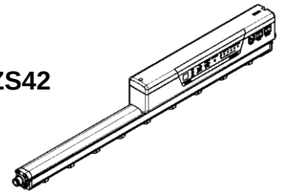
ORIGINAL INSTRUCTIONS

Instruction Manual
Ionizer - Bar type
Series IZS40 / IZS41 / IZS42



The intended use of this product is to neutralize charged objects.

1 Safety Instructions

These safety instructions are intended to prevent hazardous situations and/or equipment damage. These instructions indicate the level of potential hazard with the labels of “Caution,” “Warning” or “Danger.”
They are all important notes for safety and must be followed in addition to International Standards (ISO/IEC) *1), and other safety regulations.

*1) ISO 4414: Pneumatic fluid power - General rules relating to systems.
ISO 4413: Hydraulic fluid power - General rules relating to systems.
IEC 60204-1: Safety of machinery - Electrical equipment of machines. (Part 1: General requirements)
ISO 10218-1: Robots and robotic devices - Safety requirements for industrial robots - Part 1: Robots.

- Refer to product catalogue, Operation Manual and Handling Precautions for SMC Products for additional information.
- Keep this manual in a safe place for future reference.

⚠ **Caution**	Indicates a hazard with a low level of risk, which if not avoided, could result in minor or moderate injury.
⚠ **Warning**	Indicates a hazard with a medium level of risk, which if not avoided, could result in death or serious injury.
⚠ **Danger**	Indicates a hazard with a high level of risk, which if not avoided, will result in death or serious injury.

⚠ Warning

- **Always ensure compliance with relevant safety laws and standards.**
- All work must be carried out in a safe manner by a qualified person in compliance with applicable national regulations.

1.1 Safety instructions

⚠ Warning

- **This product is intended for use in general factory automation.**
  Consult SMC beforehand when using this product for other intentions.
- **Use within the specified voltage and temperature range.**
  Operation with a voltage other than that specified can cause malfunction, damage to the product, electric shock or fire.
- **Use clean compressed air as fluid.**
  Never use flammable or explosive gas as fluid. This may lead to fire or explosion. If fluid other than compressed air is used, consult SMC.
- **The product is not designed to be explosion proof.**
  Never use in an atmosphere of potential dust explosion, flammable gas or explosive gas. It may cause fire.

⚠ Caution

- **Clean specification is not available with this product.**
  This product has not suitable for a clean room environment. When using this product in a clean room environment, flush and confirm the product’s purification level before use. A minute amount of particles are generated due to wearing of the emitters while the ionizer is operating.

Refer to the operation manual and catalogue on the SMC website (URL: https://www.smcworld.com) for further Safety Instructions.

2 Installation

2.1 Installation

⚠ Warning

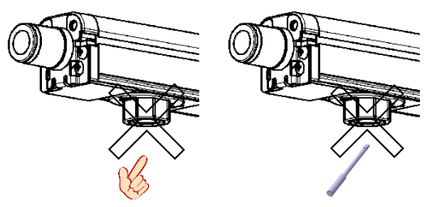
- **Do not install the product unless the safety instructions have been read and understood.**
- **Secure enough space for maintenance, inspection and wiring.**
  When routing cables and tubing, secure sufficient maintenance space for the installation and removal of connectors and one-touch fittings.
  Consider the minimum bending radius of the cables and tubing and avoid bending them at an acute angle so that unreasonable stress is not applied to the mounting parts of the connectors and One-touch fittings. Position the connectors and One-touch fittings as close as possible.
  Routing of the wiring and cables in unreasonable positions may cause malfunction, broken cables, and fire.

  [Minimum bending radius] Power supply cable: 38 mm
  Transition wiring cable: 38 mm
  Sensor cable: 25 mm

  Note: This is the minimum bend radius at 20ºC. If the installation is at a lower temperature, the radius will be higher. When the cables are bent at a lower temperature than 20 ºC it may cause unreasonable force to be applied to the connectors.
- **Mount on a flat surface.**
  Mounting on an uneven surface will apply excessive force to the housing and bracket, which may lead to damage or failure. Do not drop the product or subject it to a strong impact.
- **Install the product so that the entire bar does not have an excessive deflection.**
  For a bar length of 820 mm or more, support the bar at both ends and in the centre using brackets (IZS40-BM). If the bar is held only at each end, the bar weight causes deflection, resulting in damage to the bar.
- **Avoid installing in a place where noise (electromagnetic wave and surge) is generated.**
  It may cause malfunction, deterioration or damage to internal components. Take measures to prevent noise at its source and avoid power and signal lines from coming into close contact.
- **Use the correct tightening torque.**
  If the screws are tightened in excess of the specified torque range, it may damage the mounting screws, mounting brackets, etc. If the tightening torque is insufficient, the mounting screws and brackets may become loose.
- **Do not directly touch the emitters with your finger or tools.**
  Do not directly touch the emitter with your finger. If the emitter sticks to your finger, or electrical shock makes an instantaneous rapid body motion to escape from the shock, your body may touch the equipment around you, causing injury. If emitter or cartridge is damaged by tools, etc., it may interfere with the specified function and performance, and may also cause operation failure and accident.

