the case that can not product depend on aperture size,please inquiry.

Roller unit that quietly open and close

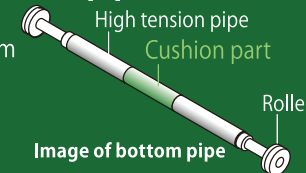
To adopt dedicated rubber ring for developing tranquility in roller unit that install in both side pipe.It was provided smooth closing and opening to prevent abrasion and tear of sheet due to friction.



※RF50 is different.

To prevent the broken of lower pipe

Less maintenance costs, soften the impact of the collision by the bottom pipe with cushion structure.



※W1600 upper only
※ R409 / 40W / 40T / RF50 does not correspond to the cushion structure.

Image of bottom pipe

Separate controller

Worry of condensation caused by rain and fog also resolved.Able to use together with separate countdown monitor for more safety. (Optional order)



GA controller
W170×H630×D80 (For R054)



KVA controller
W242×H400×D105(For R109/209)
W242×H450×D105(For R309/409/R30W/40W)
W242×H850×D105(For RF50)



Separate placement countdown monitor
(W97.2×H156×D18.2)
※Only KV Controller
※Optional order
※RF50 is different from picture
※please prepare countdown monitor in the case of separate placement controller, specially.

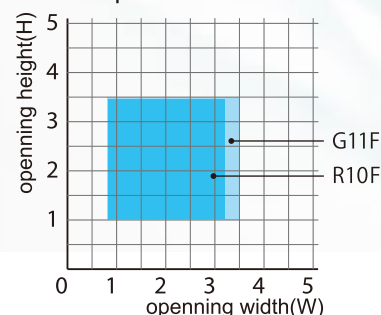
Cold Storage Freezer

G·R
Cooling
device

G11F / R10F

Width 800 ~ 3500
Height 1000 ~ 3500 Unit:mm

The scope of fabrication



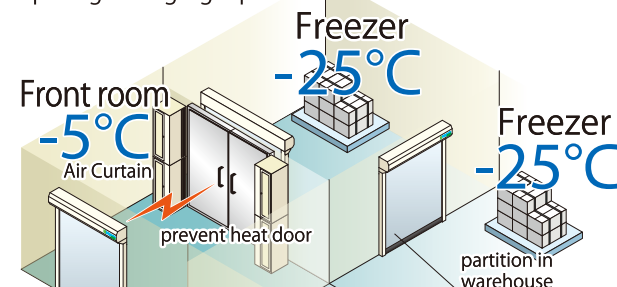
※G10F is pipeless type.
※R10F is pipe type.

Entrance&Exit warehouse and partition between 2rooms is 25c-5c

To develop quality control about temperature changing in warehouse

To control saving energy and efficiency of temperature in warehouse.

To control temperature of indoor partition in each room, efficiently. It is useful to saving energy for temperature changing when opening-closing high speed.



Setting environment -25°C

※In the case of less than 25c, please consult.

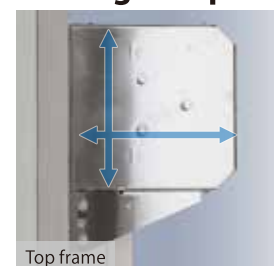
Preventing adhesion of frost and drop water

To adopt program that driving periodic. To protect adhesion frost and dew at sheet and contribute to control quality and closing-opening smoothly.



when on the function of prevent frost adhesion

Setting compact



Top frame
G11F D280×H280
R10F D330×H320



Side frame
G11F W70×D105
R10F W110×D110 (unit:mm)



pipeless model G11F

Wind and air pressure resistant pipe model is also lineup.

It is suitable to entrance warehouse face outdoor and warehouse that control air conditioning with indoor pressure.



Pipe model
R10F

Clear sheet for low temperature

It is excellent in visibility even in low temperature warehouse.

Corresponding environment temperature

-25 ~ 5°C

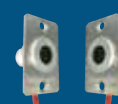


Functional Part resist in frost and dew

To use at ease because prevent damage and malfunction by use internal heater functional part.



■ motor with heater



■ photoelectric tube sensor with heater

■ frame with internal heater

■ controller dedicate cold storage freezer (W240×H630×D105)



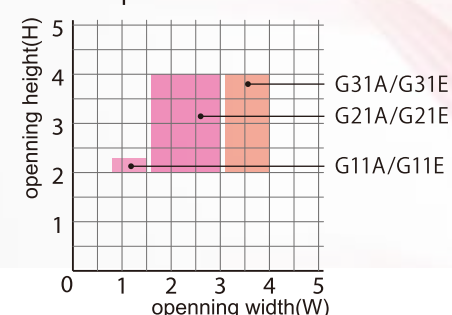
Explosion-proof Area

G
Explosion
proof

G11A/21A/31A/11E/21E/31E

Width 800 ~ 4000
Height 2000 ~ 4000 Unit:mm

The scope of fabrication



※please, use in indoor windless, pressure less environment.
※G11A/21A/31A is air driving force, air control type.
※G11E/21E/31E is air driving force, electric control type.

Air driving force + Air control system

Spec of dustproof that can set in all dustproof area

control, area driving force in industry first

Electric 0 ZERO

※Please, provide perfect safety measure against line condition while construction.



Air driving force section

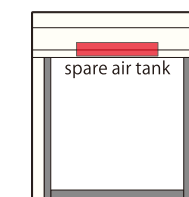
Security of emergency time

Standard installation of spare tank that can be performed once upward movement when emergency. Design safely to able to ensure passage when compressor stop by power outage.



Normal operation by start sensor or switch operation.

※Air tank is for emergency refuge.
But not guarantee the air preservation for long time.
※To support only air driving force, air control type.



shorten opening-closing time

To shorten opening-closing time by ascent high speed 1.2m/sec, and help in saving energy for in-out flow of air in-put.

control rollover security

To ascent rollover to once stop even touch in sheet while downward, to guarantee passage the relieve impact at part and passage through person.

※This function do not guarantee safety.
※Please, use accessory function under windless, pressureless environment.



Air press + electric lineup available using sensor.

Electrics controller lineup for automatic opening and closing with explosion proof certified sensor.

(G11E/21E/31E)

※In case of electronic controller, controller will be required to installation of both air control panel and electric panel.



Obstacle detective sensor (One pair only) ※Optional order



Controller

Electrification-proof nonflammable sheet

Non-combustible sheet prevented electrostatic from opening and closing activities.
※Available both G series and R series.

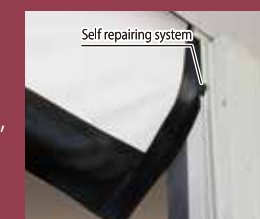
Surface electronic resistance

10⁹Ω



Self-repairing system structure.

In case of accidentally contact, the sheet will open up and automatically return to guide rail.



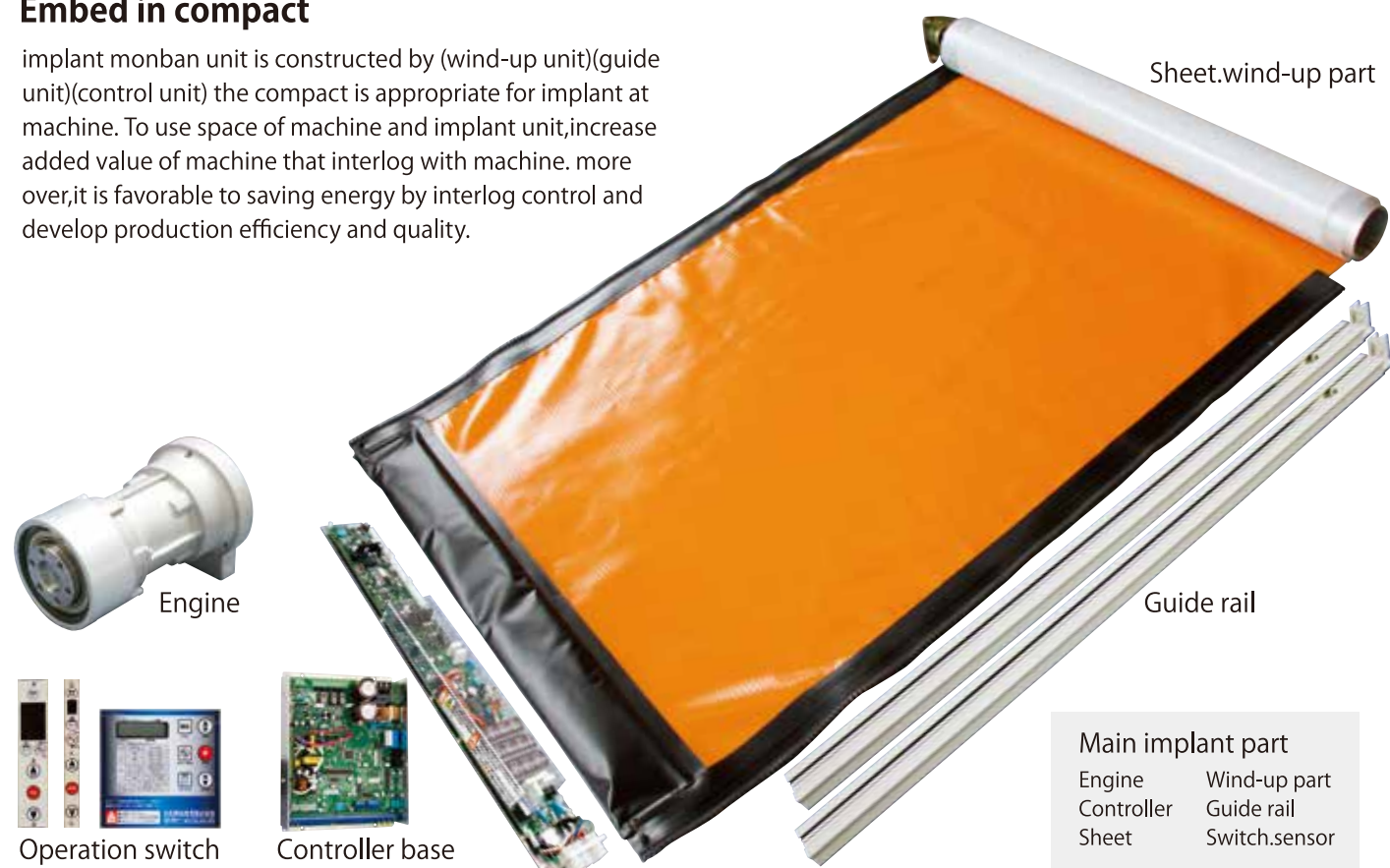
Self repairing system

Built-in Equipment monban unit

BUILT-IN

Embed in compact

implant monban unit is constructed by (wind-up unit)(guide unit)(control unit) the compact is appropriate for implant at machine. To use space of machine and implant unit,increase added value of machine that interlog with machine. more over,it is favorable to saving energy by interlog control and develop production efficiency and quality.



OPTION

Also use peripheral equipment for monban ,conveniently. (connection to controller base)

Start sensor



Switch for embedding



Multi-monitor

To display total frequency of driving and moving downward in front counter.And display in monitor counting frequency of thing passage through conveyer and frequency of in-out room that use 2 sensors more over,can output signal.

Display and entry-exit count

The Method of display operation of the passed number .
The number of entry: STOP+OPEN
The number of exit: STOP+DOWN



Implant at wide machine.raise interlog,production efficiency,quality!!

- elevating machine
- conveyor
- partition production line
- painting
- welding booth
- etc.

※In the case necessary to speciall waterproof treatment in engine,controller in sprinkle water machine.



Example of implant conveyor line



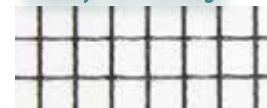
Partition implant

Color & Window Sheet

Abundant lineup maching with varios environment

monban original

Visibility out standing



•SS clear

Transmittance 68%

Visibility ★★★★★
Insect-proof effective ★★★★★

compare with conventional clear transparency is developedsecure safty when pass through and keep room brightness by contribute energy saving.

Efficiency of high pesticide



• Magic optron®

Prevent attractive to flying insects 80.7%

Insect-proof effective ★★★★★
Visibility ★★★★★

Green outside for prevent invaded by outside insects. Yellow inside make inside factory brighter and guide invaded insect to outside.

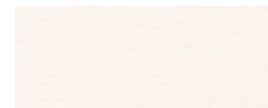


Clear for low temperature

Setting environment -25°C-5°C

Low temperature resistance ★★★★★
Visibility ★★★★★

Clear sheet for low temperatur it is excellent in visibility even in low temperature warehouse.



•Electrification-proof nonflammable sheet

※Excepting R30W/40W

Antistatic ★★★★★
UVprotection ★★★★★

Prevent static electricity due to friction at the time of opening and closing . Non-combustible , flameproof certification which can be use in all of the explosion-proof area .



Rat-protection bottom sheet blended

with high concentration capsacin

standard spec

New develop from the voice of customer such as food factory, rats biting the sheet and enter inside problem.

Type of sheet	SS clear	Magic optron	Clear for low temperature	Electrification-proof nonflammable sheet	Rat-protection bottom sheet blended
Property	lighting,pesticide.safety	pesticide.safety	low temperature resistance	non heat. re prevention	Rat prevention
Light transmission rate	68%	15%	68%	2%	—
thickness(mm)	1.0	0.78	1.3	0.53	0.53
Fireproof,Non-heat certification number	Certi cation of re prevention: F-26183	Certi cation of re prevention: F-27303	Certi cation of re prevention: F-24225	Certi cation of re prevention: F-24171 Pcerti cation of non heat:NM-3553	Certi cation of re prevention: F-25041

Various colour is also lineup



Clear



Orange/
•Semitransparent orange



•Opacity blue



•Opacity orange



•Opacity black



•Opacity Silver



Mesh
Exception G/GF/RF50/
R30W/R40W

※Above numeral value is measuring value but not guarantee value.

※This photo is only image, colour may different from actual product. Product appearance and specification can change without notice.

※Flame proof product number "N-0793"

※SS clear, Opacity blue, orange, silver may not be produced. Depends on door size. Please ask for more information show order specification

※Magic Optron is a joint development products of Ikari Co.,Ltd and TAISEI FINE CHEMICAL Co.,Ltd

※ • is spec-built.

Sheet window

※ Optional order

To increase safety that can con rm car passage and opposite people in high transparency sheet.



Transparency
(thickness:1mm)



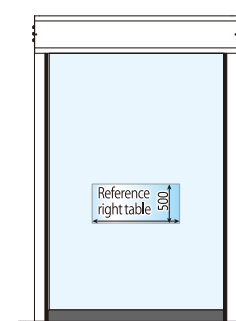
Transparency orange
(thickness:1mm)



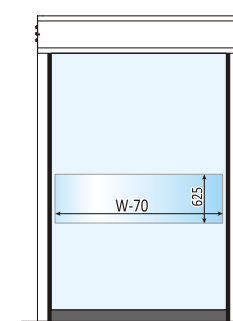
Optron
(thickness:0.8mm)



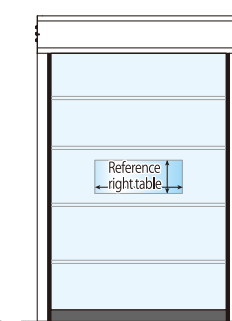
Paper with cotton thread.
transparency.non heat
(thickness:0.5mm)
Pcerti cation of non heat:NM-3043



G Series



GF series(wide door)



R series

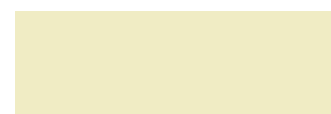
G/GF series			R series		
opening width(W)	window width	quantity	opening width(W)	window width	quantity
800 ~ 900	500	1	800 ~ 900	450	1
1000 ~ 1400	600		1000 ~ 1400	600	
1500 ~ 1900	900		1500 ~ 1900	900	
2000 ~ 2400	1200		2000 ~ 2400	1200	
2500 ~ 2900	1500		2500 ~ 2900	1500	
3000 ~ 4500	1700	2	3000 ~ 10000	1700	2
			4000 ~ 4900	1200	
			5000 ~ 5600	1500	
			5700 ~ 10000	1700	

※Target of G062/022/114/024/119/219/GF17/22

※Target of R054/109/209/309/409/PF50/R30T/40T

※In the case of G series xing door,spec is xing the wind-up box.
※Hieght of door of R series is R054:300mm,R109/209:400mm,R309/409/RF50/R30T/40T:500mm, R30W:180mm,R40W:3000mm.but there are the case that size of 2 step is di erent from below.
※In the case of R series,installment hieght is di erent by e active because there are pipe in the middle of sheet.

