SUBMITTAL NO. 14

Distribution:

Name	Representing	Fax Number

To: Chanchal Banwait
ON Site Construction

2861 Sherwood Heights Drive, Unit 40
Oakville, ON
L6J 7K1

Fax Number:

Issue Date: 10/2/2024
Project: CIBC - Erin Mills

Project No: 1401-70668 - 15000

Pages:

Contractor No: Division No: 15000
Description: 15.002 HVAC

Communication History:

Dated	Sent/Received	From/To	Name	Status
9/27/2024	Received	From	Chanchal Banwait	---
9/30/2024	Sent	To	Shawn Chen	---
10/1/2024	Received	From	Shawn Chen	Revise And Re-Submit
10/2/2024	Sent	To	Chanchal Banwait	Revise And Re-Submit

1.0 The Contractor is advised to read the specifications regarding shop drawings and to understand that the Architect and the Engineer "review" only those shop drawings and other Submittals, which are asked for in the specifications.

1.1 The Contractor should read and understand his responsibilities with respect to shop drawings and other Submittals.

"This review by the Architect is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean that the Architect approves the detail design inherent in the shop drawings, responsibility for which shall remain with the Contractor submitting same, and such review shall not relieve the Contractor of his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation, and for co-ordination of the work of all sub-trades."

Stantec Architecture Ltd.
102-40 Highfield Park Drive
Dartmouth NS B3A 0A3

Phone: (902) 468-9000
Fax: (403) 468-9009

54 Audia Court, Unit 2
Concord, ON L4K 3N5
(905)-738-1400

Submittal 24-255-002

PROJECT NAME	PROJECT ADDRESS	DATE SUBMITTED
CIBC Erin Mills Town Centre 24-255	5025 Glen Erin Drive Mississauga, ON L3R 5W8	Sep 27, 2024

TO

Chanchal Banwait

COMPANY

O.N. SITE CONSTRUCTION INC.

EMAIL

Chanchal@onsiteconstruction.ca

ADDRESS

2861 Sherwood Heights Dr Unit 40 Oakville, ON L6J 7K1

FROM

INZAMAN KHAN

COMPANY

Consult Mechanical Inc.

EMAIL

inzaman@consultmechanical.com

ADDRESS

54 Audia Court, Unit 2
Concord, ON L4K 3N5

Title

GRDs / VAV-1 to 7 / F-1 to 6

Description

GRDs (S-1, S-2, S-3, R-1, E-1, T-1, T-2)
VAV-1 to 7
F-1 to 6

Package Items

SPEC	SUBSECTION	ITEM	TYPE

O.N. SITE CONSTRUCTION INC.
SHOP DRAWING REVIEW

- ☐ REVIEWED
- ☑ REVIEWED AS NOTED
- ☐ REVISE & RESUBMIT
- ☐ REJECTED.

September 27, 2024
Date Reviewed:

Chanchal Banwait
Reviewed By:

This review is for the sole purpose of ascertaining conformance with the general design concept. It does not imply approval of the detail design inherent in the shop drawings, responsibility for which shall remain with this sub-contractor, nor shall such review relieve this sub-contractor of their responsibility for errors or omissions in the shop drawings or of their responsibility for meeting all requirements of the contract documents.

Responsibility for confirmation and co-relation of job site dimensions, for information pertaining solely to fabrication procedures or to techniques of construction or installation, shall remain with this contractor.

STANTEC PROJECT #: 140170668
SUBMITTAL # 15.002 HVAC

This review by Stantec is for general conformance with the design concept of Stantec's design of the:
- ☐ Architectural
- ☐ Structural
- ☑ Mechanical
- ☐ Electrical
- ☐ Other

component(s) only and does not mean that Stantec has verified or approves the shop drawing(s). The Contractor remains solely responsible for the shop drawing(s) and this review by Stantec does not relieve the Contractor of the Contractor's responsibility for errors or omissions in the shop drawing(s) or for meeting all requirements of the contract documents. This review does not mean that Stantec approves the detailed design inherent in the shop drawing, responsibility for which shall remain with the Contractor submitting same, nor does this review mean that Stantec accepts any deviation of the shop drawing(s) from the contract documents. The Contractor is responsible for confirming all dimensions and correlating them at the job site, for all construction means, methods and techniques, and for coordination of construction work of all trades, including coordination of all shop drawings.

Stantec

- ☐ REVIEWED
- ☐ REVIEWED, AS NOTED
- ☑ REVISE AND RESUBMIT
- ☐ NOT REVIEWED

DATE 2024.10.01

BY Shawn Chen - Stantec Mechanical

Grilles/Registers/Diffusers Submittals

Job Name: CIBC ERIN MILLS
Date Printed: 9/27/2024
Spec Section: 15 - HVAC

Contact: 571 Chrislea Rd., Unit 3
Woodbridge, ON L4L 8A2

price®

All-In-One
Detailed Submittal Schedule
Grilles/Registers/Diffusers

Confirm unit size, drawing shows 6"x6" S.C.

#	Qty	Model	Tag	Unit Size	Inlet Size	Border	Pattern	Face Size	Damper	Accessories
37	3	SDS100	S2	48.000, 1		2				XX
2 - Flange Frame Concealed Mounting | XX - 2 Factory Mitered ends (Standard)										
36	8	SPD	S1	6	6	31		24, 24		
31 - 15/16" T-Bar Lay-In or Surface Mount Application										
38	3	SDB100	S2	48, 1	5	2		5	8EC	
5 - Round Inlet | 2 - Drywall Mounted Fits 1 Through 8A | 8EC - Full Flow Steel Damper c/w Cable Operator										
39	1	520D	S3	6.000, 6.000		F	L			SW
F - 1 1/4" (32) Flat Frame | L - Front Louver Blades parallel to Long Dimension | SW - Sidewall										
40	1	80	E1	7.000, 6.000		F				SW
F - 1 1/4" (32) Flat Frame | SW - Sidewall Application										
41	11	80	R1	23.000, 7.000		NF				LI
NF - 3/4" (19) Narrow Flat Frame | LI - T-Bar Lay-In										
42	1	530	T1	6.000, 6.000		F	L			SW
F - 1 1/4" (32) Flat Frame | L - Front Louver Blades parallel to Long Dimension | SW - Sidewall										
43	1	530	T2	6.000, 6.000		F	L			SW
F - 1 1/4" (32) Flat Frame | L - Front Louver Blades parallel to Long Dimension | SW - Sidewall										

Confirm mounting type, drawing shows ceiling mounted S.C.

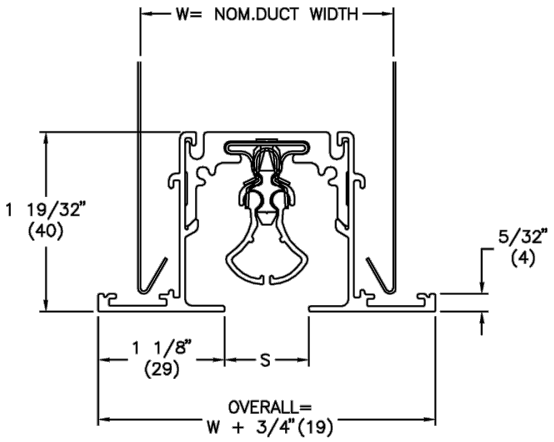
Performance Notes

Date Printed: 9/27/2024

1. Tested in accordance with ASHRAE Standard 70-2006 "Method of Testing for Rating the Performance of Air Outlets and Inlets".
2. Throw data is based on the temperature differential (Dt), in degrees Fahrenheit (°F), between supply air temperature and room temperature.
3. Throw values, in feet (ft), are provided at terminal air velocities of 150 fpm, 100 fpm, and 50 fpm for supply applications.
4. The NC, sound pressure level, is based on a room absorption of 10dB re 10^{-12} Watts in each octave band.
5. Blanks (--) indicate an NC level below 15.
6. Air flow is in cubic feet per minute (cfm).
7. Static pressure (Ps), velocity pressure (Pv), and total pressure (Pt) are in inches of water (in. w.g.).

SDS100 1" Slot Linear Supply

2 – Flange Frame, Concealed Mounting



Slot Quantity	W
1	2 1/2

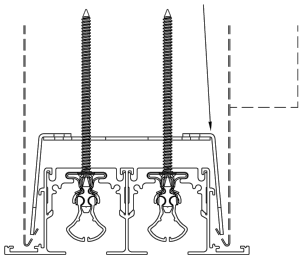
Face Overall Length = Nom. Length + 3/4"

Finish:

- 66: Brushed and Clear Coat

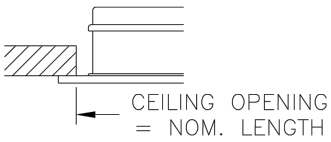
Mounting:

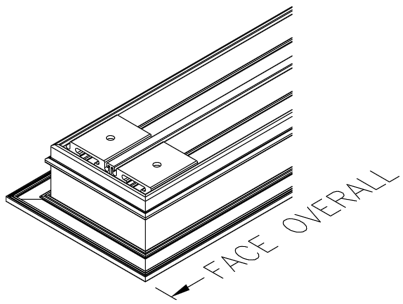
CONCEALED MOUNTING
BRACKETS (INCLUDED)



End Conditions: XX

Mitred





Notes:

- Extruded aluminum frame
- For use with Type 2 SDB/SDA series plenums, or with UP/UPL plenums
- Factory tolerance ± 1/32" (1)
- Rollformed steel or extruded aluminum pattern controllers, B17 Black
- 180° air pattern adjustment available
- Hemmed duct (by others)
- See installation instruction II00042

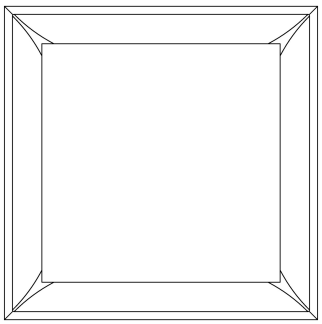
PROJECT: CIBC ERIN MILLS
ENGINEER:
DESCRIPTION: Linear Slot Supply, 1" Slot
SDS100//I/48.000/1/2////XX///66

SUBMITTAL NO: 258375-B
CUSTOMER:

SUBMITTAL DATE: 9/27/2024

All metric dimensions () are soft converted. Imperial dimensions are converted to metric and rounded to the nearest millimeter.
Information within this document is subject to change without notice.

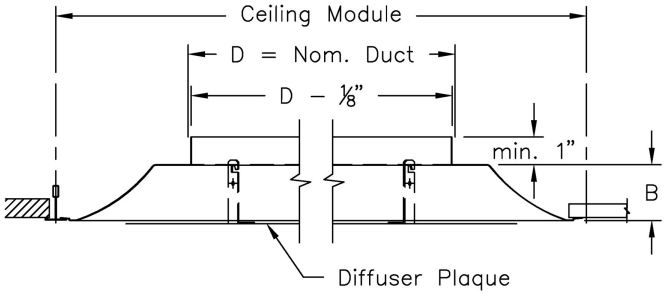
SPD Square Plaque Diffuser



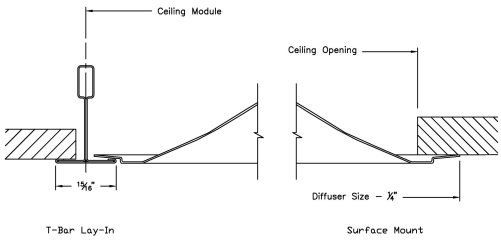
Duct Diameter:	6"
Backpan Height (B):	2 1/2"
Ceiling Module:	24" x24"
Ceiling Opening: (Surface Mount App)	22" x 22"

Border: 31

15/16" T-Bar Lay-In or Surface Mount Application



Frame Detail:



Notes:

- 360° radial horizontal air pattern
- Removable face panel
- For 9/16" flat tee installation with style 31 frame, cross-tees must be firmly secured. Locking any unopposed cross tees to the main beam with clips such as Armstrong STAC is recommended. Corner clips from ceiling suppliers may also be used, or order 916 clip in GRD-PARTS (confirming fit with ceiling on site is recommended).
- Integral hanger loops
- Factory tolerance +/- 1/32"

Scan for link to additional product information

Material:

- Diffuser: Steel

Finish:

- B12 - Standard White

PROJECT: CIBC ERIN MILLS
ENGINEER:
DESCRIPTION: Square Plaque Diffuser
SPD-1-2//I/6//24/24/31//////B12

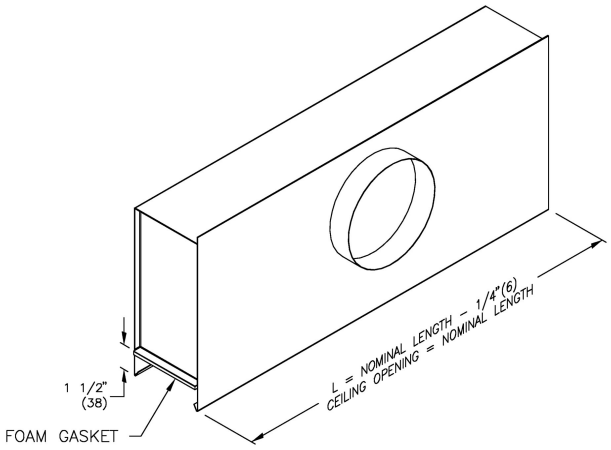
SUBMITTAL NO: 258503-F
CUSTOMER:

SUBMITTAL DATE: 9/27/2024

All metric dimensions () are soft converted. Imperial dimensions are converted to metric and rounded to the nearest millimeter.
Information within this document is subject to change without notice.

SDB100

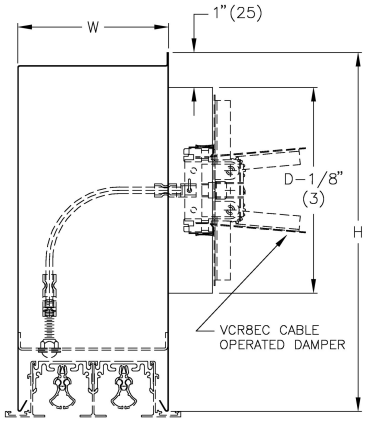
Selected Sizes				
Slots	**Length**	**Inlet Size**	**Height**	**Width**
1	48"	5"	8 ¼"	2 ½"



Border: Type 2 - Drywall mounted, fits SDS diffuser type 1 through 8A

Damper:

- 8EC (Full Flow Steel Damper c/w Cable Operator)



Notes

- Associated SDS diffusers must be specified and ordered as separate items
- Install unit during drywall ceiling construction unless access is provided for post installation
- Use with surface mount type SDS/SDR
- 8EC - Optional VCR8EC Cable operated damper (Neck mounted, SDB100 with round inlets only)
- 5" - Round Inlet
- Factory tolerance ± 1/32" (1)

Material: Coated Steel

Finish: MILL Finish

PROJECT: CIBC ERIN MILLS
ENGINEER:
DESCRIPTION: Square Shoulder Plenum For SDS100
SDB100//I/48/1/2//5//8EC///

SUBMITTAL NO: 258527-A
CUSTOMER:

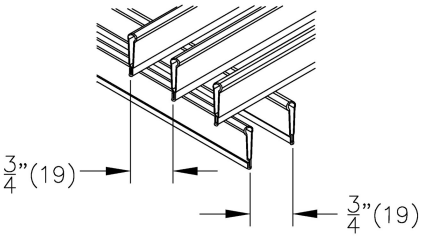
SUBMITTAL DATE: 9/27/2024

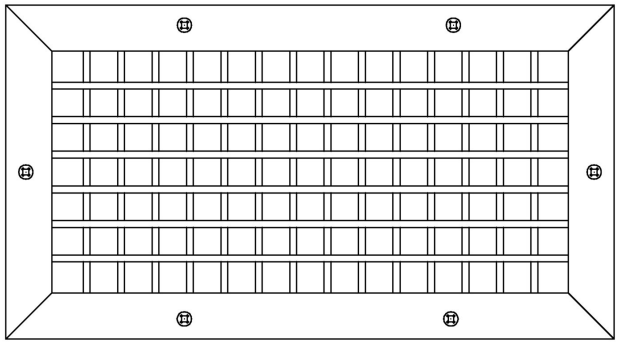
All metric dimensions () are soft converted. Imperial dimensions are converted to metric and rounded to the nearest millimeter.
Information within this document is subject to change without notice.

520D Louvered Steel Supply Register – 3/4" Blade Spacing, Double Deflection

Core Style:

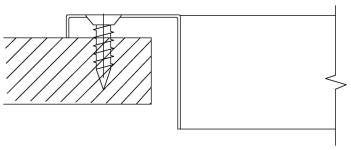
Double Deflection





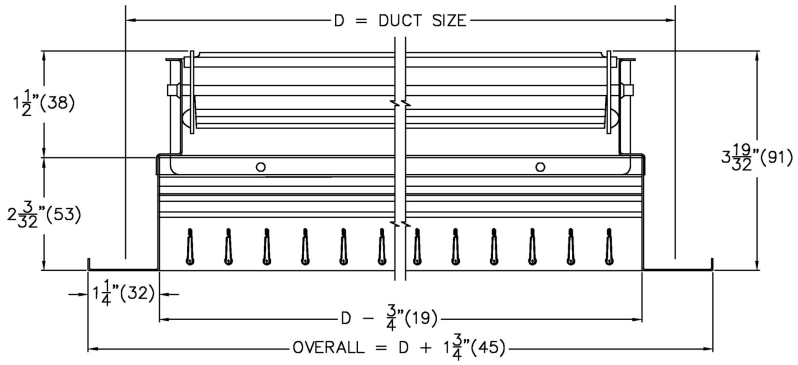
Fastening:

A: Countersunk Screwholes with Screw



Border: F

1 1/4" (32) Flat Frame



Material:

- Steel

Finish:

- B12 - Standard White

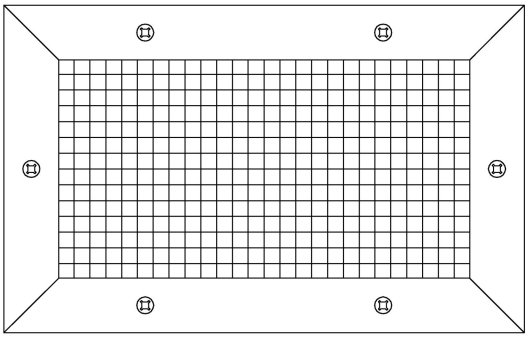
Notes:

- Front blades parallel to Long dimension
- Individually adjustable roll formed blades on 3/4" (19) centers
- VCS3 opposed blade damper, coated steel
- Factory tolerance ± 1/32" (1)

PROJECT: CIBC ERIN MILLS
SUBMITTAL NO: 258306
SUBMITTAL DATE: 9/27/2024
ENGINEER:
CUSTOMER:
DESCRIPTION: Louvered Steel Dbl Deflec Reg W/Damp, 3/4" Spacing
520D//I/6.000/6.000/F/L////A/SW/B12

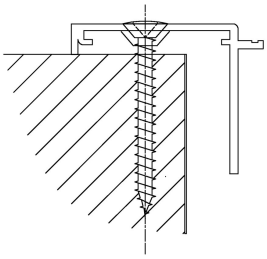
All metric dimensions () are soft converted. Imperial dimensions are converted to metric and rounded to the nearest millimeter.
Information within this document is subject to change without notice.

