Ionizer (Digital Bar Type)
ZJ-BAS

CSM_ZJ-BAS_DS_E_3_1

The highest level of ionization in its class.

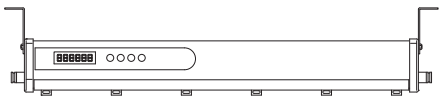
- Sensing and variable-AC system provides fast and meticulous ionization.
- Linked Ionizers cover a wide area without causing uneven ionization.
- Digital ion display provides simple and reliable settings.

For the most recent information on models that have been certified for safety standards, refer to your OMRON website.

Refer to *Safety Precautions* on page 4.

System Configuration

Ionizer
ZJ-BAS



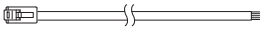
I/O Cable
ZJ-BAS-FC

Used for connecting external devices.

Power supply cable
Select from the two available types.

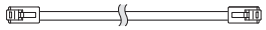
Cable with Connector on One End
ZJ-BAS-MC□□A

Used when using a DC power supply.

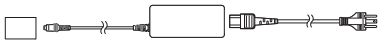


Cable with Connectors on Both Ends
ZJ-BAS-MC□□B

Used when using an AC adapter.

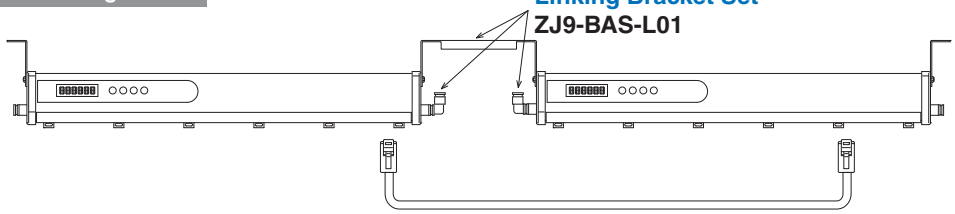


AC Adapter
ZJ-BAS-PS01



When Linking Ionizers

Linking Bracket Set
ZJ9-BAS-L01



Power Supply Cable (for linking Ionizers) ZJ-BAS-MC□□RB

The length of the cables that can be linked depends on the number of Ionizers to be linked together. Contact your OMRON sales representative for details.

Ordering Information

Ionizer

Appearance	Total length	Effective length	Model
	370 mm	500 mm	**ZJ-BAS050**
	450 mm	580 mm	**ZJ-BAS058**
	610 mm	740 mm	**ZJ-BAS074**
	770 mm	900 mm	**ZJ-BAS090**
	1,170 mm	1,300 mm	**ZJ-BAS130**
	1,410 mm	1,540 mm	**ZJ-BAS154**

Power Supply Cable

Appearance	Type	Cable length	Model
	Cable with Connector on One End (one ferrite core provided, 30-dia × 39 mm)	2 m	**ZJ-BAS-MC02A**
		5 m	**ZJ-BAS-MC05A**
		10 m	**ZJ-BAS-MC10A**
		15 m	**ZJ-BAS-MC15A**
		20 m	**ZJ-BAS-MC20A**
	Cable with Connectors on Both Ends (one ferrite core provided, 30-dia × 39 mm)	2 m	**ZJ-BAS-MC02B**
		5 m	**ZJ-BAS-MC05B**
		10 m	**ZJ-BAS-MC10B**
		15 m	**ZJ-BAS-MC15B**
		20 m	**ZJ-BAS-MC20B**
	Used for connecting Ionizers	710 mm	**ZJ-BAS-MC07RB**
		790 mm	**ZJ-BAS-MC08RB**
		950 mm	**ZJ-BAS-MC09RB**
		1,110 mm	**ZJ-BAS-MC11RB**
		1,510 mm	**ZJ-BAS-MC15RB**
		1,750 mm	**ZJ-BAS-MC17RB**

I/O Cable

Appearance	Cable length	Model
	2 m	**ZJ-BAS-FC02A**
	5 m	**ZJ-BAS-FC05A**
	10 m	**ZJ-BAS-FC10A**
	15 m	**ZJ-BAS-FC15A**
	20 m	**ZJ-BAS-FC20A**