Body color.quality of material



Oyster white

(CGCC colour steel plate)

JPMA No. H27-85B correspondent

(Japan Paint Manufacturers 2015 H-edition)



Aluminium

(Anodizing)

※ Aluminium frame only

※Except GF/RF50/cold storage freezer/dustproof type



Stainless

(SUS304 Hairline)

spec-built※Spec of cold storage freezer is standard spec.

※ G series only top frame. (Except Gf)

※RF50 is frame only.

※Please,refer spec about detail.

Option Parts

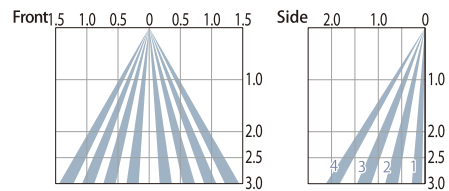
Abundant peripheral equipment that choose and match with utility.size.
Please,specify option part,spec-built such as airtight seal when order.

Start sensor

for small opening until **H3000**

TypeA

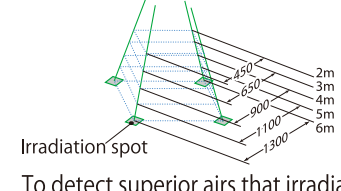
Untill **W3m** infra-red **32** spots



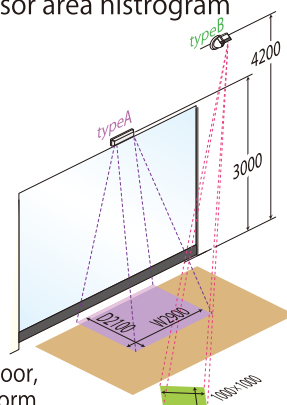
for detection **spot**

TypeB

right left direction **360°** liberty of adjust angel infra-red **4** spots



Sensor area histogram

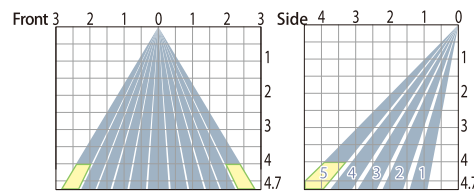


To detect superior airs that irradiation spot.
small superior airs that not spot can not detected.
gure display the shape when irradiation vertical with oor,
in the case of irradiation obliquely to oor,it will be deform

for middle opening until **H4500**

TypeC

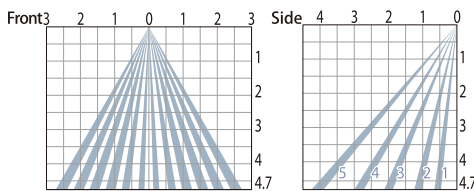
Untill **W5m** configurable the failure detection infra-red **60** spots



※Row1.2.3 can use for detecting stand still superior airs.
※In the case irradiation area of set the installing hieght more than 4.0m,it is not possible to dectec even in detective scope of both ends.

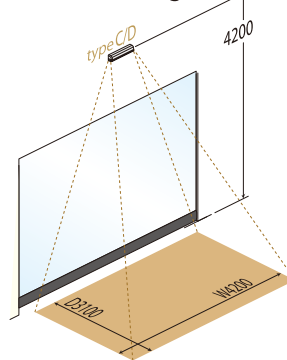
TypeD

Untill **W5m** configurable the failure detection infra-red **60** spots



※Row1.2 can use for stand still superior airs by setting.

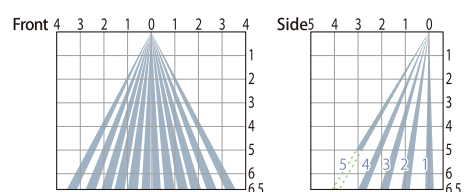
Sensor area histogram



for big opening until **H6000**

TypeE

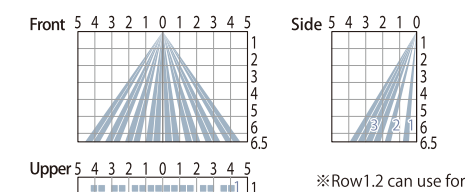
Untill **W7m** with direction detection function that protect useless opening-closing infra-red **60** spots



※Row1.2 can not use for detection stand still superior airs.
※While using direction detective function, in the case of human 1.5m from sensor until overhead.In the case of vehicle from sensor to upper vehicle is necessary to 2.0m distance.

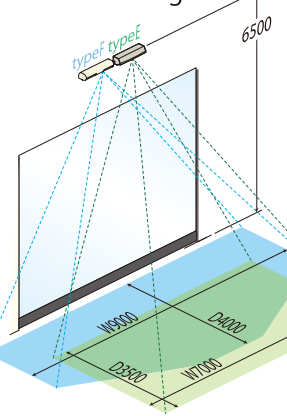
TypeF

Untill **W8m** configurable the failure detection infra-red **48** spots



※Row1.2 can use for stand still superior airs detection by setting.

Sensor area histogram



Type	A	B	C	D	E	F
Irradiation distance	within 3m	2~6m	2.5~4.7m	2.5~4.7m	2~6.5m	2.5~6.5m
Output	open corrector	open corrector	1a/1b change 1b	2a/2b change	2a/2b change	2a/2b change
Electric power	DC24V					
Stand still detection time	2・15・180sec/unlimit	2・15・60sec/unlimit	2・15・60sec/unlimit	2・60sec/10min/unlimit	2・30・180sec/unlimit	2・15・60sec/unlimit
Size	W221×H63×D30	W100×H130×D100	W265×H61×D37.5	W267×H61×D45	W321×H102×D91	W371×H73×D72
Frequency of infra-red spot	32	4	60	60	60	48

※Those sensor irradiat infra-red rays and recieve infra-red rays that re ex in irradiation area.
※To detect the changing near infra-red rays that re ex by human and thing entry in area.
※The irradiation area that recorded is design value. It doesn't specify the setting condition accurately.
※Area is changable by setting environment, oor material and color.targrt thing(garment.material.colour).setting.adjustment.
※must adjust sensitivity and adjust area after setting. more over,con rm that area is settetd correctly in periodic.
※To express area in the condition that maximum setting sensor.There are the case that di erent in use environment and use condition.

Warning indication



downward front count

Count down monitor

※It is possible to count 1-9secplease, use and adjust when upper limit stop.
※Only KV controller.



Revolving light

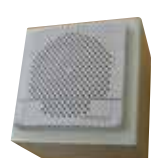
※It is necessary special relay base
※To prepare ashing light with buzzer.
Please,specify when order.



LED

Traffic light

※It is necessary separate placement relay base.



Melody buzzer

Melody buzzer

※Maximum sound pressure is in 1m frontward.
※16 kind of tone color,sound pressure90db.
※It is necessary special relay base.

Type	Count down monitor	Revolving light	Traffic light	Melody buzzer
Electric power	DC24V	AC200V	DC24V	AC200V
Size	W97.2×H156×D18.2(explosion model)	W116×H220×D152.5(lensφ110)	W70×H229×D80	W100×H88×D85.3

Obstacle detect sensor

※Please,specify sensor type when order.



PHA model embedded type



PHB model embedded type

Type	PHA	PHB
Detective distance	10m	10m
Electric power	DC12~24V	DC24V
Accessory cable	2m	15m(projector),5m(recieving light)

Please note at the time of install obstacle detect sensor

Please confirmed the side frames's in right level and firmly fixed in order to prevent the optical axis displaced by vibration.

Guard pole for protect touching

Protect frame



With the base

Big diameter: φ139.8×920
Small diameter: φ114.3×420
Base part200×200



Embedded type

Big diameter: φ139.8×length 1620
Small diameter: φ114.3×length 720
embedded part 500mm
Small diameter: φ114.3×length 720
embedded part 200mm

Switch up down



picture,photo graphic exposure
Embedded type / Outcrop type

Embedded type / Outcrop type 1point, 3points, non-contact switch

※In the case of using outdoor,please install in the area where no rain directly.



Rain proof model

Rain proof model 1point, 3points switch

※1 point,pull switch use until 25c environment.



Release cord

Pull switch

※To prepare uritane orange rope that good in sanitary. (order product)



Thin model

Thin model switch



1point 3point 3channel
Supporting a lot of channel

Remote control

Type	1 point/3point (Embedded type / Outcrop type)	out of connect (Embedded type / Outcrop type)	1points(rain proof)	3points(rain proof)	pull switch	thin model 1point	1point.3point.3channel remote control
Contact construction	1a(1point),3a(3point)	1a	1a	3a	1a	1a	1a(1point/3channel)3a(3point)
Size	W52×H112×D19.3 (exposion)	W52×H112×D23.5 (exposion)	W60×H120×D67	W49×H152.5×D34	W68×H140×D62	W40×H194×D10	W52×H85×D8.7 (transmitter)

Vehicle detective sensor

Switch for emergency stop

Emergency electrical power

Spec of cold storage freezer



Implant floor

Pull coil sensor

※It is possible to use only automatic mode
※Please, entry vehicle speed less than 10km/h.
※Vehicle standard is minicar.

Coil lenth	unit100m
Electric power	AC/DC12~24V



Emergency stop switch in separete placement

※In the case of RT series,appearance and spec is di erent.

Contact construction	1b
Size	W100×H88×D102.3(button φ65)



Back up electrical unit

※The frequency of opening-closing is di erent from storage of electricity.
※Capacity,recieving box is di erent from model.size.
※It is necessary to setting speed,model,please consult previously.

in-out electrical power	AC single phase200v
-------------------------	---------------------



Failure detective sensor with heater

Detective distance	10m
Electric power	AC100V
Accessory cable	15m(projector), 5m(recieving light)

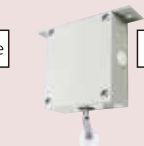
Dustproof spec



3 points switch

※Can use until 1 point 2 pieces,3 points 1 piece.Above switch is air control model.

Type	3 points switch	Pull switch	Foot switch
Contact construction	Mechanical bulb	Mechanical bulb	Mechanical bulb
Size	W65×H120×D50	W186×H140×D55.6	W71×H72×D177



Pull switch



Foot switch

PHD type obstacle detective sensor (essential safety explore proof(i2g4))

Detective distance	10m
Electric power	DC 7V
Accessory cable	5m

Barrier contraller

Barrier contraller sensor is installed in explore proof area.Bar is installed in controller controller is set outside

※Please,understand that there are sometime changing apperance and spec by no previos notice becas.

Specification
Indoor (pipe less type)

		Small opening					Middle opening	Small opening	Middle opening
Model		G062	G022	G114	G024	G119	G219	GF17	GF22
Manufacturable Dimension	W	600~1500	700~1500	600~3000	700~3000	800~3500	800~4500	800~3500	800~4500
	H	600~2300		1000~3500			1000~4500	1000~3500	1000~4500
Opening & closing m/c	Input power source	Single-phase AC200V ~ 230V± 10%							
	Output	0.2kw		0.4kw		0.95kw			
	Opening and closing speed (default)	opening:2.0m/sec closing:0.7m/sec				opening:2.0m/sec closing:0.7m/sec	opening:1.5m/sec closing:0.7m/sec	opening:1.5m/sec closing:0.7m/sec	
	Reduction Speed Ratio	1/10		1/14		1/10	1/23	1/23	
	Reduction method	Planetary helical gear reduction method							
Control roller	Built-in top frame	—	●GA	— ●GA (In the right side frame)	●GA	— ●GA (In the right side frame)	— ●GA (In the right side frame)	—	—
	Built-in side frame	—	—	—	—	—	—	—	—
	Separate controller	●GA	—	—	—	●KVA	●KVA	●KVA	●KVA
Using frequency		100 times / hr							
Using environment		Ambient temperature more than -10 ℃ ~ less than 40 ℃ (except frozen state), ambient humidity: RH85% or less.							

※ G Series is for indoor installation type. G219 is using bottom weights up type. ※Operation switch is installed at the right frame. However, G114 / 119/219 in the case of H2200 or less, it will be installed in the left frame.
※controller ,G022/024 is only internal wind-up box ,G114 is internal side frame or GA separate placement,G119/219 is internal side frame or KVA separate placement.
※G062/022/114/024/119/219 is only aluminium.GF17/22 is only color copper plate/stainless copper plate frame.

Explosion protection (pipe less type)

		All air			Air + Electric		
		Small opening		Middle opening	Small opening		Middle opening
Model		G11A	G21A	G31A	G11E	G21E	G31E
Manufacturable Dimension	W	800~1500	1600~3000	3100~4000	800~1500	1600~3000	3100~4000
	H	2000~2300	2000~4000		2000~2300	2000~4000	
Driving force		2 air cylindsr					
Control		Bulb Storage control panel (with 3 points switch)					
Opening and closing speed (default)		opening:1.2m/sec closing:0.7m/sec	opening:1.0m/sec closing:0.7m/sec	opening:0.8m/sec closing:0.7m/sec	opening:1.2m/sec closing:0.7m/sec	opening:1.0m/sec closing:0.7m/sec	opening:0.8m/sec closing:0.7m/sec
Emergency operations		Raising operation one time with the air tank,Lift sheet lower end					
Air pressure		More than 0.5MPa					
Consumption air amount(maximum)		12L	45L	47L	12L	45L	47L
Sheet		Antistatic non-heat sheet,(Surface electrical resistance value less than 10 ⁹ Ω)					
Using frequency		60 times / hr					
Using environment		Ambient temperature more than -10℃ ~ less than 40℃ (except frozen state), ambient humidity: RH85% or less.					

※If you use a start sensor,obstacle detection sensor,contact type operation switch,it will be air+ electric type G11E / 21E / 31E.
※Explosion-proof air tight seal is a can not be used. ※Only color copper plate, stainless copper plate frame.

Refrigerated freezer specification

		Pipe less type	Pipe type
		Small opening	Small opening
Model		G11F	R10F
Manufacturable Dimension	W	800~3500	800~3200
	H	1000~3500	1000~3500
Opening & closing m/c	Input power source	Single-phase AC200V~230V±10%	Single-phase AC200V~230V±10%
	Output	0.95kw	0.95kw
	Opening and closing speed (default)	opening:1.5m/sec closing:0.7m/sec	opening:1.0m/sec closing:0.7m/sec
	Reduction Speed Ratio	1/23	1/23
	Heater	Waterproof silicon rubber heater	Waterproof silicon rubber heater
Control roller		Controller specifically for specification of refrigeration and freezers. (Heater built-in)	Controller specifically for specification of refrigeration and freezers. (Heater built-in)
Start-up method		1-point switch, Pull switch	1-point switch, Pull switch
Obstacle detection sensor		Photocell sensor embedded type with heater.	Photocell sensor embedded type with heater.
Sheet		Refrigeration and freezers specification dedicated sheet	Refrigeration and freezers specification dedicated sheet
Using environment		more than 25℃ ~less than 5℃	

※When the power is turned OFF,frost will adhere to the fastener part,and it may not be properly opened and closed
※Please turn on the power supply and the frost adhesion prevention function.
※Please remove the frost of sheet and driving part ,floor surface regularly.
※Only a stainless steel frame.

Independence model

		Pipe less type	
		Indoor type	
Model		G12S	G14S
Manufacturable Dimension	W	800~1600	800~2500
	H	1800~2000	1800~2500
Opening & closing m/c	Input power source	Single-phase AC200V ~ 230V±10%	
	Output	0.2kw	0.4kw
	Opening and closing speed (default)	opening:2.0m/sec closing:0.7m/sec	
	Reduction Speed Ratio	1/10	1/14
	Reduction method	Planetary helical gear reduction method	
Control roller		GA(In the right side frame)	
Using frequency		100 times / hr	
Using environment		Ambient temperature more than -10℃ ~ less than 40℃ (except frozen state), ambient humidity: RH85% or less.	

Outdoor (pipe type) ※R054/109 is indoor spec

		Indoor type		Small opening	Middle opening	Big opening	
Model		R054	R109	R209	R309	R409	RF50
Manufacturable Dimension	W	600~2000	600~2500	800~3200	3000~5300	5400~7000	7100~10000
	H	1000~3600	1000~3800	1000~5000	1000~5000	1000~6000	2000~6000
Opening & closing m/c	Input power source	Single-phase AC200V ~ 230V±10%					
	Output	0.4 kw		0.95 kw			
	Opening and closing speed (default)	opening:1.2m/sec closing:0.7m/sec	opening:1.6m/sec closing:0.7m/sec	opening:1.0m/sec closing:0.7m/sec	opening:1.0m/sec closing:0.7m/sec	opening:0.55m/sec closing:0.55m/sec	opening:0.55m/sec closing:0.55m/sec
	Reduction Speed Ratio	1/14	1/10	1/23	1/50	1/74	1/74×2
	Reduction method	Planetary helical gear reduction method					
Sheet core material	Middle pipe	φ15.9×t1.2		φ27.2×t1.2	φ38.1×t1.2		φ48.6×t1.8
	Bottom pipe	φ27.2×t1.2+VE28 (VP,VU pipe)		φ38.1×t1.2+VP40 (VP,VU pipe)		φ38.1×t1.2 (With sponge)	φ48.6×t1.8 (With sponge)
Control roller	Built-in side frame	●GA	●GA	●GA	●GA	—	—
	Separate controller	●GA	●KVA	●KVA	●KVA	●KVA/B	●RF50用
Using frequency		100 times / hr			60 times / hr		
Using environment		Ambient temperature more than -10 °C ~ less than 40 °C (except frozen state), ambient humidity: RH85% or less.					