80 Egg Crate Grille – 1/2" x 1/2" x 1/2" Core



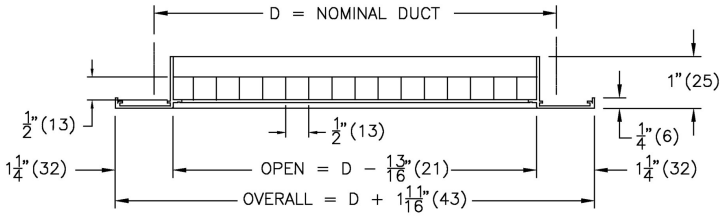
Fastening: A

Countersunk Screw Holes



Border: F

1 1/4" (32) Flat Frame



Material:

- Grille - Aluminum construction

Finish:

- B12 - Standard White

Notes:

- 1/2" x 1/2" x 1/2" aluminum grid core
- Minimum duct size = 6" x 4" (152mm x 102mm)
- Maximum duct size without mullion = 48" x 24" (1219mm x 610mm)
- Maximum duct size with mullion = 96" x 48" (2438mm x 1219mm)
- Units with mullion supplied in one-piece frame construction
- Units over 96" x 48" (2438mm x 1219mm) supplied in sections c/w Duct Mounting Channel
- Factory tolerance ±1/32" (1mm)

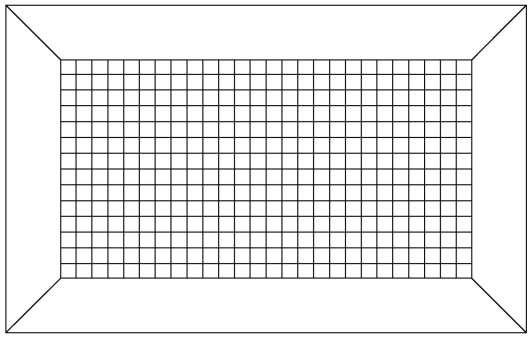
PROJECT: CIBC ERIN MILLS
ENGINEER:
DESCRIPTION: Egg Crate Grille, 1/2" X 1/2" X 1/2"
80//I/7.000/6.000//SW/F/////////A//////B12

SUBMITTAL NO: 259683-E
CUSTOMER:

SUBMITTAL DATE: 9/27/2024

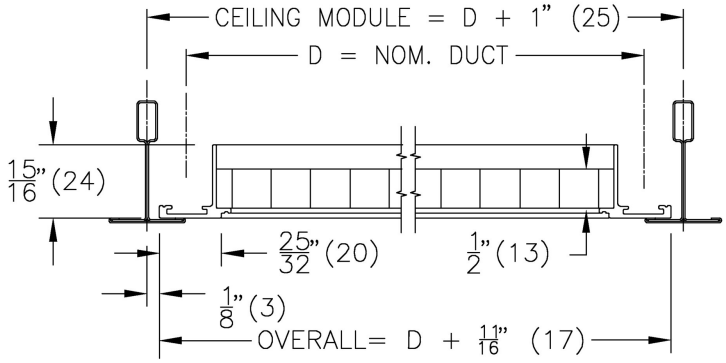
All metric dimensions () are soft converted. Imperial dimensions are converted to metric and rounded to the nearest millimeter.
Information within this document is subject to change without notice.

80 Egg Crate Grille – 1/2" x 1/2" x 1/2" Core



Border: NF

3/4" (19) Narrow Flat Frame



Material:

- Grille - Aluminum construction

Finish:

- B12 - Standard White

Notes:

- 1/2" x 1/2" x 1/2" aluminum grid core
- Maximum duct size without mullion = 48" x 24" (1219mm x 610mm)
- Maximum duct size with mullion = 96" x 48" (2438mm x 1219mm)
- Units with mullion supplied in one-piece frame construction
- Units over 96" x 48" (2438mm x 1219mm) supplied in sections c/w Duct Mounting Channel
- NF frame minimum duct size = 6" x 3" (152mm x 76mm)
- Factory tolerance ±1/32" (1mm)

PROJECT: CIBC ERIN MILLS
ENGINEER:
DESCRIPTION: Egg Crate Grille, 1/2" X 1/2" X 1/2"
80//I/23.000/7.000//LI/NF//////24/8///0///////B12

SUBMITTAL NO: 259683-E
CUSTOMER:

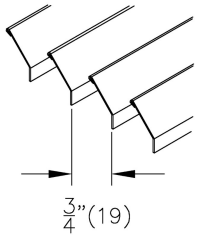
SUBMITTAL DATE: 9/27/2024

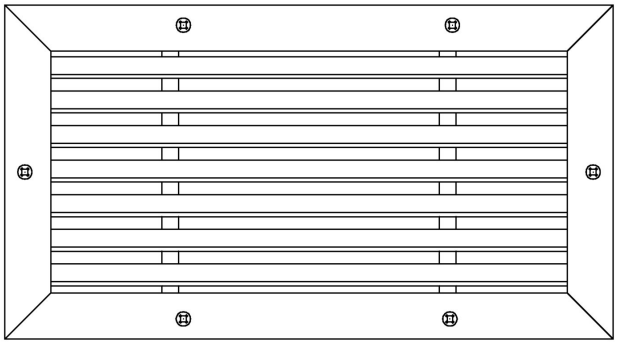
All metric dimensions () are soft converted. Imperial dimensions are converted to metric and rounded to the nearest millimeter.
Information within this document is subject to change without notice.

530 Louvered Steel Return Grille – 3/4" Blade Spacing, 45° Single Deflection

Core Style:

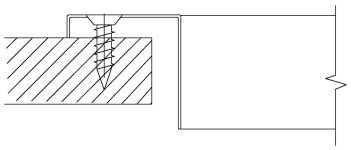
Single Deflection





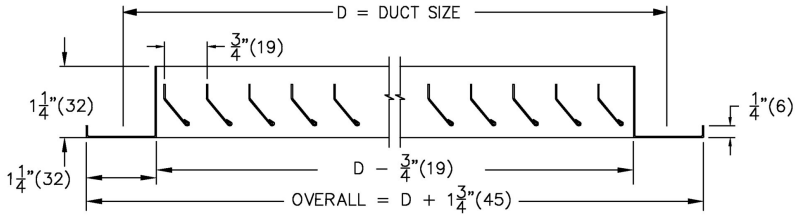
Fastening:

A: Countersunk Screwholes with Screws



Border: F

1 1/4" (32) Flat Frame



Material:

- Steel

Finish:

- B12 - Standard White

Notes:

- Blades parallel to Long dimension
- 45° Deflection roll formed blades on 3/4" (19) centers
- Factory tolerance ± 1/32" (1)

PROJECT: CIBC ERIN MILLS
SUBMITTAL NO: 258306
SUBMITTAL DATE: 9/27/2024
ENGINEER:
CUSTOMER:
DESCRIPTION: Steel Return Grille, 45 Deg Blades, 3/4" Spacing
530//I/6.000/6.000/F/L////A//SW/B12

All metric dimensions () are soft converted. Imperial dimensions are converted to metric and rounded to the nearest millimeter.
Information within this document is subject to change without notice.

Terminals
Submittals

Job Name: CIBC ERIN MILLS
Date Printed: 9/27/2024
Spec Section: 15 - HVAC

Contact: 571 Chrislea Rd., Unit 3
Woodbridge, ON L4L 8A2

All-In-One
Detailed Submittal Schedule
Terminals

Tag	VAV-1	VAV-2	VAV-3	VAV-4
#	10	11	12	13
Qty	1	1	1	1
Model	SDV	SDV	SDV	SDV
Size 1	9	9	10	8
Max Primary (CFM)	890	700	940	540
Min Primary (CFM)	220	175	235	135
Heat Min (CFM)	220	175	235	135
Terminal Liner	FG50	FG50	FG50	FG50
Sequence	2000	2000	2000	2000
Aux/Fan/Mix (CFM)	0	0	0	0
Accessories 1	ATTSP	ATTSP	ATTSP	ATTSP
Accessories 2	CRH	CRH	CRH	CRH

NOt including Controls or mounting of controls

Controls and damper actuators shall be supplied and factory mounted by Price on each VAV terminal unit. See CCN-06 to come for addition of specification section 15840. Control box location to suit site conditions.
S.C.

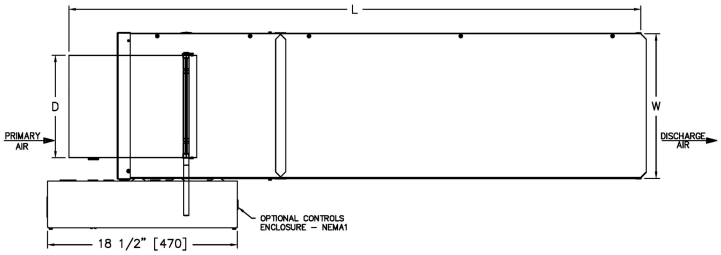
Tag	VAV-5	VAV-6	VAV-7
#	14	15	16
Qty	1	1	1
Model	SDV	SDV	SDV
Size 1	7	6	6
Max Primary (CFM)	440	365	175
Min Primary (CFM)	110	90	45
Heat Min (CFM)	110	90	45
Terminal Liner	FG50	FG50	FG50
Sequence	2000	2000	2000
Aux/Fan/Mix (CFM)	0	0	0
Accessories 1	ATTSP	ATTSP	ATTSP
Accessories 2	CRH	CRH	CRH

Performance Notes

Date Printed: 9/27/2024

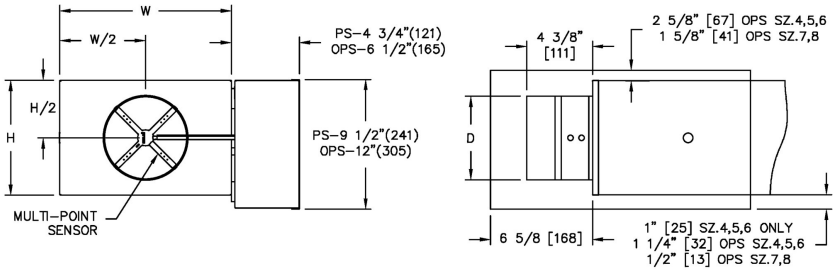
1. Dashes (--) indicate NC values less than 20.
2. Sound power levels are given in decibels (dB).
3. Dashes (--) indicate sound power levels below 36-29-26-22-19-17 for each octave band; values below these sound power levels are considered below significance per AHRI 880.
4. Minimum operating pressure is the minimum static pressure required to operate the terminal item assembly at maximum primary flow with a wide open damper.
5. Airflow is given in cubic feet per minute (cfm).
6. Air pressure drop is given in inches water gauge (in. w.g.), and water pressure drop is given in feet of water gauge (ft. w.g.).

SDV Single Duct w/ 3ft Attenuator



Unit Size	Casing Size	Inlet	Casing		Length
		D	W	H	L
9	10	8 7/8	14	12 1/2	55 1/8

Controls Type



- Multi-point, center averaging airflow sensor.
- Controls enclosure will be supplied as illustrated on right hand side.
- Controls are supplied by controls contractor and field installed.
- PS - NEMA 1 controls enclosure included.
- Standard NEMA 1 controls enclosure mounting position.
- Pressure independent

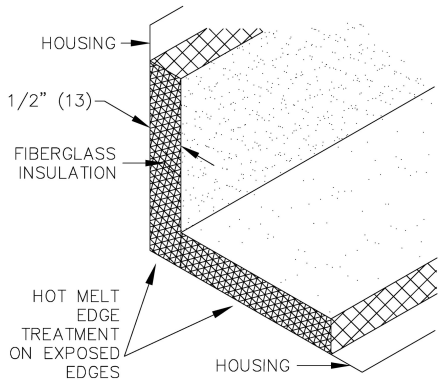
Notes

- 22 Gauge zinc coated steel housing. Mechanically sealed, leak resistant construction.
- Rectangular discharge opening with slip and drive cleat duct connection.
- Assembly ETL certified to UL50.
- Units not to be used for temporary heat or ventilation during construction.
- Damper blade constructed of two layers of galvanized steel with a sandwiched peripheral gasket.
- 1/2" (13) diameter zinc coated damper shaft with position indicator.

AHRI CERTIFIED™ www.ahridirectory.org VAV Terminals AHRI Standard 880

Insulation: FG50

- Internal Insulation – Fiberglass 1/2" (13mm) thick, 1.75 lb/cu.ft density, meets requirements of NFPA90A and UL 181.
- R-Value=2.1

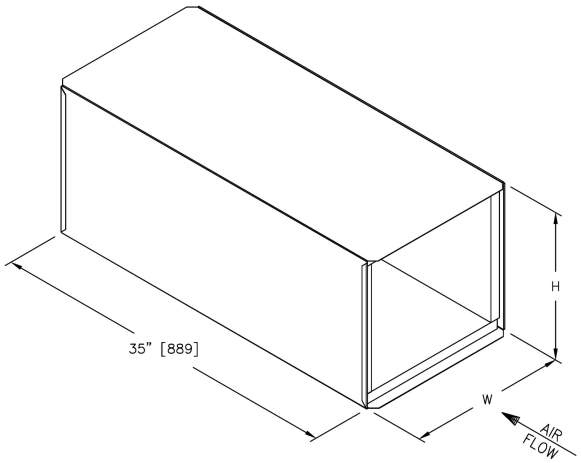


PROJECT: CIBC ERIN MILLS
SUBMITTAL NO: 275707
SUBMITTAL DATE: 9/27/2024
ENGINEER:
CUSTOMER:
DESCRIPTION: Single Duct Variable Volume
SDV-2-1//I/9/CRH/SP300/FLD/FG50///ATTSP//CFM/22GA/PS/STD/////////0.00///////////////0.0////////220,175/890,700/220,175/890,700/0/////////////////////////// 2000

All metric dimensions () are soft converted. Imperial dimensions are converted to metric and rounded to the nearest millimeter.
Information within this document is subject to change without notice.

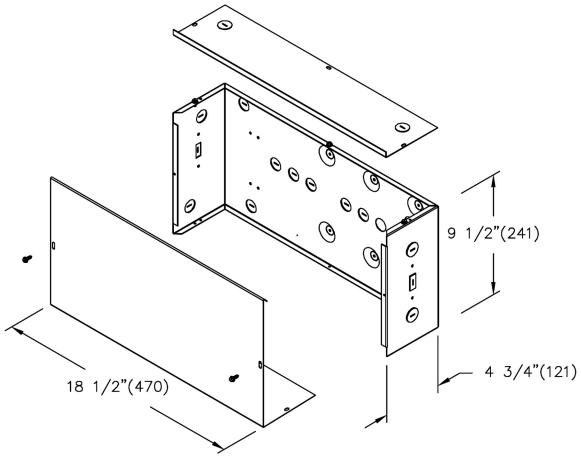
Attenuator: ATTSP

3FT Separate



Unit Size	W	H
9	14	12 1/2

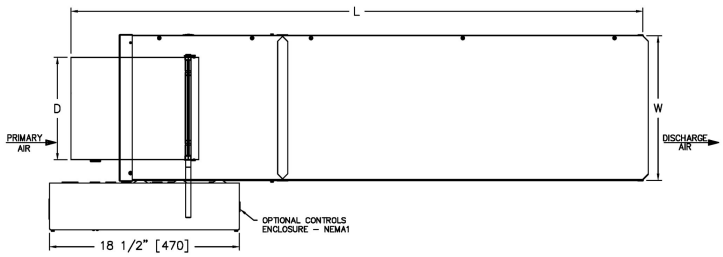
Protective Shroud



PROJECT: CIBC ERIN MILLS **SUBMITTAL NO:** 275707 **SUBMITTAL DATE:** 9/27/2024
ENGINEER: **CUSTOMER:**
DESCRIPTION: Single Duct Variable Volume
SDV-2-1//I/9/CRH/SP300/FLD/FG50///ATTSP//CFM/22GA/PS/STD/////////0.00///////////////0.0////////220,175/890,700/220,175/890,700/0/////////////////////////// 2000

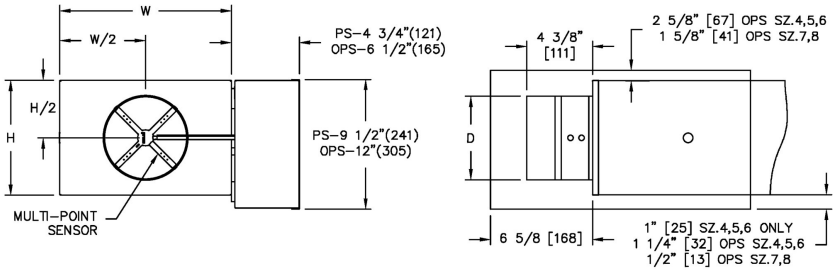
All metric dimensions () are soft converted. Imperial dimensions are converted to metric and rounded to the nearest millimeter.
Information within this document is subject to change without notice.

SDV Single Duct w/ 3ft Attenuator



Unit Size	Casing Size	Inlet	Casing		Length
		D	W	H	L
10	10	9 7/8	14	12 1/2	55 1/8

Controls Type



- Multi-point, center averaging airflow sensor.
- Controls enclosure will be supplied as illustrated on right hand side.
- Controls are supplied by controls contractor and field installed.
- PS - NEMA 1 controls enclosure included.
- Standard NEMA 1 controls enclosure mounting position.
- Pressure independent

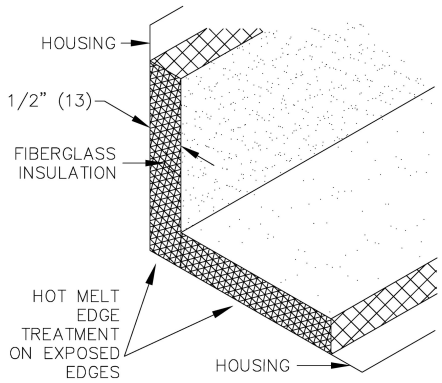
Notes

- 22 Gauge zinc coated steel housing. Mechanically sealed, leak resistant construction.
- Rectangular discharge opening with slip and drive cleat duct connection.
- Assembly ETL certified to UL50.
- Units not to be used for temporary heat or ventilation during construction.
- Damper blade constructed of two layers of galvanized steel with a sandwiched peripheral gasket.
- 1/2" (13) diameter zinc coated damper shaft with position indicator.

AHRI CERTIFIED™ www.ahridirectory.org VAV Terminals AHRI Standard 880

Insulation: FG50

- Internal Insulation – Fiberglass 1/2" (13mm) thick, 1.75 lb/cu.ft density, meets requirements of NFPA90A and UL 181.
- R-Value=2.1

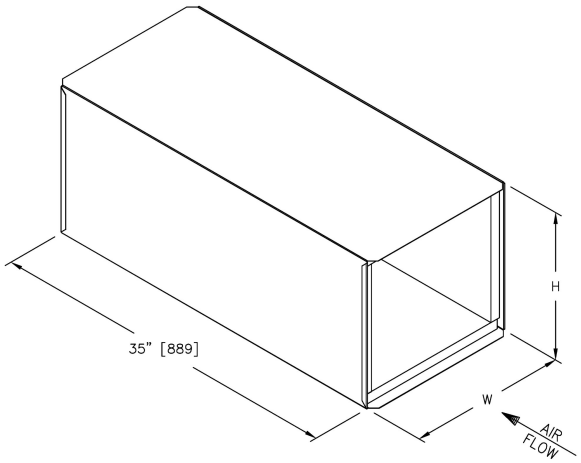


PROJECT: CIBC ERIN MILLS
SUBMITTAL NO: 275707
SUBMITTAL DATE: 9/27/2024
ENGINEER:
CUSTOMER:
DESCRIPTION: Single Duct Variable Volume
SDV-2-1//I/10/CRH/SP300/FLD/FG50///ATTSP//CFM/22GA/PS/STD/////////0.00///////////////0.0///////235/940/235/940/0/////////////////////////2000

All metric dimensions () are soft converted. Imperial dimensions are converted to metric and rounded to the nearest millimeter.
Information within this document is subject to change without notice.

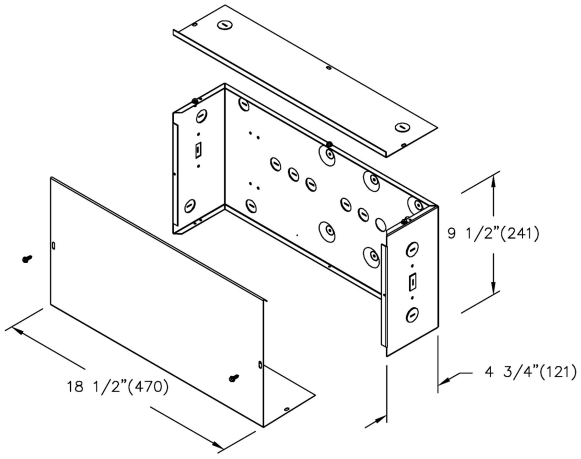
Attenuator: ATTSP

3FT Separate



Unit Size	W	H
10	14	12 1/2

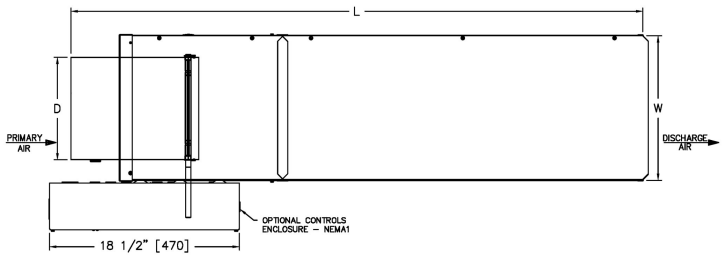
Protective Shroud



PROJECT: CIBC ERIN MILLS **SUBMITTAL NO:** 275707 **SUBMITTAL DATE:** 9/27/2024
ENGINEER: **CUSTOMER:**
DESCRIPTION: Single Duct Variable Volume
SDV-2-1//I/10/CRH/SP300/FLD/FG50///ATTSP//CFM/22GA/PS/STD/////////0.00///////////////0.0///////235/940/235/940/0/////////////////////////2000

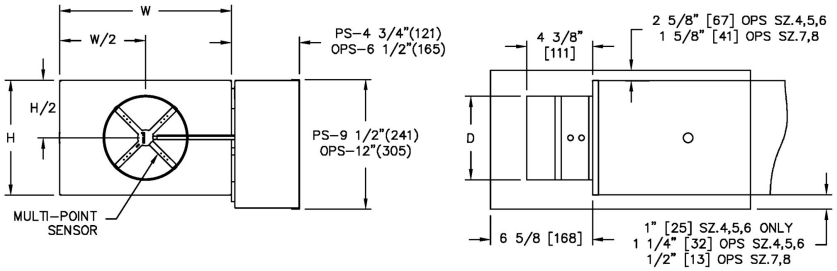
All metric dimensions () are soft converted. Imperial dimensions are converted to metric and rounded to the nearest millimeter.
Information within this document is subject to change without notice.

