

# Technical Data:

| Emitter      | Needles         |
|--------------|-----------------|
| Capacity     |                 |
| NAI 250      | 480 - 1200m³/h  |
| NAI 300      | 650 - 1600m³/h  |
| NAI 450      | 840 - 2100m³/h  |
| NAI 500      | 1070 - 2760m³/h |
| NAI 550      | 960 - 2560m³/h  |
| NAI 600      | 1300 - 3400m³/h |
| Power supply | 230Vac 50/60Hz  |

Approvals/Directive

The second 89/392/CE 2006/42/CE Machine dir. 2004/108/CE EMC-dir. 2006/95/CE Voltage-dir. EN-60204-1 EN-603335-1 IEC335-2-65 EN-60529 EN-50082-2 EN-61000-4-2 EN-61000-4-4 E-50140 EN-50141

## **Features:**

- Built-in high voltage controller
- For new and existing sites
- No adaptation costs
- Electric box adjusted to be cleaned in water
- Multipolar connection for several parallel filters
- Self-centering system, intolerance up to 3mm
- Status indication directly from a LED
- Simple to use
- Safety micro-switch in the access doors

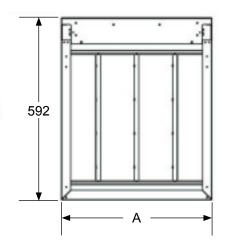
# **Design Features**

Ionization cells have been designed and manufactured for NAI (Negative Air Ions) emission in air installed inside air handling units or air distribution ducts only.

No other uses have been considered.

# The following substances in the air flow or installations must be absolutely avoided:

- water suspension also in low concentrations
- oil vapours combustion smoke
- very high powder concentrations
- metallic shavings and powder
- gases metal powders
- explosive environments





# Order:

SFS 391

| NAI 250  | Ionization Cell 480 - 1200m³/h            |
|----------|---|
| IVAI 230 | •   |
| NAI 300  | Ionization Cell 650 - 1600m³/h            |
| NAI 450  | Ionization Cell 840 - 2100m³/h            |
| NAI 500  | Ionization Cell 1070 - 2760m³/h           |
| NAI 550  | Ionization Cell 960 - 2560m³/h            |
| NAI 600  | Ionization Cell 1300 - 3400m³/h           |
| CA       | Power supply connector 3m cable           |
| CA 1     | Power supply connector 6m cable           |
| CA 2     | Power supply connector 4m cable           |
| CG       | Junction Filter Connector                 |
| CGL      | Cable Junction Filter Connector 0.5m      |
| CT       | Final Connector                           |
| CAR 390  | Alarm Relay                               |
| TBC 920  | 1 Rank Derivation Box                     |
| TBC 921  | 1 Rank Derivation Box with two-color LED  |
| TBC 925  | 3 Ranks Derivation Box with alarm         |
| TBC 926  | 3 Ranks Derivation Box with two-color LED |
|          |   |

Safety Microswitch

## Installation

The NAI ionization cell must be installed after an electrostatic or mechanical high efficiency filtering section, according to the air flow direction shown in the plate.

For easy installation, it is necessary to install in the Air Handling Unit or in the ducting, a sliding type profile, or a frame where the cell is inserted.



Sliding type

The ionization cell NAI must be electrically connected to a voltage of 230V 50/60Hz with the supply connector.

For connection, provide for the electrician, the diagrams shown in this manual.





In case several ionization cells are installed, it is necessary to connect them through the junction connector for power supply from one cell to the following one or - several supply connectors can be used.

The terminal connector must be plugged into the final cell to prevent accidential contacts.

Remove the polystyrene protection (PS) from the needles before start up.

#### **Caution:**

Cell components are sharp and could cause injuries.



# Installation of two or more rows

If several NAI cells are to be connected it is necessary to use a terminal box.

In this way it is possible:

- To provide electric power with a single supply
- To provide one signal for running contact
- To get one single alarm signal

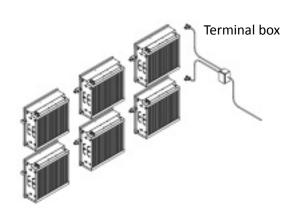


It is compulsory to provide safety micro-switches in the access doors to shut down the power supply opening.

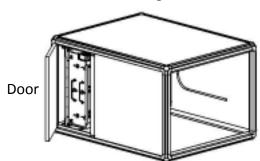
# **NAI Cell Running**

NAI cells must be electrically fed only when the fan is running.