※When order R054/109/209/309 please select built-in controller and placing separately. ※Please use controller placing separately type when install in the place which may be impact from water such as rain or condensation. ※Controller which placing R054 separately has difference spec from R109/209/309. ※Use gate width less than W5400 ~ 6100mm, Gate high more than H5000mm for R409 type and for gate width W6200 ~ 7000mm, Gate high H4200mm please use KVB(Large-capacity type). ※RF50/R30T/40T has only color steel plate/stainless steel plate flame. ※In the case of the controller is R054/109/209/309 aluminum frame, built-in frame or R054 is GA separate placement. R109 / 209/309 is KVA separate placement. In the cast of the steel plate frame is separate placement.
R409 is KVA KVB or KVB separate placement depend on size.

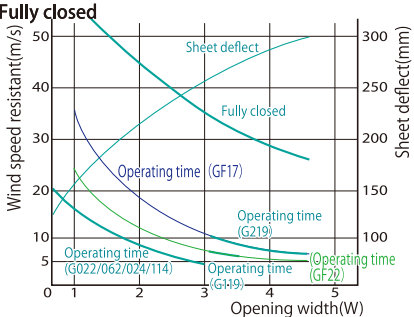
High pressure high wind resistant type model Three-phase 200V power supply type model

		Pipe type		Pipe type	
		Small opening	Middle opening	Small opening	Middle opening
Model		R30W	R40W	R30T	R40T
Manufacturable Dimension	W	800~3500	3600~5000	3000~5300	5400~6500
	H	1000~5000		1000~5000	1000~6000
Opening & closing m/c	Input power source	Single-phase AC200V ~ 230V±10%		3 phase AC200V±10%	
	Output	0.95 kw		0.75 kw	
	Opening and closing speed (default)	opening:0.7m/sec closing:0.55m/sec	opening:0.4m/sec closing:0.4m/sec	opening:1.0m/sec closing:0.7m/sec	opening:0.48m/sec closing:0.48m/sec
	Reduction Speed Ratio	1/74		1/25	1/43
	Reduction method	Planetary helical gear reduction method		Cyclo Engine Drives	
Sheet core material	Middle pipe	φ27.2×t1.2	φ38.1×t1.2	φ38.1×t1.2	
	Bottom pipe	φ38.1×t1.2+VP40(VP,VU pipe)	φ38.1×t1.2(With sponge)	φ38.1×t1.2+VP40(VP,VU pipe)	φ38.1×t1.2(With sponge)
Control roller	Separate controller	KV seperate placement controller		SV seperate placement controller	
Using frequency		60 times / hr		60 times / hr	
Using environment		Ambient temperature more than -10℃ ~ less than 40℃ (except frozen state), ambient humidity: RH85% or less.			

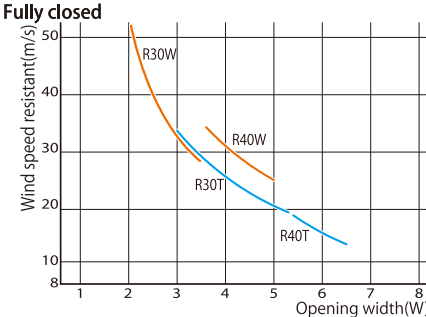
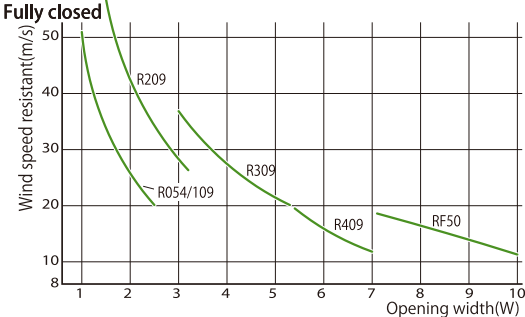
※R30T / 40T will be only color steel plate,stainless steel plate frame. ※Controller is R30W / 40KVA separate placement, R30 / 40T is SVA separate placement.

Wind resistance speed data

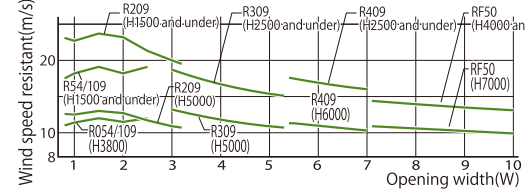
G/GF series



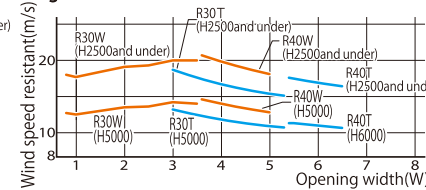
R series



During downward movement



During downward movement



※1. Please install for protect production from rain or water directly. ※2.Please refrain from area or location where corrosive atmosphere to deal with coastal areas,species metal powder,scientific medicine etc. and poor areas with environmental conditions such as condensation and freezing, toxic gases etc. ※3.Main body (W・H) will be the production of 100mm unit. ※4.Please separately consult if it exceeds the current rating manufacture range of products.Please understand that sometime it may not be manufactured. ※5.Please understand that there are sometime the appearance and specifications of production is change without notice. ※6.While using,please read and use the instruction manual correctly. ※7. Please refer and select from wind resistance speed data of each model when the model that Installable dimensions is overlap.

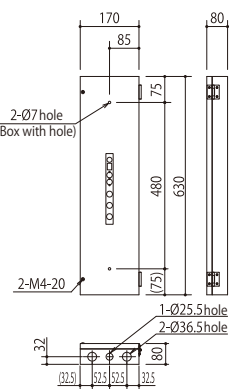
Controller

	GA		KVA	SV
	Seperate placement	Implant		
Target model	G062/114/R054	G022/114/024/119/219 G125/145/R054/109/209/309	G119/219/GF17/22/R109/209/309/409/RF50	R30T/40T
controller size	W170×H630×D80	—	W240×H400×D105	W240×H400×D105
Board size	W65×H540×D35.6		W203×H265×D63	W119×H254×D64
Input power source	Single-phase AC200V ~ 230V±10%			3 phase AC200V±10%
Stop position control	Hole IC			Encoder
Motor control	brushless DC motor			Cyclo engine
Lightning surge	Arrester circuit implementation			
External output power	DC24V - 0.6A		DC24V - 1.25A	DC24V - 1.3A
Information monitor	7-segment LED1-digit		16×2 lines with monochromatic LCD backlight	7-segment LED1-digit
Board operation switch	Rising, stopping, descent, confirm, manual-automatic switching, ECO mode			Rising, stopping, descent, confirm, manual-automatic switching, opening high
Basic functions	Self-diagnosis function,variable four steps rising and descending speed, ECO level setting function,operating mode function,0-30 seconds variable rising stop time setting.			
counter	Point down display		8-digit digital display	6-digit digital display
Regenerative resistor size	W182×H44×D15(L500-1500mm with cable)			W75×H21×D45 (With lead wire)
Motor protection	leakage breaker common with Overloading and short-circuit prot-ection (single-p hase AC100-200 common 15A30mA) W32×H70×D51			Overload,short-circuit protection common leakage breaker(15A30mA) W75×H75×D97
Usage environment	Ambient temperature more than -10℃ ~ less than 40℃ (except frozen state), ambient humidity: RH85% or less.			

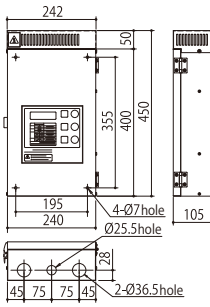
Spec of refrigerated freezer	
Target model	G11F/R10F
controller size	W240×H630×D105(heater buit-in)
Board size	W65×H540×D35.6
Input power source	Single-phase AC200V ~ 230V±10%
Stop position control	Hole IC
Motor control	Brush less dc mortor
Lightning surge	Alester circuit
External output power	DC24V - 1.25A
Information monitor	7-segment LED1-digit
Board operation switch	Rising, stopping, descent, confirm, manual-automatic switching, ECO mode
Basic functions	Frost adhesion prevention function, accident diagnosis function, rise and fall speed four steps variable, ECO level setting function, mode of operation lock function, the upper limit stop time setting variable 0-30 seconds
counter	Down point display
Regenerative resistor size	W182×H44×D15(L500-1500mm with cable)
Motor protection	Leakage breaker (single phase AV100-200V COMMON 15A 30mA) W32×H70×D51
Usage environment	Ambient temperature more than -10℃ ~ less than 40℃(except frozen state), ambient humidity: RH85% or less.

Spec of exposure proof all air		Spec of exposur proof air electric/electric
Target model	G11A/21A/31A	G11E/21E/31E
controller size	W400×H850×D160	W400×H850×D200×2type
Input power source	—	Single-phase AC100V ~ 200V
Stop position control	Air type limit switch	Auto switch
control	Air cylinder	
air	0.5Mpa	
Board operation switch	Rising, stopping, descent	Rising, stopping, descent, confirm, manual-automatic switching, ECO mode
Basic functions	—	Rising and descent variable speed ECO level setting function
counter	6 digits air counter	6 digits digital
Motor protection	—	Overload, short-circuit protection common leakage breaker (single-p hase AC100-200 common 15A30mA) W32×H70×D51
Usage environment	Ambient temperature more than -10℃ ~ less than 40℃(except frozen state), ambient humidity: RH85% or less.	

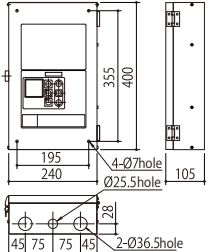
GA controller
[Seperate placement]



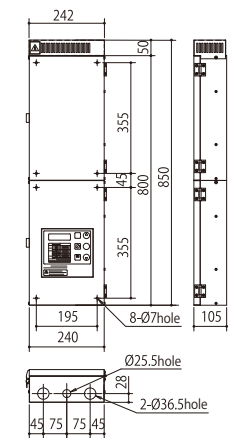
KV controller



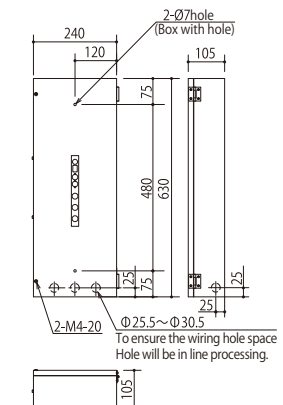
SV controller



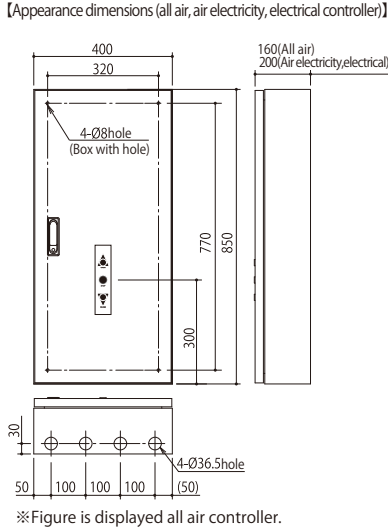
Controller for RF50



Cold storage freezer controller



Explosion-proof controller



※KV Controller (without top cover) is for the GF17 / 22 / G119 / 219 / R109 / 209 type.
※KV Controller (with top cover) is for R309 / 30W / R409 / 40W type.

G062

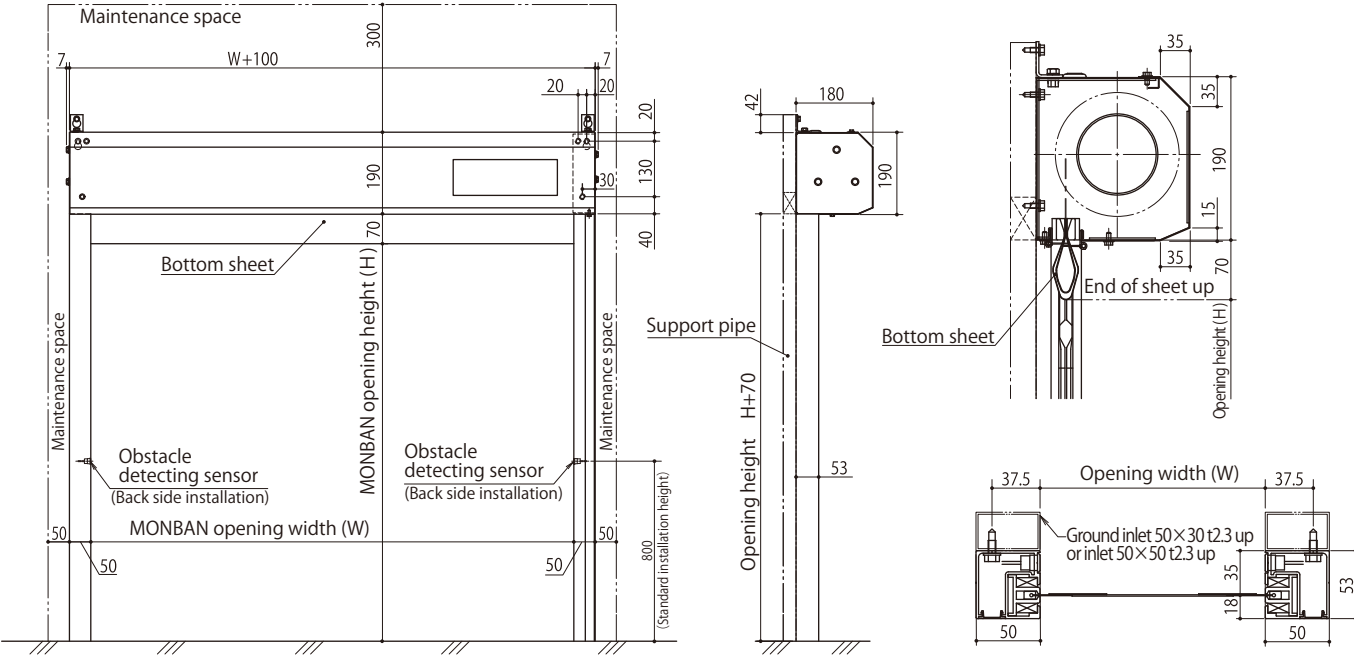
Opening width 0.6-1.5m
Opening hieght 0.6-2.3m
Rising speed 2.6-1.5m/sec(2.0m/sec)*
Descending speed 1.5-0.5m/sec(0.7m/sec)*
※setting when shipment

G022

Opening width 0.7-1.5m
Opening hieght 0.6-2.3m
Rising speed 2.6-1.5m/sec(2.0m/sec)*
Descending speed 1.5-0.5m/sec(0.7m/sec)*
※setting when shipment

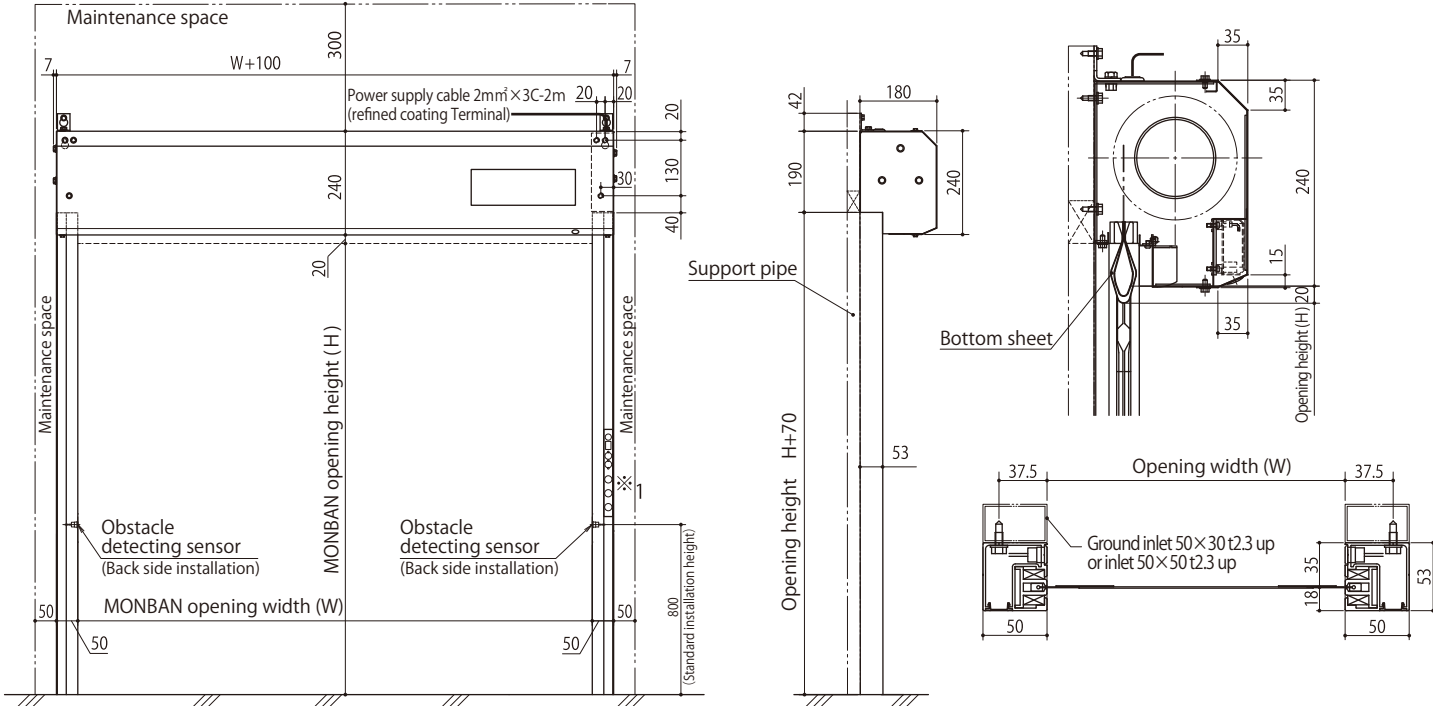


G062



[Caution]
• Must install the Failure detection sensor 1 set at behind. please confirm beforehand the suitable position and the number of the object which pass through.
• Controller is separte placement type.
※₁ GA separte placement controller is for G062/114/R054 type.