SDV Single Duct w/ 3ft Attenuator



Unit Size	Casing Size	Inlet	Casing		Length
		D	W	H	L
8	8	7 7/8	12	10	55 1/8

Controls Type



- Multi-point, center averaging airflow sensor.
- Controls enclosure will be supplied as illustrated on right hand side.
- Controls are supplied by controls contractor and field installed.
- PS - NEMA 1 controls enclosure included.
- Standard NEMA 1 controls enclosure mounting position.
- Pressure independent

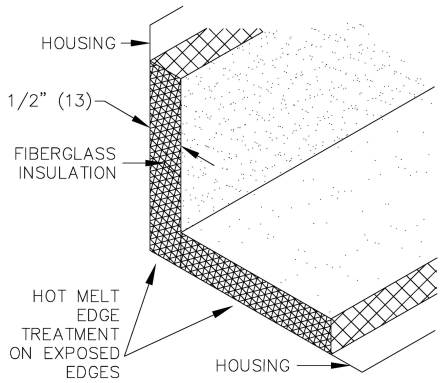
Notes

- 22 Gauge zinc coated steel housing. Mechanically sealed, leak resistant construction.
- Rectangular discharge opening with slip and drive cleat duct connection.
- Assembly ETL certified to UL50.
- Units not to be used for temporary heat or ventilation during construction.
- Damper blade constructed of two layers of galvanized steel with a sandwiched peripheral gasket.
- 1/2" (13) diameter zinc coated damper shaft with position indicator.

AHRI CERTIFIED™ www.ahridirectory.org VAV Terminals AHRI Standard 880

Insulation: FG50

- Internal Insulation – Fiberglass 1/2" (13mm) thick, 1.75 lb/cu.ft density, meets requirements of NFPA90A and UL 181.
- R-Value=2.1

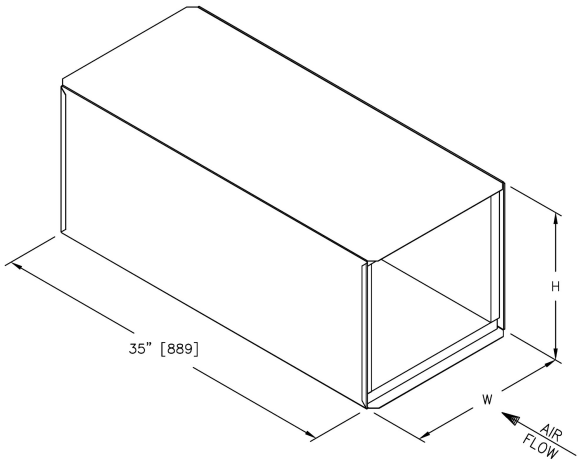


PROJECT: CIBC ERIN MILLS
SUBMITTAL NO: 275707
SUBMITTAL DATE: 9/27/2024
ENGINEER:
CUSTOMER:
DESCRIPTION: Single Duct Variable Volume
SDV-2-1//I/8/CRH/SP300/FLD/FG50///ATTSP//CFM/22GA/PS/STD/////////0.00///////////////0.0////////135/540/135/540/0/////////////////////////2000

All metric dimensions () are soft converted. Imperial dimensions are converted to metric and rounded to the nearest millimeter.
Information within this document is subject to change without notice.

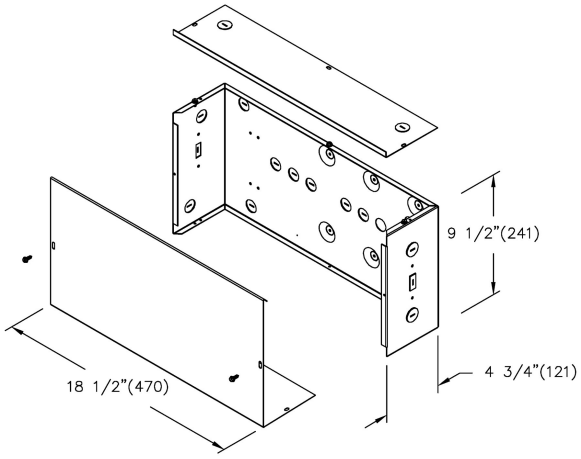
Attenuator: ATTSP

3FT Separate



Unit Size	W	H
8	12	10

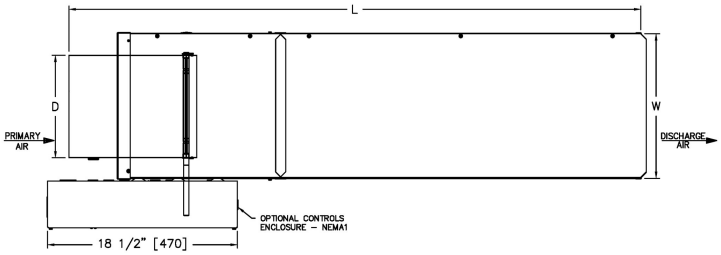
Protective Shroud



PROJECT: CIBC ERIN MILLS **SUBMITTAL NO:** 275707 **SUBMITTAL DATE:** 9/27/2024
ENGINEER: **CUSTOMER:**
DESCRIPTION: Single Duct Variable Volume
SDV-2-1//I/8/CRH/SP300/FLD/FG50///ATTSP//CFM/22GA/PS/STD/////////0.00///////////////0.0////////135/540/135/540/0/////////////////////////2000

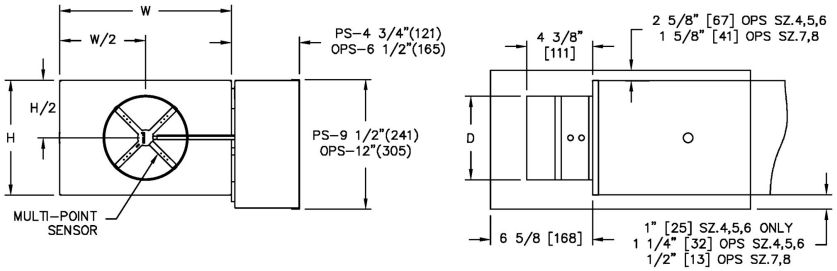
All metric dimensions () are soft converted. Imperial dimensions are converted to metric and rounded to the nearest millimeter.
Information within this document is subject to change without notice.

SDV Single Duct w/ 3ft Attenuator



Unit Size	Casing Size	Inlet	Casing		Length
		D	W	H	L
7	8	6 7/8	12	10	55 1/8

Controls Type



- Multi-point, center averaging airflow sensor.
- Controls enclosure will be supplied as illustrated on right hand side.
- Controls are supplied by controls contractor and field installed.
- PS - NEMA 1 controls enclosure included.
- Standard NEMA 1 controls enclosure mounting position.
- Pressure independent

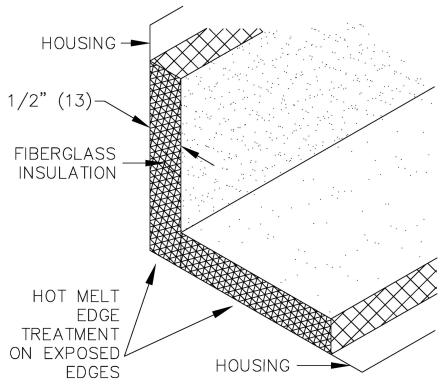
Notes

- 22 Gauge zinc coated steel housing. Mechanically sealed, leak resistant construction.
- Rectangular discharge opening with slip and drive cleat duct connection.
- Assembly ETL certified to UL50.
- Units not to be used for temporary heat or ventilation during construction.
- Damper blade constructed of two layers of galvanized steel with a sandwiched peripheral gasket.
- 1/2" (13) diameter zinc coated damper shaft with position indicator.

AHRI CERTIFIED™ www.ahridirectory.org VAV Terminals AHRI Standard 880

Insulation: FG50

- Internal Insulation – Fiberglass 1/2" (13mm) thick, 1.75 lb/cu.ft density, meets requirements of NFPA90A and UL 181.
- R-Value=2.1

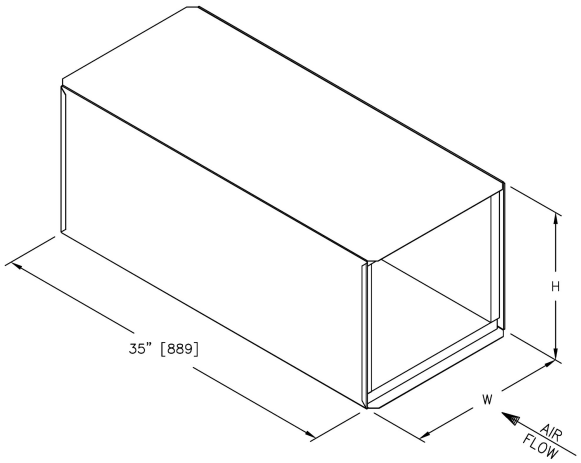


PROJECT: CIBC ERIN MILLS
SUBMITTAL NO: 275707
SUBMITTAL DATE: 9/27/2024
ENGINEER:
CUSTOMER:
DESCRIPTION: Single Duct Variable Volume
SDV-2-1//I/7/CRH/SP300/FLD/FG50///ATTSP//CFM/22GA/PS/STD/////////0.00///////////////0.0////////110/440/110/440/0/////////////////////////2000

All metric dimensions () are soft converted. Imperial dimensions are converted to metric and rounded to the nearest millimeter.
Information within this document is subject to change without notice.

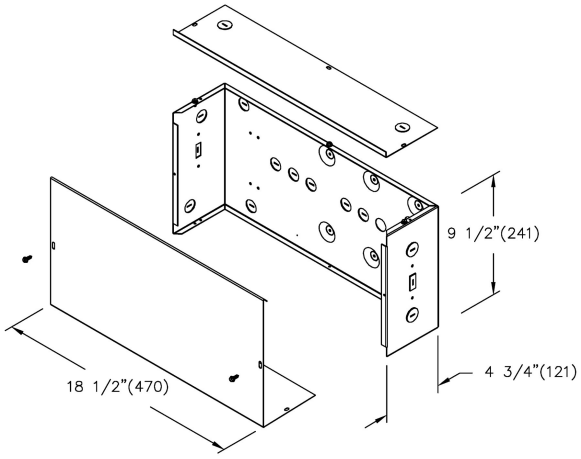
Attenuator: ATTSP

3FT Separate



Unit Size	W	H
7	12	10

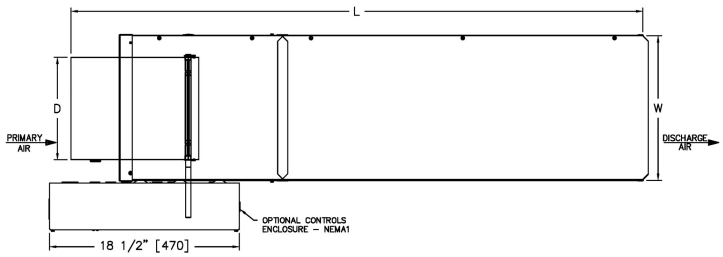
Protective Shroud



PROJECT: CIBC ERIN MILLS **SUBMITTAL NO:** 275707 **SUBMITTAL DATE:** 9/27/2024
ENGINEER: **CUSTOMER:**
DESCRIPTION: Single Duct Variable Volume
SDV-2-1//I/7/CRH/SP300/FLD/FG50///ATTSP//CFM/22GA/PS/STD/////////0.00///////////////0.0////////110/440/110/440/0/////////////////////////2000

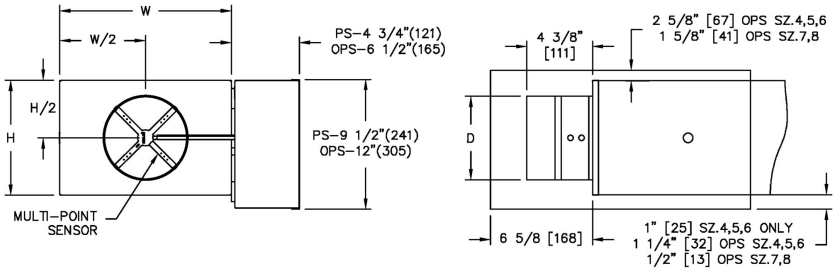
All metric dimensions () are soft converted. Imperial dimensions are converted to metric and rounded to the nearest millimeter.
Information within this document is subject to change without notice.

SDV Single Duct w/ 3ft Attenuator



Unit Size	Casing Size	Inlet	Casing		Length
		D	W	H	L
6	6	5 7/8	12	8	55 1/8

Controls Type



- Multi-point, center averaging airflow sensor.
- Controls enclosure will be supplied as illustrated on right hand side.
- Controls are supplied by controls contractor and field installed.
- PS - NEMA 1 controls enclosure included.
- Standard NEMA 1 controls enclosure mounting position.
- Pressure independent

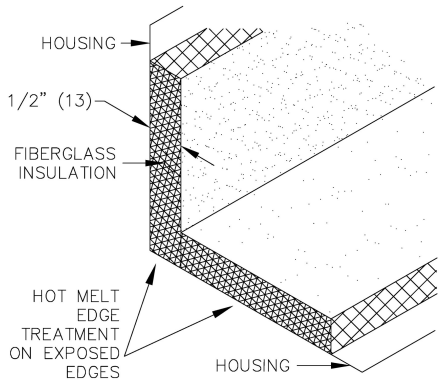
Notes

- 22 Gauge zinc coated steel housing. Mechanically sealed, leak resistant construction.
- Rectangular discharge opening with slip and drive cleat duct connection.
- Assembly ETL certified to UL50.
- Units not to be used for temporary heat or ventilation during construction.
- Damper blade constructed of two layers of galvanized steel with a sandwiched peripheral gasket.
- 1/2" (13) diameter zinc coated damper shaft with position indicator.

AHRI CERTIFIED™ www.ahridirectory.org VAV Terminals AHRI Standard 880

Insulation: FG50

- Internal Insulation – Fiberglass 1/2" (13mm) thick, 1.75 lb/cu.ft density, meets requirements of NFPA90A and UL 181.
- R-Value=2.1

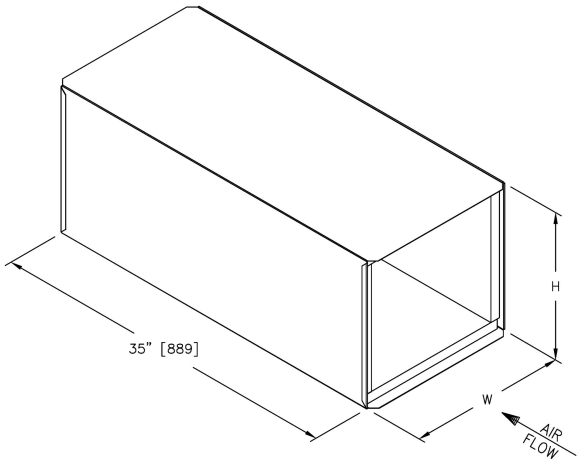


PROJECT: CIBC ERIN MILLS **SUBMITTAL NO:** 275707 **SUBMITTAL DATE:** 9/27/2024
ENGINEER: **CUSTOMER:**
DESCRIPTION: Single Duct Variable Volume
SDV-2-1//I/6/CRH/SP300/FLD/FG50///ATTSP//CFM/22GA/PS/STD/////////0.00///////////////0.0////////90,45/365,175/90,45/365,175/0/////////////////////////2000

All metric dimensions () are soft converted. Imperial dimensions are converted to metric and rounded to the nearest millimeter.
Information within this document is subject to change without notice.

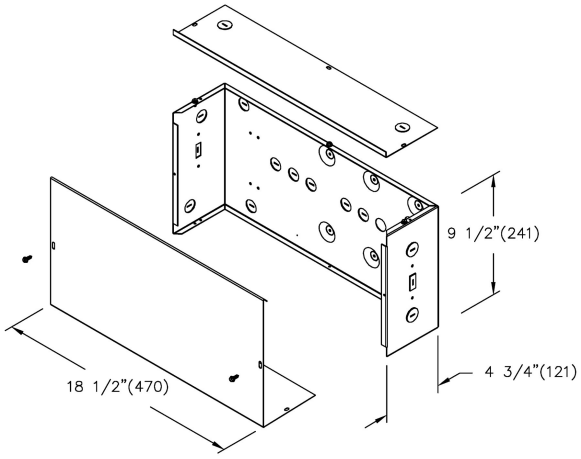
Attenuator: ATTSP

3FT Separate



Unit Size	W	H
6	12	8

Protective Shroud



PROJECT: CIBC ERIN MILLS **SUBMITTAL NO:** 275707 **SUBMITTAL DATE:** 9/27/2024
ENGINEER: **CUSTOMER:**
DESCRIPTION: Single Duct Variable Volume
SDV-2-1//I/6/CRH/SP300/FLD/FG50///ATTSP//CFM/22GA/PS/STD/////////0.00///////////////0.0////////90,45/365,175/90,45/365,175/0/////////////////////////2000

All metric dimensions () are soft converted. Imperial dimensions are converted to metric and rounded to the nearest millimeter.
Information within this document is subject to change without notice.

Terminals
Submittals

Job Name: CIBC ERIN MILLS
Date Printed: 9/27/2024
Spec Section: 15 - HVAC

Contact: 571 Chrislea Rd., Unit 3
Woodbridge, ON L4L 8A2

price®

All-In-One
Detailed Submittal Schedule
Terminals

960
1000
250
165

Tag	F-1-CTRL	F-2-CTRL	F-3-CTRL	F-4-CTRL
#	30	31	32	33
Qty	1	1	1	1
Model	FDC	FDC	FDC	FDC
Size 1	20	20	20	20
Max Primary (CFM)	980	810	810	670
Min Primary (CFM)	245	240	300	210
Size 2	10	10	12	10
Terminal Liner	FG1	FG1	FG1	FG1
Coil	WC	WC	WC	WC
Sequence	6803	6803	6803	6803
Aux/Fan/Mix (CFM)	115	115	115	115
Accessories 1	PS	PS	PS	PS
Accessories 4	MERV3	MERV3	MERV3	MERV3
Accessories 5	DSW	DSW	DSW	DSW
Accessories 6	HBS	HBS	HBS	HBS

Revise FDC Max/Min Primary CFM to suit design indicated on drawings.
S.C.

Tag	F-5-CTRL	F-6-CTRL
#	34	35
Qty	1	1
Model	FDC	FDC
Size 1	10	20
Max Primary (CFM)	260	810
Min Primary (CFM)	65	220
Size 2	6	10
Terminal Liner	FG1	FG1
Coil	WC	WC
Sequence	6803	6803
Aux/Fan/Mix (CFM)	115	115
Accessories 1	PS	PS
Accessories 4	MERV3	MERV3
Accessories 5	DSW	DSW
Accessories 6	HBS	HBS

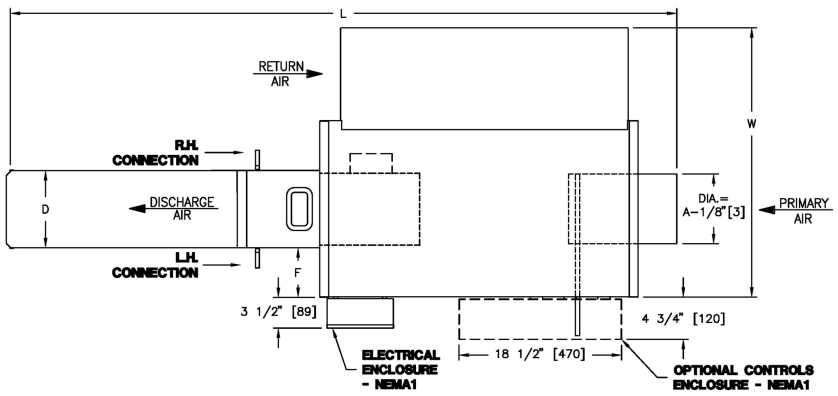
Controls and damper actuators shall be supplied and factory mounted by Price on each FDC terminal unit. See CCN-06 to come for addition of specification section 15840. Control box location to suit site conditions.
S.C.

