



Project: 15-004 - VA Castle Point Relocation of SPS NY
Submittal ID: 00007
Spec Section: 23 09 23

Furnish as Submitted

Review is for general conformance with plans and specifications given in the Contract Documents. Contractor is solely responsible for dimensions, quantities, performance, safety, coordination with other work, and all other requirements of the Contract Documents. Review does not authorize changes to the Contract unless stated specifically in a separate letter or Change Order.

Reviewed By: Bob Maxwell
Reviewed On: 7/3/2018
Apogee Consulting Group, P.A.

COMMENTS:

LETTER OF TRANSMITTAL

Nordstrom Contracting
 Consulting Corp
 36 Thiells Mt. Ivy Rd.
 Pomona, NY 10970

JUNE 26, 2018
 Project: VA620A4-17-111
 Relocate SPS

To: Apogee Consulting Group, PA Attention: Cullen S. Keen AIA

1151 Kildaire Farm Road

Cary, NC 27511

**HVAC EQUIPMENT SUBMITTAL # 1
 (AS NOTED IN "Description" BELOW)**

Gentlemen;

We are sending you Herewith Delivered by Hand Under Separate Cover Via **ELECTRONIC**

Plans Prints Shop Dwgs Samples Specifications Other **Product Documents**

Copies	Item	# Pages	Description
1	1	57	TRANE AHU & AIR-COOLED CONDENSING UNITS
1	2	22	LG ELECTRONICS - SPLIT SYSTEM
1	3	18	PURE HUMIDIFIER CO. - STEAM HEAT HUMIDIFIER
1	4	6	LOREN COOK - CENTRIFRUGAL WALL FANS
1	5	9	NAILOR INDUSTRIES - SINGLE DUCT VAV UNITS
1	6	12	NAILOR INDUSTRIES - REGISTERS, GRILLS & DIFFUSERS
1	7	9	AIRFLOW DIRECTION INC. - VISUAL PRESSURE INDICATOR
			THIS ATTACHED IS APPROVED FOR SUBMITTAL BY NORDSTROM CONTRACTING

The Above Listed Items are transmitted as indicted below:

Return By Date: **ASAP**

Approval As Requested For Your Use For Construction

Approved As Noted Submit _____ Copies for Record Distribution

Returned for Correction, Revise & Resubmit Coordination (Should the attached be in conflict with your work, advise immediately)

For Your Files Other: _____

For Bids Due _____

Remarks: _____

Copies W () W/O(**X**)

Enclosures: Timothy Starks

NCC FIELD FILE

Oscar Nordstrom, President



June 13, 2018

Mr. Michael Houghton
M. H. Heating & Cooling, LLC
Wallkill, New York

Re: **Submittal for Approval**
VA Hudson Valley Healthcare Systems
Relocate SPS
Castle Point, NY

Dear Mr. Houghton:

In reference to the above project, here is a set of submittal drawings for:

Airflow Direction Inc. – Visual Pressure Indicator – Spec 233700

The equipment in this submittal is being held for construction, pending your approval and release. Please return one set of submittal drawings to our office.

We thank you for your order and appreciate this opportunity to be of service.

Regards,

R.F. Peck Co., Inc.

A handwritten signature in black ink, appearing to read "Kyle Mead". The signature is fluid and cursive, written over a light blue horizontal line.

Kyle Mead
Enclosures



22 Computer Drive - West
Albany, NY 12205
Phone (518) 869-3541

Equipment Submittal

Project	VA Hudson Valley Healthcare Systems Relocate SPS Castle Point, NY
Engineer	RPA Design Charlotte, NC
Contractor	M. H. Heating & Cooling, LLC Wallkill, NY
Submitted by	Kyle Mead/dk R. F. Peck Co., Inc. Albany, New York Date: June 12, 2018

Manufacturer's Representatives for
Heating, Ventilating and
Air Conditioning Equipment