G022



[Caution]
• Must install the obstacle detection sensor set at behind. please confirm beforehand the suitable position and the number of the object which pass through.
• Please operate the primary Electrical installation work that taken out 2M than the top of ower cable winding box.In the case of separte placement controller ,no acessary

Fit diagram data download (stored format: PDF · DWG · GXF)

Login in user page from <http://www.komatsuelec.co.jp/monban/> and down load.
To use the drawing data download and technical information of monban.It is necessary to register for using.
please,unregistered customers register from(new user registration).
customers who is registering,plaese proced from (user login) to the authentication page.

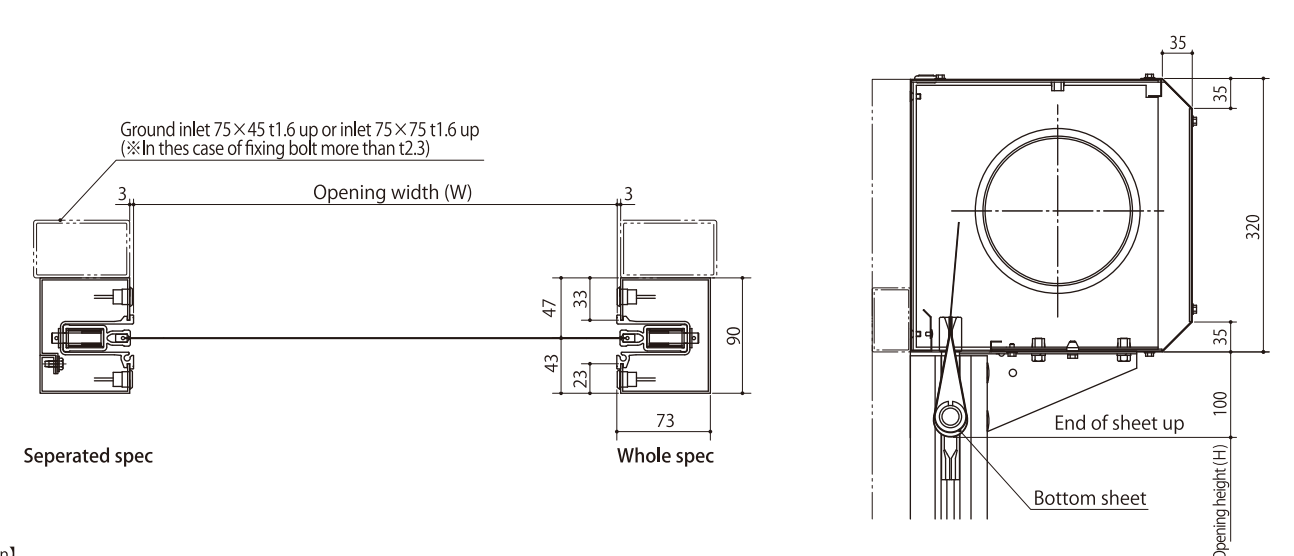
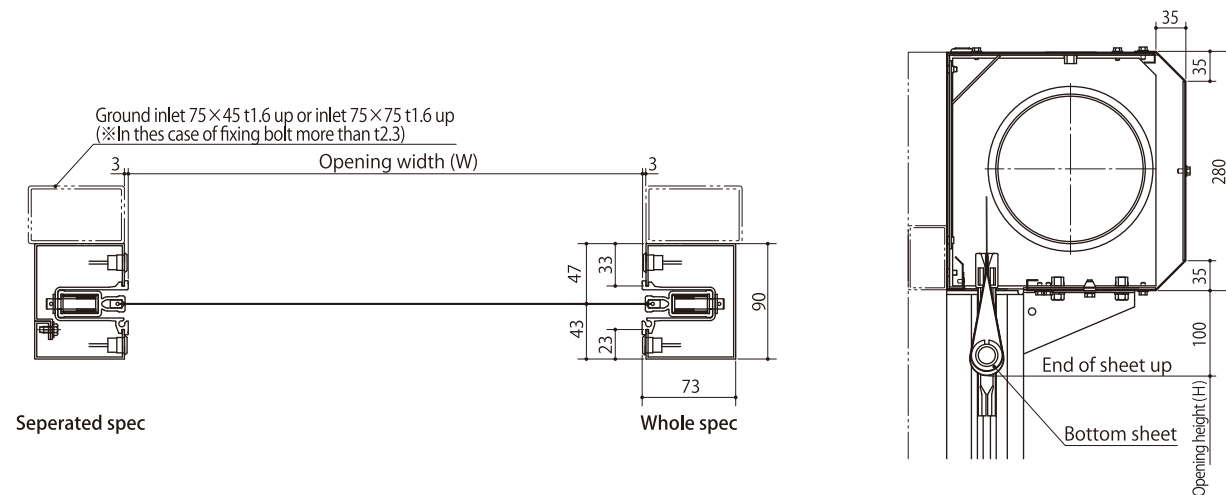
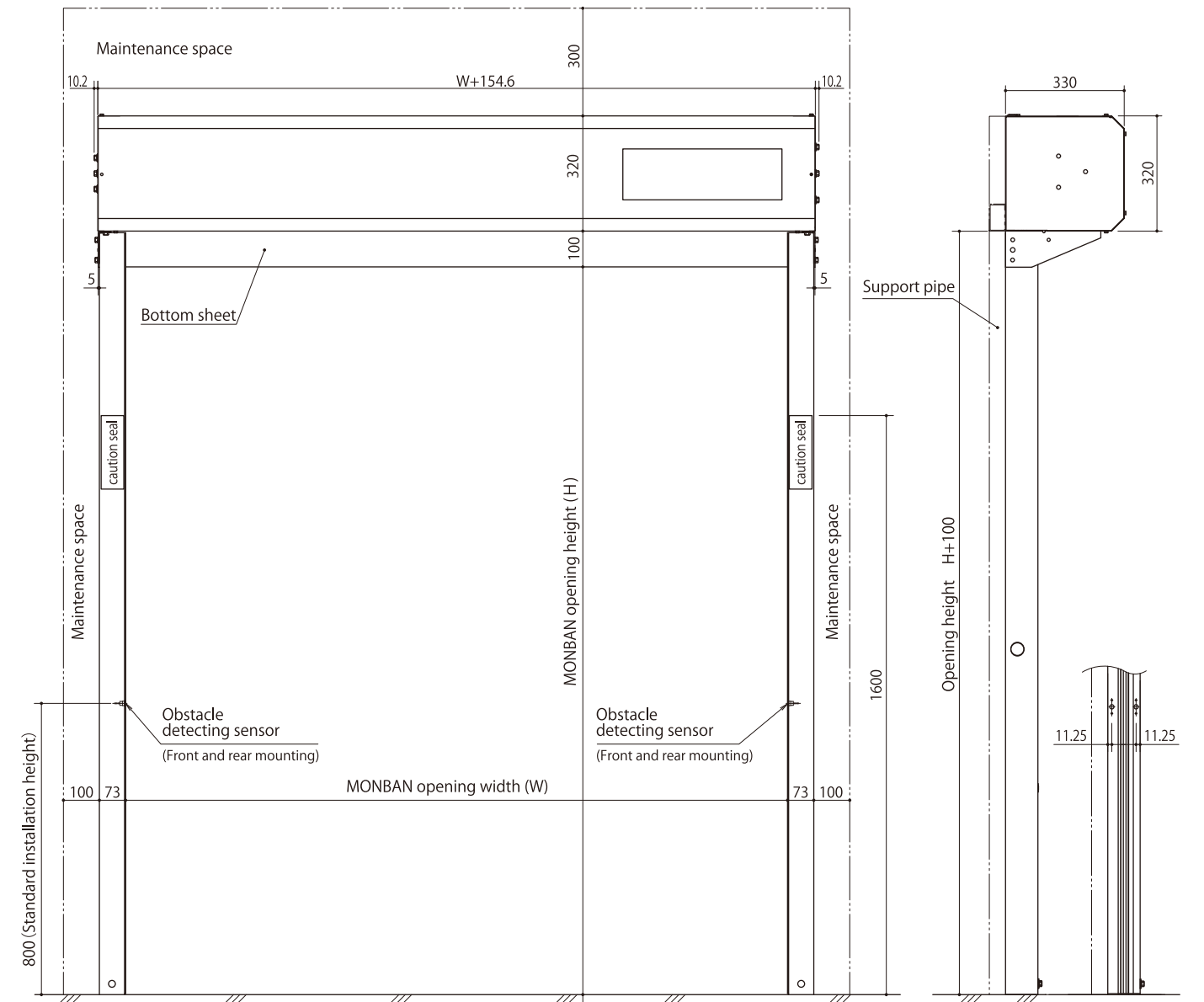
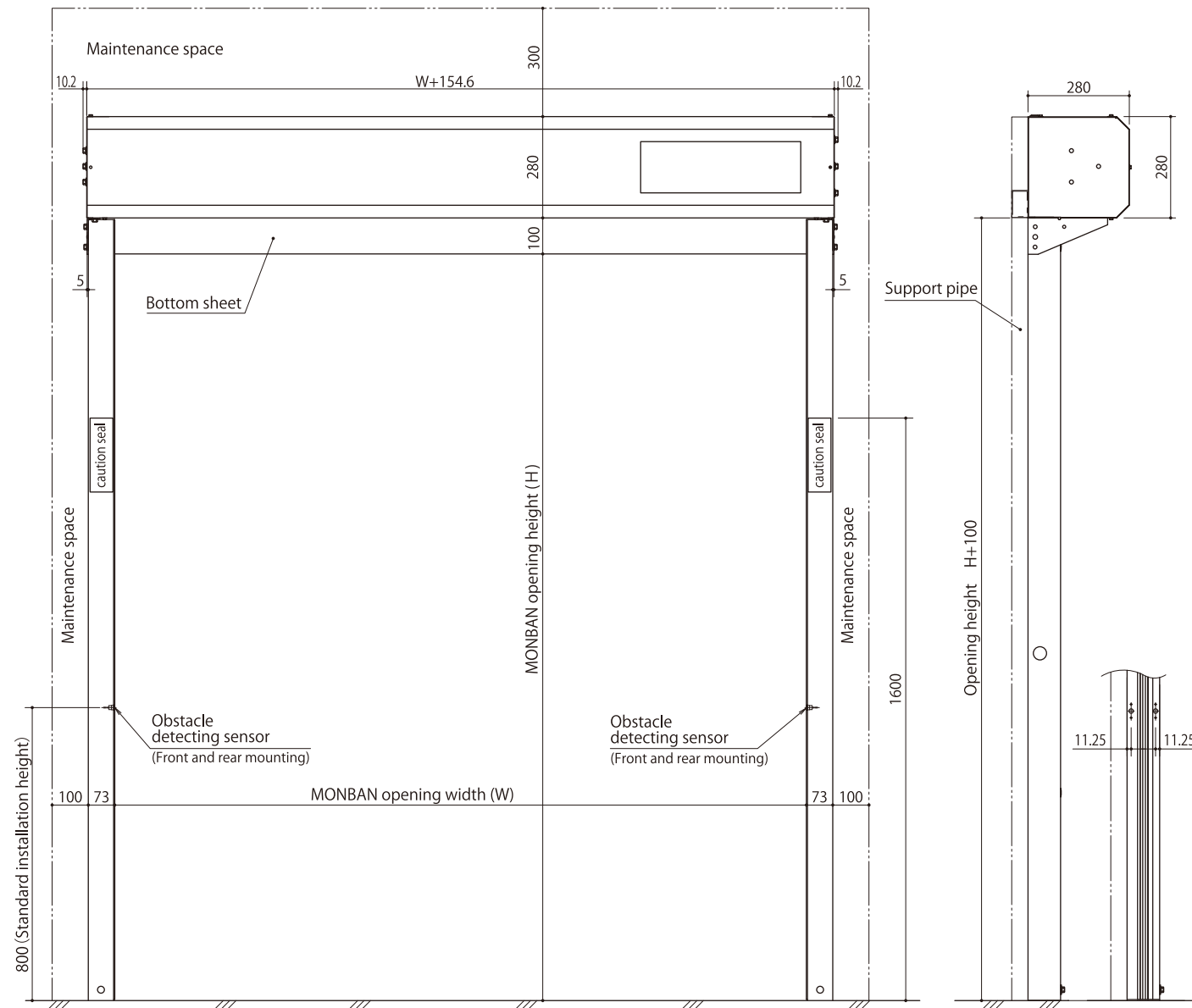
GF17

Opening width 0.8-3.5m
 Opening height 1.0-3.5m
 Rising speed 1.5-0.7m/sec(1.5m/sec)*
 Descending speed 1.5-0.5m/sec(0.7m/sec)* ※setting when shipment



GF22

Opening width 0.8-4.5m
 Opening height 1.0-4.5m
 Rising speed 1.5-0.7m/sec(1.5m/sec)*
 Descending speed 1.5-0.5m/sec(0.7m/sec)* ※setting when shipment