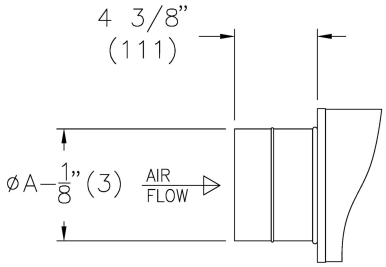
Performance Notes

Date Printed: 9/27/2024

1. Dashes (--) indicate NC values less than 20.
2. Sound power levels are given in decibels (dB).
3. Dashes (--) indicate sound power levels below 36-29-26-22-19-17 for each octave band; values below these sound power levels are considered below significance per AHRI 880.
4. Minimum operating pressure is the minimum static pressure required to operate the terminal item assembly at maximum primary flow with a wide open damper.
5. Airflow is given in cubic feet per minute (cfm).
6. Air pressure drop is given in inches water gauge (in. w.g.), and water pressure drop is given in feet of water gauge (ft. w.g.).
7. Water coil performance is rated and certified in accordance with the latest edition of AHRI Standard 410.

FDC Series Fan Powered Terminal Unit

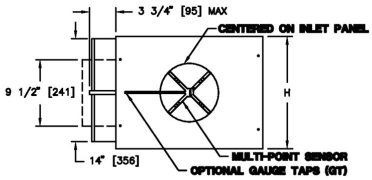


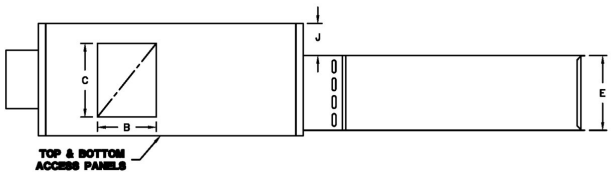


ECM Motor					
Unit Size	Motor H.P.	Full Load Amps			
		115V	208V	240V	277V
20	1/3	4.6	2.9	2.6	2.4

Box Size	Inlet A	Return		Discharge		W	H	L	F	J	K	Gauge
		B	C	D	E							
20	10	13 1/2	15	16	15	41	18 1/2	89 1/2	5	2 3/4	N/A	20

Controls





- Multi-point primary airflow sensor supplied by Price
- Controls mounted as standard on left hand side as shown. Units with right hand configuration are flipped, causing the discharge duct hanging elevation to change
- Left-handed controls shown.
- The outlet is not vertically centered on the discharge panel. When the box is supplied with right-handed controls, dimension 'J' measures from the bottom of the box instead of the top, as shown.
- Controls are supplied and factory mounted by Price
- Price thermostat factory supplied and field mounted
- Pressure independent
- 115/24v Control Transformer Supplied
- PS - Controls enclosure included

PROJECT: CIBC ERIN MILLS **SUBMITTAL NO:** 267944-K **SUBMITTAL DATE:** 9/27/2024
ENGINEER: **CUSTOMER:**
DESCRIPTION: Series Fan Powered Terminal Unit
FDC-1-3//I//20/10/CFM/245,240,210,220/980,810,670/115/ECM/HTF/980,810,670/RH/FG1/EHP/PS/////WC/S/2ROW//CAD/0.0/////////////IAS-FG//DA S3////MERV3///DSW/HBS///////115-24V/PIC/LCD/C/PT/TSM/PRB/BAC//NETc35-2/////6803

All metric dimensions () are soft converted. Imperial dimensions are converted to metric and rounded to the nearest millimeter.
Information within this document is subject to change without notice.

Terminal Notes

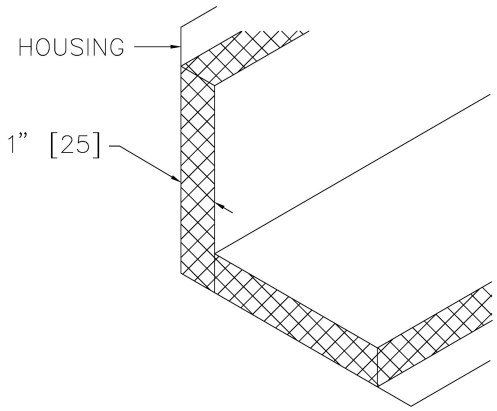
- 20ga zinc coated steel casing. Mechanically sealed, leak resistant construction
- Primary damper blade constructed of two layers of heavy gauge galvanized steel with a sandwiched peripheral gasket
- 1/2" (13) dia. Zinc plated solid steel shaft with end indicator mark showing damper position
- Damper leakage rated below 2% of nominal flow at 3" W.G. Damper CCW to close
- Rectangular discharge opening with slip & drive connection
- Units not to be used for temporary heat or ventilation during construction
- Minimum 0.1" w.g. (25 PA) external static pressure to operate
- Refer to submitted box schedule for air volumes and inlet sizes
- Listed UL1995 & CSA236 assembly

Motor Notes

- ECM electric motor 1 phase, 60 cycle. Speed controller included
- Motor speed controller included in NEMA1 electrical enclosure

Terminal Liner - FG1

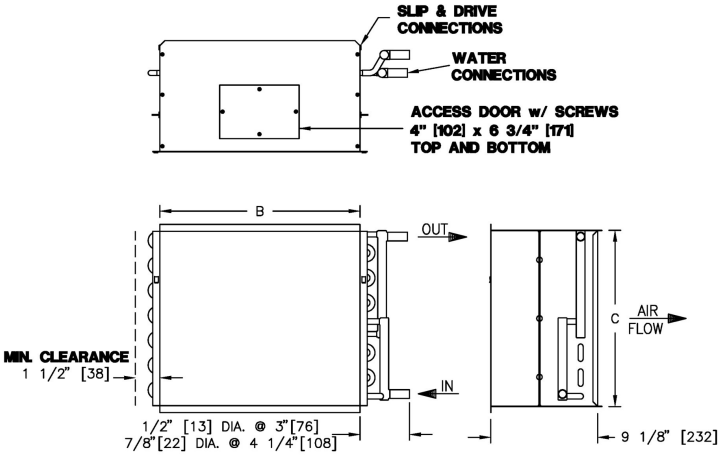
Internal Insulation - Fiberglass 1" (25 mm) thick, min. 1.5 lb/cu.ft density, meets requirements of NFPA90A and UL 181.
R-value = 4.1



PROJECT: CIBC ERIN MILLS **SUBMITTAL NO:** 267944-K **SUBMITTAL DATE:** 9/27/2024
ENGINEER: **CUSTOMER:**
DESCRIPTION: Series Fan Powered Terminal Unit
FDC-1-3//I//20/10/CFM/245,240,210,220/980,810,670/115/ECM/HTF/980,810,670/RH/FG1/EHP/PS/////WC/S/2ROW//CAD/0.0//////////////IAS-FG//DA S3////MERV3///DSW/HBS///////115-24V/PIC/LCD/C/PT/TSM/PRB/BAC//NETc35-2/////6803

All metric dimensions () are soft converted. Imperial dimensions are converted to metric and rounded to the nearest millimeter.
Information within this document is subject to change without notice.

Water Coil - Right Hand



- CAD - Coil Access Door w/screws (upstream of hot water coil only)

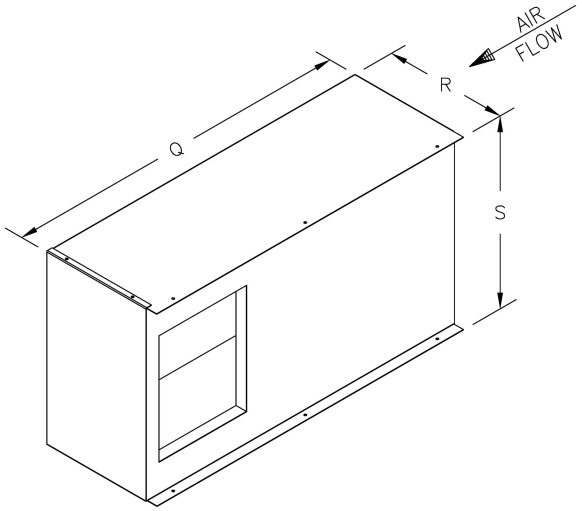
Unit Size	B (Width)	C (Height)	Connection Sizes	
			1 Row	2 Row
20	16	15	7/8	7/8

Coil Notes:

- Fabricated from 22 ga. galvanized steel mechanically sealed, leak resistant construction
- Refer to submitted terminal unit schedule for air volumes and reheat coil capacities
- Water coil handing is the same as unit handing
- Standard coils supplied with 10 fins per inch
- Hot water coils have copper tubes and aluminum fins with O.D. sweat connections
- Method of venting reheat coil is to be provided by installing contractor
- Water Coil Performance rated and certified in accordance with the current edition of AHRI standard 410
- Access door for inspection and maintenance of coil is featured.

Inlet Attenuator IAS-FG

Genesis Return Air Inlet Attenuator w/ FG1 Liner



UNIT SIZE	Q (Length)	R (Width)	S (Height)
20	25	15	18 1/2

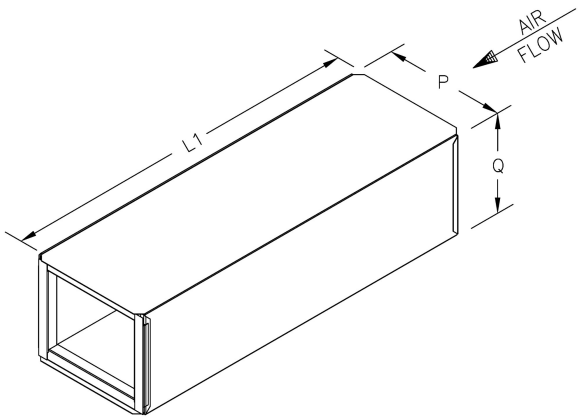
- Inlet Attenuator will be shipped assembled
- 22 ga galvanized steel housing, mechanically sealed, leak resistant construction
- Inlet attenuator insulation to match terminal unit

PROJECT: CIBC ERIN MILLS **SUBMITTAL NO:** 267944-K **SUBMITTAL DATE:** 9/27/2024
ENGINEER: **CUSTOMER:**
DESCRIPTION: Series Fan Powered Terminal Unit
FDC-1-3//I//20/10/CFM/245,240,210,220/980,810,670/115/ECM/HTF/980,810,670/RH/FG1/EHP/PS/////WC/S/2ROW//CAD/0.0//////////////IAS-FG//DA S3////MERV3///DSW/HBS///////115-24V/PIC/LCD/C/PT/TSM/PRB/BAC//NETc35-2/////6803

All metric dimensions () are soft converted. Imperial dimensions are converted to metric and rounded to the nearest millimeter.
Information within this document is subject to change without notice.

Discharge Attenuator DAS3

3ft discharge attenuator

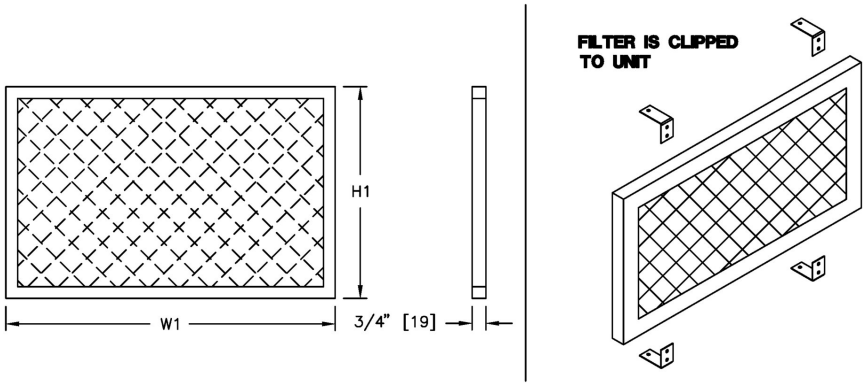


Unit Size	P	Q	L1
20	16	15	35

- 22 ga galvanized steel housing, mechanically sealed, leak resistant construction
- Discharge attenuator insulation to match terminal unit liner
- Slip and drive connection ends provided on discharge attenuator
- Discharge attenuator to be field mounted to discharge collar, shipped loose

Filter MERV3

1" MERV3 Return-Air Filter



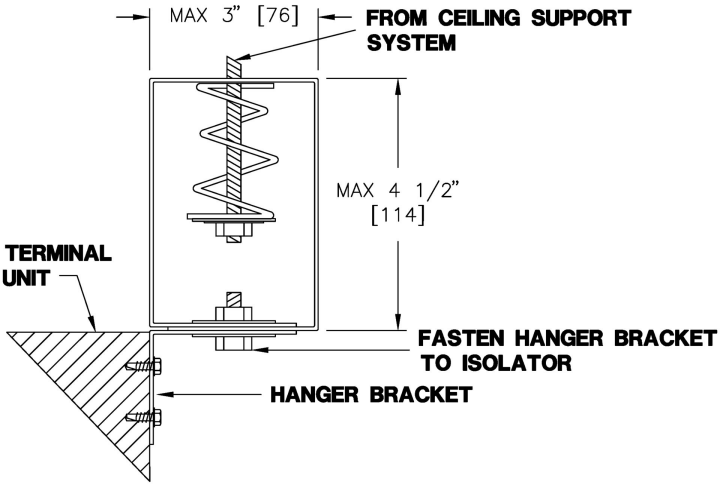
- Cardboard frame
- 1" (25) Nominal Filter Media
- Merv 3 Rating
- Filter clipped to attenuator

UNIT SIZE	W1 (Width)	H1 (Height)
20	15	18 1/2

PROJECT: CIBC ERIN MILLS **SUBMITTAL NO:** 267944-K **SUBMITTAL DATE:** 9/27/2024
ENGINEER: **CUSTOMER:**
DESCRIPTION: Series Fan Powered Terminal Unit
FDC-1-3//I//20/10/CFM/245,240,210,220/980,810,670/115/ECM/HTF/980,810,670/RH/FG1/EHP/PS/////WC/S/2ROW//CAD/0.0//////////////IAS-FG//DAS3////MERV3///DSW/HBS///////115-24V/PIC/LCD/C/PT/TSM/PRB/BAC//NETc35-2/////6803

All metric dimensions () are soft converted. Imperial dimensions are converted to metric and rounded to the nearest millimeter.
Information within this document is subject to change without notice.

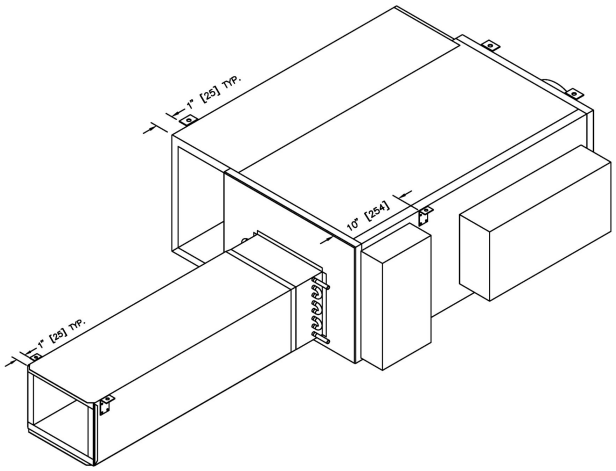
Hanger Bracket - HBS (Spring Isolation)



- Hanger brackets are 12 gauge zinc coated steel
- 4 hanger brackets per fan unit
- 2 hanger brackets per discharge attenuator
- Brackets are shipped loose for field installation for use with threaded hanger rods (by others)
- Layout indicates suggested hanger bracket locations
- 4 Yellow spring hanger brackets per unit
- 2 Red spring hanger brackets per discharge attenuator or discharge silencer

Suggested HBS Locations:

Image is for reference only. It may not reflect the exact arrangement of accessories.



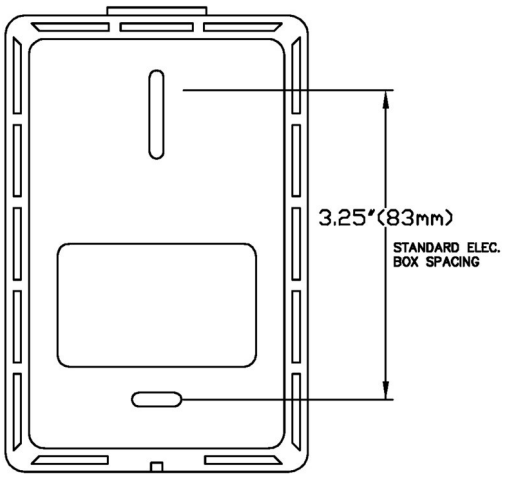
PROJECT: CIBC ERIN MILLS **SUBMITTAL NO:** 267944-K **SUBMITTAL DATE:** 9/27/2024
ENGINEER: **CUSTOMER:**
DESCRIPTION: Series Fan Powered Terminal Unit
FDC-1-3//I//20/10/CFM/245,240,210,220/980,810,670/115/ECM/HTF/980,810,670/RH/FG1/EHP/PS/////WC/S/2ROW//CAD/0.0//////////////IAS-FG//DAS3////MERV3///DSW/HBS///////115-24V/PIC/LCD/C/PT/TSM/PRB/BAC//NETc35-2/////6803

All metric dimensions () are soft converted. Imperial dimensions are converted to metric and rounded to the nearest millimeter.
Information within this document is subject to change without notice.

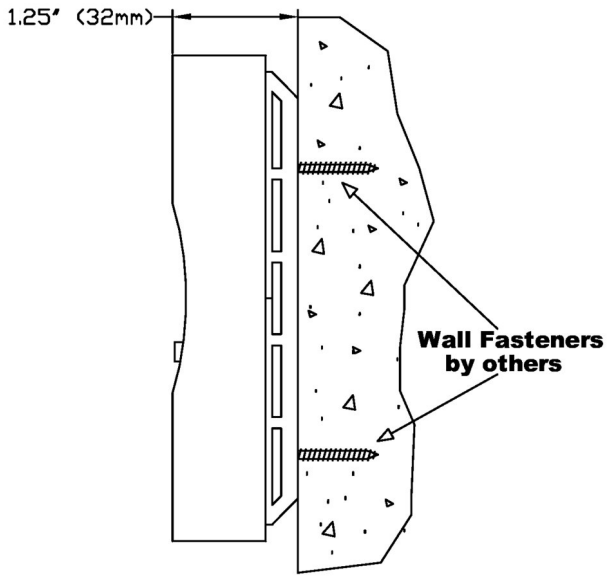
Thermostat LCD LCD Thermostat

Price LCD Thermostat
PT# 250052-100

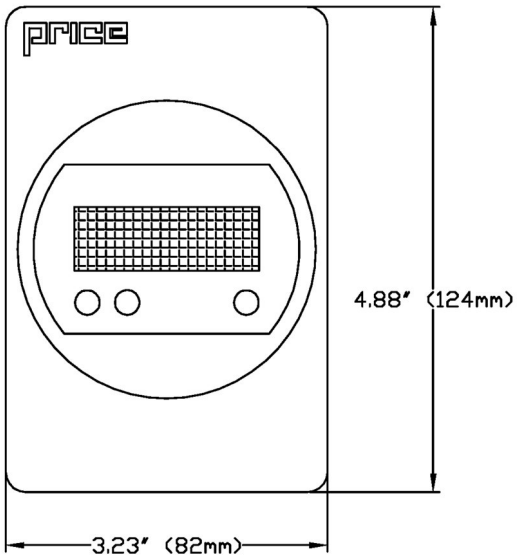
Backplate - Rear View



Surface Mount Detail



Face View



SPECIFICATIONS:

POWER REQUIREMENTS:
– POWER IS SUPPLIED FROM THE MAIN CONTROLLER (PIC, PRODIGY, ETC.)