AC Adapter

Appearance	Specifications	Model
	Input: 100 to 240 VAC Output: 24 VDC × 2	**ZJ-BAS-PS01**

Linking Bracket Set

Appearance	Contents	Model
	Linking Bracket (1) 6-dia. Elbow Air Joint (×2)	**ZJ9-BAS-L01**

Discharge Electrode Module

Appearance	Quantity	Model
	Set of 5	**ZJ9-BAS-NT105**
	Set of 10	**ZJ9-BAS-NT110**

Ratings and Specifications

Ionizer

Item / Model		ZJ-BAS050	ZJ-BAS058	ZJ-BAS074	ZJ-BAS090	ZJ-BAS130	ZJ-BAS154
Ionizer length (mm)		370	450	610	770	1,170	1,410
Effective ionization length (mm) *1		500	580	740	900	1,300	1,540
Power supply voltage		24 VDC ±10%, ripple (p-p) 10% max.					
Current consumption		520 mA max. (discharge frequency 0.08 to 0.5 Hz: 400 mA (typical), 1 to 10 Hz: 350 mA (typical), 20 to 40 Hz: 300 mA (typical))					
Discharge method		Sensing and a Variable-AC System					
Discharge voltage		6.5 kV P-P					
Discharge electrode		Tungsten electrode					
Recommended installation distance		50 to 2,000 mm					
Ion balance *2		±30 V max.					
Power supply connector		Modular type, 8-pin connector (at both ends of Unit)					
Air inlet		6-dia one-touch coupling (at both ends of Unit)					
Maximum air pressure		0.3 MPa max.					
External I/O	**Input**	Discharge stop input (Turns ON at 12 to 24 VDC), input impedance: 8.2 kΩ					
	Output	Discharge stop output, cleaning output, alarm output, high-pressure error output: Signal output from photo MOS relay (100 mA max at 24 VDC)					
Display		Seven-segment LED display					
ID number		001 to 050					
Ion balance adjustment function		Yes					
Maximum number of linkable units		7 Units					
Material		Ionizer: ABS-resin, facing electrodes: Stainless steel					
Ambient temperature range		Operating: 10 to 40°C, Storage: 0 to 40°C (with no icing or condensation)					
Ambient humidity range		Operating: 35% to 65%, Storage: 35% to 85% (with no condensation)					
Weight (Ionizer only)		Approx. 0.58 kg	Approx. 0.64 kg	Approx. 0.8 kg	Approx. 0.94 kg	Approx. 1.28 kg	Approx. 1.5 kg
Accessories		Two mounting brackets, two M4 screws, instruction manual				Two mounting brackets, two M4 screws, 1 medium bracket, instruction manual	

*1. Measurement conditions
Installation distance: 50 mm
Airflow: 1 L /min per hole
Frequency: 10 Hz
Charge plate monitor: 150 × 150 mm, 20 pF
Ionization time: (1,000 V→100V/-1,000V→-100V): 1 s max.)

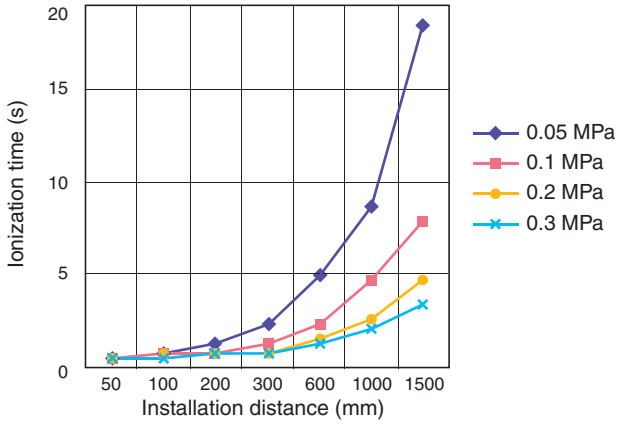
*2. Measurement conditions
Installation distance: 300 mm
Airflow: 1 L /min per hole
Frequency: 10 Hz
Charge plate monitor: 150 × 150 mm, 20 pF