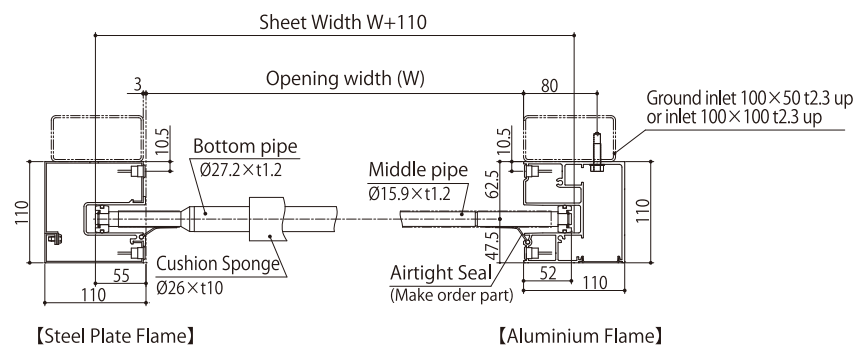
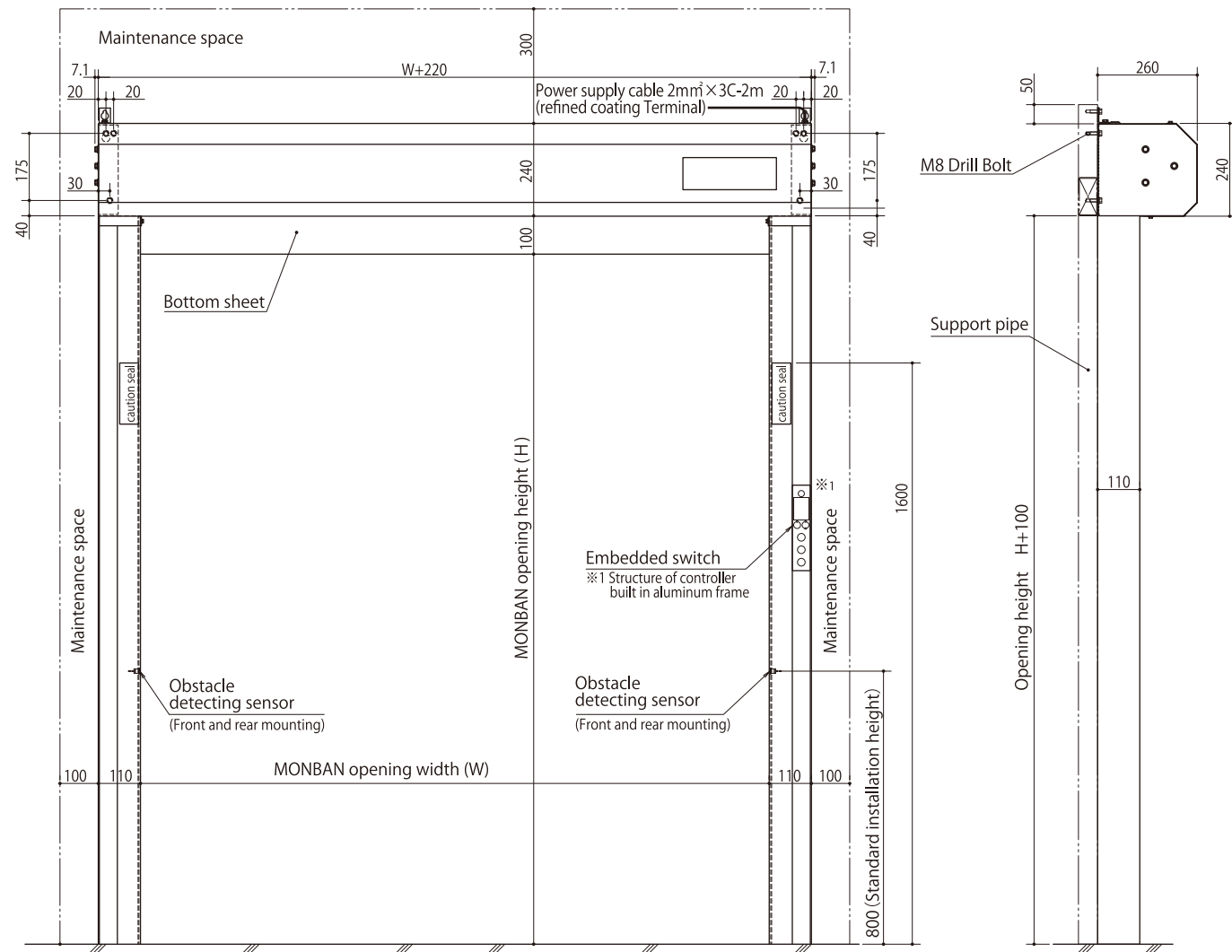
【Caution】
 ・Please install the failure detection sensor certainly set by set front and back, and please previously check the optimum position and the number on the object to pass through.
 ・In the case of install failure detection sensor more than 3 sets, it is necessary to hole. maximum installation 6 sets
 ・In the case of opening height (H) of side frame is more than 3100, 2 configurations are the 2400mm standard part and the adjustment part.
 ・Controller is separate placement type.
 ※₁ KV controller is for GF17/22, G119/219, R109/209 type.

【Caution】
 ・Please install the failure detection sensor certainly set by set front and back, and please previously check the optimum position and the number on the object to pass through.
 ・In the case of install failure detection sensor more than 3 sets, it is necessary to hole. maximum installation 6 sets
 ・In the case of opening height (H) of side frame is more than 3100, 2 configurations are the 2400mm standard part and the adjustment part.
 ・Controller is separate placement type.

R054

Opening width 0.6-2.0m
 Opening height 1.0-3.6m
 Rising speed 2.0-1.2m/sec(1.2m/sec)*
 Descending speed 1.5-0.5m/sec(0.7m/sec)* ※setting when shipment

R
Series

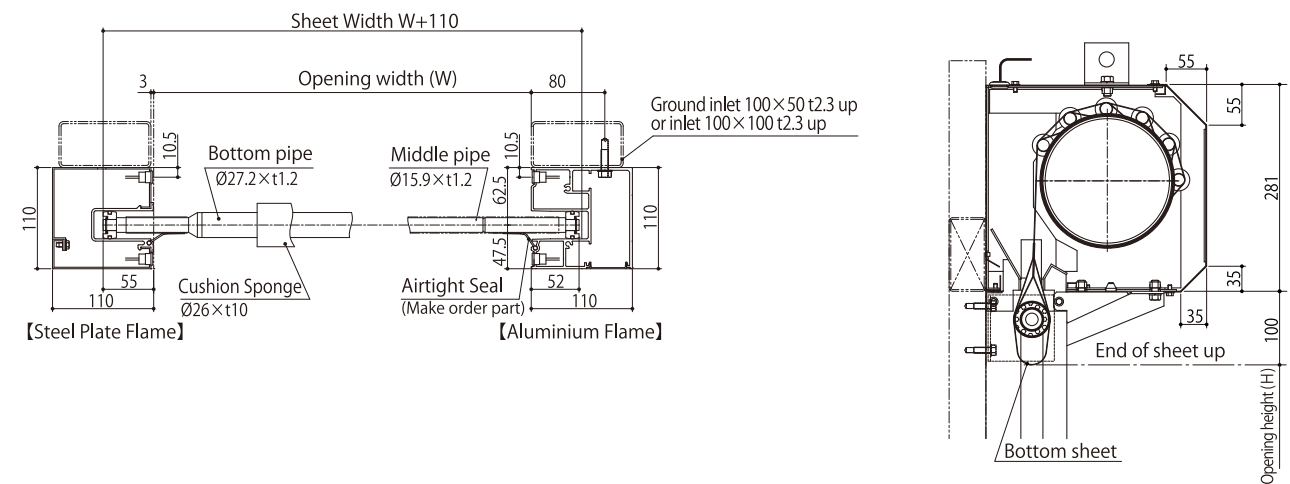
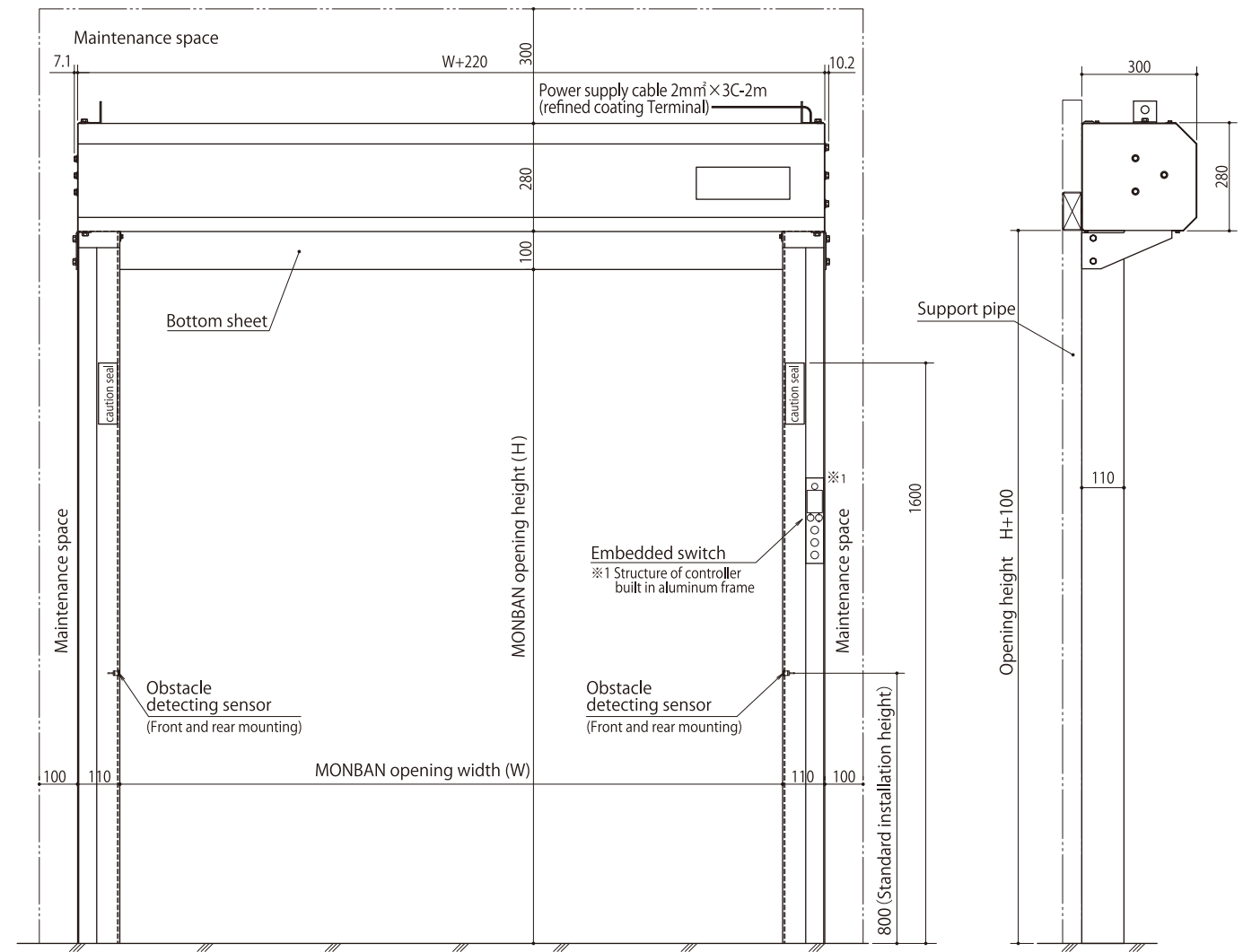


【Caution】
 ・Please install the failure detective sensor at the front and back each 1 set, and please previously check the best position and the number of the object to pass through.
 ・In case of the specification is color steel plate or stainless steel plate flame should be use individual placing control.
 ・Please set up the primary electric by take out the power supply cable from the top of the winding box 2m. In case of the individual placing controller, there is no attached cable.
 ※1 Can not use operation panel with built-in flame when use individual placing controller.

R109

Opening width 0.6-2.5m
 Opening height 1.0-3.8m
 Rising speed 2.0-1.6m/sec(1.6m/sec)*
 Descending speed 1.5-0.5m/sec(0.7m/sec)* ※setting when shipment

R
Series

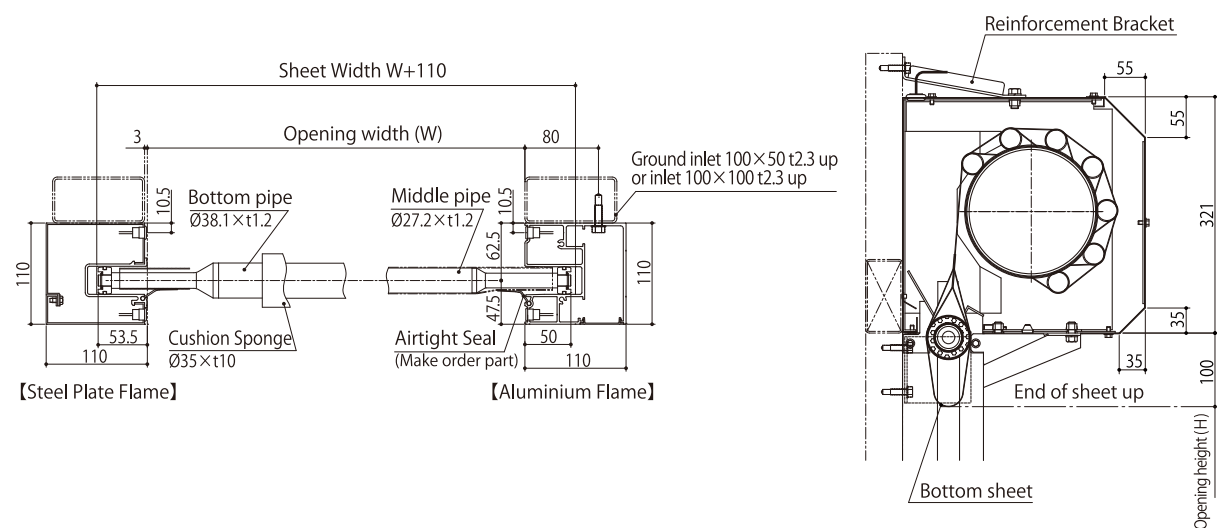
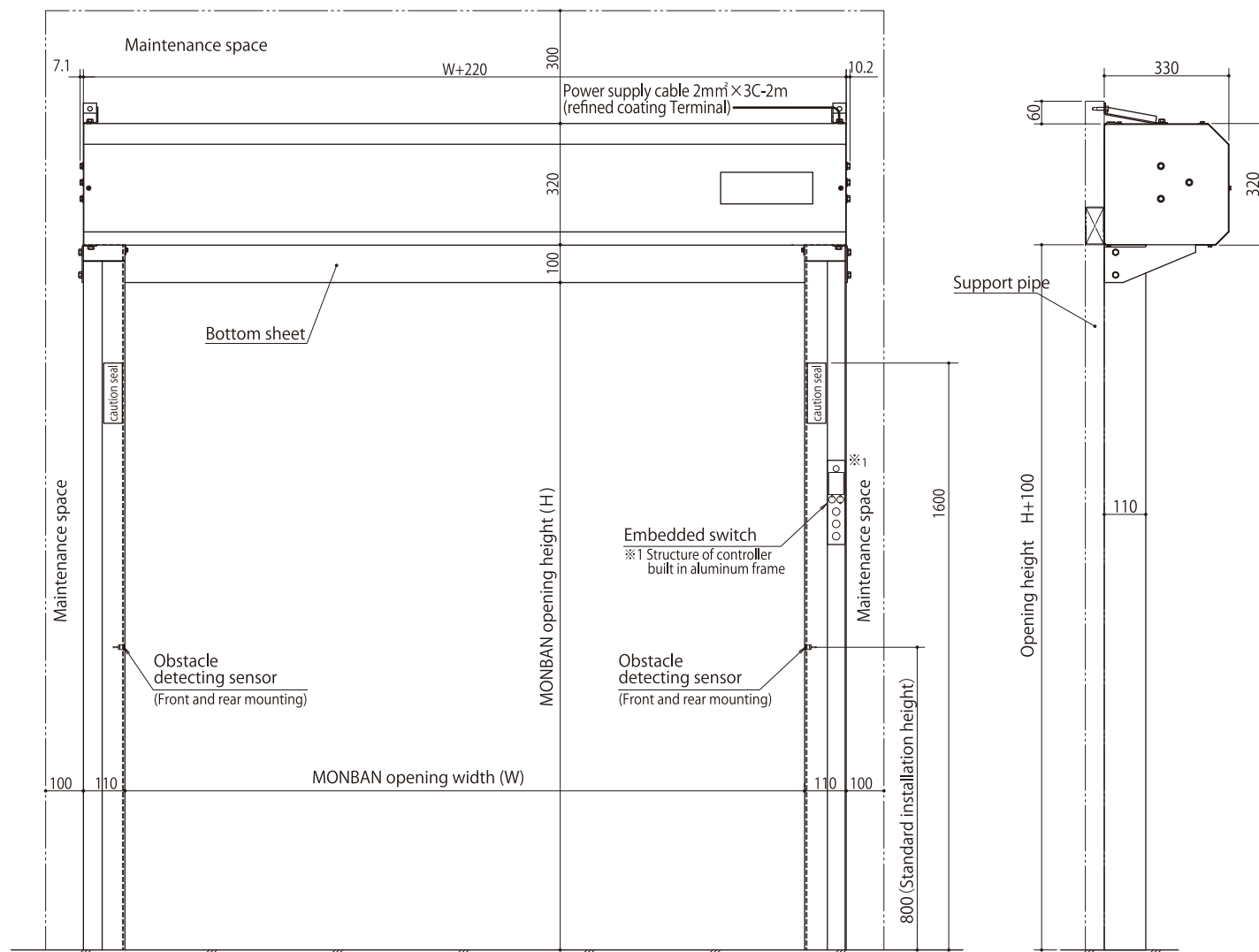


【Caution】
 ・Please install the failure detective sensor at the front and back each 1 set, and please previously check the best position and the number of the object to pass through.
 ・In case of the specification is color steel plate or stainless steel plate flame should be use individual placing control.
 ・Please set up the primary electric by take out the power supply cable from the top of the winding box 2m. In case of the individual placing controller, there is no attached cable.
 ※1 Can not use operation panel with built-in flame when use individual placing controller.