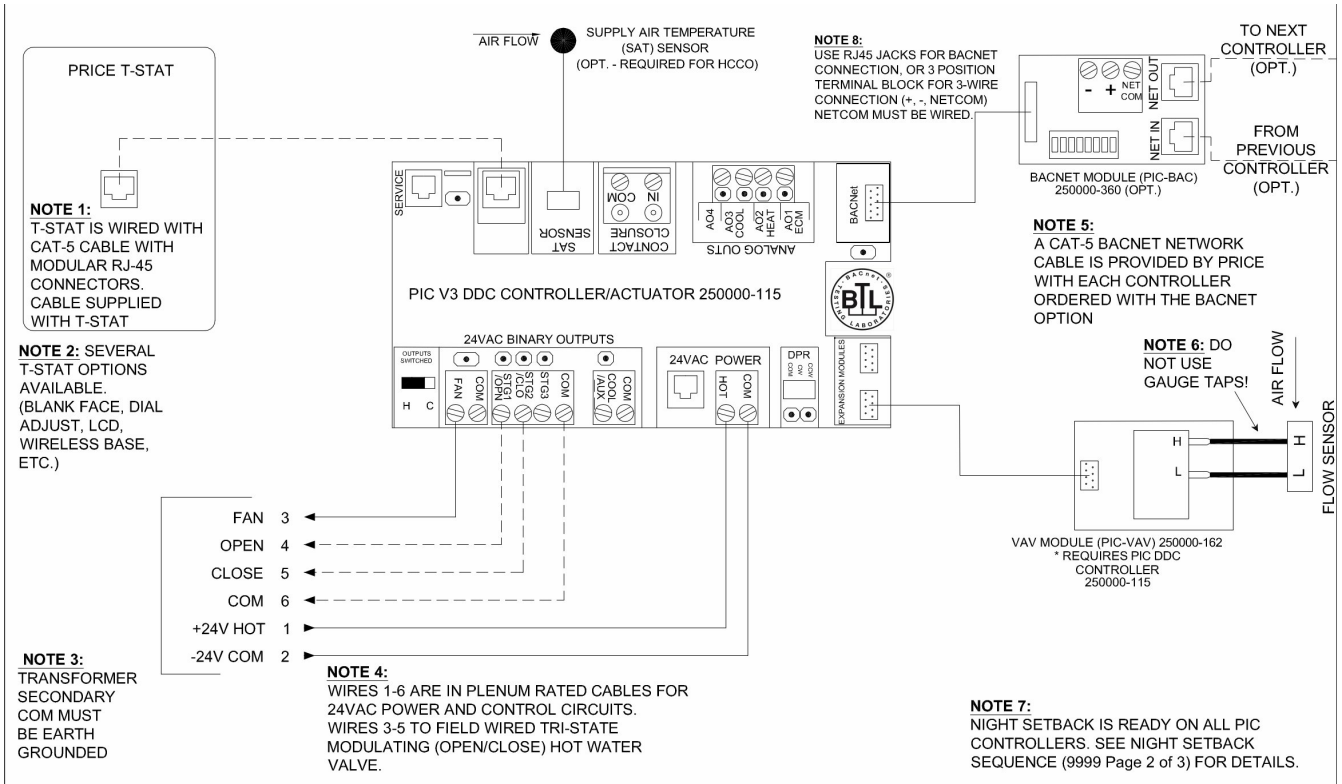
COMMUNICATION PORT:
– RJ–45 CONNECTION TO THE MAIN CONTROLLER
– RJ–12 CONNECTION TO THE PRICE USB LINKER SETUP TOOL

FEATURES:
– ROOM TEMPERATURE IS MEASURED BY AN INTERNAL 10K TYPE J THERMISTOR WITH AN ACCURACY OF +/– 0.5°F FROM 55°F TO 85°F (+/– 0.25°C FROM 13°C TO 25°C)
– LCD SCREEN WITH COOL–BLUE BACKLIGHT
– PUSH BUTTON SETPOINT ADJUSTMENT
– SYSTEM SETUP AND BALANCING DIRECTLY FROM THERMOSTAT

PROJECT: CIBC ERIN MILLS
ENGINEER:
SUBMITTAL NO: 267944-K
CUSTOMER:
SUBMITTAL DATE: 9/27/2024
DESCRIPTION: Series Fan Powered Terminal Unit
FDC-1-3//I//20/10/CFM/245,240,210,220/980,810,670/115/ECM/HTF/980,810,670/RH/FG1/EHP/PS/////WC/S/2ROW//CAD/0.0//////////////IAS-FG//DAS3////MERV3///DSW/HBS///////115-24V/PIC/LCD/C/PT/TSM/PRB/BAC//NETc35-2/////6803

All metric dimensions () are soft converted. Imperial dimensions are converted to metric and rounded to the nearest millimeter.
Information within this document is subject to change without notice.

Control Sequence 6803



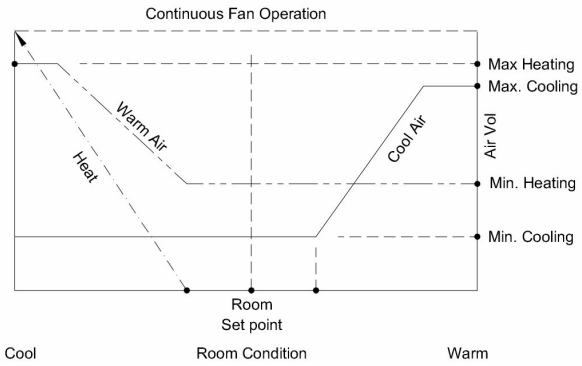
LEGEND

FACTORY FLOW SENSOR TUBING

FACTORY ELECTRICAL WIRING

FIELD ELECTRICAL WIRING

CONTROL GRAPH



Sequence of Operation -- Constant Volume Heat/cool changeover OR Cooling With Tri-State modulating HW reheat - Pressure Independent

On power up the damper will calibrate closed for 2 minutes.
If no SAT sensor is present, the controller assumes Cool supply air at all times
While the space is occupied, the unit fan operates continuously supplying a constant volume of supply air.

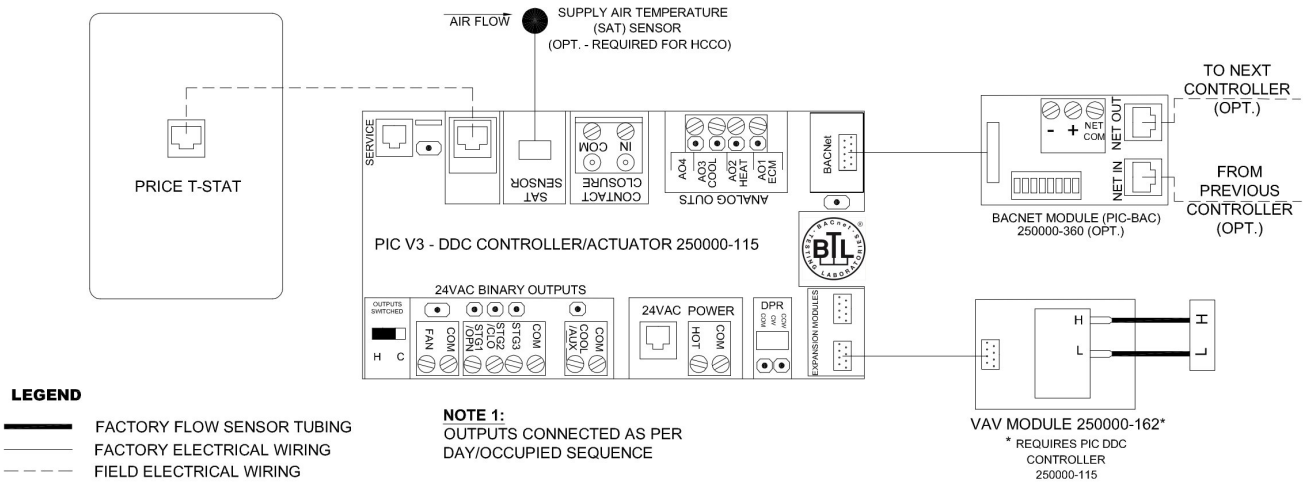
Cool supply air: On an increase in space temperature the controller regulates the actuator to open the VAV damper and increase the flow of cool air. On an increase of space temperature greater than the cooling proportional band, the airflow is maintained at its pre-selected maximum setting.
On a decrease in space temperature the controller regulates the actuator to close the VAV damper and reduce the flow of cool air. If the space temperature decreases to less than the cooling proportional band, the airflow is maintained at the pre-selected minimum setting.
Warm supply air: On a decrease in space temperature the controller regulates the actuator to open the VAV damper and increase the flow of warm air. On a decrease of space temperature greater than the heating proportional band, the airflow is maintained at its pre-selected maximum setting.
On an increase in space temperature the controller regulates the actuator to close the VAV damper and reduce the flow of warm air. If the space temperature increases above the heating proportional band, the airflow is maintained at the pre-selected minimum setting.
Reheat Operation: On a decrease in space temperature, the heating valve is modulated to increase heat proportionally to the room demand.

PROJECT: CIBC ERIN MILLS
ENGINEER:
SUBMITTAL NO: 267944-K
CUSTOMER:
SUBMITTAL DATE: 9/27/2024
DESCRIPTION: Series Fan Powered Terminal Unit
FDC-1-3//I//20/10/CFM/245,240,210,220/980,810,670/115/ECM/HTF/980,810,670/RH/FG1/EHP/PS////WC/S/2ROW//CAD/0.0//////////////IAS-FG//DA S3////MERV3///DSW/HBS///////115-24V/PIC/LCD/C/PT/TSM/PRB/BAC//NETc35-2/////6803

All metric dimensions () are soft converted. Imperial dimensions are converted to metric and rounded to the nearest millimeter.
Information within this document is subject to change without notice.

Control Sequence 9999

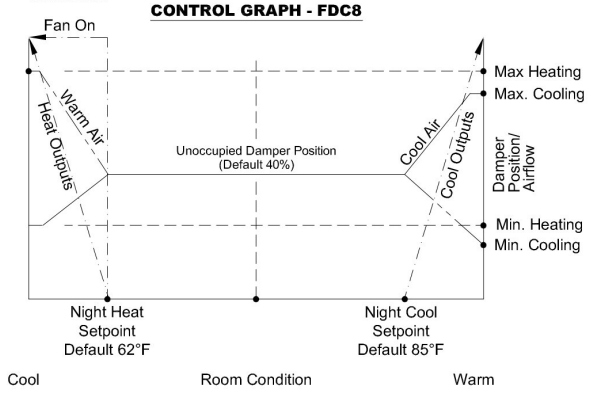
Fan Powered Constant Volume Series Flow - PIC Controller, Night Setback



Entering and Exiting Night Setback: There are several methods for the PIC to enter and exit night setback (unoccupied mode). All of the following methods can be enabled or disabled in software or from the T-Stat menu.

1. **Airflow Failure:** (Disabled by default) If using a Pressure Independant day sequence (with the PIC-VAV module), the controller will enter night setback when minimal airflow is sensed in the duct. The controller does this based on Day Flow Trip and Night Flow Trip (adjustable).
   Day Flow Trip is enabled when the controller sees more than 1/2 of its minimum airflow - i.e. min airflow = 132 cfm, Day Flow Trip = 66 cfm.
   Night Flow Trip is enabled when the controller sees less than 1/2 of its day flow trip value - i.e. 33 cfm
2. **Motion Sensor:** (Disabled by default) If a motion sensor T-Stat is used, the controller can enter night setback if no motion has been detetected in the space for a specified period of time (default: 4 hours).
3. **Contact Closure:** (Disabled by default) Connecting the two contact closure inputs together using a dry contact will cause the controller to enter night setback. The controller will exit night setback once the contacts are released.
4. **T-Stat Button:** The T-Stat button allows the user to exit night setback. Pressing any button on the T-Stat will cause the controller to exit night setback for the override time period. (default: 4 hours). Occupancy override by T-Stat button is always enabled and cannot be disabled.

CONTROL GRAPH - FDC8



Sequence of Operation -- FAN POWERED CONSTANT VOLUME SERIES FLOW - PIC CONTROLLER - NIGHT SETBACK
During night setback, the controller will respond to its night heat setpoint and its night cool setpoint.
While the room temperature is between the two night setpoints, by default the controller will maintain the damper position at 25% open (adjustable). All outputs (Fan, Heat, etc.) will go to their OFF or IDLE states.

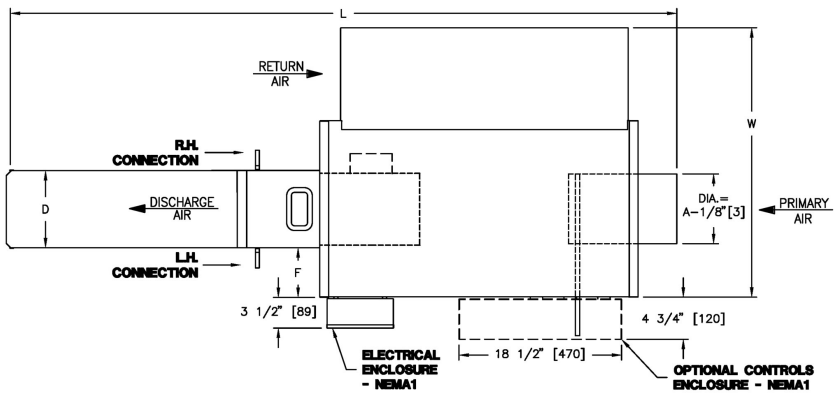
Room temperature below Night Heat Setpoint:
Fan Operation: On a decrease in space temperature into the heating proportional band, the unit fan will energize.
Reheat Operation: On a decrease in space temperature into the heating proportional band, the reheat outputs (if used) are energized proportionally.
Cool supply air: On a decrease in space temperature the controller regulates the actuator to close the VAV damper and reduce the flow of cool air. The airflow is maintained at the pre-selected minimum setting.
Warm supply air: On a decrease in space temperature the controller regulates the actuator to open the VAV damper and increase the flow of warm air. On a decrease of space temperature greater than the heating proportional band, the airflow is maintained at its pre-selected maximum setting.

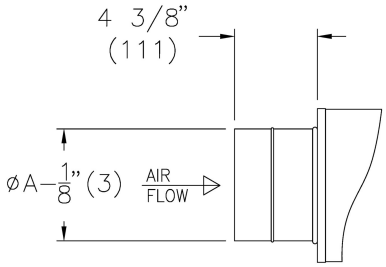
Room temperature above Night Cool Setpoint:
Fan Operation: On an increase in space temperature into the cooling proportional band, the unit fan typically will not energize. It is possible to configure the controller to energize the fan if using cooling coils.
Cooling Output Operation: On an increase in space temperature into the cooling proportional band, the cooling outputs (if used) are energized proportionally.
Cool supply air: On an increase in space temperature the controller regulates the actuator to open the VAV damper and increase the flow of cool air. On an increase of space temperature greater than the cooling proportional band, the airflow is maintained at its pre-selected maximum setting.
Warm supply air: On an increase in space temperature the controller regulates the actuator to close the VAV damper and reduce the flow of warm air. The airflow is maintained at the pre-selected minimum setting.

PROJECT: CIBC ERIN MILLS
ENGINEER:
SUBMITTAL NO: 267944-K
CUSTOMER:
SUBMITTAL DATE: 9/27/2024
DESCRIPTION: Series Fan Powered Terminal Unit
FDC-1-3//I//20/10/CFM/245,240,210,220/980,810,670/115/ECM/HTF/980,810,670/RH/FG1/EHP/PS/////WC/S/2ROW//CAD/0.0/////////////IAS-FG//DA S3////MERV3///DSW/HBS///////115-24V/PIC/LCD/C/PT/TSM/PRB/BAC//NETc35-2/////6803

All metric dimensions () are soft converted. Imperial dimensions are converted to metric and rounded to the nearest millimeter.
Information within this document is subject to change without notice.

FDC Series Fan Powered Terminal Unit

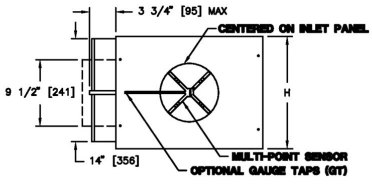


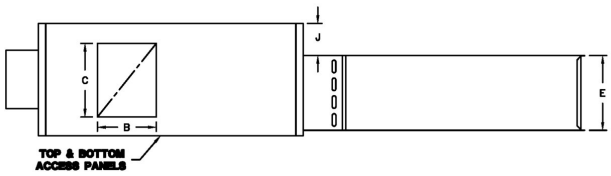


ECM Motor					
Unit Size	Motor H.P.	Full Load Amps			
		115V	208V	240V	277V
20	1/3	4.6	2.9	2.6	2.4

Box Size	Inlet A	Return		Discharge		W	H	L	F	J	K	Gauge
		B	C	D	E							
20	12	13 1/2	15	16	15	41	18 1/2	89 1/2	5	2 3/4	N/A	20

Controls





- Multi-point primary airflow sensor supplied by Price
- Controls mounted as standard on left hand side as shown. Units with right hand configuration are flipped, causing the discharge duct hanging elevation to change
- Left-handed controls shown.
- The outlet is not vertically centered on the discharge panel. When the box is supplied with right-handed controls, dimension 'J' measures from the bottom of the box instead of the top, as shown.
- Controls are supplied and factory mounted by Price
- Price thermostat factory supplied and field mounted
- Pressure independent
- 115/24v Control Transformer Supplied
- PS - Controls enclosure included

PROJECT: CIBC ERIN MILLS
SUBMITTAL NO: 267944-K
SUBMITTAL DATE: 9/27/2024
ENGINEER:
CUSTOMER:
DESCRIPTION: Series Fan Powered Terminal Unit
FDC-1-3//I//20/12/CFM/300/810/115/ECM/HTF/810/RH/FG1/EHP/PS/////WC/S/2ROW//CAD/0.0//////////////IAS-FG//DAS3////MERV3///DSW/HBS///////115-24V/PIC/LCD/C/PT/TSM/PRB/BAC//NETc35-2/////6803

All metric dimensions () are soft converted. Imperial dimensions are converted to metric and rounded to the nearest millimeter.
Information within this document is subject to change without notice.

Terminal Notes

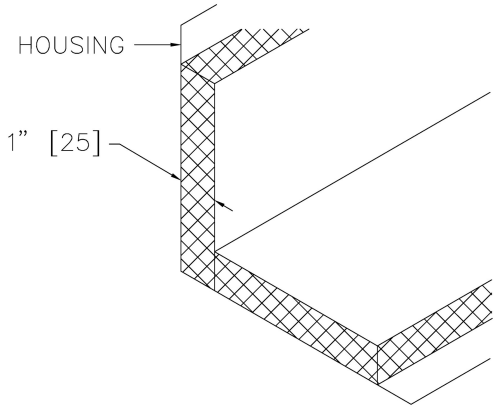
- 20ga zinc coated steel casing. Mechanically sealed, leak resistant construction
- Primary damper blade constructed of two layers of heavy gauge galvanized steel with a sandwiched peripheral gasket
- 1/2" (13) dia. Zinc plated solid steel shaft with end indicator mark showing damper position
- Damper leakage rated below 2% of nominal flow at 3" W.G. Damper CCW to close
- Rectangular discharge opening with slip & drive connection
- Units not to be used for temporary heat or ventilation during construction
- Minimum 0.1" w.g. (25 PA) external static pressure to operate
- Refer to submitted box schedule for air volumes and inlet sizes
- Listed UL1995 & CSA236 assembly

Motor Notes

- ECM electric motor 1 phase, 60 cycle. Speed controller included
- Motor speed controller included in NEMA1 electrical enclosure

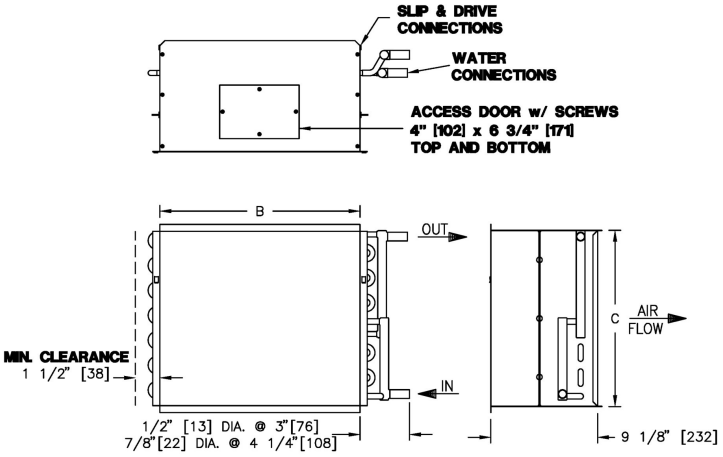
Terminal Liner - FG1

Internal Insulation - Fiberglass 1" (25 mm) thick, min. 1.5 lb/cu.ft density, meets requirements of NFPA90A and UL 181.
R-value = 4.1



PROJECT: CIBC ERIN MILLS
SUBMITTAL NO: 267944-K
SUBMITTAL DATE: 9/27/2024
ENGINEER:
CUSTOMER:
DESCRIPTION: Series Fan Powered Terminal Unit
FDC-1-3//I//20/12/CFM/300/810/115/ECM/HTF/810/RH/FG1/EHP/PS/////WC/S/2ROW//CAD/0.0//////////////IAS-FG//DAS3////MERV3///DSW/HBS///////115-24V/PIC/LCD/C/PT/TSM/PRB/BAC//NETc35-2/////6803

Water Coil - Right Hand



- CAD - Coil Access Door w/screws (upstream of hot water coil only)

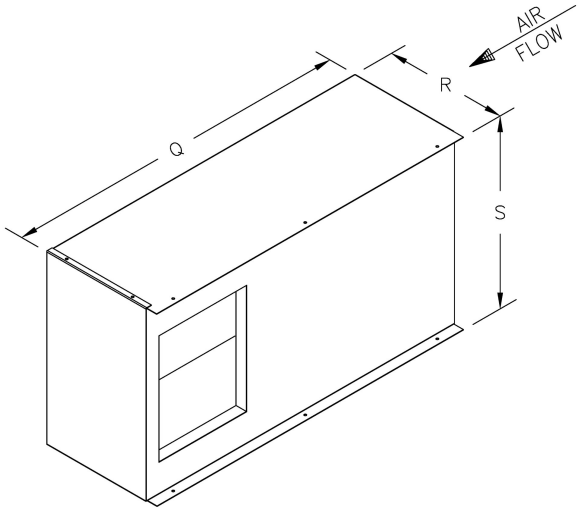
Unit Size	B (Width)	C (Height)	Connection Sizes	
			1 Row	2 Row
20	16	15	7/8	7/8

Coil Notes:

- Fabricated from 22 ga. galvanized steel mechanically sealed, leak resistant construction
- Refer to submitted terminal unit schedule for air volumes and reheat coil capacities
- Water coil handing is the same as unit handing
- Standard coils supplied with 10 fins per inch
- Hot water coils have copper tubes and aluminum fins with O.D. sweat connections
- Method of venting reheat coil is to be provided by installing contractor
- Water Coil Performance rated and certified in accordance with the current edition of AHRI standard 410
- Access door for inspection and maintenance of coil is featured.