Contents: Airflow Direction Inc. – Visual Pressure Indicator – Spec 233700

Note: Based on Contract Drawings Dated 5.5.2017

AIRFLOW DIRECTION INDICATOR SCHEDULE

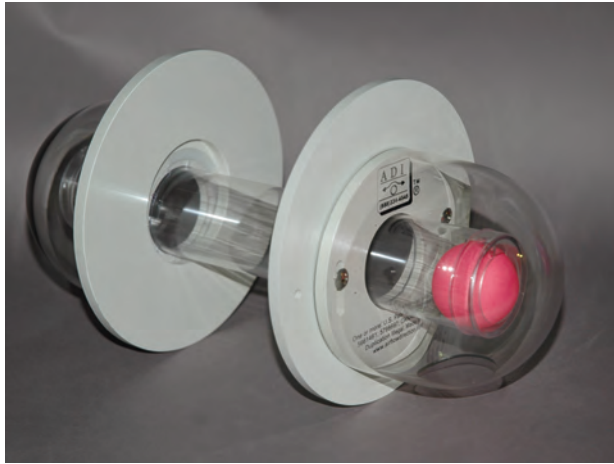
Model Number	Room Locations
ADI-69-V-N-M&T (Visual plus Alarm-Negative Pressure w/ Mute & test Local Annunciator)	Anteroom 021 Decon Scopes 025 Clean Prep 027

*Please verify wall thickness at each location

AIRFLOW DIRECTION INCORPORATED

VISUAL ONLY- NEGATIVE

BALL-IN-THE-WALL® INDICATOR



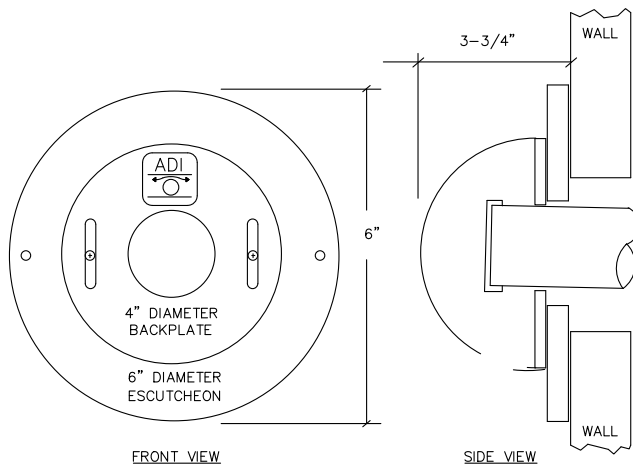
Model ADI-69-V-N
Negative Pressure Room

NEGATIVE ROOM APPLICATION

(Airflow Direction Into Room)

The ADI-69-V-N unit uses no electricity! It is used for negative pressure rooms in which the direction of airflow is into the room. During normal operation with the door closed, the red ball rolls up the incline into the room and can be seen in the room but not seen from the corridor. Before the staff enters the room from the corridor, if the red ball is seen on the corridor side, then improper directional airflow may exist.

A failsafe feature of this arrangement is the ability to check the operation of the unit. Just open the door and the red ball should fall down the incline into the corridor. Once the door is closed, the red ball is drawn back into the room. **SIMPLE !**



SPECIFICATIONS: MODEL ADI-69-V-N

NOTE: Unit installed through wall so locate where no mechanical or electrical services or studs exist in wall. Allow 6" O.D. wall clearance for mounting of 6" O.D. escutcheon plate. Size of Wall-Hole depends on wall. Mounting per side: (2) s.s.screws & 1/4" plastic anchors supplied by ADI. Dome & tube material: clear polycarbonate. **Activation Differential Pressure:** When unit is installed per ADI's instructions for continuous check and failsafe feature, 0.01" w.c. minimum. Codes, end-users, local authorities, industry practice and HVAC controls may dictate higher values. Door seals and sealed room penetrations recommended. See ADI's "Minimum Room Pressure" Technical Bulletin.



NEGATIVE ROOM WALL LABEL (included)

This 3.5" x 3.5" laminated adhesive label mounts on the corridor side and describes to the staff, the proper operation and testing of the indicator.

BALL-IN-THE-WALL®
is a registered trademark of
Airflow Direction Inc.



