

Ionizer (Digital Bar Type) ZJ-BAS

CSM_ZJ-BAS_DS_E_2_3

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.

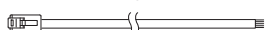


Power supply cable

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.

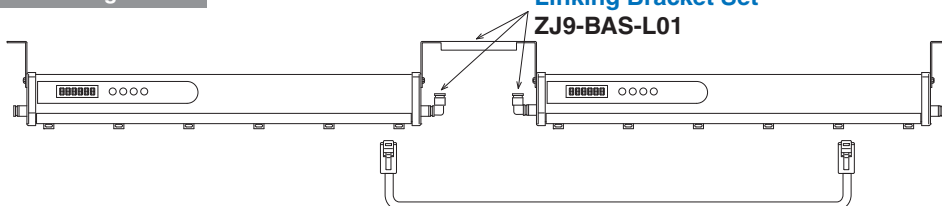


AC Adapter ZJ-BAS-PS01



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
	Used for connecting ionizers	20 m	ZJ-BAS-MC20B
		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 $\pm 10\%$, 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 k Ω					
	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.)

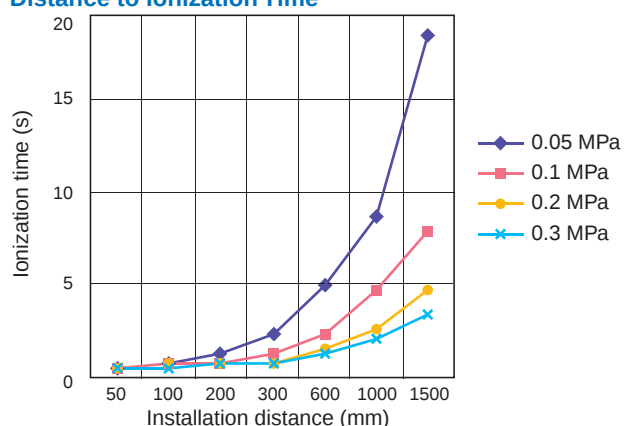
*2. Measurement conditions
 Installation distance: 300 mm
 Airflow: 1 L /min per hole
 Frequency: 10 Hz
 Charge plate monitor: 150 × 150 mm, 20 pF

AC Adapter

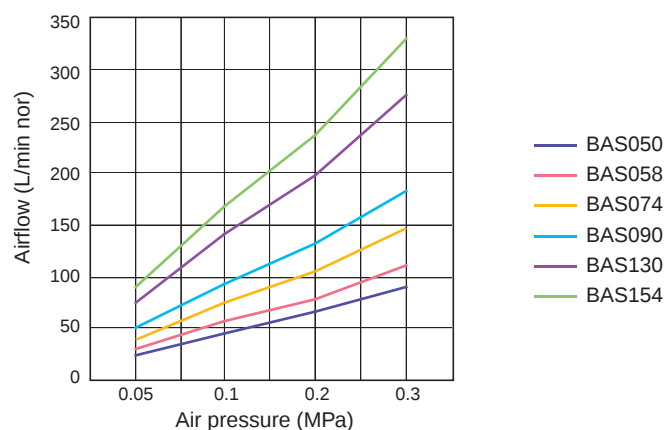
Item	Model	ZJ-BAS-PS01
Input voltage		100 to 240 VAC
Input current		1.2 A max.
Output voltage		24 VDC
Output current		3.75 A max.
Number of output ports		2 ports
Product configuration		Adapter box, AC adapter AC power cable
Weight (without package)		Adapter box: Approx. 30 g AC Adapter: Approx. 475 g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

Engineering Data (Reference Value)

Relationship of Air Pressure and Installation Distance to Ionization Time

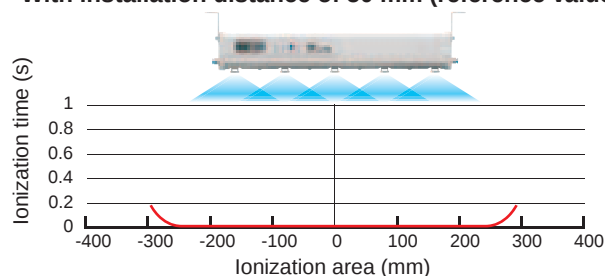


Bar Length vs. Air Pressure and Airflow



Ionization Time for Each Ionization Area

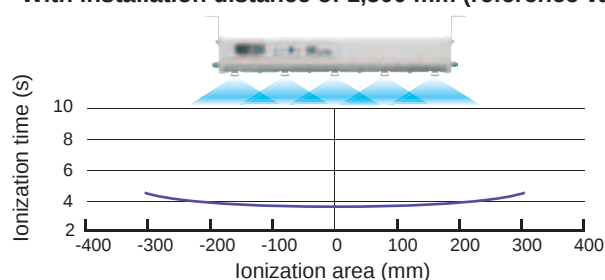
With installation distance of 50 mm (reference value)



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.