Inlet Attenuator IAS-FG

Genesis Return Air Inlet Attenuator w/ FG1 Liner



UNIT SIZE	Q (Length)	R (Width)	S (Height)
20	25	15	18 1/2

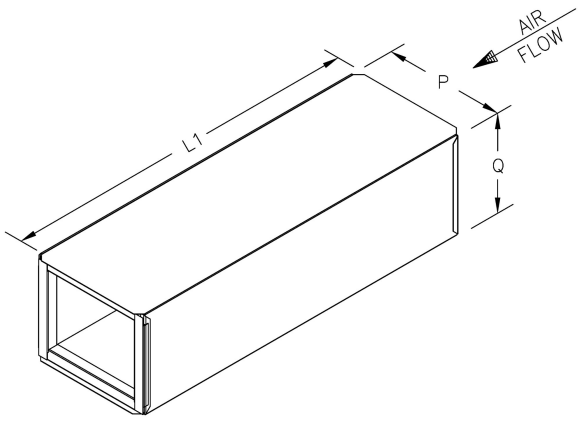
- Inlet Attenuator will be shipped assembled
- 22 ga galvanized steel housing, mechanically sealed, leak resistant construction
- Inlet attenuator insulation to match terminal unit

PROJECT: CIBC ERIN MILLS
SUBMITTAL NO: 267944-K
SUBMITTAL DATE: 9/27/2024
ENGINEER:
CUSTOMER:
DESCRIPTION: Series Fan Powered Terminal Unit
FDC-1-3//I//20/12/CFM/300/810/115/ECM/HTF/810/RH/FG1/EHP/PS/////WC/S/2ROW//CAD/0.0//////////////IAS-FG//DAS3////MERV3///DSW/HBS///////115-24V/PIC/LCD/C/PT/TSM/PRB/BAC//NETc35-2/////6803

All metric dimensions () are soft converted. Imperial dimensions are converted to metric and rounded to the nearest millimeter.
Information within this document is subject to change without notice.

Discharge Attenuator DAS3

3ft discharge attenuator

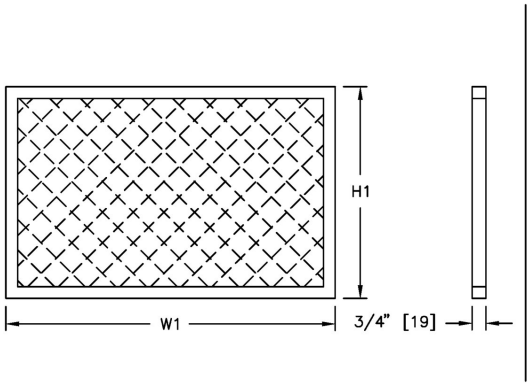


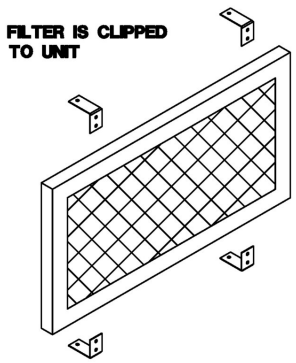
Unit Size	P	Q	L1
20	16	15	35

- 22 ga galvanized steel housing, mechanically sealed, leak resistant construction
- Discharge attenuator insulation to match terminal unit liner
- Slip and drive connection ends provided on discharge attenuator
- Discharge attenuator to be field mounted to discharge collar, shipped loose

Filter MERV3

1" MERV3 Return-Air Filter





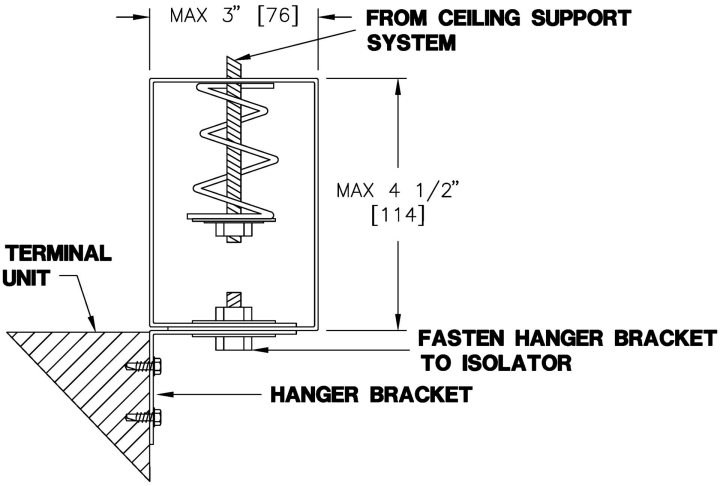
- Cardboard frame
- 1" (25) Nominal Filter Media
- Merv 3 Rating
- Filter clipped to attenuator

UNIT SIZE	W1 (Width)	H1 (Height)
20	15	18 1/2

PROJECT: CIBC ERIN MILLS
SUBMITTAL NO: 267944-K
SUBMITTAL DATE: 9/27/2024
ENGINEER:
CUSTOMER:
DESCRIPTION: Series Fan Powered Terminal Unit
FDC-1-3//I//20/12/CFM/300/810/115/ECM/HTF/810/RH/FG1/EHP/PS/////WC/S/2ROW//CAD/0.0//////////////IAS-FG//DAS3////MERV3///DSW/HBS///////115-24V/PIC/LCD/C/PT/TSM/PRB/BAC//NETc35-2/////6803

All metric dimensions () are soft converted. Imperial dimensions are converted to metric and rounded to the nearest millimeter.
Information within this document is subject to change without notice.

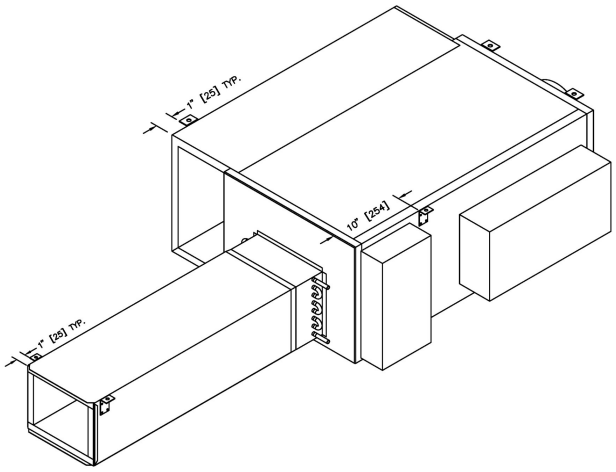
Hanger Bracket - HBS (Spring Isolation)



- Hanger brackets are 12 gauge zinc coated steel
- 4 hanger brackets per fan unit
- 2 hanger brackets per discharge attenuator
- Brackets are shipped loose for field installation for use with threaded hanger rods (by others)
- Layout indicates suggested hanger bracket locations
- 4 Yellow spring hanger brackets per unit
- 2 Red spring hanger brackets per discharge attenuator or discharge silencer

Suggested HBS Locations:

Image is for reference only. It may not reflect the exact arrangement of accessories.



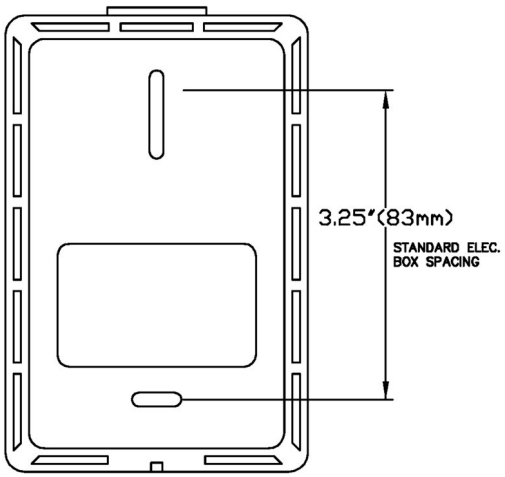
PROJECT: CIBC ERIN MILLS
SUBMITTAL NO: 267944-K
SUBMITTAL DATE: 9/27/2024
ENGINEER:
CUSTOMER:
DESCRIPTION: Series Fan Powered Terminal Unit
FDC-1-3//I//20/12/CFM/300/810/115/ECM/HTF/810/RH/FG1/EHP/PS/////WC/S/2ROW//CAD/0.0//////////////IAS-FG//DAS3////MERV3///DSW/HBS///////115-24V/PIC/LCD/C/PT/TSM/PRB/BAC//NETc35-2/////6803

All metric dimensions () are soft converted. Imperial dimensions are converted to metric and rounded to the nearest millimeter.
Information within this document is subject to change without notice.

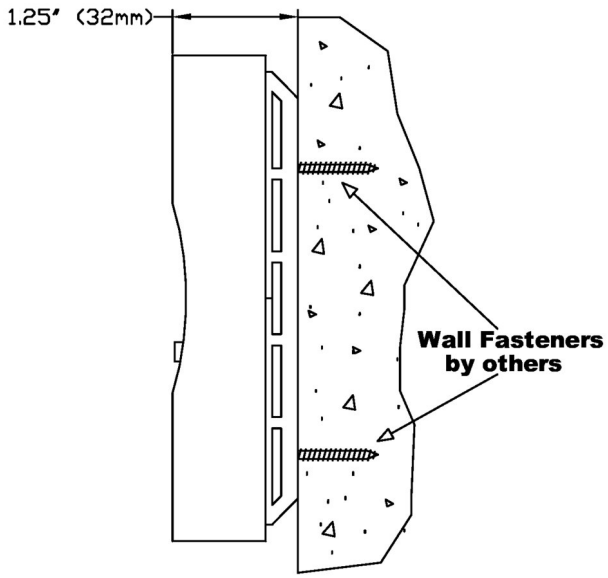
Thermostat LCD LCD Thermostat

Price LCD Thermostat
PT# 250052-100

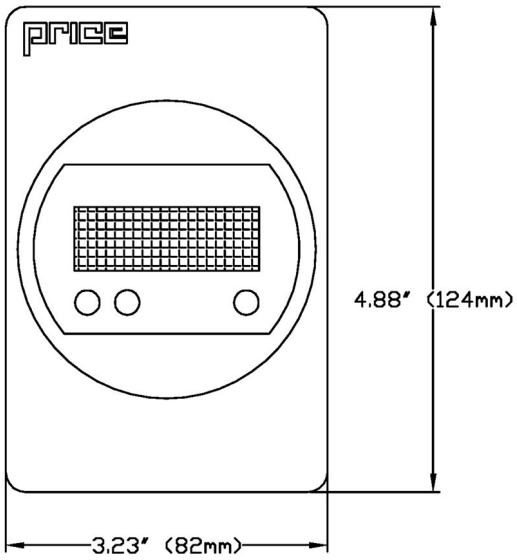
Backplate - Rear View



Surface Mount Detail



Face View



SPECIFICATIONS:

POWER REQUIREMENTS:
– POWER IS SUPPLIED FROM THE MAIN CONTROLLER (PIC, PRODIGY, ETC.)

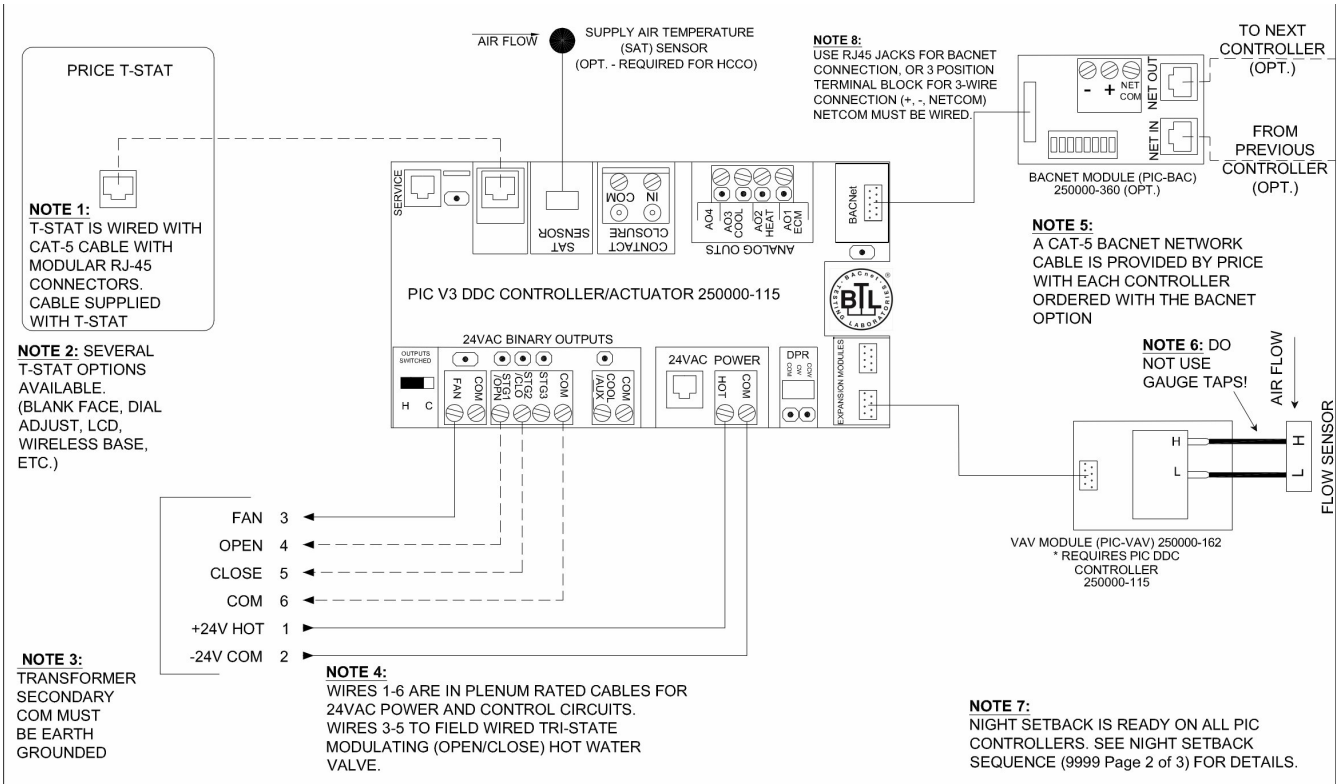
COMMUNICATION PORT:
– RJ–45 CONNECTION TO THE MAIN CONTROLLER
– RJ–12 CONNECTION TO THE PRICE USB LINKER SETUP TOOL

FEATURES:
– ROOM TEMPERATURE IS MEASURED BY AN INTERNAL 10K TYPE J THERMISTOR WITH AN ACCURACY OF +/– 0.5°F FROM 55°F TO 85°F (+/– 0.25°C FROM 13°C TO 25°C)
– LCD SCREEN WITH COOL–BLUE BACKLIGHT
– PUSH BUTTON SETPOINT ADJUSTMENT
– SYSTEM SETUP AND BALANCING DIRECTLY FROM THERMOSTAT

PROJECT: CIBC ERIN MILLS
ENGINEER:
SUBMITTAL NO: 267944-K
CUSTOMER:
SUBMITTAL DATE: 9/27/2024
DESCRIPTION: Series Fan Powered Terminal Unit
FDC-1-3//I//20/12/CFM/300/810/115/ECM/HTF/810/RH/FG1/EHP/PS/////WC/S/2ROW//CAD/0.0//////////////IAS-FG//DAS3////MERV3///DSW/HBS///////115-24V/PIC/LCD/C/PT/TSM/PRB/BAC//NETc35-2/////6803

All metric dimensions () are soft converted. Imperial dimensions are converted to metric and rounded to the nearest millimeter.
Information within this document is subject to change without notice.

Control Sequence 6803



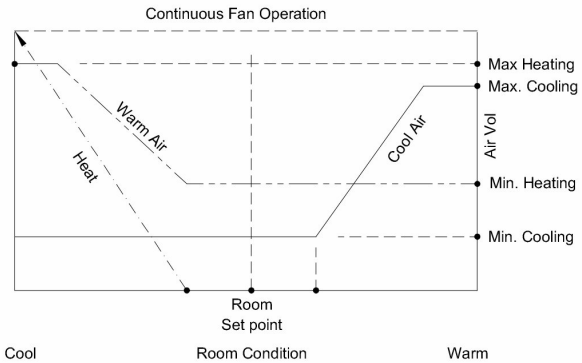
LEGEND

FACTORY FLOW SENSOR TUBING

FACTORY ELECTRICAL WIRING

FIELD ELECTRICAL WIRING

CONTROL GRAPH



Sequence of Operation -- Constant Volume Heat/cool changeover OR Cooling With Tri-State modulating HW reheat - Pressure Independent

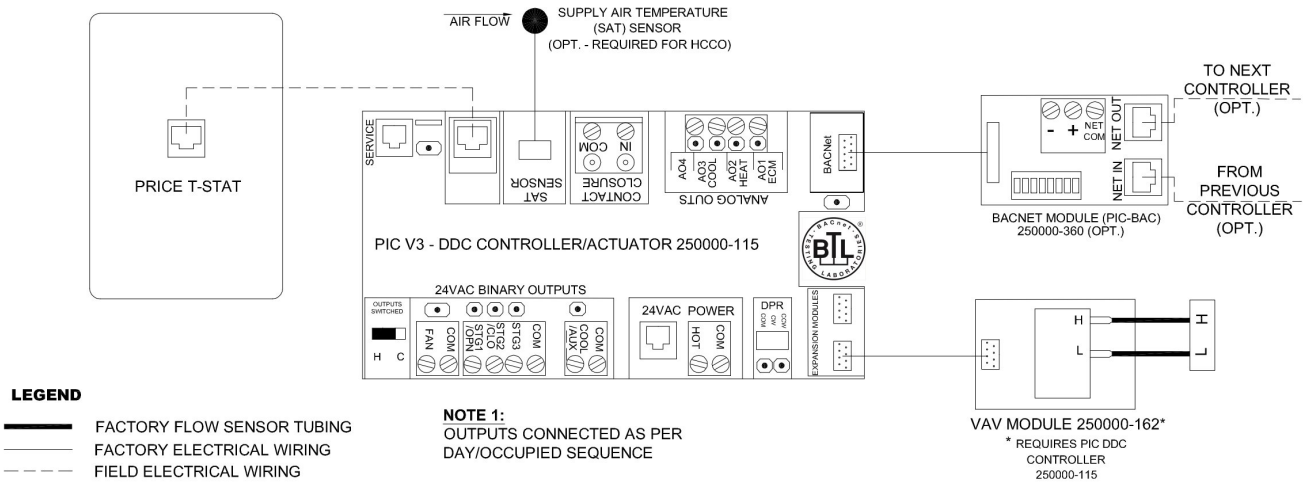
On power up the damper will calibrate closed for 2 minutes.
If no SAT sensor is present, the controller assumes Cool supply air at all times
While the space is occupied, the unit fan operates continuously supplying a constant volume of supply air.

Cool supply air: On an increase in space temperature the controller regulates the actuator to open the VAV damper and increase the flow of cool air. On an increase of space temperature greater than the cooling proportional band, the airflow is maintained at its pre-selected maximum setting.
On a decrease in space temperature the controller regulates the actuator to close the VAV damper and reduce the flow of cool air. If the space temperature decreases to less than the cooling proportional band, the airflow is maintained at the pre-selected minimum setting.
Warm supply air: On a decrease in space temperature the controller regulates the actuator to open the VAV damper and increase the flow of warm air. On a decrease of space temperature greater than the heating proportional band, the airflow is maintained at its pre-selected maximum setting.
On an increase in space temperature the controller regulates the actuator to close the VAV damper and reduce the flow of warm air. If the space temperature increases above the heating proportional band, the airflow is maintained at the pre-selected minimum setting.
Reheat Operation: On a decrease in space temperature, the heating valve is modulated to increase heat proportionally to the room demand.