Provide electrical connections and wiring to prevent the NAI cells from running when the fan is shut down or not working properly or when the air flow is not passing through the cells.







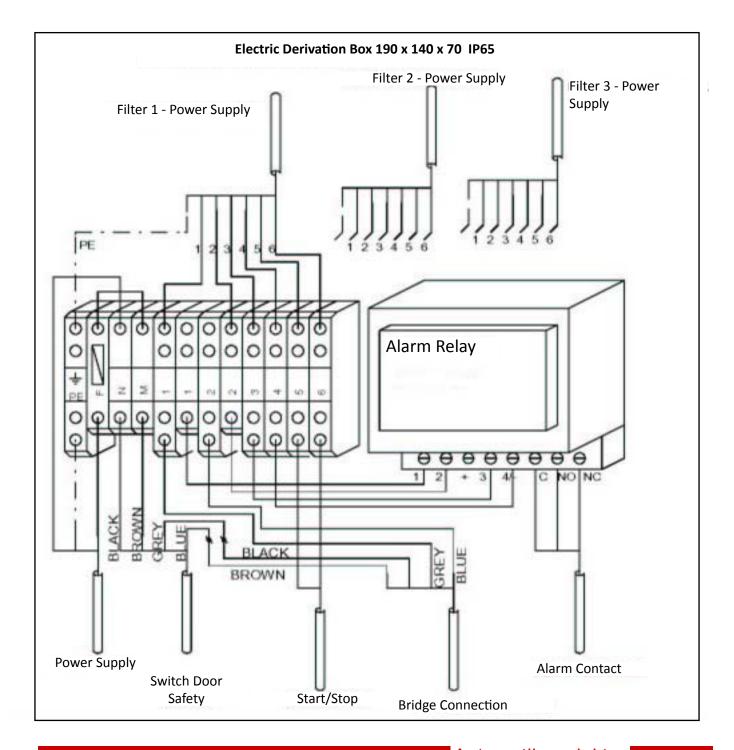
## **Electrical Connections**

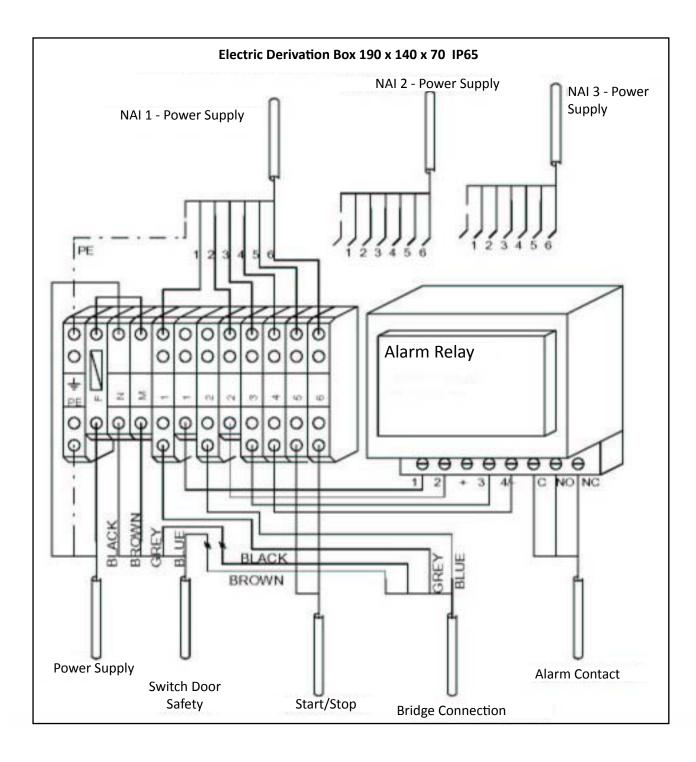
The cable provided with the supply connector is designed to supply electric power at 230Vac 50/60Hz considering 20W of power is installed in each cell.

Through the supply connector and the junction connectors it is possible to connect in sequence a maximum of 200W capacity.

It is possible to get the alarm signal connected to an external device through an optional accessory.

Do not exceed the maxiumum capacity of 200W per supply connector.





# **Electronic Circuit Signal**

A green signalling LED is installed in the NAI ionization cell to monitor directly the running conditions.

The constant green light shows the normal running condition.

The blinking light means that the filter is blocked and the cause of the block must be removed.

The running status or the alarm can be reported through the alarm relay on an external device or on a supervision system.

If no light appears on the LED, check the connections and if no problems are identified, contact the seller or Automatikprodukter.

Signaling LED