Airflow Direction Incorporated

The **BALL-IN-THE WALL*** Indicator Company

2 Livingston Lane, Newbury, MA 01951

Tel: (888) 334-4545 Fax: (888) 257-3555 www.airflowdirection.com

AIRFLOW DIRECTION INCORPORATED

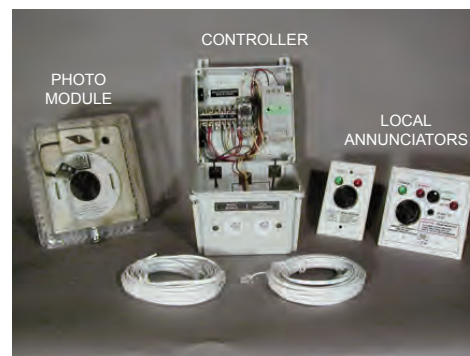
Room Pressure / Airflow Direction **BALL-IN-THE-WALL*** INDICATOR QUICK-REFERENCE SHEET

ADI® ~~BALL-IN-THE-WALL~~* Indicators are available in “Visual-Only” and “Visual-plus Alarm” models.



Visual-Only

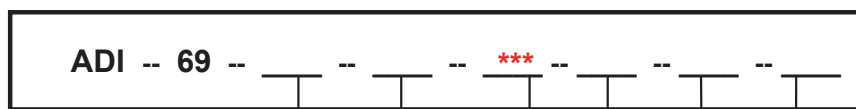
Simple, reliable, built-in failsafe feature and no electricity required!



Visual-plus Alarm

Visual-Only **BALL-IN-THE-WALL*** Indicator **plus** Audio/Visual alarm & NO/NC Interface contacts.

MODEL NUMBER DESCRIPTIONS



Indicator Type: _____

V = Visual-Only

V+A = Visual-plus Alarm

Room Type: _____

N = Negative Pressure Room (airflow into room)

P = Positive Pressure Room (airflow out of room)

N/P = *Manually* Switchable between Negative & Positive modes. Comes with one set of magnetic Negative & Positive Room Labels.

CURVE = For *Automated* Switchable Room. Comes with one Bi-Directional Label & one set of magnetic Negative & Positive Room Labels.

Security Options (V and V+A units):

Blank = No Security Option

INSEC = Inside Rm Security Plate

OUTSEC = Outside Rm Security Cage

Local Annunciator Options (V+A units only):

M&T = With Mute & Test Function

NOM&T = Without Mute & Test Function

NOLOCAL = Without local annunciator.

Construction Barrier Option (V and V+A units):

CONST = for Temporary Negative Construction Barriers/Walls

***** WHEN PLACING AN ORDER YOU MUST SPECIFY HERE**

the Finished Outside Face-to-Face Wall Thickness (inches or mm). For multiple walls with different dimensions, use ADI'S "Room Schedule Sheet."



* USPTO Trademark Pending

©2012 ADI

Airflow Direction Incorporated

Tel: (888) 334-4545 <> Fax: (888) 257-3555

www.airflowdirection.com

Printed in USA

Airflow Direction Incorporated

Toll Free: (888) 334-4545

SAMPLE SPECIFICATIONS: Visual plus Alarm Indicators

Copyright 2000-2008 Airflow Direction Incorporated

SPECIFIERS:

Highlighted text is for you to choose and edit.

1. Be sure the installation location allows for ADI's 6" diameter escutcheon plate and for the photomodule, allow 7.5" total vertical travel clearance.

2. ADI RECOMMENDS AT LEAST 0.01" W.C. FOR ROOM PRESSURIZATION (POSITIVE OR NEGATIVE.) CHECK ARCHITECT'S OR GENERAL CONTRACTOR'S OR END-USER'S JOB SPECIFICATION FOR ROOM CONSTRUCTION, IN PARTICULAR:

- ✓ DOOR SEALS ON ALL EDGES INCLUDING RETRACTABLE DOOR BOTTOM SEALS;
- ✓ CALLOUTS THAT SEAL ALL FLOOR AND WALL PENETRATIONS AND WHERE THE WALLS MEET THE UNDER SIDE OF THE FLOOR ABOVE;
- ✓ SHEETROCK OR GASKETED LAY-IN TILE CEILING;
- ✓ NON-AIR RETURN LIGHT FIXTURES;
- ✓ NON-OPERABLE AND SEALED WINDOWS.

SEE ADI'S TECHNICAL BULLETIN – MINIMUM ROOM DIFFERENTIAL PRESSURE FOR ADI.