PROJECT: CIBC ERIN MILLS
ENGINEER:
SUBMITTAL NO: 267944-K
CUSTOMER:
SUBMITTAL DATE: 9/27/2024
DESCRIPTION: Series Fan Powered Terminal Unit
FDC-1-3//I//20/12/CFM/300/810/115/ECM/HTF/810/RH/FG1/EHP/PS/////WC/S/2ROW//CAD/0.0//////////////IAS-FG//DAS3////MERV3///DSW/HBS///////115-24V/PIC/LCD/C/PT/TSM/PRB/BAC//NETc35-2/////6803

Control Sequence 9999

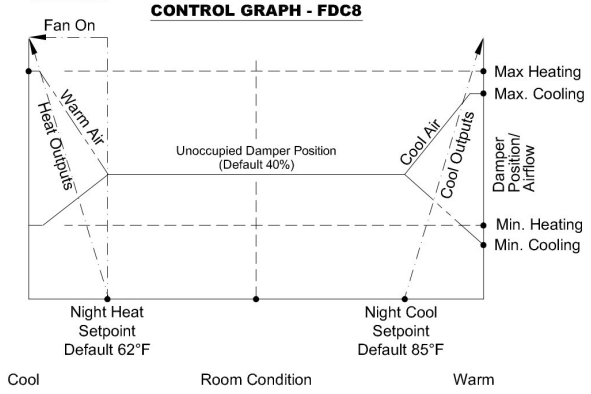
Fan Powered Constant Volume Series Flow - PIC Controller, Night Setback



Entering and Exiting Night Setback: There are several methods for the PIC to enter and exit night setback (unoccupied mode). All of the following methods can be enabled or disabled in software or from the T-Stat menu.

1. **Airflow Failure:** (Disabled by default) If using a Pressure Independant day sequence (with the PIC-VAV module), the controller will enter night setback when minimal airflow is sensed in the duct. The controller does this based on Day Flow Trip and Night Flow Trip (adjustable).
   Day Flow Trip is enabled when the controller sees more than 1/2 of its minimum airflow - i.e. min airflow = 132 cfm, Day Flow Trip = 66 cfm.
   Night Flow Trip is enabled when the controller sees less than 1/2 of its day flow trip value - i.e. 33 cfm
2. **Motion Sensor:** (Disabled by default) If a motion sensor T-Stat is used, the controller can enter night setback if no motion has been detetected in the space for a specified period of time (default: 4 hours).
3. **Contact Closure:** (Disabled by default) Connecting the two contact closure inputs together using a dry contact will cause the controller to enter night setback. The controller will exit night setback once the contacts are released.
4. **T-Stat Button:** The T-Stat button allows the user to exit night setback. Pressing any button on the T-Stat will cause the controller to exit night setback for the override time period. (default: 4 hours). Occupancy override by T-Stat button is always enabled and cannot be disabled.

CONTROL GRAPH - FDC8



Sequence of Operation -- FAN POWERED CONSTANT VOLUME SERIES FLOW - PIC CONTROLLER - NIGHT SETBACK

During night setback, the controller will respond to its night heat setpoint and its night cool setpoint.

While the room temperature is between the two night setpoints, by default the controller will maintain the damper position at 25% open (adjustable). All outputs (Fan, Heat, etc.) will go to their OFF or IDLE states.

Room temperature below Night Heat Setpoint:

Fan Operation: On a decrease in space temperature into the heating proportional band, the unit fan will energize.

Reheat Operation: On a decrease in space temperature into the heating proportional band, the reheat outputs (if used) are energized proportionally.

Cool supply air: On a decrease in space temperature the controller regulates the actuator to close the VAV damper and reduce the flow of cool air. The airflow is maintained at the pre-selected minimum setting.

Warm supply air: On a decrease in space temperature the controller regulates the actuator to open the VAV damper and increase the flow of warm air. On a decrease of space temperature greater than the heating proportional band, the airflow is maintained at its pre-selected maximum setting.

Room temperature above Night Cool Setpoint:

Fan Operation: On an increase in space temperature into the cooling proportional band, the unit fan typically will not energize. It is possible to configure the controller to energize the fan if using cooling coils.

Cooling Output Operation: On an increase in space temperature into the cooling proportional band, the cooling outputs (if used) are energized proportionally.

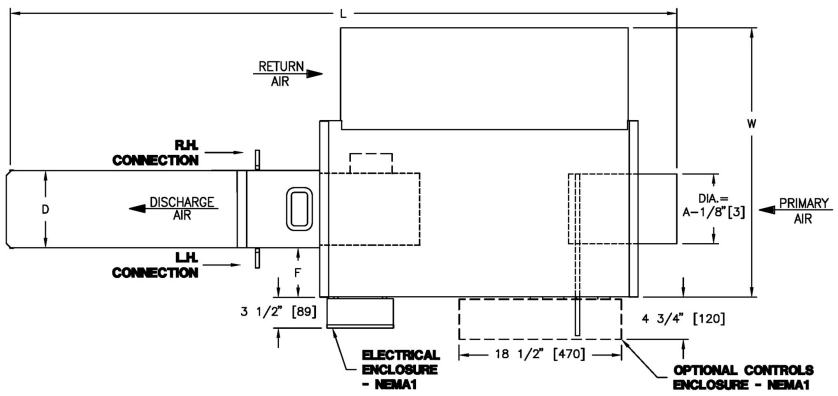
Cool supply air: On an increase in space temperature the controller regulates the actuator to open the VAV damper and increase the flow of cool air. On an increase of space temperature greater than the cooling proportional band, the airflow is maintained at its pre-selected maximum setting.

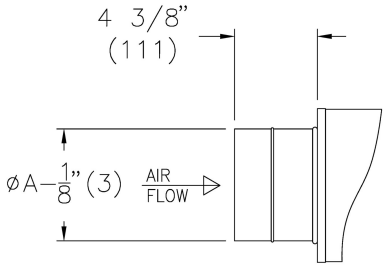
Warm supply air: On an increase in space temperature the controller regulates the actuator to close the VAV damper and reduce the flow of warm air. The airflow is maintained at the pre-selected minimum setting.

PROJECT: CIBC ERIN MILLS
SUBMITTAL NO: 267944-K
SUBMITTAL DATE: 9/27/2024
ENGINEER:
CUSTOMER:
DESCRIPTION: Series Fan Powered Terminal Unit
FDC-1-3//I//20/12/CFM/300/810/115/ECM/HTF/810/RH/FG1/EHP/PS/////WC/S/2ROW//CAD/0.0/////////////IAS-FG//DAS3////MERV3///DSW/HBS///////115-24V/PIC/LCD/C/PT/TSM/PRB/BAC//NETc35-2/////6803

All metric dimensions () are soft converted. Imperial dimensions are converted to metric and rounded to the nearest millimeter.
Information within this document is subject to change without notice.

FDC Series Fan Powered Terminal Unit

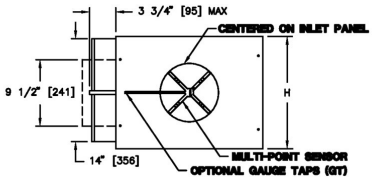


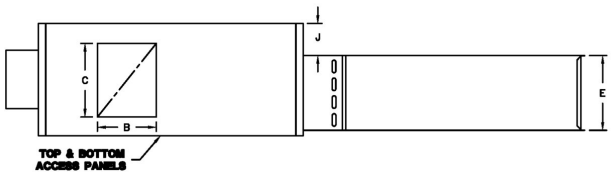


ECM Motor					
Unit Size	Motor H.P.	Full Load Amps			
		115V	208V	240V	277V
10	1/3	4.6	2.9	2.6	2.4

Box Size	Inlet A	Return		Discharge		W	H	L	F	J	K	Gauge
		B	C	D	E							
10	6	8	10	12	10	29	15 1/4	84 1/2	4	4 1/2	N/A	20

Controls





- Multi-point primary airflow sensor supplied by Price
- Controls mounted as standard on left hand side as shown. Units with right hand configuration are flipped, causing the discharge duct hanging elevation to change
- Left-handed controls shown.
- The outlet is not vertically centered on the discharge panel. When the box is supplied with right-handed controls, dimension 'J' measures from the bottom of the box instead of the top, as shown.
- Controls are supplied and factory mounted by Price
- Price thermostat factory supplied and field mounted
- Pressure independent
- 115/24v Control Transformer Supplied
- PS - Controls enclosure included

PROJECT: CIBC ERIN MILLS
SUBMITTAL NO: 267944-K
SUBMITTAL DATE: 9/27/2024
ENGINEER:
CUSTOMER:
DESCRIPTION: Series Fan Powered Terminal Unit
FDC-1-3//I//10/6/CFM/65/260/115/ECM/HTF/260/RH/FG1/EHP/PS/////WC/S/2ROW//CAD/0.0//////////////IAS-FG//DAS3////MERV3///DSW/HBS///////115-24V/PIC/LCD/C/PT/TSM/PRB/BAC//NETc35-2/////6803

All metric dimensions () are soft converted. Imperial dimensions are converted to metric and rounded to the nearest millimeter.
Information within this document is subject to change without notice.

Terminal Notes

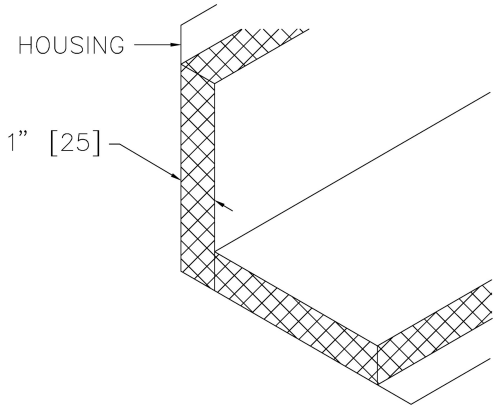
- 20ga zinc coated steel casing. Mechanically sealed, leak resistant construction
- Primary damper blade constructed of two layers of heavy gauge galvanized steel with a sandwiched peripheral gasket
- 1/2" (13) dia. Zinc plated solid steel shaft with end indicator mark showing damper position
- Damper leakage rated below 2% of nominal flow at 3" W.G. Damper CCW to close
- Rectangular discharge opening with slip & drive connection
- Units not to be used for temporary heat or ventilation during construction
- Minimum 0.1" w.g. (25 PA) external static pressure to operate
- Refer to submitted box schedule for air volumes and inlet sizes
- Listed UL1995 & CSA236 assembly

Motor Notes

- ECM electric motor 1 phase, 60 cycle. Speed controller included
- Motor speed controller included in NEMA1 electrical enclosure

Terminal Liner - FG1

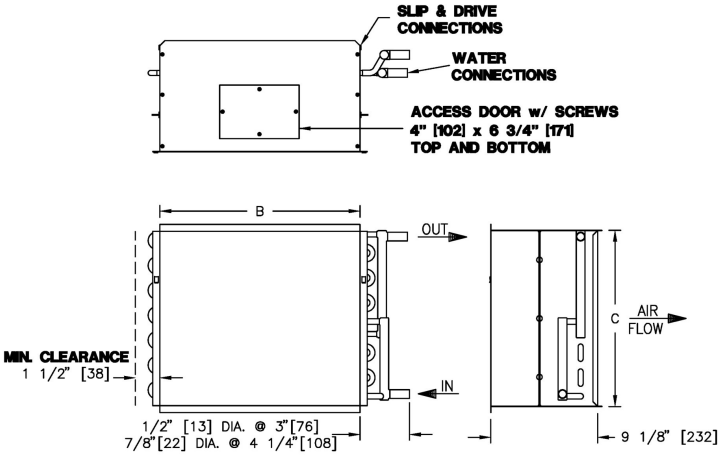
Internal Insulation - Fiberglass 1" (25 mm) thick, min. 1.5 lb/cu.ft density, meets requirements of NFPA90A and UL 181.
R-value = 4.1



PROJECT: CIBC ERIN MILLS
SUBMITTAL NO: 267944-K
SUBMITTAL DATE: 9/27/2024
ENGINEER:
CUSTOMER:
DESCRIPTION: Series Fan Powered Terminal Unit
FDC-1-3//I//10/6/CFM/65/260/115/ECM/HTF/260/RH/FG1/EHP/PS////WC/S/2ROW//CAD/0.0/////////////IAS-FG//DAS3////MERV3///DSW/HBS///////115-24V/PIC/LCD/C/PT/TSM/PRB/BAC//NETc35-2/////6803

All metric dimensions () are soft converted. Imperial dimensions are converted to metric and rounded to the nearest millimeter.
Information within this document is subject to change without notice.

Water Coil - Right Hand



- CAD - Coil Access Door w/screws (upstream of hot water coil only)

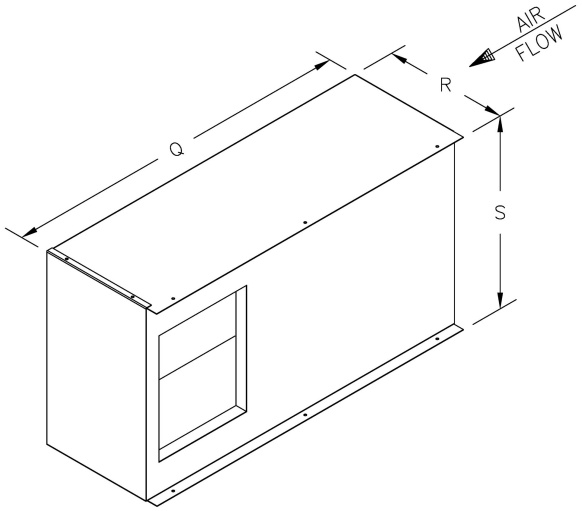
Unit Size	B (Width)	C (Height)	Connection Sizes	
			1 Row	2 Row
10	12	10	1/2	7/8

Coil Notes:

- Fabricated from 22 ga. galvanized steel mechanically sealed, leak resistant construction
- Refer to submitted terminal unit schedule for air volumes and reheat coil capacities
- Water coil handing is the same as unit handing
- Standard coils supplied with 10 fins per inch
- Hot water coils have copper tubes and aluminum fins with O.D. sweat connections
- Method of venting reheat coil is to be provided by installing contractor
- Water Coil Performance rated and certified in accordance with the current edition of AHRI standard 410
- Access door for inspection and maintenance of coil is featured.

Inlet Attenuator IAS-FG

Genesis Return Air Inlet Attenuator w/ FG1 Liner



UNIT SIZE	Q (Length)	R (Width)	S (Height)
10	15	9	15 1/4

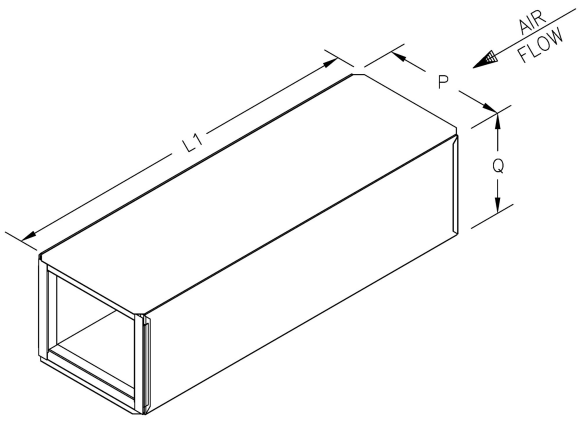
- Inlet Attenuator will be shipped assembled
- 22 ga galvanized steel housing, mechanically sealed, leak resistant construction
- Inlet attenuator insulation to match terminal unit

PROJECT: CIBC ERIN MILLS **SUBMITTAL NO:** 267944-K **SUBMITTAL DATE:** 9/27/2024
ENGINEER: **CUSTOMER:**
DESCRIPTION: Series Fan Powered Terminal Unit
FDC-1-3//I//10/6/CFM/65/260/115/ECM/HTF/260/RH/FG1/EHP/PS/////WC/S/2ROW//CAD/0.0//////////////IAS-FG//DAS3////MERV3///DSW/HBS///////115-24V/PIC/LCD/C/PT/TSM/PRB/BAC//NETc35-2/////6803

All metric dimensions () are soft converted. Imperial dimensions are converted to metric and rounded to the nearest millimeter.
Information within this document is subject to change without notice.

Discharge Attenuator DAS3

3ft discharge attenuator

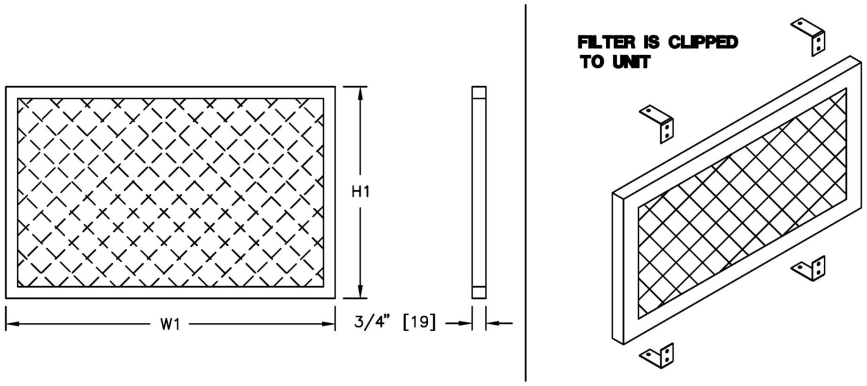


Unit Size	P	Q	L1
10	12	10	35

- 22 ga galvanized steel housing, mechanically sealed, leak resistant construction
- Discharge attenuator insulation to match terminal unit liner
- Slip and drive connection ends provided on discharge attenuator
- Discharge attenuator to be field mounted to discharge collar, shipped loose

Filter MERV3

1" MERV3 Return-Air Filter



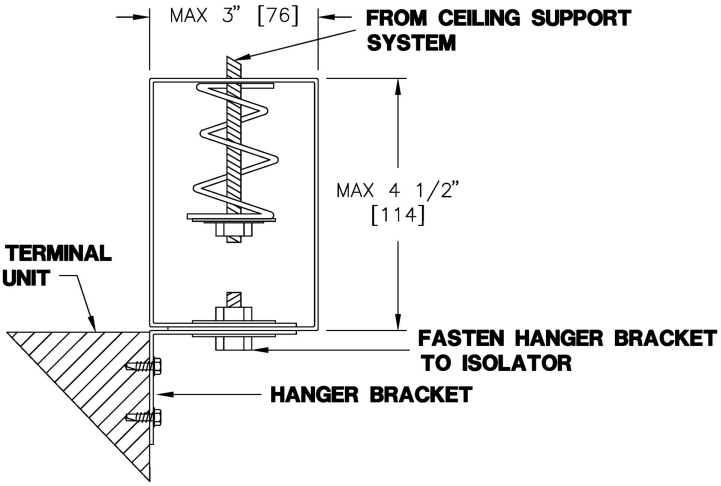
- Cardboard frame
- 1" (25) Nominal Filter Media
- Merv 3 Rating
- Filter clipped to attenuator

UNIT SIZE	W1 (Width)	H1 (Height)
10	9	15 1/4

PROJECT: CIBC ERIN MILLS
SUBMITTAL NO: 267944-K
SUBMITTAL DATE: 9/27/2024
ENGINEER:
CUSTOMER:
DESCRIPTION: Series Fan Powered Terminal Unit
FDC-1-3//I//10/6/CFM/65/260/115/ECM/HTF/260/RH/FG1/EHP/PS/////WC/S/2ROW//CAD/0.0//////////////IAS-FG//DAS3////MERV3///DSW/HBS///////115-24V/PIC/LCD/C/PT/TSM/PRB/BAC//NETc35-2/////6803

All metric dimensions () are soft converted. Imperial dimensions are converted to metric and rounded to the nearest millimeter.
Information within this document is subject to change without notice.

Hanger Bracket - HBS (Spring Isolation)



- Hanger brackets are 12 gauge zinc coated steel
- 4 hanger brackets per fan unit
- 2 hanger brackets per discharge attenuator
- Brackets are shipped loose for field installation for use with threaded hanger rods (by others)
- Layout indicates suggested hanger bracket locations
- 4 Red spring hanger brackets per unit
- 2 Red spring hanger brackets per discharge attenuator or discharge silencer

Suggested HBS Locations:

Image is for reference only. It may not reflect the exact arrangement of accessories.

