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IN1202 Ionizing Bar Operation Manual

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IN1202 - Ionizing Bar Operation Manual

The IN1202 ionizing bar is designed to reduce static charge in mini-environments, laminar flow hoods and other controlled workstations. The ionizing bar features a unique aerodynamic design that ionizes a local area without disruption laminar flow. It is an highly effective tool in electronics, plastics, chemicals, printing, textile, optical and other industries.

Installation is simple and fast with easy mount clips. Available in three different lengths

Features

1. Aerodynamic bar design
2. Patented ionizing technology
3. Easy to read LED readout for easy use and maintenance
4. Easily adjust the output voltage
5. Fast decay times with excellent ion balance

Specifications

Model	IN1202-22, IN1202-44, IN1202-64
Output voltage	DC±4,±4.25,±4.5,±4.75,±5,±5.25,±5.5,±5.75,±6,±6.25(KV)
Output frequency	0.1，0.3，1，3，5，8，10，20，30，50(Hz)
Duty factor	40%-70%
Power	10W
Working distance	50－2000mm
Ion balance	≤|±30V|（adjust）
Discharge time	≤2S（adjust）
Working temperature	32 - 122 Deg F
Working humidity	＜70%
Air pressure scope	0.1-0.6MPa
Cord length	2.5m

Adjustments

Output Voltage Adjustment
Output HV is adjustable using the toggle switches labeled "HV-Vpp" on ion bar shown in figure 3. The value of the HV output is shown on the LED display.

Output Frequency Adjustment

Output frequency can be adjusted by turning the switch labeled "Cycle" on ion bar shown in figure 3. The value of positive and negative HV frequency is shown on the LED display.

Output Duty Factor Adjustment

Duty factor can adjusted by turning the switch labeled "PWM" on ion bar shown in figure3. The value of positive and negative HV duty factor is shown on the LED display.

High Voltage Alarm

The ion bar will issue an audible alarm and visual indicator (HV Alarm 1) on the LED if a HV error occurs.

Ion Volume Alarm

The ion bar will issue an audible alarm and visual indicator (ION Alarm 2) on the LED if the ion volume dramatically reduces due to component damage.

Electrode Cleaning Alarm

The ion bar will issue an audible alarm and visual indicator (TIP Alarm 3) on the LED if an electrode needs cleaning or for a pre-set scheduled maintenance.

Communication Function

The ion bar can be networked with a PC and be controlled remotely. As shown in Figure 2, the ion bar can connect to a PC via the RMS port on the control panel. Two or more ion bars can be connected in series through the secondary RMS port. At this time, the networking feature is not supported but will be available soon. Contact Transforming Technologies for more information on this feature.

Caution

Changes to the output parameters VPP, Frequency and Duty ration can only be done with power switch is in "STOP" mode. When adjustments are completed, press the "RUN/STOP" button to turn the ion bar to working status.

Optimal Parameters

air pressure (MPa)	distance(mm)	HV VPP(KV)	Duty ratio	frequency (Hz)	Discharge time (S)		Balance (V)			Temp (℃)	Humi (%)
					Positive discharge time	Negative discharge time	MIN	AVE	MAX		
0.1-0.15MPa	300	10.5	50%	8	1.6	1.7	-102.3	11.2	102.5	24	43%

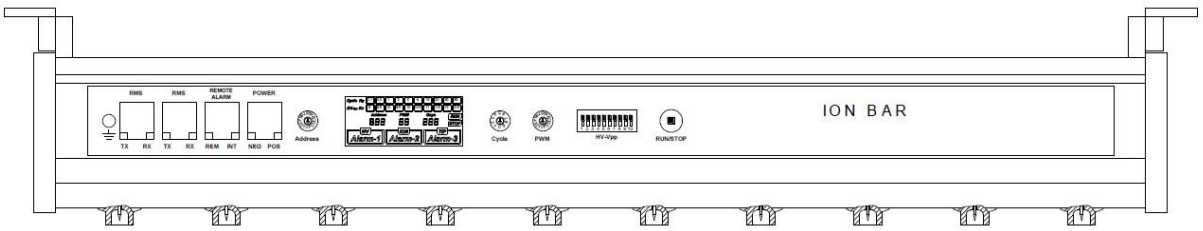
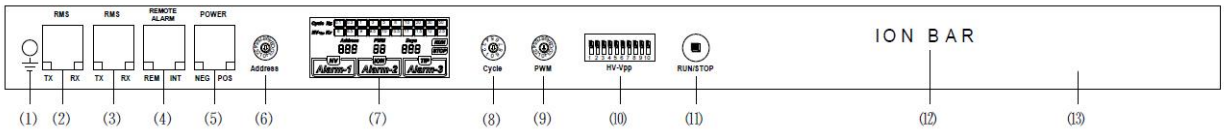
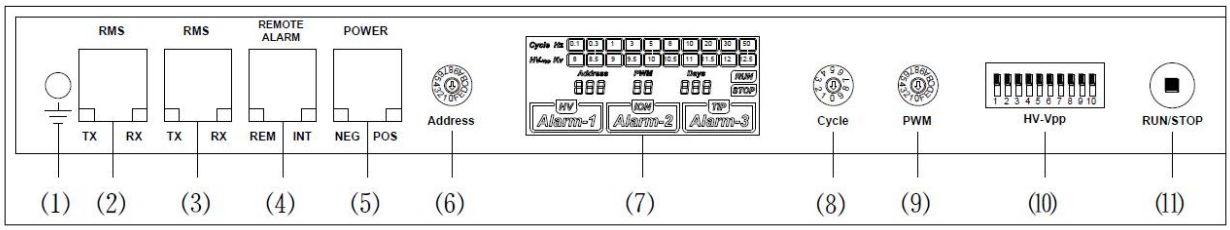