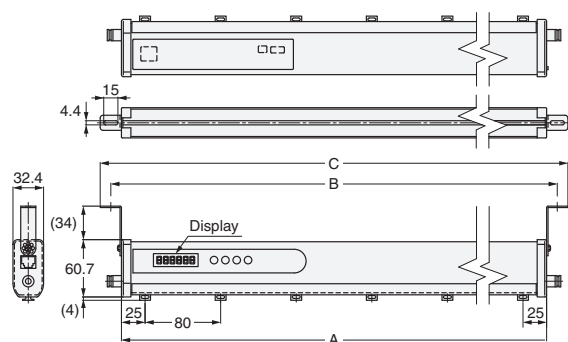
This document provides information mainly for selecting suitable models. Information such as the usage precautions is not contained herein. Be sure to read the instruction manual before using the product.

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

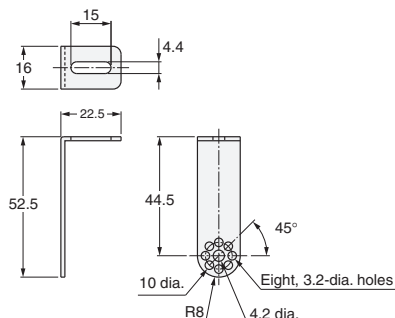
Dimensions

Tolerance class IT16 applies to dimensions in this data sheet unless otherwise specified.

Ionizer



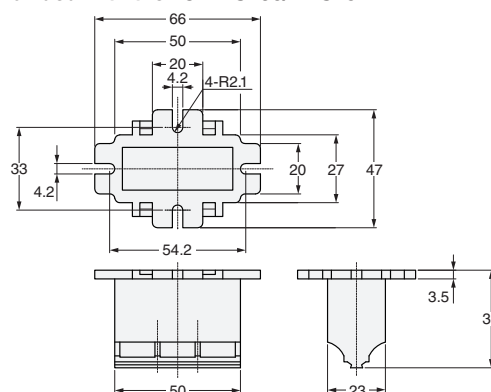
Mounting bracket



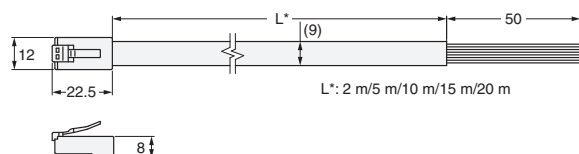
The dimensions and number of Discharge Electrode Modules for each model are shown in the following table.

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

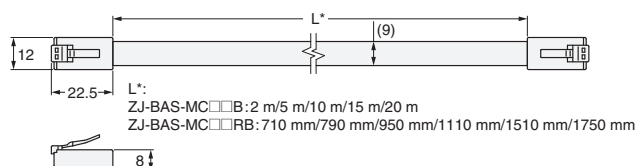
Auxiliary mounting bracket Provided with the ZJ-BAS130/BAS154



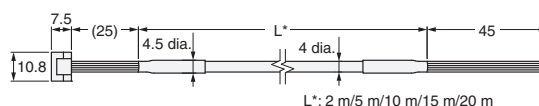
Power Supply Cable ZJ-BAS-MC□□A



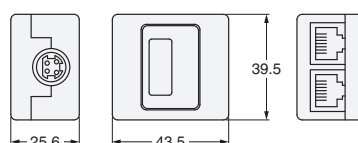
ZJ-BAS-MC□□B/MC□□RB



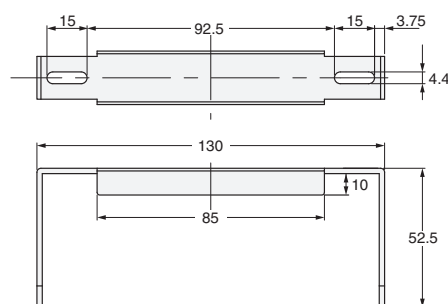
I/O Cable ZJ-BAS-FC□□A



AC Adapter (Adapter box) ZJ-BAS-PS01



Linking Bracket ZJ9-BAS-L01



Material: Stainless steel (SUS304)

