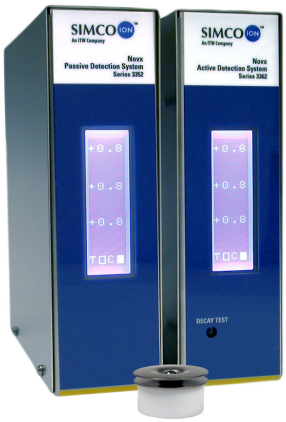
Multichannel Voltage Detection

NOVX MODEL 3352/3362 WITH MINIPULSE OPTION

SIMCO ION™
An ITW Company



The Novx Multi-fan Closed-loop Ionizer Controllers, Model 3352 (Passive) and Model 3362 (Active) provide the capability to simultaneously detect, measure, record, and monitor electrostatic voltages in multiple locations. The versatile antenna options used with these systems allow their use in a variety of applications including monitoring sensitive workstations, in-tool voltages, or ionizer performance with the option of closed-loop control to designated ionizer products. Up to 6 antennas (3 for Ionizer Monitor/Control, 3 for ESD Event Detection) can be connected to an individual instrument. This multi-channel capability provides a cost-effective monitoring solution for multiple areas or ionizers. Data input is actively monitored and logged with time stamps using Calibrator_Reader. The instruments have user-settable thresholds and alarm levels that provide a proactive safeguard for critical areas when interfaced to an alarm output. Out of range conditions can trigger a remote alarm light or audible alarms, shut down a critical process, or make adjustments to designated ionizer.

FEATURES

- ✔ Microprocessor-based controllers, multichannel, digital I/O, auxiliary I/O, local addressability, RS-485/Modbus, or Ethernet data output
- ✔ Passive and Active antenna configurations
- ✔ Precision resolution
- ✔ Programmable closed-loop control for up to 3 designated ionizer[1]
- ✔ Programmable alarm set-points with tool shutdown option
- ✔ Voltage/polarity displays, local LEDs each channel
- ✔ MiniPulse ESD event detection option

BENEFITS

- ✔ Provides easy integration, cost/performance advantages over other monitoring solutions, direct communication to other Novx instruments, or a tool controller.
- ✔ Monitor voltage at distances and ionizer balance; perform In Situ decay testing without the added expense of a CPM
- ✔ Measurement 1V resolution or less (depending on reading), Data Logging with 0.1V resolution
- ✔ Enable closed-loop feedback control to designated ionizers based on balance or decay test results
- ✔ Reduce process variations, decrease scrap/rework, and improve process yields
- ✔ Visual indicators at the instrument
- ✔ Correlation of Electrostatic Charge (ESC) with Electrostatic Discharge (ESD)

1. Except for multi-fans ionizer, such as Model 5810i and Model 5842.

Specification	Model 3352	Model 3362
Input Voltage	24 VDC or Simco-Ion P/N 14-21328	24 VDC or Simco-Ion P/N 14-21328
Antenna	Passive (SMA connector)	Active (Triaxial connector)
Range	0 to ±500V	0 to ±150V
Accuracy	0.5V for <20V, ±5% for >20V	1V for <20V, ±5% for >20V
Decay Testing	N/A	up to 3 channels
Capacity[1]	1, 2, or, 3 ionizers	1, 2, or, 3 ionizers
LCD Display	4-digit	4-digit
LCD Warning	ERR, ALRM	ERR, ALRM
Setpoint	Alarm: Programmable Audible Alarm: ±0.5V (min) Zero: Programmable	Alarm: Programmable Audible Alarm: ±1V (min) Zero: Programmable
Communication	RS-485/Modbus, Ethernet	RS-485/Modbus, Ethernet
Aux Out	Open collector	Open collector
Operating Env	50-90°F (10-32°C) 30-60% RH, non-condensing	50-90°F (10-32°C) 30-60% RH, non-condensing
Enclosure	Stainless Steel	Stainless Steel
Dimension	2.05"W x 6.93"D x 6.50"H (5.21 x 17.6 x 16.5 cm)	2.05"W x 6.93"D x 6.50"H (5.21 x 17.6 x 16.5 cm)
Weight	2.1 lb (0.95 kg)	2.2 lb (1 kg)
Warranty	Two-year limited warranty	Two-year limited warranty
Certification	CE cULus KC RoHS2 UKCA	CE cULus KC RoHS2 UKCA