R209

Opening width 0.8-3.2m
Opening height 1.0-5.0m
Rising speed 1.5-0.7m/sec(1.0m/sec)*
Descending speed 1.5-0.5m/sec(0.7m/sec)* ※setting when shipment

R
Series



[Caution]
• Please install the failure detective sensor at the front and back each 1 set. Beforehand, please confirm the best location and the quantity corresponding to the object that you want to pass.
• The composition of side flame is 1pc or 2pcs or 3 pcs depend on material and size.
• In case of the specification is color steel plate or stainless steel plate flame should be use individual placing control.
• Please set up the primary electric by take out the power supply cable from the top of the winding box 2m. In case of the individual placing controller, there is no attached cable.
※₁ Can not use operation panel with built-in flame when use individual placing controller.

R309

Opening width 3.0-5.3m
Opening height 1.0-5.0m
Rising speed 1.0-0.7m/sec(1.0m/sec)*
Descending speed 1.0-0.5m/sec(0.7m/sec)* ※setting when shipment

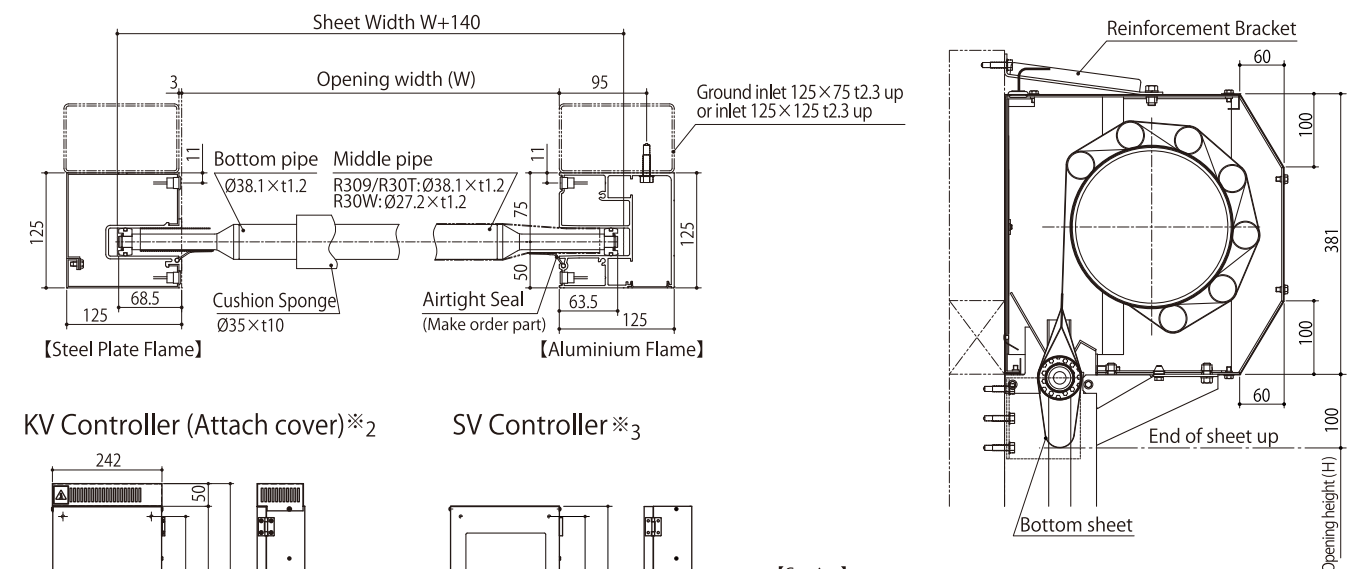
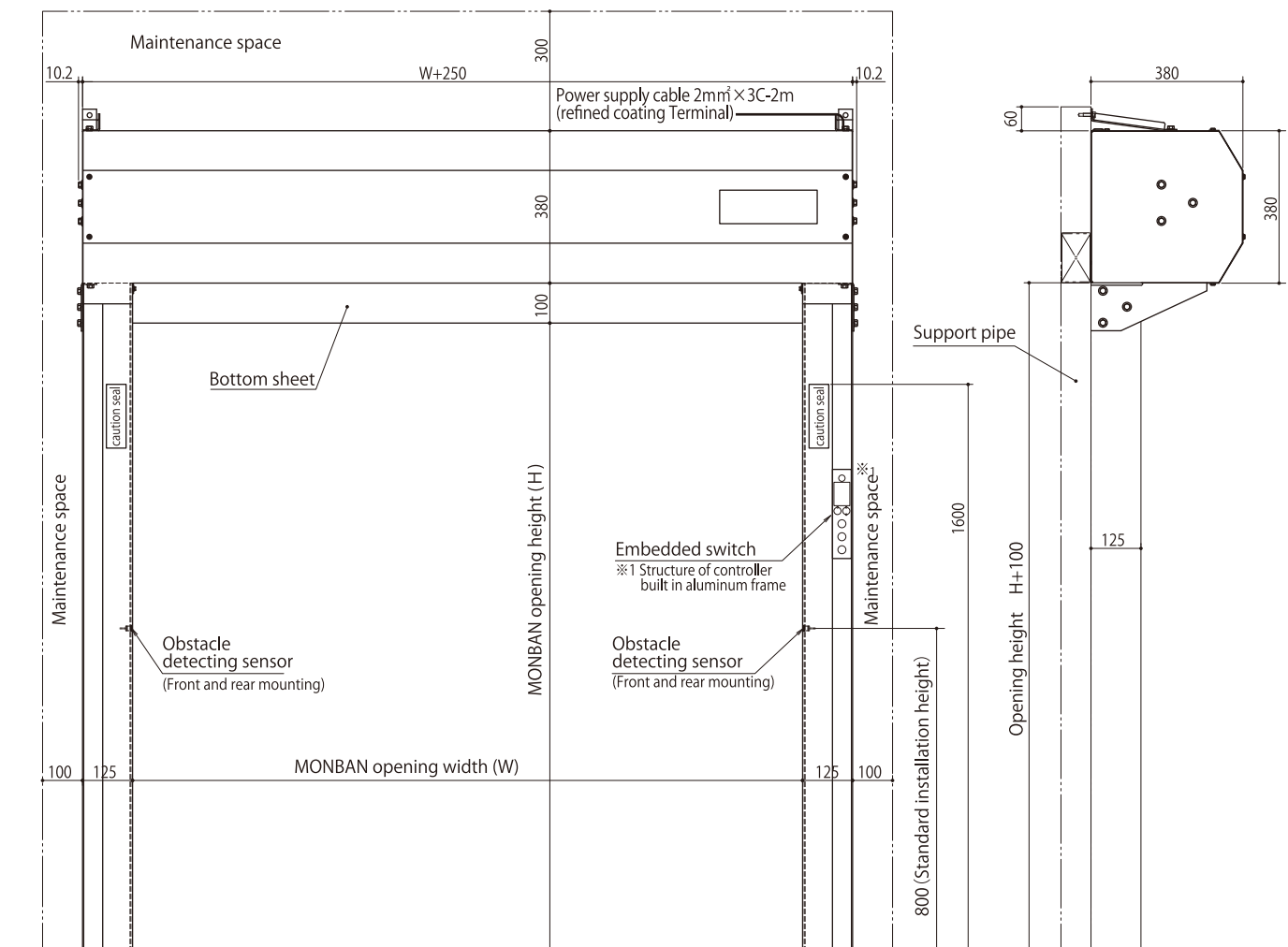
R30W

Opening width 0.8-3.5m
Opening height 1.0-5.0m
Rising speed 0.75-0.55m/sec(0.7m/sec)*
Descending speed 0.6-0.4m/sec(0.5m/sec)* ※setting when shipment

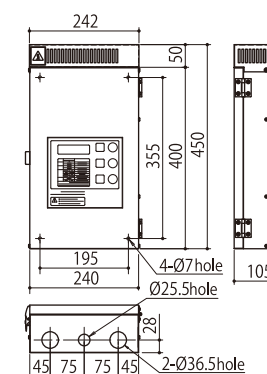
R30T

Opening width 3.0-5.3m
Opening height 1.0-5.0m
Rising speed 1.0-0.7m/sec(1.0m/sec)*
Descending speed 1.0-0.5m/sec(0.7m/sec)* ※setting when shipment

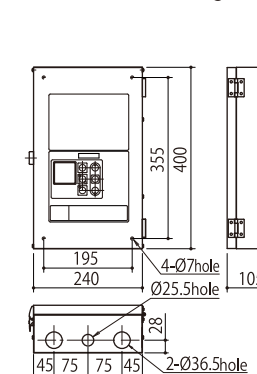
R
Series



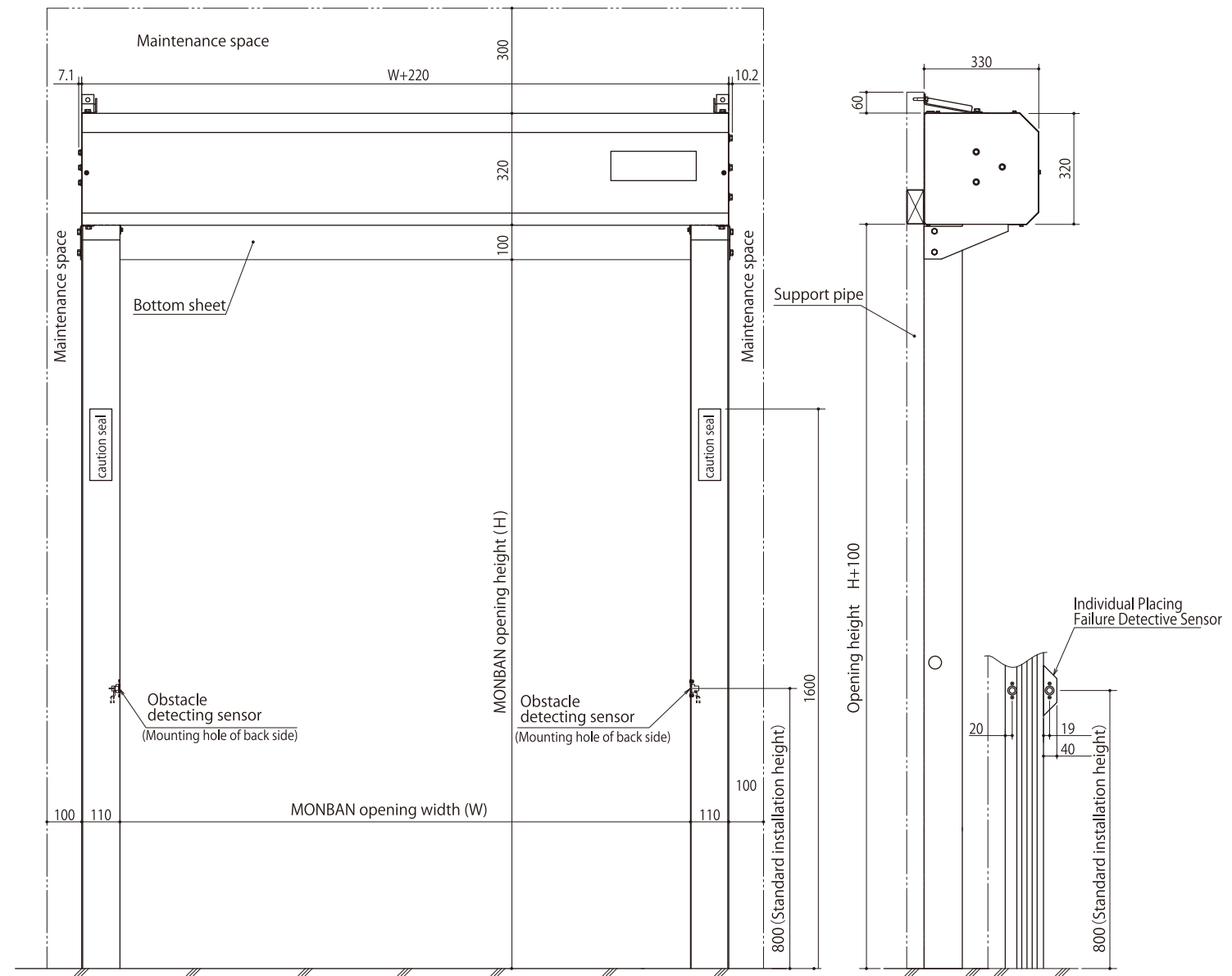
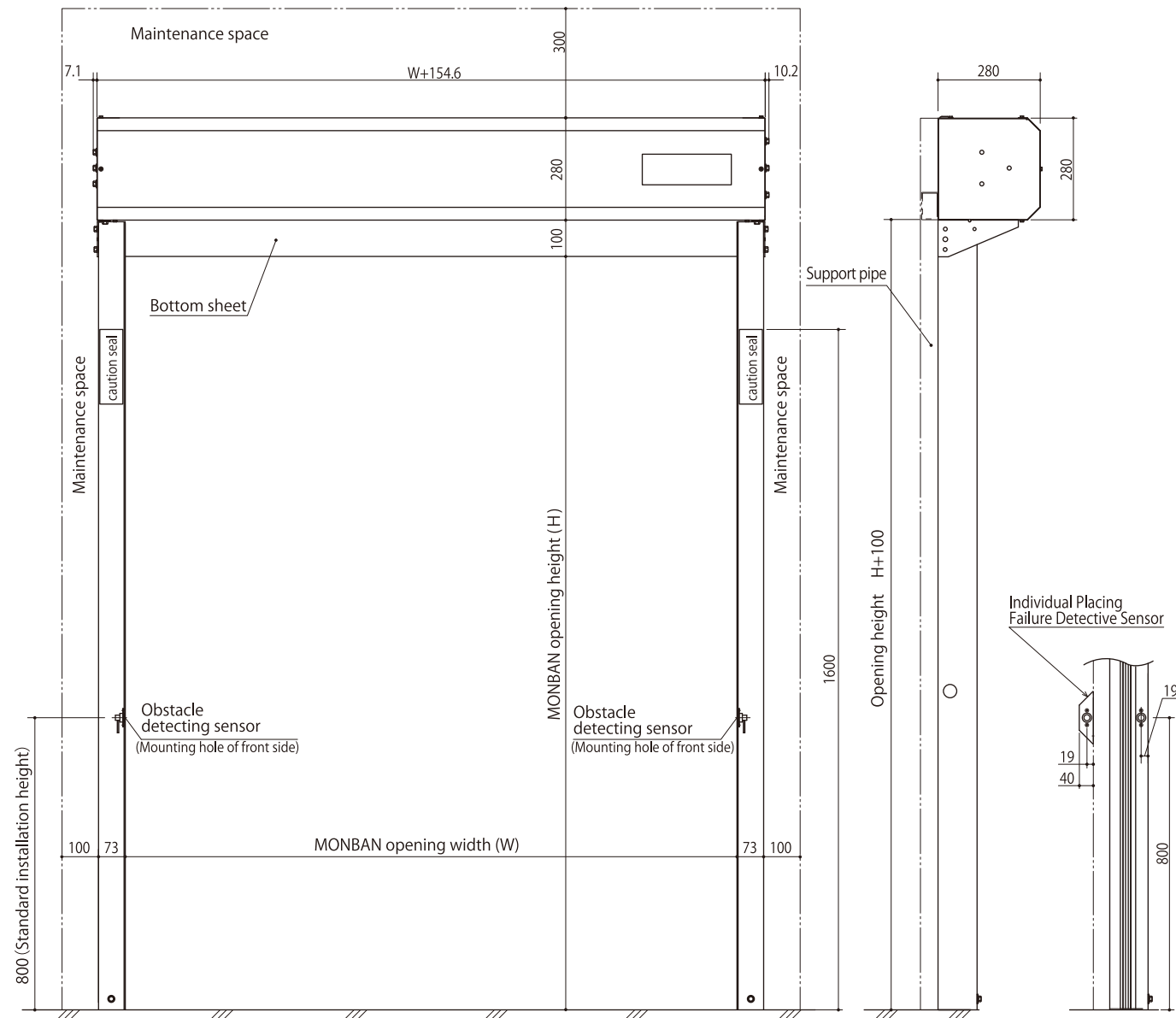
KV Controller (Attach cover)※₂