⚠ Caution: High Voltage

High voltage is applied to the emitters. Never touch the emitters. Inserting foreign matter into the cartridge or touching emitter may cause electric shock and instantaneous rapid body motion to escape from the shock. Your body may then impact the equipment around you, causing injury.

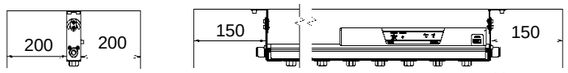


- **Do not adhere tape or labels on the product body.**
  If the tape or label contains conductive adhesive or reflective paint, it is possible that due to the dielectric effect, charge could build up causing an electro-static discharge or electrical leakage.
- **Be sure to disconnect the power supply and air supply to the product before starting the installation.**

2 Installation (continued)

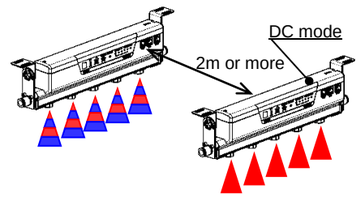
⚠ Caution

- **Install the IZS4✱ series ionizer maintaining a distance from a wall, etc. as shown in the figure below.**
  When there is a wall or an object within the area shown in the figure, generated ions may not reach the workpiece effectively, resulting in deterioration of efficiency.



Unit: mm

- **Make sure to confirm the effect of de-ionization after installation.**
  The effect of the ionizer varies depending on the surrounding installation and operating conditions. Confirm the effect of static electricity elimination after installation.
- **When installing IZS41 or IZS42 in proximity with an ionizer which operates in DC mode, they should be positioned at least 2 meters away from each other.**
  When IZS41 or IZS42 is used close to an ionizer which operates in DC mode, separate the ionizers at least 2 meters. Offset voltage may not be adjusted by the internal sensor due to the ions which are discharged from the DC mode ionizer.



2.2 Environment

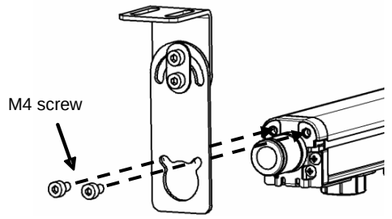
⚠ Warning

- **Do not use in an environment where corrosive gases, chemicals, salt water or steam are present.**
- **Do not use in an explosive atmosphere.**
- **Do not expose to direct sunlight. Use a suitable protective cover.**
- **Do not install in a location subject to vibration or impact. Check the product specifications.**
- **Do not mount in a location exposed to radiant heat.**
- **Operate the product within the specified fluid and ambient temperature range.**
  The fluid and ambient temperature ranges are; 0 to 40 ºC for Ionizer, 0 to 50 ºC for feedback sensor and auto balance sensor (high accuracy type), 0 to 40 ºC for AC adapter, and 0 to 45 ºC for remote controller. Avoid sudden temperature changes even within the specified temperature range, as it may cause condensation.
- **Do not use this product in an enclosed space.**
  This product utilizes the corona discharge phenomenon. Although the amount is very small, Ozone and NOx are generated. Do not use in an enclosed space.
- **Environments to avoid**
  Never use or store the product under the following conditions:
  a. Areas where ambient temperature exceeds the operating temperature range.
  b. Areas Where ambient humidity exceeds the operating humidity range.
  c. Areas where abrupt temperature changes may cause condensation.
  d. Areas where corrosive gas, flammable gas or other volatile flammable substances are stored.
  e. Areas where the product may be exposed to conductive powder such as iron powder or dust, oil mist, salt, organic solvent, machining chips, particles or cutting oil (including water and any liquids), etc.
  f. Paths of direct air flow, such as air conditioners.
  g. Enclosed or poorly ventilated areas.
  h. Locations that are exposed to direct sunlight or heat radiation.
  i. Areas where strong electromagnetic noise is generated, such as strong electrical and magnetic fields or supply voltage spikes.
  j. Areas where the product is exposed to static electricity discharge.
  k. Locations where strong high frequency is generated.
  l. Locations that are subject to potential lightning strikes.
  m. Areas where the product may be exposed to direct impact or vibration.
  n. Areas where the product may be subjected to forces or weight that could cause physical deformation.

