



It is recommended that only persons who have sufficient knowledge and experience such as system designers and responsible persons deal with this product after carefully reading the product manual.

## 1 The matters of safety

### WARNING

- \* If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.
- \* This bar is IP 66 rating and able to be installed in occasional washing area. Once the bar is wet, please dry the wet part completely.
- \* When you check or maintain the product, make it sure you turn off the power. It may cause electric shock or fire due to malfunction.
- \* Secure the product firmly when you want to secure it. There is a possibility of accident due to fall-over or malfunction, etc.
- \* Secure working space when you install the product. If working space is not secured, the checking or maintenance of the product is made impossible leading to failure of the product.
- \* Do not use the product at the place where dangerous material such as inflammable or ignitable material exists. This product is not the product of anti-explosive type.
- \* This device is made only for industrial uses. You need to ground the device beforehand. Otherwise, there are in case of malfunction, electric shock, or fire damage.
- \* For dispose of this bar, a qualified authority must handle this. If you do not dispose it properly, harmful substances from electronic/electric components can bring about problems for human and environment.

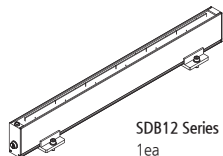
### CAUTION

- \* This bar is shockless type and no sparkle from it. For your safety, do not contact emitter tips and socket when its power is on. Watch out for electric shock and abnormal operation.
- \* Handle the discharge needle with care as its tip is very sharp.
- \* Connect wires referring to the product manual. Wrong connection can cause failures.
- \* Watch out for broken cable. If power cable is broken, immediate replacement is required. Broken cable can cause product breakdown or fire.
- \* Do not use the product for the purpose outside of the range of the product use. If the product is used for the purpose outside of the range of the use, it can result in the trouble or the shortened service life. Or an unexpected problem may occur.
- \* The ionizer generates ozone (below 0.05ppm) If you sense the smell of ozone when you use more than two units, ventilate the air.
- \* When installing or transporting the ion bar, be prepare not to bend the item during the process.

## 2 Check the package contents

### Product compositions

The package includes the following products composition.



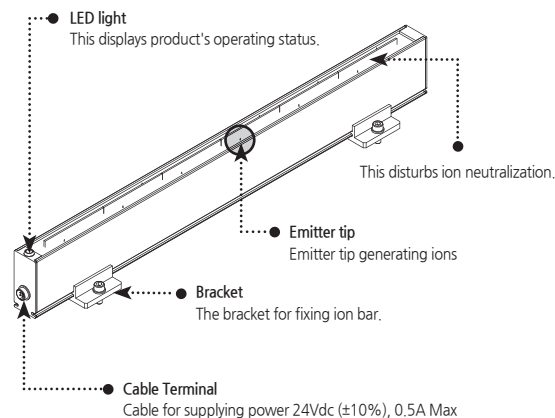
SDB12 Series  
1ea



4Pin M10 Cable  
1ea

## 3 Nomenclatures of parts

### SDB12 Series



#### <Normal operation>

##### Red / Green LED blink in turn

Power is applied (Red LED : +12KV, Green LED : -12KV) and the product is running

#### <Abnormal signal>

##### Red LED Light on

Supplied voltage is higher than 27V

##### Green LED Light on

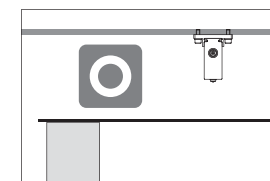
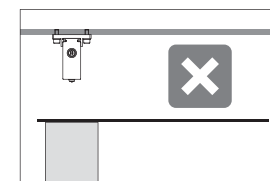
Supplied voltage is lower than 21V

##### Red LED blinking

Current value is over the maximum (overload)

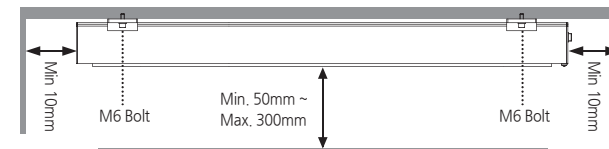
##### Green LED blinking

Current value is lower than the minimum



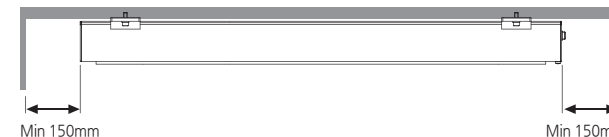
### Basic Installation

SDB12 Series must be used for a distance between 50mm and 300mm. Using M6 bolt, tighten it up.



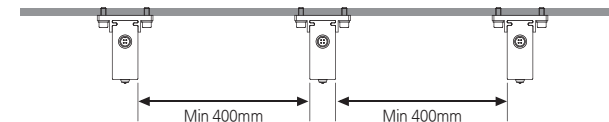
### Interference by Grounding Matters

If there is any conductive object close to ion bar, SDB12 Series may not operate properly. Please install it with reference to figure below.



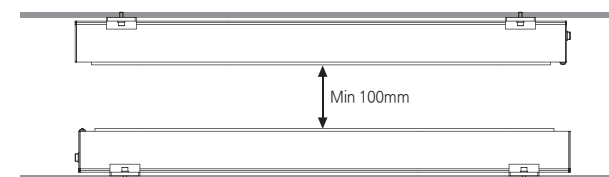
### Side to Side Installation

When the more than two ion bars are installed, to avoid interference, the range between two ion bars should be more than 400mm.



### Face to Face Installation

When two ion bars are installed face to face, to avoid interference, the range between two ion bars should be more than 100mm.