Figure 1. Ion Bar Appearance



(1) earth connection (2) communication port 1 (3) communication port 2 (4) remote control port
(5) power input port (6) network address encoder (7) LED display (8) frequency encoding switch
(9) duty factor encoding switch (10) HV output toggle switch (11) power switch (12) product name
(13) product model



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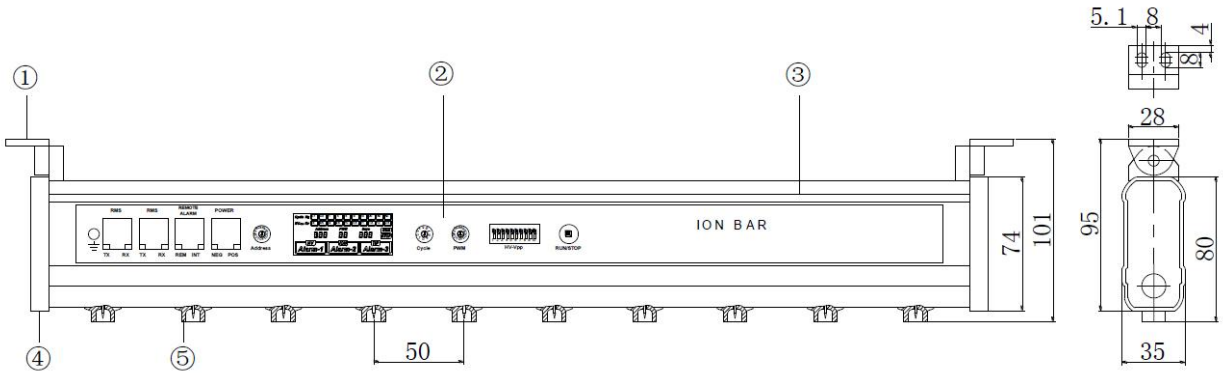
Notice of Safety and Use

1. Read this manual carefully before use.
2. The device must be properly grounded when in use.
3. This device uses high voltage. Do not touch electrodes while in use. Do not open bar without authorization. Internal maintenance and repair must be carried out by professionals.
4. Do not use this device in an environment where the humidity is greater than 75%
5. Do not use this device in combustible and explosive environments.
6. Electrodes must not come in contact with metal conductors.

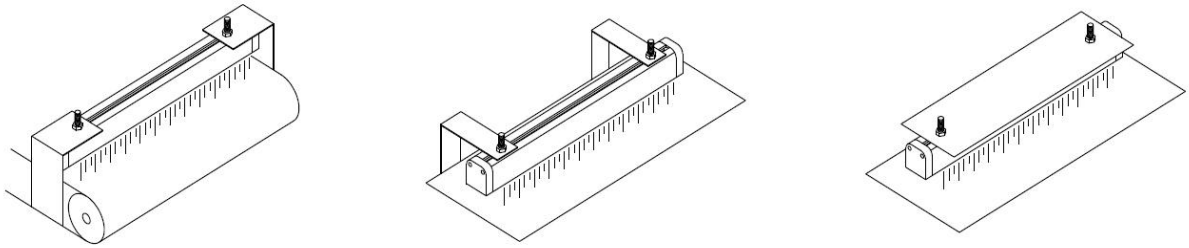
Installation

1. Choose optimal location for ionization and mount the bar and power supply. Bar should be mounted perpendicular to the charged surface.
2. Connect the bar to ground using the screw labeled with the ⏚ symbol.
3. Insert the power cord in the port labels "Power".
4. Connect the air source to the bar via the quick release valve.
5. Turn on the power switch and adjust air pressure to proper levels.

Dimension



Positioning



Maintenance

1. The electrodes must be regularly cleaned to maintain good ionizing performance. Frequency of cleaning is dependent on the cleanliness of the environment and requirements of the ESD program.
2. Power off the ion bar and let sit for 10 minutes.
3. Clean the electrode tip, discharge pad and metal discharge body with alcohol and a clean cloth.
4. Do not power on the ion bar until the components are completely dry.

If the POS/NEG indication stays off, please contact Transforming Technologies for technical support.