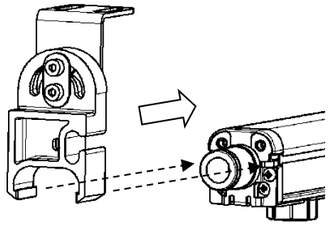
2 Installation (continued)

2.3 Mounting and installation of the bracket

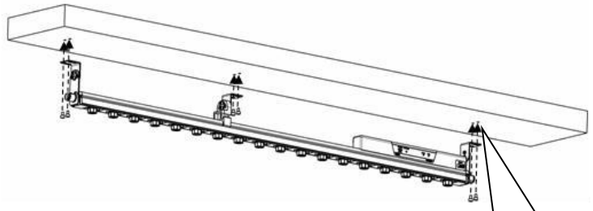
1) End bracket
Mount an end bracket on both ends of the ionizer body using the M4 screws supplied. Tightening torque: 1.3 to 1.5 N•m.



2) Intermediate bracket (for bar lengths of 820 mm or more)
Align the groove of the ionizer body and the protrusion on the intermediate bracket and slide the bracket on to the end of the ionizer body. Intermediate brackets should be mounted at the same intervals.

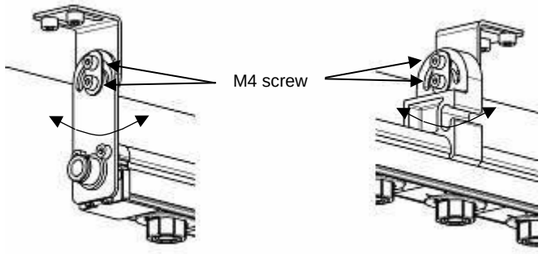


3) Installation of the ionizer (when using brackets)
Use M5 screws at the bracket mounting positions for installation of the Ionizer and fix the ionizer body and brackets.
IZS40 and IZS41 are constructed such that the bracket mounting positions on both ends of the bar are shared with F.G. Use caution to avoid short-circuit with the +24V power supply when installing and supplying power.



4) Mounting angle adjustment
Adjust the angle of the ionizer body for effective de-ionizing and fix the ionizer position using an M4 screw at each bracket.

End bracket screw tightening torque: 1.3 to 1.5 N•m.
Intermediate bracket screw tightening torque: 0.73 to 0.75 N•m.



End bracket Intermediate bracket

2 Installation (continued)

2.4 Piping

Caution

- Before piping make sure to clean up chips, cutting oil, dust etc.
- Flush the piping before connecting. Verify that all dust, moisture, oil, etc. are eliminated from the piping before connecting.
- **Do not use air containing mist and / or dust.**
  Air containing mist and / or dust may cause deterioration of performance and reduce the maintenance cycle.
  Install a dryer (IDF series), air filter (AF/AFF series), or mist separator (AFM/AM series) to obtain clean compressed air (air quality of Class 2.6.3 or higher according to ISO 8573-1: 2001 is recommended for operation).

3 Wiring

3.1 Wiring

Warning

- Ensure that the power supply capacity is large enough, and that voltage is within specification before wiring.
- To maintain product performance, a DC power supply shall be connected per UL listed Class 2 certified by National Electric Code (NEC) or evaluated as a limited power source provided by UL60950.
- To maintain the product performance, ground the product with an earth ground cable with a resistance of 100 ohm or less
- Remove the power supply before wiring (including the connector plug in/out).
- Use a cable with sensor for connection of the ionizer, feedback sensor or auto balance sensor (high accuracy type), and do NOT disassemble or retrofit.
- Ensure the safety of wiring and surrounding conditions before supplying power.
- Do not connect or disconnect the connectors (including power source) while the power is ON.
- Malfunctions induced by noise may occur if the wire is installed in the same route as that of power or high-voltage cable. Wire the ionizer independently.
- Confirm that there is no error in wiring before operation. Incorrect wiring will lead to a malfunction or breakage of the product.

3.2 Ground connection of F.G. cable

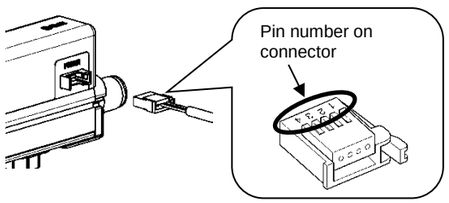
Make sure to ground the F.G. cable (green) with a resistance of 100 ohms maximum.
The F.G. cable is used as a reference electric potential for de-ionization. If the ground terminal F.G. is not grounded, the ionizer will not be able to achieve the optimal offset voltage.