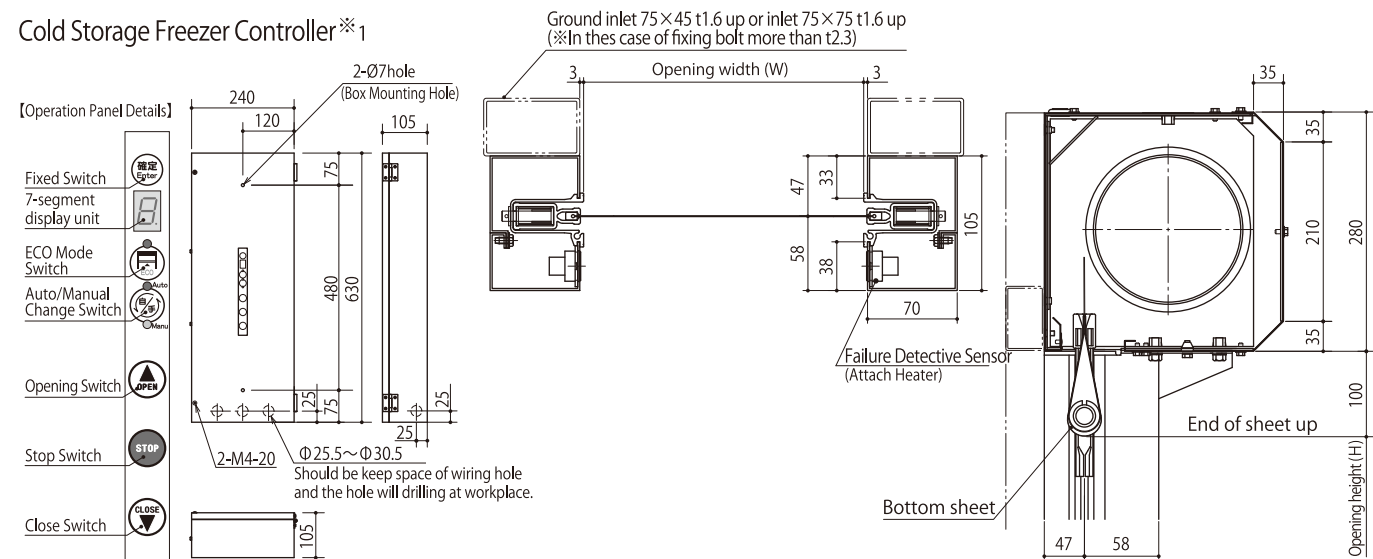
SV Controller※₃



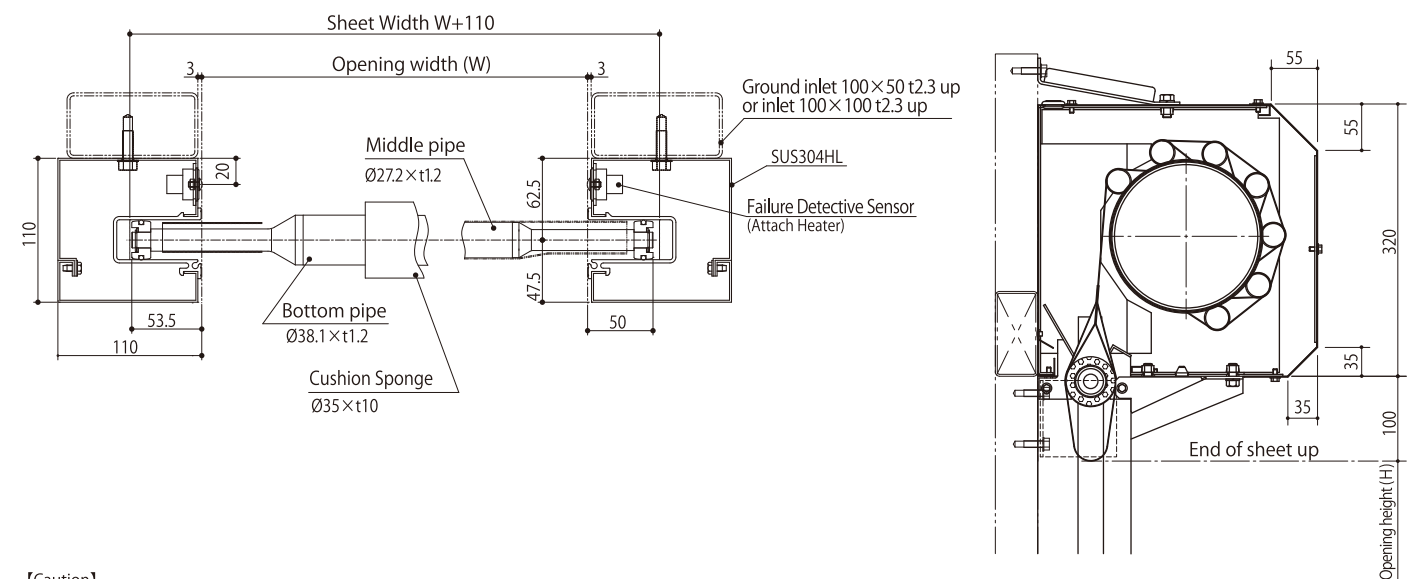
[Caution]
• Please install the failure detective sensor at the front and back each 1 set. and please previously check the best position and the number of the object to pass through.
• The composition of side flame is 1pc or 2pcs or 3pcs depend on material and size.
• In case of the specification is color steel plate or stainless steel plate flame should be use individual placing control.
• Please set up the primary electric by take out the power supply cable from the top of the winding box 2m. In case of the individual placing controller, there is no attached cable.
※₁ Can not use operation panel with built-in flame when use individual placing controller.
※₂ KV Controller (attach cover) is use for R309/409 type, R30W/R40W type.
※₃ SV Controller is use for R30T/R40T



Cold Storage Freezer Controller※1



【Caution】
 ・Please install the failure detective sensor at the front and back each 1 set. Beforehand, please confirm the best location and the quantity corresponding to the object you want to pass.
 ・The controller is an individual placing type.
 ※₁ Cold Storage Freezer Controller use for G11F/R10F type.



【Caution】

- Please install the failure detective sensor at the front and back each 1 set, and please previously check the best position and the number of the object to pass through.
- The controller is an individual placing type.

G10A/10E

Explosion-proof Area

Opening width 0.8-1.5m
Opening height 2.0-2.3m
Rising speed 1.2m/sec
Descending speed 0.7m/sec



G20A/20E

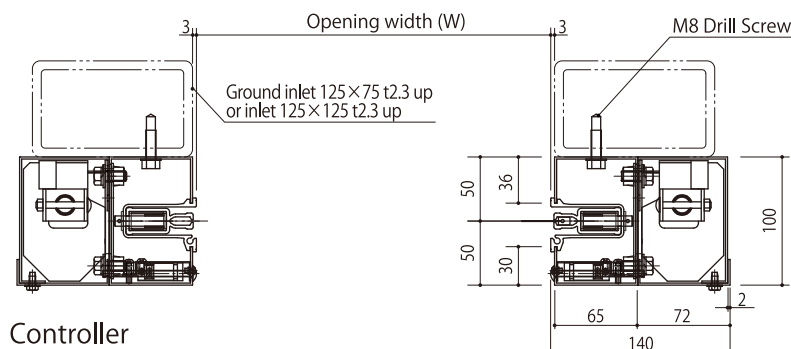
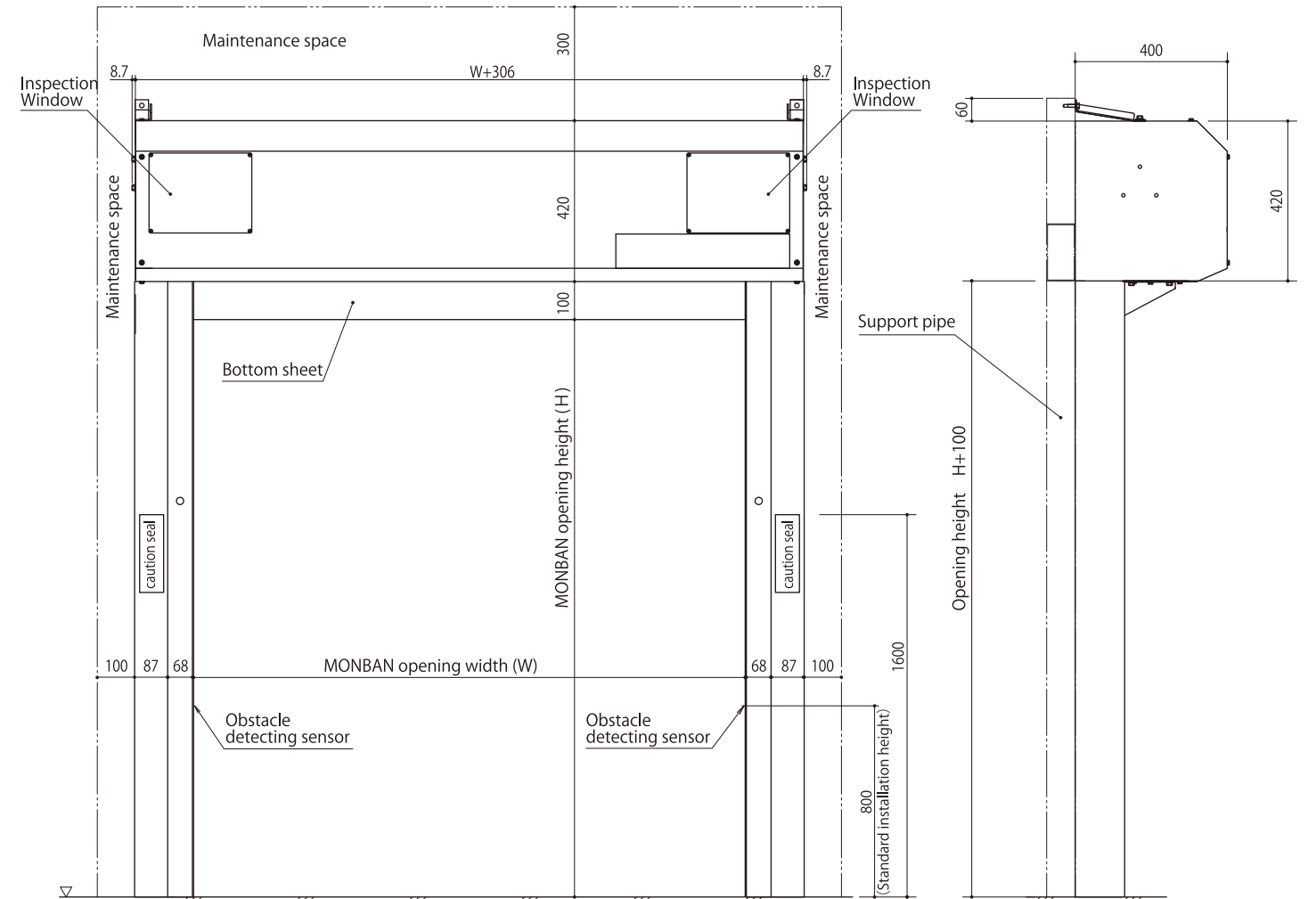
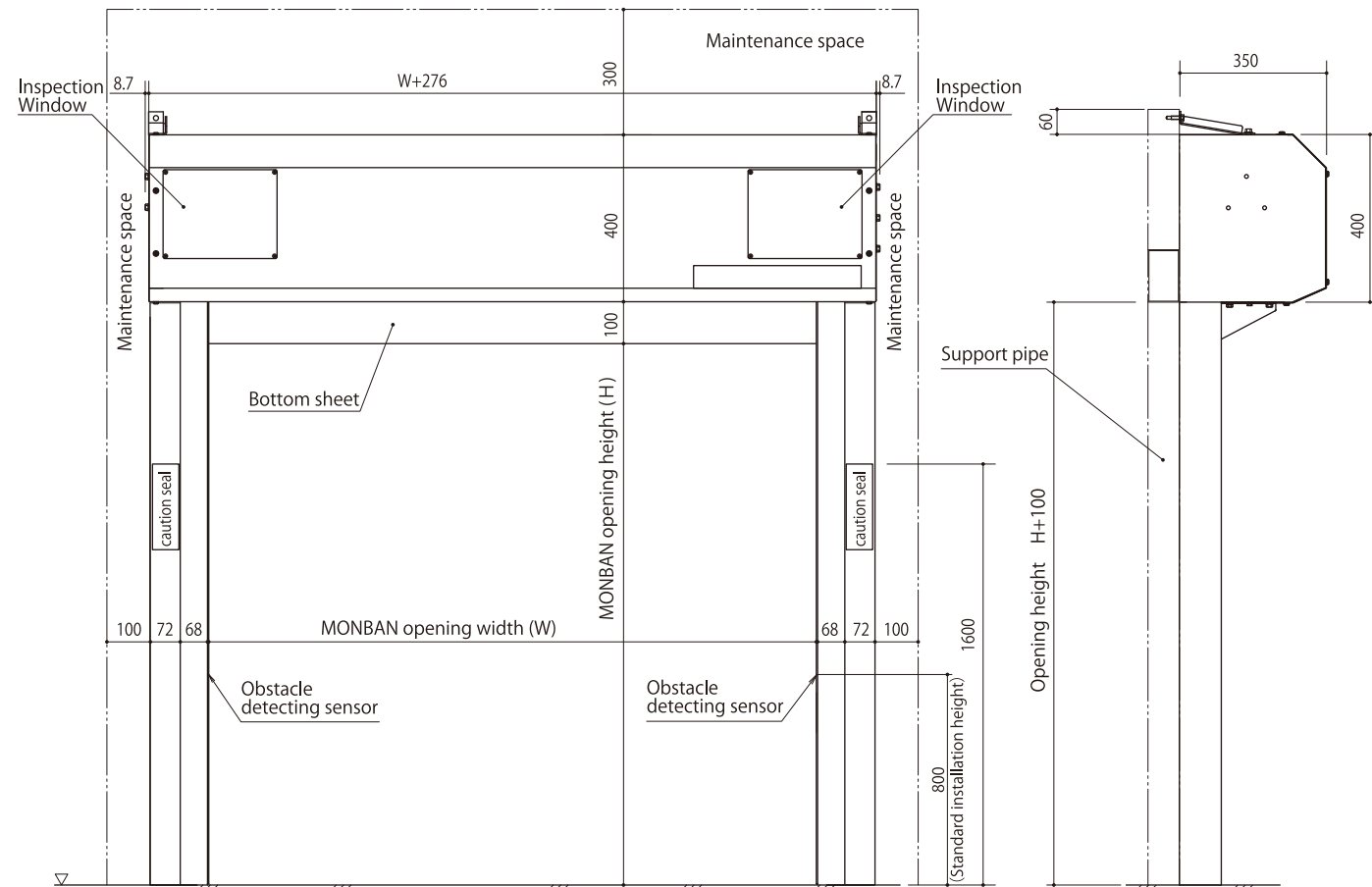
Explosion-proof Area

Opening width 1.6-3.0m
Opening height 2.0-4.0m
Rising speed 1.0m/sec
Descending speed 0.7m/sec

G30A/30E

Explosion-proof Area

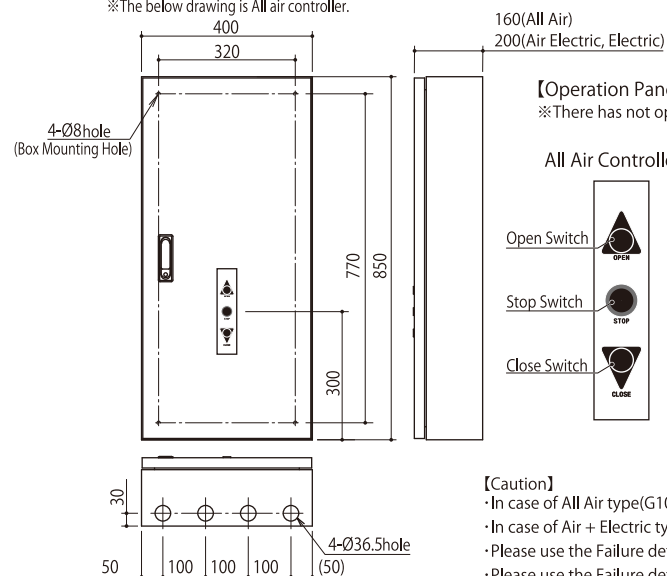
Opening width 3.1-4.0m
Opening height 2.0-4.0m
Rising speed 0.8m/sec
Descending speed 0.7m/sec



Controller

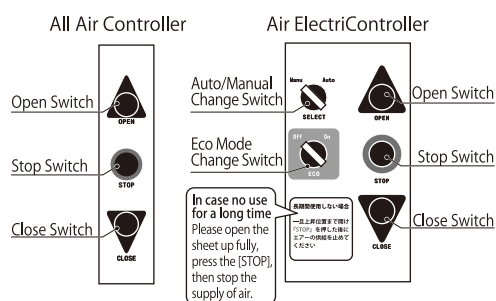
【Appearance Dimension Drawing (All Air, Air Electric, Electric Controller.)】

※The below drawing is All air controller.