3. UNDER #3 BELOW, CHOOSE THE LOCAL ANNUNCIATOR TYPE, WITH OR WITHOUT HORN SILENCE (MUTE) & TEST.

4 UNDER #4 BELOW, CHOOSE THE ALARM MODELS AND EDIT ROOM TYPES.

✓ COORDINATE EMERGENCY POWER WITH ELECTRICAL DESIGNER

ROOM PRESSURIZATION/DIRECTIONAL AIRFLOW INDICATORS AND ALARMS

AIRFLOW DIRECTION INDICATOR & ALARM

TAG: ADIA

1. General

- a. INTENT - Room airflow direction indicator shall indicate the status of the directional airflow into or out of the concerned space.
- b. RELIABILITY - For increased reliability, the status indication shall be via two means: first, via a visual only primary element that does not utilize any electricity (e.g. ADI's Patented Baulin-tube® technology) and second, via an electric powered alarm indicating improper room directional airflow. The visual indicator shall display a degradation of the desired one directional airflow prior to a neutral or reversal of directional airflow.
- c. SMOKE-LIMITING – Per NFPA, room walls shall limit smoke migration which includes any openings in walls. The primary element of the airflow direction indicator shall incorporate a means

Airflow Direction Incorporated

Toll Free: (888) 334-4545

SAMPLE SPECIFICATIONS: Visual plus Alarm Indicators

Copyright 2000-2008 Airflow Direction Incorporated

of stopping airflow through the element when the room door is closed and the room is under proper negative or positive pressure. This shall be accomplished via ADI's patented endcap design, where the indicating sphere closes off the tube endcap during proper room pressure.

- d. **WARRANTY** - The visual component shall carry a lifetime warranty against breakage on the tube, endcaps, indicating sphere, backplate and clear dome covers. All other components including the electric components shall be industrial grade and warranted for one year. The alarm shall be capable of a minimum of two hundred thousand electrical contact life cycles of operation.
- e. **REMOTE INTERFACE** - The indicator shall incorporate a remote, wall mounted, electric audible and visual alarm, as well as a set of integral Form C contacts (N.O. and N.C.) for remote alarm monitoring and DDC interface whenever the desired directional airflow degrades to a neutral or reversal of direction, or whenever power to the ADI controller fails. With power applied to the ADI controller, the alarm shall incorporate an adjustable zero-to-sixty second time delay relay, factory set at 30 seconds. When the time delay relay is set above zero seconds, it shall allow transient airflow direction conditions (e.g. opening the door) without activating the alarm. However, the primary element will continuously and visually indicate the directional airflow.
- f. **FAILSAFE CHECKING** - For safety purposes, the indicator shall be installed with a tilt described in the installation documents. The indicator shall display a self-check for failure each time the airlock or door is opened. This is accomplished by the indicating sphere rolling to its failsafe position (corridor for negative rooms, inside room for positive rooms) when the door to the room is opened. The indicating sphere should go back to its proper position (in the room for negative rooms, in the corridor for positive rooms) when the door is closed.
- g. **LABEL** - Each indicator installed shall have a small, laminated sign next to it describing the intent and operation of the indicator.
- h. **NEW CMU or NEW POURED CONCRETE WALLS**: Provide a 2.5" diameter Electrical Metallic Tube (EMT) sleeve prior to pouring of mortar or concrete. Provide 2"x3" switch box for low voltage wiring to photomodule. See ADI'S details.
- i. **FIRE RATED WALLS**: Refer to the Authority Having Jurisdiction (AHJ) to see if the wall must be rated. Also see ADI's Technical Bulletin "ADI and Fire-Rated Walls". If fire-rating is required by the AHJ, provide the fire-rating via proper means. See ADI's Detail for Fire-Rated Wall Installations which uses 3-1/2" EMT SLEEVE..

2. Indicator

- a. The alarm unit shall incorporate a Baulin-tube® visual indicator manufactured by Airflow Direction Incorporated, coupled with electronics to provide the capability for direct, manufacturer provided local annunciation and the capability for remote annunciation via a Form C set of contacts.

3. Local Annunciator

- a. **Local Annunciator with Mute & Test**: The Visual plus Alarm Indicator shall be equipped with a local annunciator that indicates power to the unit as well as an audible and visual notification of an

Airflow Direction Incorporated

Toll Free: (888) 334-4545

SAMPLE SPECIFICATIONS: Visual plus Alarm Indicators

Copyright 2000-2008 Airflow Direction Incorporated

alarm condition. In addition, the local annunciator shall incorporate a horn silence switch and a test button that illuminates all lights and sounds the horn. When the horn is silenced, a red “MUTE” LED shall light indicating the horn is silenced. The alarm light shall remain functional in response to an alarm. The annunciator shall fit in a deep two-gang light switch box.