3.3 Ground connection when operating in DC mode

When an IZS40 or IZS41 ionizer is used in DC mode, make sure to ground the F.G. cable (green) and 0 V cable (blue) of the input power supply with a resistance of 100 Ω max. Without grounding the 0 V terminal, the ionizer and / or power supply may be damaged.

3.4 Wiring of IZS40

An e-con connector is used for the IZS40 connector. The connector with or without cable may be selected when ordering for the power supply cable. The e-con connector can be ordered as a spare part.

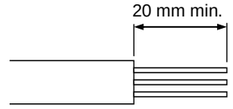


Pin No.	Signal	Description
1	+24 VDC	Power supply to operate the ionizer.
2	0 V	
3	F.G.	Ground connection, resistance 100 Ω max.
4	—	Not used

3 Wiring (continued)

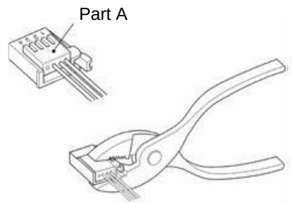
- **How to attach the e-con connector.**

1) Cut the cable sheath as shown in the figure.
   Refer to the following table for the applicable wire size.

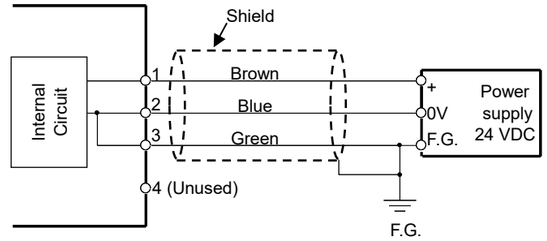


AWG No.	Conductor cross section mm²	Cable O.D. mm	SMC Part No.
26-24	0.14 - 0.2	ϕ0.8 - 1.0	ZS-28-C

2) Insert the cable with cut sheath into the back of the connector.
3) Confirm that the cable is inserted into the back of the connector and press part A with your finger to hold tentatively.
4) Use a tool such as pliers to firmly press Part A.
5) The connector cannot be reused once crimped. If cable insertion fails, use a new connector.

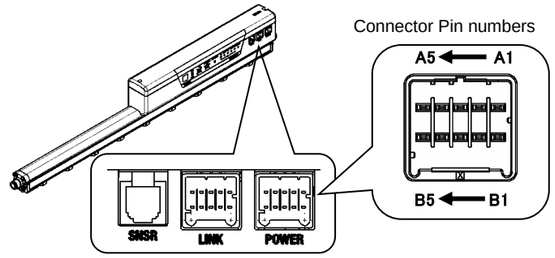


3.5 Ionizer circuit (IZS40)



When an ionizer is used in DC mode, make sure to ground the F.G. cable (green) and 0 V cable (blue) of the power supply with a resistance of 100 Ω max.