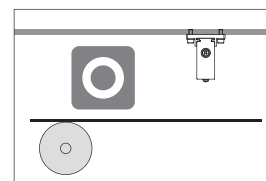
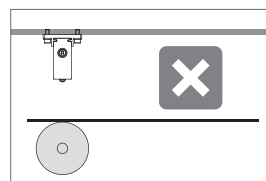
## 4 Installation and connection

### Ion bar installation

For installation of ion bar, please refer to the following.

#### Mechanical Installation

It is very important to place the product in correct position. Any metal must not be placed between the product and the target to be discharged. To discharge film or plate, make sure that the bar is installed away from cylinder or other metal parts like the picture below.

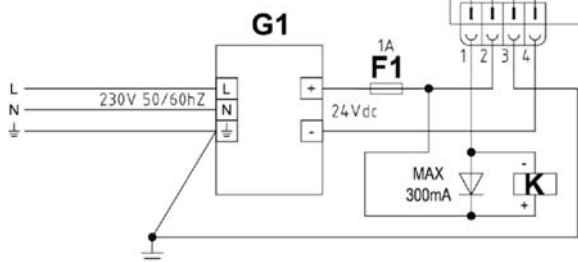
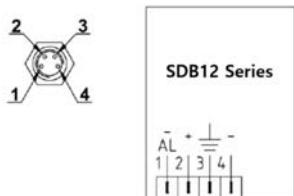


Electrical installation

**CAUTION**

- \* Do not use the product unless you connect ground wire to Pin 4.
- \* Using a quick 1A fuse, put the power in.
- \* Use proper Power supply for 24Vdc.

PIN 1 = Black = Output Alarm NPN  
 PIN 2 = Brown = 24V  
 PIN 3 = Yellow-Green = Ground  
 PIN 4 = Blue = 0V



Like the table above, connect the voltage to the product. 0V (terminal 1), 24V (terminal 2), ground (terminal 4). To connect 24Vdc power supply to the product, you should connect ground wire. (Pin 4 from female connector)

**5 Maintenance**

Maintenance is important to keep performance. When you use the product for a long time, it can be easily contaminated and by the dust performance can be lowered. To maintain good performance please follow the next.

- Clean the bar regularly.
- Before cleaning, check out the bar is off.
- You can clean the product using brush.



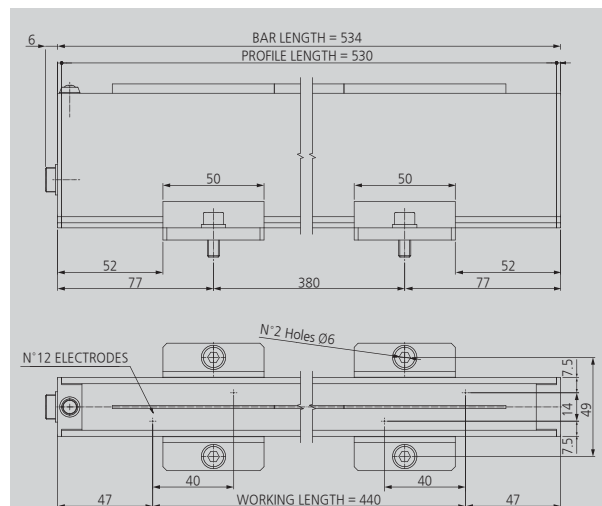
- You can clean the product using cotton with alcohol or cloth.



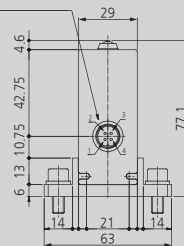
For a few minutes, dry it or blow it with pressed air.  
 After the bar is completely dried you can connect the power to it.

**6 Dimensions**

► SDB12 Series



PIN 1 = 0V  
 PIN 2 = 24V  
 PIN 3 = NOT USED  
 PIN 4 = GROUND



No.	Tip QTY	Working Width	Total Width	No.	Tip QTY	Working Width	Total Width
1	10	360	454	18	44	1720	1814
2	12	440	534	19	46	1800	1894
3	14	520	614	20	48	1880	1974
4	16	600	694	21	50	1960	2054
5	18	680	774	22	52	2040	2134
6	20	760	854	23	54	2120	2214
7	22	840	934	24	56	2200	2294
8	24	920	1014	25	58	2280	2374
9	26	1000	1094	26	60	2360	2454
10	28	1080	1174	27	62	2440	2534
11	30	1160	1254	28	64	2520	2614
12	32	1240	1334	29	66	2600	2694
13	34	1320	1414	30	68	2680	2774
14	36	1400	1494	31	70	2760	2854
15	38	1480	1574	32	72	2840	2934
16	40	1560	1654	33	74	2920	3014
17	42	1640	1734				

**7 Specification**

► SDB12 Series

Parameter	Description / Value	Remarks
Input Power	DC 24Vdc (±10%)	
Current Consumption	0.5A	Max
Output Voltage	DC ±12kV	
Overload Protection	2mA	
Primary Current	1.5mA	
Output frequency	5Hz (±1%)	
Working Distance	50 ~ 300mm	
Construction Material	Teflon and PVC	
Electrodes	Tungsten	
Fixing Holes	6Φ	
Dimension	30 x 56 mm (W and H)	
Max Width	4000mm	
Weight	0.7kg / meter	
Connection Operating	4-pole connector M10	
Circumstance	0 ~ 50°C, 35 ~ 85%	
Protection	IP 66	
Warranty	1 year	

※ The appearance and specification of the product may be changed without prior notice for the improvement of the product.

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