- b. **Local Annunciator without Mute & Test:** The Visual plus Alarm Indicator shall be equipped with a local annunciator that indicates power to the unit as well as an audible and visual notification of an alarm condition. In addition, the local annunciator shall incorporate a horn silence switch and a test button that illuminates all lights and sounds the horn. When the horn is silenced, a red “MUTE” LED shall light indicating the horn is silenced. The alarm light shall remain functional in response to an alarm. The annunciator shall fit in a deep two-gang light switch box.

4. Manufacturer

- a. The product shall be a Baulin-Tube® alarmed indicator manufactured by Airflow Direction Incorporated. The unit shall come with an adhesive backed, laminated 3.5”x3.5” wall label describing the operation of the airflow direction indicator. The model number shall be:

MODEL	DESCRIPTION	TYPES OF ROOMS USED-IN
NEGATIVE ROOM MODELS:		
ADI-69-V+A-N-M&T	Visual-plus-Alarm for negative rooms with mute & test local annunciator.	holding; cagewash; BSL3; procedure; negative isolation;
ADI-69-V+A-N-M&T-INSEC	Visual-plus-Alarm for negative rooms with mute & test local annunciator & inside security plate.	Correctional facility healthcare; healthcare psych observation;
ADI-69-V+A-N-NOM&T	Visual-plus-Alarm for negative rooms with basic local annunciator without mute & test.	holding; cagewash; BSL3; procedure; negative isolation;
ADI-69-V+A-N-NOM&T-INSEC	Visual-plus-Alarm for negative rooms with basic local annunciator without mute & test & inside security plate.	Correctional facility healthcare; healthcare psych observation;
ADI-69-V+A-N-NOLOCAL	Visual-plus-Alarm for negative rooms without any local annunciator. Used for interface to BAS alarm system.	holding; cagewash; BSL3; procedure; negative isolation;
ADI-69-V+A-N-NOLOCAL-INSEC	Visual-plus-Alarm for negative rooms without any local annunciator & with inside security plate. Used for interface to BAS alarm system.	Correctional facility healthcare; healthcare psych observation;
POSITIVE ROOM MODELS:		
ADI-69-V+A-P-M&T	Visual-plus-Alarm for positive rooms with mute & test local annunciator.	holding; bedding; operating room, protective isolation; cleanroom; packaging; manufacturing; food processing;

Airflow Direction Incorporated

Toll Free: (888) 334-4545

SAMPLE SPECIFICATIONS: Visual plus Alarm Indicators

Copyright 2000-2008 Airflow Direction Incorporated

ADI-69-V+A-P-M&T-INSEC	Visual-plus-Alarm for positive rooms with mute & test local annunciator & inside security plate.	Correctional facility healthcare; healthcare psych observation;
ADI-69-V+A-P-NOM&T	Visual-plus-Alarm for positive rooms with basic local annunciator without mute & test.	holding; bedding; operating room, protective isolation; cleanroom; packaging; manufacturing; food processing;
ADI-69-V+A-P-NOM&T-INSEC	Visual-plus-Alarm for positive rooms with basic local annunciator without mute & test & inside security plate.	Correctional facility healthcare; healthcare psych observation;
ADI-69-V+A-P-NOLOCAL	Visual-plus-Alarm for positive rooms without any local annunciator. Used for interface to BAS alarm system.	holding; bedding; operating room, protective isolation; cleanroom; packaging; manufacturing; food processing;
ADI-69-V+A-P-NOLOCAL-INSEC	Visual-plus-Alarm for positive rooms without any local annunciator & with inside security plate. Used for interface to BAS alarm system.	Correctional facility healthcare; healthcare psych observation;

*Baulin-Tube® is a registered trademark of Airflow Direction Incorporated

5. Execution

- a. Provide an NEC and local code conforming wiring and service disconnect to each controller.
- b. The HVAC system must be operational with a proper directional minimum differential pressure of 0.01 inches of water column prior to the installation and testing of the indicators.
- c. The installing contractor shall mount and test every indicator for proper operation. The installation shall be per the manufacturer's Installation Instructions and the Operation and Maintenance Manual. Turn over the pitch levels and installation documents to the Owner during job start-up. Provide 8 hours of training to the Owner for field orientation and operation of a typical indicator.