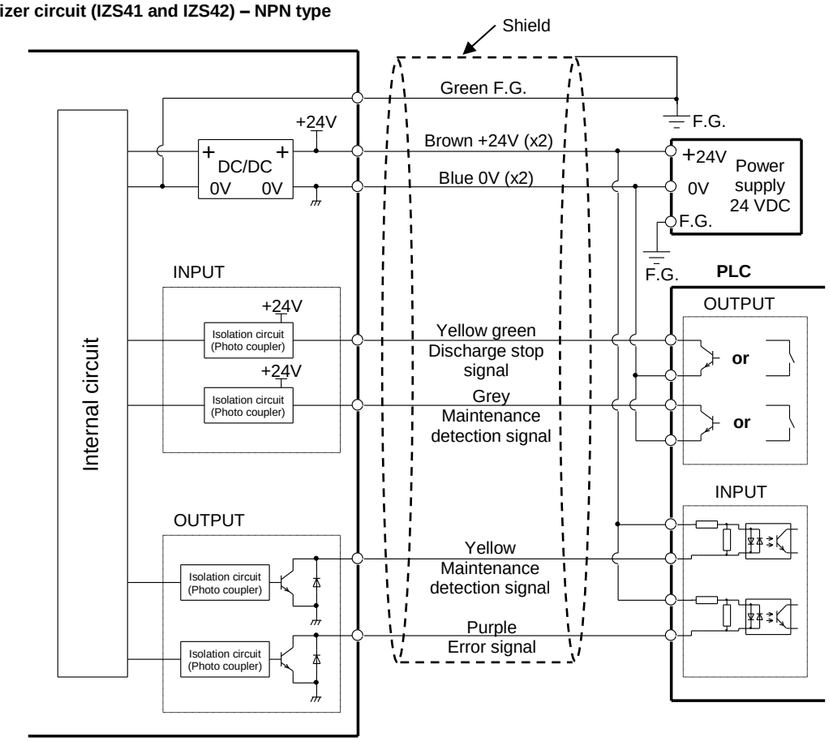
3.6 Wiring of IZS41 and IZS42



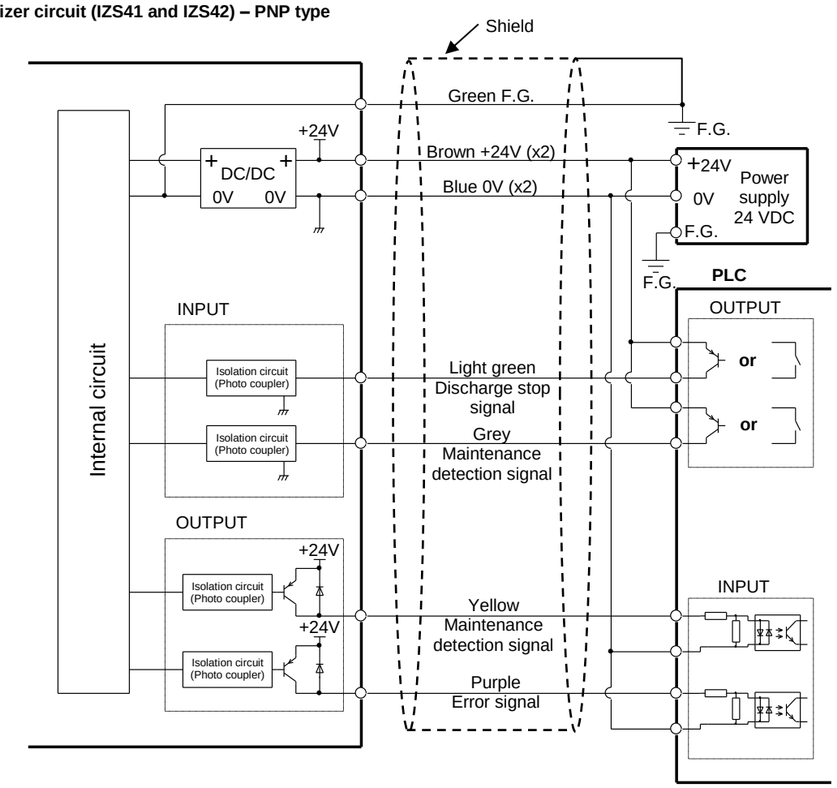
Pin No.	Cable colour	Signal name	Signal direction	Description
A1	Brown	+24 VDC	IN	Power supply to operate the ionizer.
B1				
A2	Blue	0 V	IN	
B2				
A3	Green	F.G.	-	Ground connection, resistance 100 Ω max.
B3	Light green	Discharge stop signal	IN	Input signal to turn ON / OFF the ion discharge. NPN: Stop ion discharge when connected to 0 V. PNP: Stop ion discharge when connected to +24V.
A4	Grey	Maintenance detection signal	IN	Input signal to find if maintenance of emitter is necessary.
B4	Yellow	Maintenance detection signal	OUT (Contact A)	ON when emitter needs cleaning.
A5	Purple	Error signal	OUT (Contact B)	ON when there is no problem. OFF if any failure or error occurs.
B5	White	Not used	-	

3 Wiring (continued)

3.7 Ionizer circuit (IZS41 and IZS42) – NPN type



3.8 Ionizer circuit (IZS41 and IZS42) – PNP type



When an ionizer (IZS41 or IZS42) is used in DC mode, make sure to ground the F.G. cable (green) and 0V cable (blue) of the power supply with a resistance of 100 Ω max. Without grounding the 0V terminal, the ionizer and/or connected power supply may be damaged.