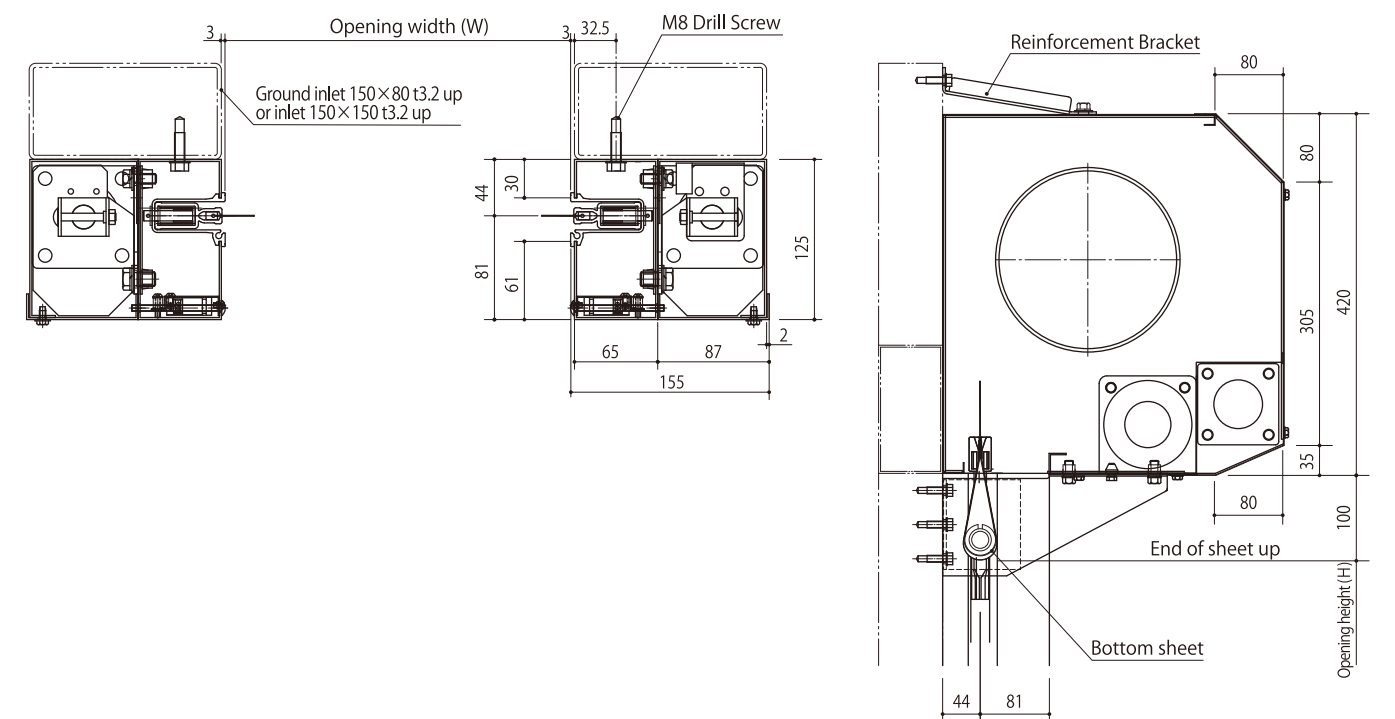
【Operation Panel Details】

※There has not operation panel in electric controller.



【Caution】

- In case of All Air type(G10A/20A/30A) will be use All Air Controller.
- In case of Air + Electric type(G10E/20E/30E) will be use Air Electric Controller + Electric Controller.
- Please use the Failure detective sensor for G10E/20E/30 E.
- Please use the Failure detective sensor 1 set only for PHD.

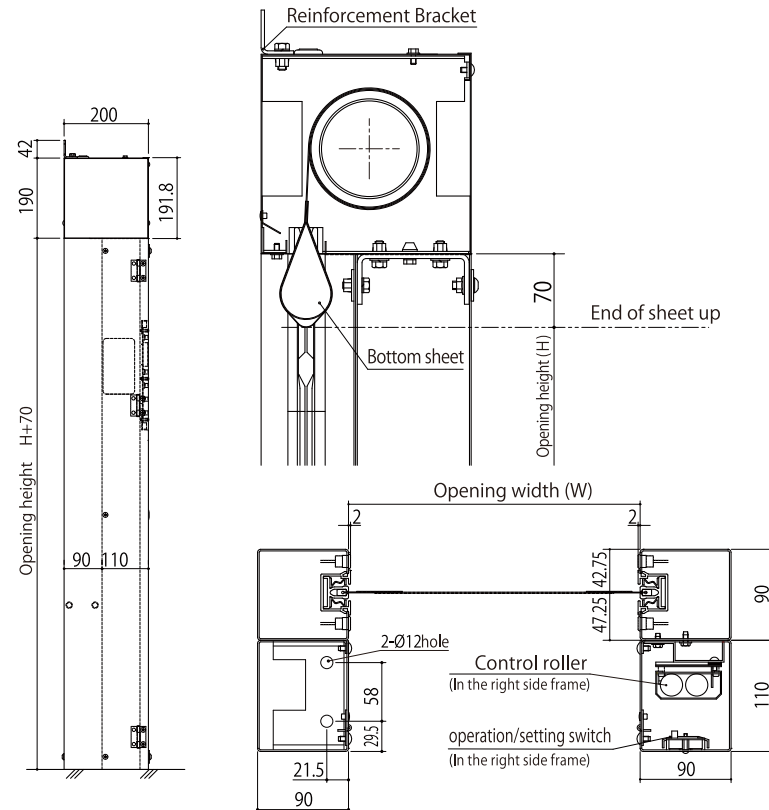
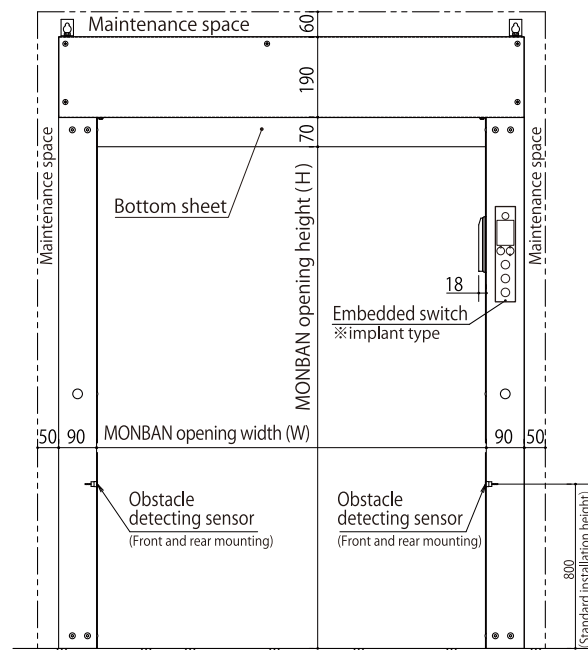


G12S / 14S

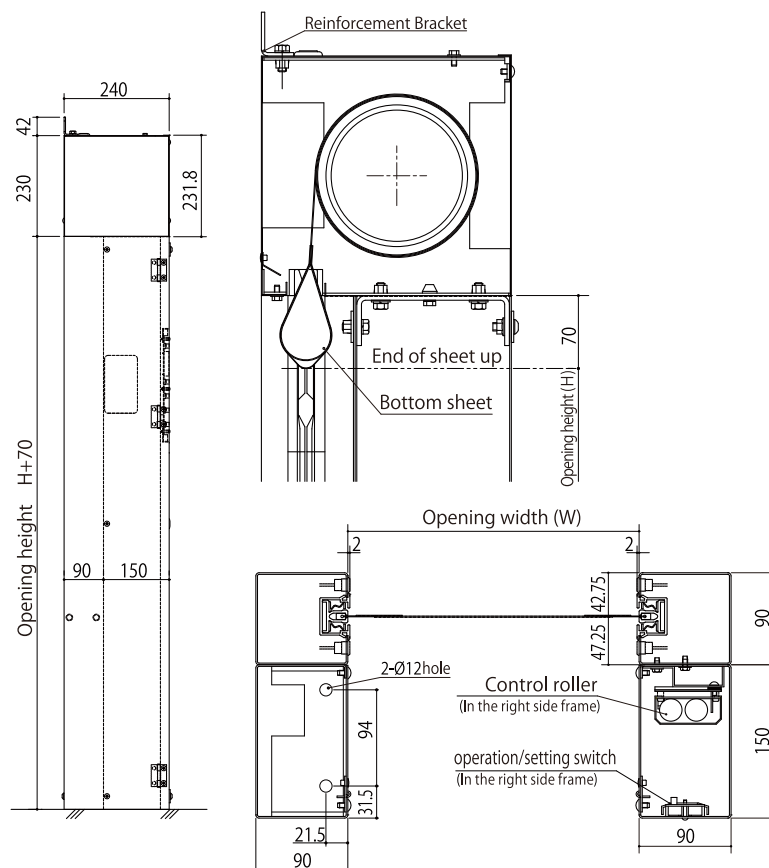
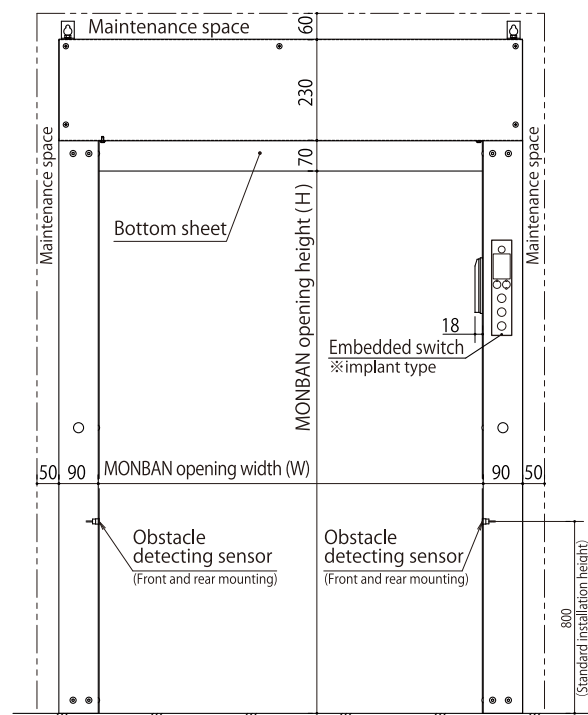
Opening width 0.8-2.5m
Opening height 1.8-2.5m
Rising speed 2.6-1.5m/sec(2.0m/sec)*
Descending speed 1.5-0.5m/sec(0.7m/sec)* ※setting when shipment



G12S



G14S



Note about installation environment

Also include the following disclaimer, in the case of shutter performance can not stand a severe environment (winds climate and facilities make impact to the shutter operation such as high wind),Please use another product (steel shutter.over slider etc.)on establishment.For more information, please contact your dealer or manufacturer Product

Product guarantee

About Product guarantee

Warranty coverage : sheet shutter(happy gate monban)system G series/R series/Refrigerated freezer specification/various type of Explosion-proof

※ If this product is connected or integrated with other devices, the installation/removing from the device/ construction work for other supplementary/cost of transport/user loss the using opportunity/indirect damage of business interruption and the consequential or incidental damages are out of burden scope,absolutly.

Guarantee period: 1 year or 100,000 times after delivery.

(Although in the usage period but opening and closing number is more than 100,000 times and the failure caused by the installation environment can not guaranteee)

Immunity

- 1.Natural disasters and other uncontrollable. (For example, defects in the case of the situation that exceeds the performance of the product because heavy rain, strong winds, storm surge,earthquakes, ground subsidence, lightning, fires, Tsunami, volcanic eruptions, and any unforeseen phenomena)
- 2.Defects caused by natural phenomena and operating environments.(For example vibration and resonant sound due to wind, freezing, condensation)
- 3.Corrosion or other defects in the poor environment of areas or places. (For example, by salt in seaside area, sand dust, smoke, various metallic powders in the atmosphere, sulfurous acid as, ammonia, automobile exhaust, and any unforeseen corrosion)
- 4.Defects due to exceed the performance of product that has been expressed in this document.
- 5.Defects of the product due to other than product defects, such as deformation of the architectural precursor.
- 6.Defects the case of usage is different from using target or in the cast of used out of target in the original.
- 7.Defects due to third-party processing that does not depend on our arrangements, assembly, construction, management.
- 8.The Defects due to the fact that you did not perform proper maintenance or operation after delivery.
- 9.Defects due to Assembly, construction, repair, improvement, due to deficiencies and maintenance etc.
- 10.Defect of abrasion of the contact portion according to use, scratches.
- 11.Defect of unforeseen phenomenon that cannot be estimated in current science and technology.
- 12.The problems caused by small animals such as dog, cat, bird, rat, etc and by insect such as cockroach, spider, etc.
- 13.The sound that not trouble function , sensory phenomenon such as vibration.
- 14.Damage or failure caused by illegal activities such as crime.
- 15.If the cause of the other Defects from the third party.

Warranty starting time

Repair and Replace after the expiration of warranty period. In the cast there is no document that can be identified the delivery date after-sales and construction,may i refer warranty period by Date of manufacture of the product without permission.If you have any questions about the warranty period, warranty information ,please inquiries and contact us.

Recommendation of periodic inspection contract

Confidence with Monban.In order to get keep forever,as well as daily inspections to carry out daily and the professional inspectand maintenance periodic. Those which it has been installed especially in the high frequency of use location and those which that have been installed in the severe environment of use be facing the outdoor consumable parts are violently, and The durability will be signi cantly reduced. Decreases the function in parts of consumption and aging, there is also a risk that lead to accidents. Although the number of regular inspections can not be set uniformly because di erent in frequency of use and installation environment, consult with the purchase of dealer to guide the following parts inspection and replacement list and recommended that you make a periodic inspection contract.Periodic inspection contract will be reported the results do the inspection based on the check list.If an abnormality such as consumables were observed in the inspection, maintenance by change parts after consult with contractors. Inspection other than the manufacturer certi ed stores sometimes result in personal injury or death or serious accident.

- Periodic inspection noti cation function of controller 50 000 times, 100,000 times, 200,000 times (every subsequent 100 000 times) will inform the inspection time in the alarm and the LCD.
- One month inspection: Inspect each installation sensor and detection area and abnormal noise generation once a month. Please check whether to operate normally.

Major inspection content (simple inspection)

- Abnormal sound, driving during opening and closing operations
- Setting stop position (etc overrun)
- damage and abrasion of the guide rail
- Damage and abrasion of sheet
- Damage of body-side frame
- Lubrication

Exchange and inspection period (standard)

G/GF series

	Part name	Exchange and inspection period (standard)
Sheet part	Sheet,tube portion	300,000 times or 5 years
	Tube guide	500,000 times or 5 years
Frame part	Return guide	500,000 times or 5 years
	Frame, mounting condition	500,000 times or 5 years
Winding-up part	Winding-up box	500,000 times or 5 years
	Drum	500,000 times or 5 years
Driving part	Drum dsk	500,000 times or 5 years
	Switching device	1,000,000 times or 5 years
Control part	Control panel	1,000,000 times or 5 years
	Sensor type	1,000,000 times or 5 years
	Switch type	1,000,000 times or 5 years
Air tight	Airtight seal	100,000 times or 2 years

Merchandise management system

Monban is assigned the serial number one by one from the initial launched in 1985,and all the specifications such as shutter size and sheet color and other peripheral devices have to be managed. you should provide us with serial number for respond quickly when you periodic inspect and got trouble.

R series

	Part name	Exchange and inspection period (standard)
Sheet part	Sheet	300,000 times or 5 years
	Roller unit with Rubber ring	300,000 times or 5 years
Frame part	Resin guide (steel only)	500,000 times or 5 years
	Frame, mounting condition	500,000 times or 5 years
Winding-up part	Winding-up box	500,000 times or 5 years
	Drum	500,000 times or 5 years
Driving part	Drum dsk	500,000 times or 5 years
	Switching device	1,000,000 times or 5 years
Control part	Control panel	1,000,000 times or 5 years
	Sensor type	1,000,000 times or 5 years
	Switch type	1,000,000 times or 5 years
Air tight	Airtight seal	100,000 times or 2 years