AC Adapter

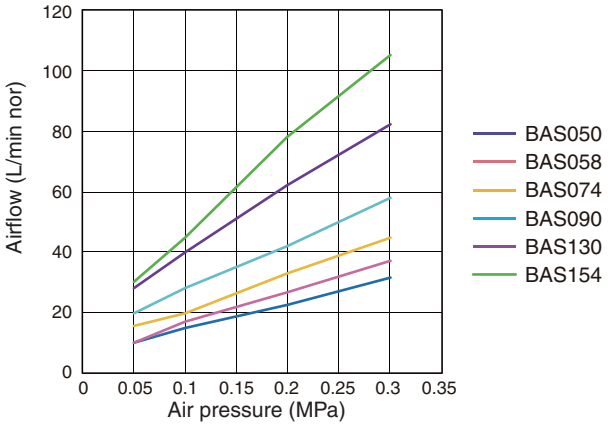
Item / Model	ZJ-BAS-PS01
Input voltage	100 to 240 VAC
Input current	1.2 A max.
Output voltage	24 VDC
Output current	3.75 A max.
Number of output ports	2 ports
Product configuration	Adapter box, AC adapter AC power cable
Weight (without package)	Adapter box: Approx. 30 g AC Adapter: Approx. 475 g AC power supply cable: Approx. 260 g

Engineering Data (Reference Value)

Relationship of Air Pressure and Installation Distance to Ionization Time

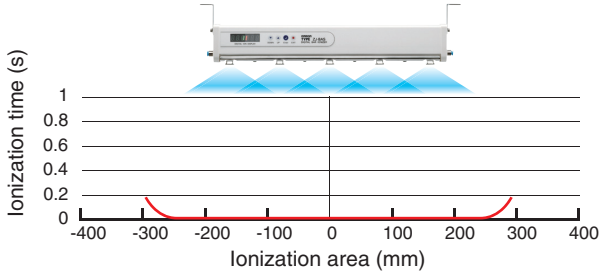


Bar Length vs. Air Pressure and Airflow



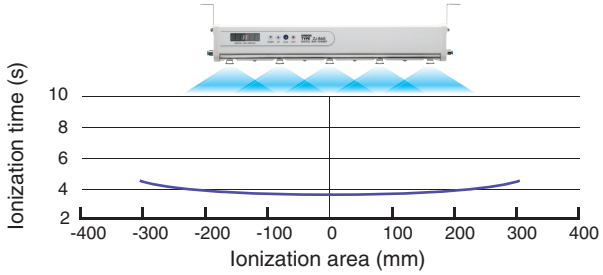
Ionization Time for Each Ionization Area

With installation distance of 50 mm (reference value)



Measuring conditions:
Model: ZJ-BAS050
Installation distance: 50 mm
Air pressure: 0.3 MPa
Frequency: 10 Hz
Charge plate monitor: 150 mm × 150 mm, 20 pF
Ionization time: ±1,000 V to ±100 V

With installation distance of 1,500 mm (reference value)



Measuring conditions:
Model: ZJ-BAS050
Installation distance: 1,500 mm
Air pressure: 0.3 MPa
Frequency: 10 Hz
Charge plate monitor: 150 mm × 150 mm, 20 pF
Ionization time: ±1,000 V to ±100 V

Safety Precautions

⚠ WARNING

This product is not designed or rated for ensuring safety of persons either directly or indirectly.
Do not use it for such purposes.

Precaution for Correct Use

Do not use the product in atmospheres or environments that exceed product ratings.

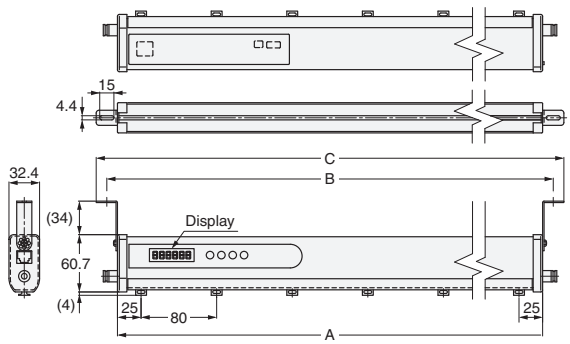
This document provides information mainly for selecting suitable models. Information such as the usage precautions is not contained herein.
Be sure to read the instruction manual before using the product.

For technical information and product FAQs, refer to the *Technical Guide* on your OMRON website.