4 Specifications

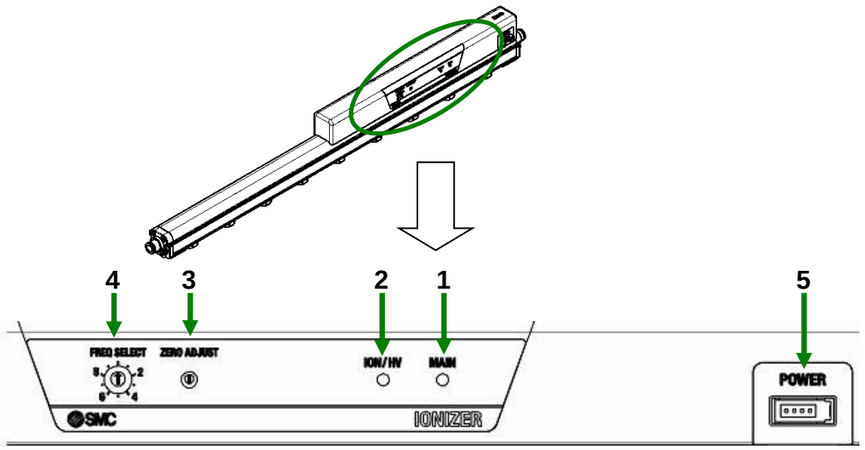
4.1 General specifications

Model		IZS40	IZS41-** (NPN)	IZS41-**P (PNP)	IZS42-** (NPN)	IZS42-**P (PNP)
Ion generation type		Corona discharge				
Voltage supply type		AC, DC	AC, Sensing AC, DC		Dual AC	
Applied voltage		+/ - 7,000 V			+/ - 6,000 V	
Offset voltage*1)		+/ - 30 V				
Air purge	Fluid	Air (clean and dry)				
	Operating pressure	0.5 MPa or less				
	Proof pressure	0.7 MPa				
	Tube O.D.	ϕ6, ϕ8, ϕ10				
Current consumption		330 mA or less	440 mA or less (for sensing AC, automatic operation and manual operation modes, 480 mA or less)		700 mA or less (for automatic operation and manual operation modes, 740 mA or less)	
Power supply voltage		24 VDC +/ - 10 % (100 to 240 VAC: optional AC adapter)				
Power supply voltage in a transition wiring		-	24 to 26.4 VDC			
Input signal	Discharge stop signal	-	Connect to 0V Voltage range: 5 VDC or less Current consumption: 5 mA or less	Connect to +24V Voltage range: 19 VDC to supply voltage Current consumption: 5 mA or less	Connect to 0V Voltage range: 5 VDC or less Current consumption: 5 mA or less	Connect to +24V Voltage range: 19 VDC to supply voltage Current consumption: 5 mA or less
	Maintenance detection signal					
Output signal	Maintenance detection signal	-	Maximum load current: 100 mA Residual voltage: 1 V or less (Load current 100 mA) Maximum applied voltage: 26.4 VDC	Maximum load current: 100 mA Residual voltage 1 V or less (Load current 100 mA)	Maximum load current: 100 mA Residual voltage: 1 V or less (Load current 100 mA) Maximum applied voltage: 26.4 VDC	Maximum load current: 100 mA Residual voltage 1 V or less (Load current 100 mA)
	Error signal					
Function		Incorrect high voltage ion discharge detection	Offset Voltage control with built-in sensor, maintenance detection, incorrect high voltage ion discharge detection (stops discharge during detection), ion discharge stop input, transition wiring, remote controller (option), external sensor connection			
Effective de-ionizing distance		50 to 2000 mm	50 to 2000 mm (Sensing AC mode: 200 to 2000 mm, Manual operation / Automatic operation modes: 100 to 2000 mm)		50 to 2000 mm (Manual operation / Automatic operation modes: 100 to 2000 mm)	
Ambient/ Fluid temperature		0 to 40 °C				
Ambient humidity		35 to 80 %Rh (no condensation)				
Material		Ionizer cover: ABS, Emitter cartridge: PBT, Emitter: Tungsten, Single crystal silicon				
Shock resistance		100 m/ s^2				

*1) When the air purge is performed between a charged object and an ionizer at a distance of 300 mm.

5 Name and function of parts

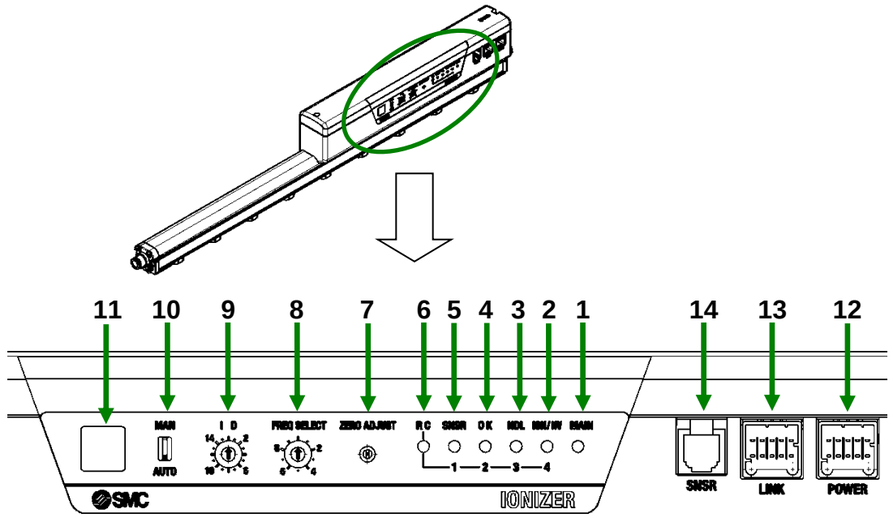
5.1 Description and Functions of the Panel (IZS40)