1. Except for multi-fans ionizer, such as Model 5810i and Model 5842.

Ordering Information

91-3352-01	Novx 3352 Passive Closed-loop Ionizer Controller
91-3362-01	Novx 3362 Active Closed-loop Ionizer Controller
91-3352MP-01	Novx 3352 Passive Closed-loop Ionizer Controller with MiniPulse Option
91-3362MP-01	Novx 3362 Active Closed-loop Ionizer Controller with MiniPulse Option
32-0220	Mounting Bracket, "L" (2 pcs per controller)
33-0521-5	Passive Antenna, 1.75" x 1" Tall with SMA-to-SMA Cable (5 ft)
33-0504	Passive Antenna, 1.75" x 4" Tall with SMA-to-SMA Cable (5 ft)
33-0510-xx	Passive Antenna, 1"Tall with SMA-to-SMA xx ft Cable (xx = 5 or 15)
33-0509-15	Active Antenna Assembly, 5" x 0.5" Tall with 15 ft Triaxial Cable
33-0523-xx	Active Antenna Assembly, 1.75" x 1" Tall with X ft Triaxial Cable (xx = 5 or 20)
33-0507-5	Active Antenna Assembly, 1.75" x 4" Tall with 5 ft Triaxial Cable
33-0530-8	Micro ESD Directional Antenna Assembly MPA-02 with Remote Triaxial Cable (8 ft)
14-21328	100-240 VAC to 24 VDC, 30W power adapter*

* IEC power cord required, please contact Sales Services for detail.

Applications

The **Novx 3352 Passive Multi-fan Closed-loop Controller** connects with passive antennas to detect low-level voltage change and ion balance (≤400V) with sensitivity less than 1V. Antenna connection configurations:

- Monitor voltages on moving targets
- Monitor ionizer balance and provide closed-loop control to ionizer
- Distinguish the proximity of voltages from ionizer signals
- MiniPulse option for ESD Event Detection

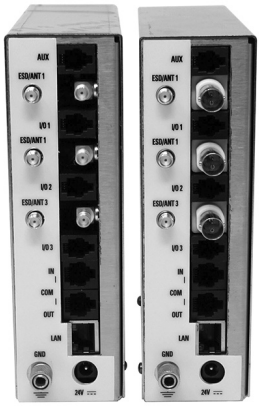
The **Novx 3362 Active Multi-fan Closed-loop Controller** connects to active antennas, providing similar voltage and ion balance detection capability as the 3352 with the addition of decay tests. The antenna acts as a charged plate monitor (CPM) to periodically measure ionizer discharge times at programmable frequencies. A "Decay Test" button is provided on the front panel of the 3362 for manually initiating an ionizer decay test.

Antenna connection configurations:

- Monitor voltages on moving targets
- Monitor ionizer balance and provide closed-loop control to ionizer
- Distinguish the proximity of voltages from ionizer signals
- Perform decay testing automatically or on command
- MiniPulse option for ESD Event Detection

Special Features

Both the Novx 3352 and 3362 feature a front panel which has an LCD screen that displays the voltage and alarm status of each of the three channels in real-time. Each interface with the Novx Calibrator_Reader for a full setup, visual monitoring, and logging capability. Files can be exported for Excel graphing and analysis. These instruments can operate as standalone systems and interface to the process controller to initiate response testing and data reporting.



Calibration

Instruments are shipped calibrated and certified. Calibration must be validated annually to meet ISO certification compliance requirements.

Simco-Ion, Technology Group
1141 Harbor Bay Parkway
Suite 201
Alameda, CA 94502

+1 (800) 367-2452 (in USA)
+1 (510) 217-0460

salesservices@simco-ion.com
www.simco-ion.com/technology

SIMCO ION™
An ITW Company

DS-3352 3362_V6 - 12/25

worldwide leaders in **static control**