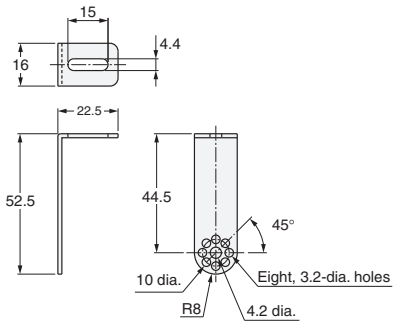
Dimensions

(Unit: mm)
Tolerance class IT16 applies to dimensions in this data sheet unless otherwise specified.

Ionizer



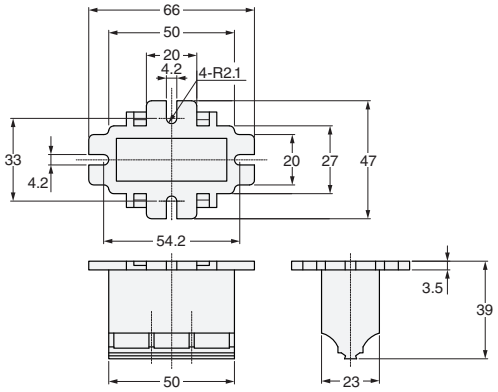
Mounting bracket



The dimensions and number of Discharge Electrode Modules for each model are shown in the following table.

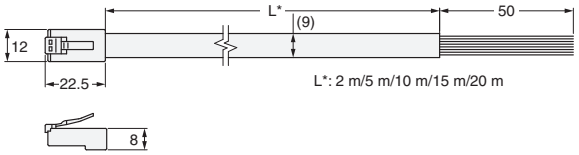
Model	A (mm)	B (mm)	C (mm)	Discharge Electrode Module
ZJ-BAS050	370	394	416	5
ZJ-BAS058	450	474	496	6
ZJ-BAS074	610	634	656	8
ZJ-BAS090	770	794	816	10
ZJ-BAS130	1,170	1,194	1,216	15
ZJ-BAS154	1,410	1,434	1,456	18

Auxiliary mounting bracket
Provided with the ZJ-BAS130/BAS154

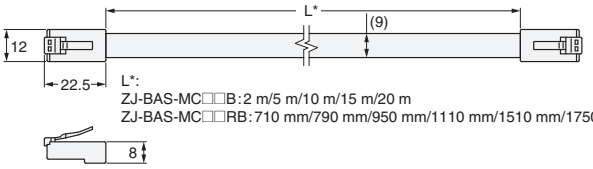


Power Supply Cable

ZJ-BAS-MC□□A

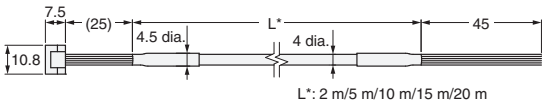


ZJ-BAS-MC□□B/MC□□RB



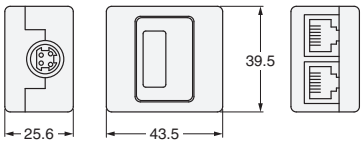
I/O Cable

ZJ-BAS-FC□□A



AC Adapter (Adapter box)

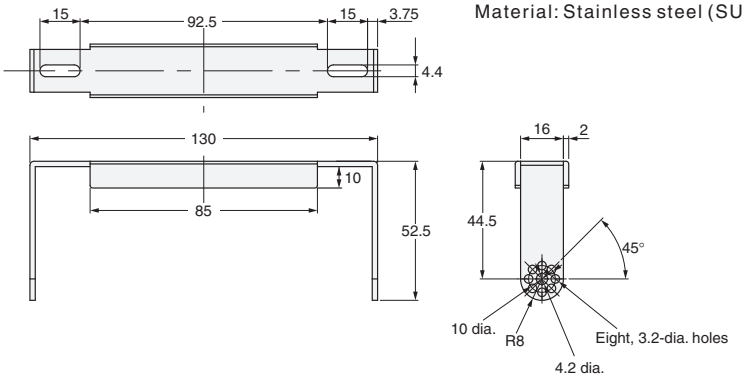
ZJ-BAS-PS01



Linking Bracket

ZJ9-BAS-L01

Material: Stainless steel (SUS304)



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