No.	Description	Panel indication	Type	Operation
1	Power supply LED	MAIN	LED (Green)	ON when power is supplied, and flashes during power supply voltage failure or CPU operation failure.
2	Ion discharge / Incorrect high voltage LED	ION/ HV	LED (Green) / LED (Red)	ON (green) when ions are discharged, and flashes (red) during incorrect ion discharge.
3	Offset voltage adjustment	ZERO ADJUST	Trimmer	Used for offset voltage adjustment. Rotating trimmer clockwise increases positive ions and rotating counter-clockwise increases negative ions.
4	Frequency Set Switch	FREQ SELECT	Rotary switch	Used to set ion generation frequency.
5	Power supply connector	POWER	Connector (e-con)	Used to supply power for ionizer operation and to connect grounding to obtain reference potential.

5 Name and function of parts (continued)

5.2 Description and Functions of the Panel (IZS41, IZS42)



No.	Description	Panel indication	Type	Operation
1	Power supply LED	MAIN	LED (Green)	ON when power is supplied, and flashes during power supply voltage failure or CPU operation failure.
2	Ion discharge/ Incorrect high voltage LED	ION/ HV	LED (Green)/ LED (Red)	ON (green) when ions are discharged, flashes green during over current output, and ON (red) during incorrect ion discharge. Also flashes red during CPU operation failure.
3	Maintenance LED	NDL	LED (Green)	ON when contamination is detected on the emitter. Flashes during CPU operation failure while contamination is being detected.
4	Balance complete LED	OK	LED (Green)	ON when offset voltage adjustment is completed in manual operation mode, or when the ionizer is operating with the data adjusted in manual operation. Flashes during offset voltage adjustment. Also flashes when the ionizer fails to adjust the offset voltage in manual operation mode, as well as the maintenance LED turns ON and the maintenance output turns ON. Also flashes during CPU operation failure.
5	Sensor LED	SNSR	LED (Green) / LED (Red)	ON (green) when feedback sensor or auto balance sensor is connected correctly and turns ON (red) when there is a problem. Also flashes red during CPU operation failure.
6	Remote controller enable LED	RC	LED (Green)	ON when remote controller setting is enabled, turns OFF when it is disabled, and flashes when a signal is received. Also flashes during CPU operation failure.
7	Offset voltage adjustment	ZERO ADJUST	Trimmer	Used for offset voltage adjustment. Rotating this trimmer clockwise increases positive ions, and rotating counter-clockwise increases negative ions.
8	Frequency Set Switch	FREQ SELECT	Rotary switch	Used to set ion generation frequency.
9	ID number set switch	ID	Rotary switch	When remote controller is used for more than one ionizer, this switch is used to set an ID number to identify each ionizer (16 ionizers maximum can be identified).
10	Operation Mode Set Switch	MAIN/ AUTO	DIP switch	Sets either manual operation mode (set to MAN) or automatic operation mode (set to AUTO) using an auto balance sensor.
11	Receiving area for remote controller	-	-	Receives infrared rays output from the remote controller (option).
12	Power supply connector	POWER	Connector	Equipped with input / outputs to be connected to the ionizer for power supply, grounding and ionizer control.
13	LINK connector	LINK	Connector	Connector for transition wiring of ionizer.
14	Sensor connection	SNSR	Modular connector	Connects a modular plug for feedback sensor or auto balance sensor. (Feedback sensor can be connected only to IZS41).

6 Maintenance

6.1 General Maintenance

⚠ Caution

- Not following proper maintenance procedures could cause the product to malfunction and lead to equipment damage.
- If handled improperly, compressed air can be dangerous. Maintenance of pneumatic systems should be performed only by qualified personnel.
- Before performing maintenance, turn off the power supply and be sure to cut off the supply pressure. Confirm that the air is released to atmosphere.
- After installation and maintenance, apply operating pressure and power to the equipment and perform appropriate functional and leakage tests to make sure the equipment is installed correctly.
- Do not make any modification to the product.
- Do not disassemble the product, unless required by installation or maintenance instructions.

6.2 Maintenance and Inspection

⚠ Warning

- **Perform maintenance regularly to keep the emitters clean.**
  Perform regular maintenance of the product to prevent undetected failures. The maintenance must be carried out by an operator who has sufficient knowledge and experience. If the product is used for an extended period of time with dust is present on the emitters, the product's ability to eliminate static electricity will be reduced.
  If the emitters become worn and the product's ability to eliminate static electricity is not restored after cleaning, replace the cartridge.
- **Make sure to remove power and air supply from the product before cleaning the emitters or replacing the cartridges.**
  If the emitters are touched while the product is energized, this may cause an electric shock or accident.
  If an attempt to replace the cartridges is performed before removing air supply, the cartridges may eject unexpectedly due to presence of the supply air. Remove air supply before replacing the cartridges. If cartridges are not securely mounted to the bar, they may eject or release when air is supplied to the product. Securely mount or remove the cartridges referencing the instructions shown below.
- **Perform contamination detection of the emitter without workpiece. (IZS41 and IZS42)**
  While emitter detects contamination, ionizer discharges positive ions and negative ions for contamination detection.

⚠ Caution: High Voltage

This product contains a high voltage generation circuit. When performing maintenance inspection, be sure to confirm that the power supply to the ionizer is turned off. Never disassemble or modify the product, as this can cause loss of product functionality, and there is also a risk of electric shock and earth leakage.

- **Do not disassemble or modify the product.**
  This may lead to accidents such as electric shock, failure, fire or etc. If the product is disassembled and/or modified, the functions and performance in the specifications may not be achieved and the product will not be guaranteed.
- **Do not operate the product with wet hands.**

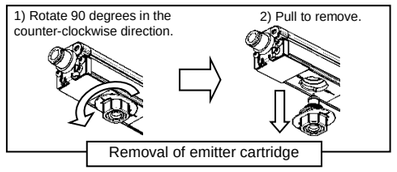
6.3 Detection and cleaning of contamination on the emitter

⚠ Caution

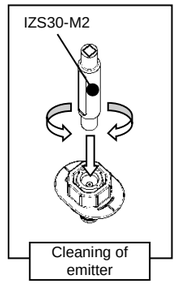
- If the ionizer is used for a long time, contamination such as dust can stick to the emitters, reducing the static electricity elimination performance. For this reason, IZS41 and IZS42 have a contamination detecting function.
- Dirt detection is performed when a contamination detection signal from an emitter is input. When the emitter requires cleaning due to deterioration of de-ionizing ability, the maintenance signal turns ON and maintenance LED also turns ON to notify the timing of cleaning. When the maintenance LED turns ON, make sure to clean the emitter. (Ionizer keeps operating even after the maintenance signal and maintenance LED turn ON.)
- Dirt detection of emitters should be performed without a workpiece, as it is performed with ions discharged from the ionizer at a regular cycle and this may electrify the workpiece.
- Clean the emitters with the emitter cleaning kit [IZS30-M2] or a cotton swab soaked in alcohol.

6 Maintenance (continued)

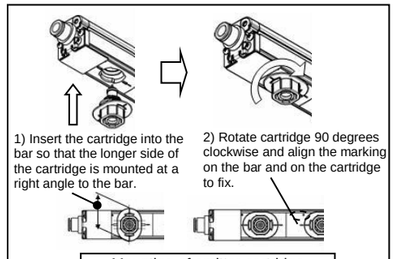
- In cases where the emitter contamination detection function is not used or when the IZS40 does not have a contamination detection function, as contamination on the emitters may vary depending on the installation environment and supply pressure, etc., confirm the product performance and set a maintenance cycle for a periodic cleaning.
- Make sure to turn OFF the power and air supply before cleaning the emitters. If the emitters are touched while the product is energized, it may cause an electric shock or accident. Do not touch the end of the emitters. As emitters have a sharp end, touching them directly with your fingers may cause injury.
- If the maintenance signal is output upon completion of cleaning the emitter, it may not have been cleaned sufficiently or it may have been worn or damaged. If wear or damage of the emitter is detected, replace the emitter cartridge with a new one. (If the emitter is worn out or damaged, the static electricity elimination performance will decrease.)
- Refer to the figure below for mounting, removal and cleaning of an emitter cartridge.



Removal of emitter cartridge



Cleaning of emitter



Mounting of emitter cartridge

7 Limitations of Use

7.1 Limited warranty and disclaimer/compliance requirements

Refer to Handling Precautions for SMC Products.

8 Product Disposal

This product shall not be disposed of as municipal waste. Check your local regulations and guidelines to dispose of this product correctly, in order to reduce the impact on human health and the environment.

9 Contacts

Refer to www.smcworld.com or www.smc.eu for your local distributor/importer.

SMC Corporation

URL : https:// www.smcworld.com (Global) https:// www.smc.eu (Europe)
SMC Corporation, 4-14-1, Sotokanda, Chiyoda-ku, Tokyo 101-0021, Japan
Specifications are subject to change without prior notice from the manufacturer.

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