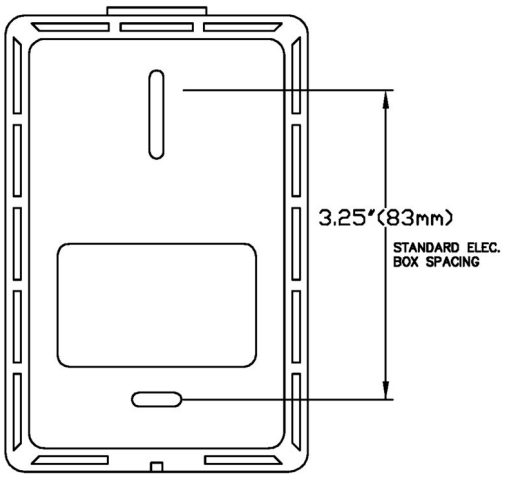
PROJECT: CIBC ERIN MILLS **SUBMITTAL NO:** 267944-K **SUBMITTAL DATE:** 9/27/2024
ENGINEER: **CUSTOMER:**
DESCRIPTION: Series Fan Powered Terminal Unit
FDC-1-3//I//10/6/CFM/65/260/115/ECM/HTF/260/RH/FG1/EHP/PS/////WC/S/2ROW//CAD/0.0//////////////IAS-FG//DAS3////MERV3///DSW/HBS///////115-24V/PIC/LCD/C/PT/TSM/PRB/BAC//NETc35-2/////6803

All metric dimensions () are soft converted. Imperial dimensions are converted to metric and rounded to the nearest millimeter.
Information within this document is subject to change without notice.

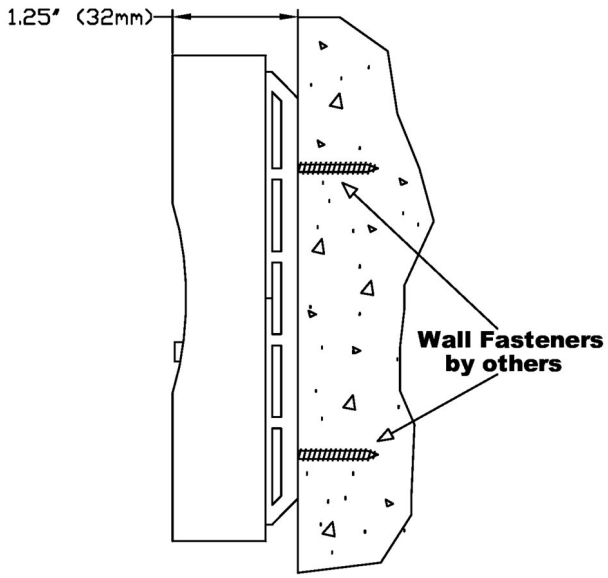
Thermostat LCD LCD Thermostat

Price LCD Thermostat
PT# 250052-100

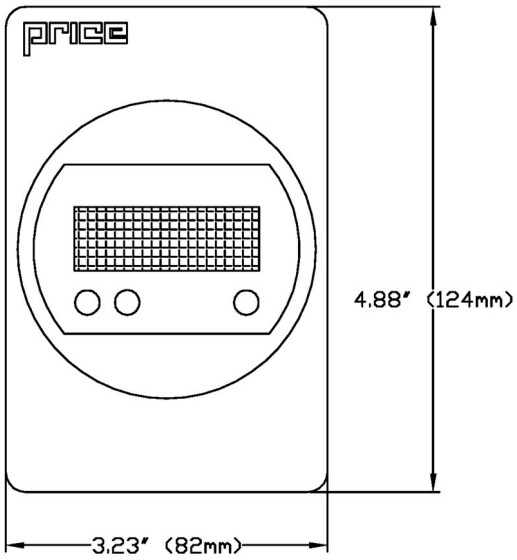
Backplate - Rear View



Surface Mount Detail



Face View



SPECIFICATIONS:

POWER REQUIREMENTS:
– POWER IS SUPPLIED FROM THE MAIN CONTROLLER (PIC, PRODIGY, ETC.)

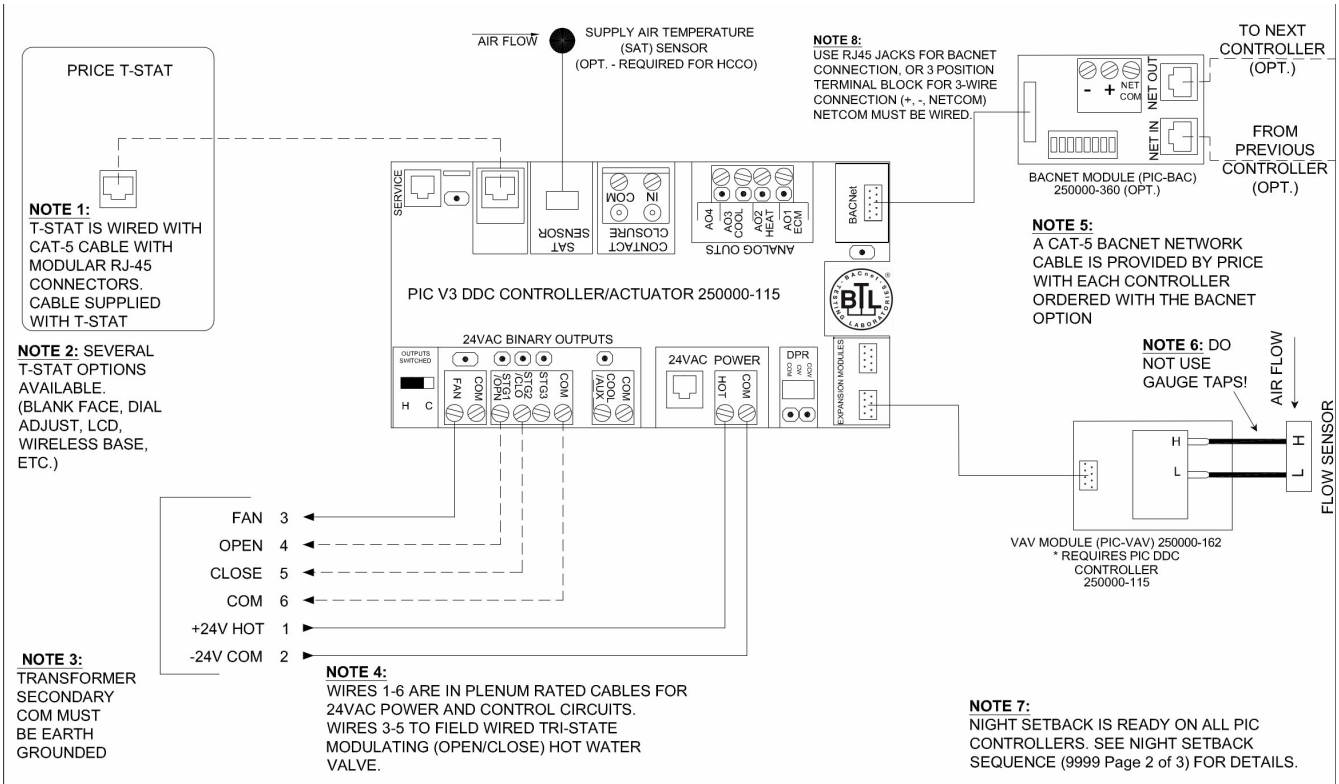
COMMUNICATION PORT:
– RJ–45 CONNECTION TO THE MAIN CONTROLLER
– RJ–12 CONNECTION TO THE PRICE USB LINKER SETUP TOOL

FEATURES:
– ROOM TEMPERATURE IS MEASURED BY AN INTERNAL 10K TYPE J THERMISTOR WITH AN ACCURACY OF +/– 0.5°F FROM 55°F TO 85°F (+/– 0.25°C FROM 13°C TO 25°C)
– LCD SCREEN WITH COOL–BLUE BACKLIGHT
– PUSH BUTTON SETPOINT ADJUSTMENT
– SYSTEM SETUP AND BALANCING DIRECTLY FROM THERMOSTAT

PROJECT: CIBC ERIN MILLS
ENGINEER:
SUBMITTAL NO: 267944-K
CUSTOMER:
SUBMITTAL DATE: 9/27/2024
DESCRIPTION: Series Fan Powered Terminal Unit
FDC-1-3//I//10/6/CFM/65/260/115/ECM/HTF/260/RH/FG1/EHP/PS/////WC/S/2ROW//CAD/0.0//////////////IAS-FG//DAS3////MERV3///DSW/HBS///////115-24V/PIC/LCD/C/PT/TSM/PRB/BAC//NETc35-2/////6803

All metric dimensions () are soft converted. Imperial dimensions are converted to metric and rounded to the nearest millimeter.
Information within this document is subject to change without notice.

Control Sequence 6803



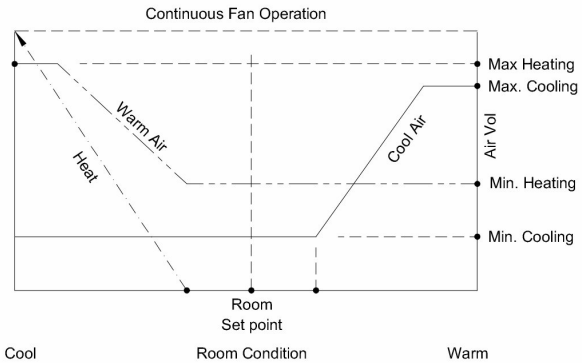
LEGEND

FACTORY FLOW SENSOR TUBING

FACTORY ELECTRICAL WIRING

FIELD ELECTRICAL WIRING

CONTROL GRAPH



Sequence of Operation -- Constant Volume Heat/cool changeover OR Cooling With Tri-State modulating HW reheat - Pressure Independent

On power up the damper will calibrate closed for 2 minutes.
If no SAT sensor is present, the controller assumes Cool supply air at all times
While the space is occupied, the unit fan operates continuously supplying a constant volume of supply air.

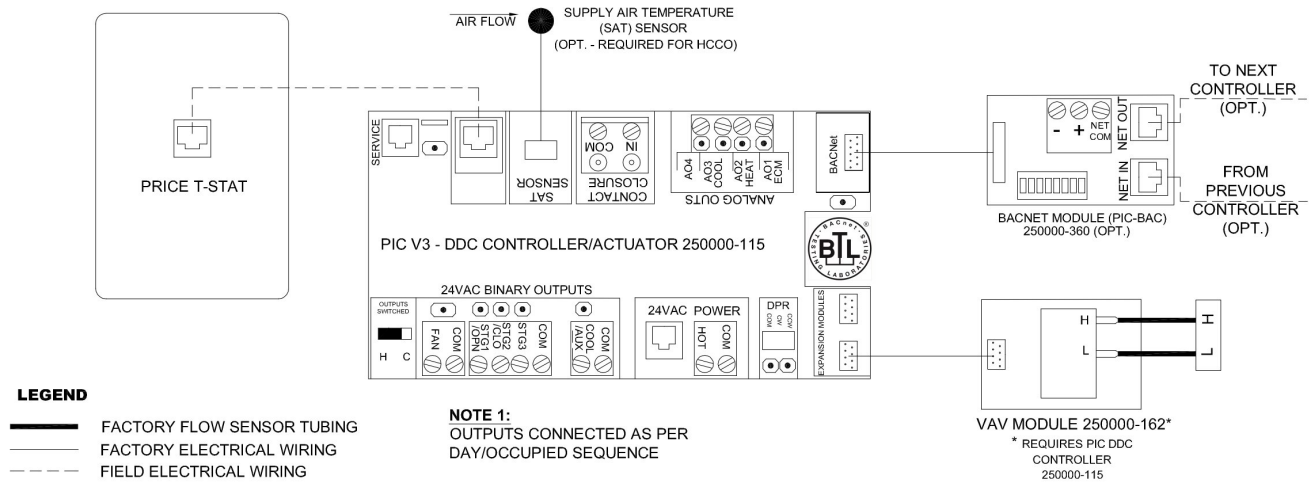
Cool supply air: On an increase in space temperature the controller regulates the actuator to open the VAV damper and increase the flow of cool air. On an increase of space temperature greater than the cooling proportional band, the airflow is maintained at its pre-selected maximum setting.
On a decrease in space temperature the controller regulates the actuator to close the VAV damper and reduce the flow of cool air. If the space temperature decreases to less than the cooling proportional band, the airflow is maintained at the pre-selected minimum setting.
Warm supply air: On a decrease in space temperature the controller regulates the actuator to open the VAV damper and increase the flow of warm air. On a decrease of space temperature greater than the heating proportional band, the airflow is maintained at its pre-selected maximum setting.
On an increase in space temperature the controller regulates the actuator to close the VAV damper and reduce the flow of warm air. If the space temperature increases above the heating proportional band, the airflow is maintained at the pre-selected minimum setting.
Reheat Operation: On a decrease in space temperature, the heating valve is modulated to increase heat proportionally to the room demand.

PROJECT: CIBC ERIN MILLS
ENGINEER:
SUBMITTAL NO: 267944-K
CUSTOMER:
SUBMITTAL DATE: 9/27/2024
DESCRIPTION: Series Fan Powered Terminal Unit
FDC-1-3//I//10/6/CFM/65/260/115/ECM/HTF/260/RH/FG1/EHP/PS////WC/S/2ROW//CAD/0.0//////////////IAS-FG//DAS3////MERV3///DSW/HBS///////115-24V/PIC/LCD/C/PT/TSM/PRB/BAC//NETc35-2/////6803

All metric dimensions () are soft converted. Imperial dimensions are converted to metric and rounded to the nearest millimeter.
Information within this document is subject to change without notice.

Control Sequence 9999

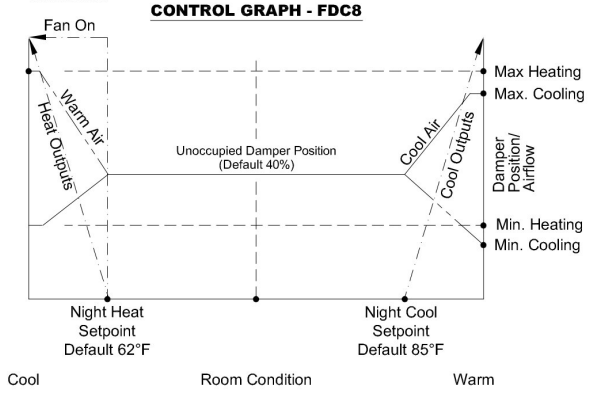
Fan Powered Constant Volume Series Flow - PIC Controller, Night Setback



Entering and Exiting Night Setback: There are several methods for the PIC to enter and exit night setback (unoccupied mode). All of the following methods can be enabled or disabled in software or from the T-Stat menu.

1. **Airflow Failure:** (Disabled by default) If using a Pressure Independant day sequence (with the PIC-VAV module), the controller will enter night setback when minimal airflow is sensed in the duct. The controller does this based on Day Flow Trip and Night Flow Trip (adjustable).
   Day Flow Trip is enabled when the controller sees more than 1/2 of its minimum airflow - i.e. min airflow = 132 cfm, Day Flow Trip = 66 cfm.
   Night Flow Trip is enabled when the controller sees less than 1/2 of its day flow trip value - i.e. 33 cfm
2. **Motion Sensor:** (Disabled by default) If a motion sensor T-Stat is used, the controller can enter night setback if no motion has been detetected in the space for a specified period of time (default: 4 hours).
3. **Contact Closure:** (Disabled by default) Connecting the two contact closure inputs together using a dry contact will cause the controller to enter night setback. The controller will exit night setback once the contacts are released.
4. **T-Stat Button:** The T-Stat button allows the user to exit night setback. Pressing any button on the T-Stat will cause the controller to exit night setback for the override time period. (default: 4 hours). Occupancy override by T-Stat button is always enabled and cannot be disabled.

CONTROL GRAPH - FDC8



Sequence of Operation -- FAN POWERED CONSTANT VOLUME SERIES FLOW - PIC CONTROLLER - NIGHT SETBACK

During night setback, the controller will respond to its night heat setpoint and its night cool setpoint.

While the room temperature is between the two night setpoints, by default the controller will maintain the damper position at 25% open (adjustable). All outputs (Fan, Heat, etc.) will go to their OFF or IDLE states.

Room temperature below Night Heat Setpoint:

Fan Operation: On a decrease in space temperature into the heating proportional band, the unit fan will energize.

Reheat Operation: On a decrease in space temperature into the heating proportional band, the reheat outputs (if used) are energized proportionally.

Cool supply air: On a decrease in space temperature the controller regulates the actuator to close the VAV damper and reduce the flow of cool air. The airflow is maintained at the pre-selected minimum setting.

Warm supply air: On a decrease in space temperature the controller regulates the actuator to open the VAV damper and increase the flow of warm air. On a decrease of space temperature greater than the heating proportional band, the airflow is maintained at its pre-selected maximum setting.

Room temperature above Night Cool Setpoint:

Fan Operation: On an increase in space temperature into the cooling proportional band, the unit fan typically will not energize. It is possible to configure the controller to energize the fan if using cooling coils.

Cooling Output Operation: On an increase in space temperature into the cooling proportional band, the cooling outputs (if used) are energized proportionally.

Cool supply air: On an increase in space temperature the controller regulates the actuator to open the VAV damper and increase the flow of cool air. On an increase of space temperature greater than the cooling proportional band, the airflow is maintained at its pre-selected maximum setting.

Warm supply air: On an increase in space temperature the controller regulates the actuator to close the VAV damper and reduce the flow of warm air. The airflow is maintained at the pre-selected minimum setting.

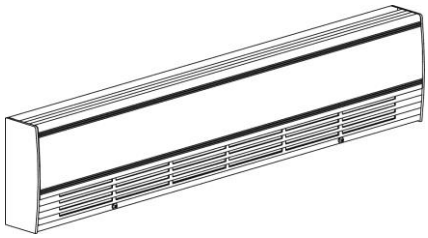
PROJECT: CIBC ERIN MILLS
SUBMITTAL NO: 267944-K
SUBMITTAL DATE: 9/27/2024
ENGINEER:
CUSTOMER:
DESCRIPTION: Series Fan Powered Terminal Unit
FDC-1-3//I//10/6/CFM/65/260/115/ECM/HTF/260/RH/FG1/EHP/PS////WC/S/2ROW//CAD/0.0//////////////IAS-FG//DAS3////MERV3///DSW/HBS///////115-24V/PIC/LCD/C/PT/TSM/PRB/BAC//NETc35-2/////6803

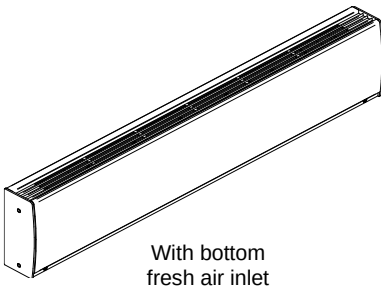
All metric dimensions () are soft converted. Imperial dimensions are converted to metric and rounded to the nearest millimeter.
Information within this document is subject to change without notice.

Series

ODB

Aluminum Draft Barrier





With bottom
fresh air inlet

Features

Color
- Standard: white, almond.
- Optional (upcharge applicable): metallic silver, bronze, metallic charcoal, aluminum, semi-gloss black, sand.
- Custom colors available upon request.

Finish
- Standard: epoxy/polyester powder paint.
- Optional: anodized aluminum.

Voltage
- 120V, 208V, 240/208V, 277V, 347V, 600V, 50/60 Hz, 1-phase.

Construction
- 14-gauge (0.0787 in. [2 mm]) aluminum front cover.
- 18-gauge satin coat steel cabinet.
- Screw assembly for added strength.
- Full length built-in wireway.
- Pencil-proof openings less than 1/4 in. (6.4 mm).
- Front fresh air inlet; top warm air outlet.
- Bottom fresh air inlet available (-BAI).
- Clean back available (-BD).
- Linear high-limit temperature control with automatic reset. High altitude version available (-HA).
- End caps included.

Heating element
- Stainless steel tubular heating element with aluminum fins.
- Floating heating element on high-temperature nylon bushings reducing expansion noises.

Watt density
- Average standard watt density of 275W/ft.
- Average low watt density of 100W/ft., 150W/ft., 200W/ft.

Control
- Built-in thermostat available with a control knob or tamperproof.
- Mechanical, electronic or pneumatic relays available (installed on the right end only).

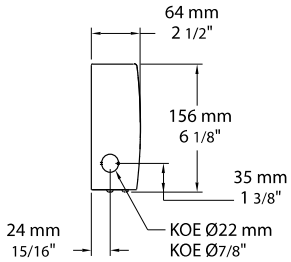
Ouellet highly recommends to use an electronic wall thermostat for greater comfort.

Installation
- Heater must be installed at least 2 in. (51 mm) from finished floor (for -BAI option).
- Mounting holes spaced on 4 in. (102 mm) intervals for ease of installation.
- Wall or floor mounted installation.
- Variety of accessories available for wall-to-wall installation.
- Pedestal kit available.

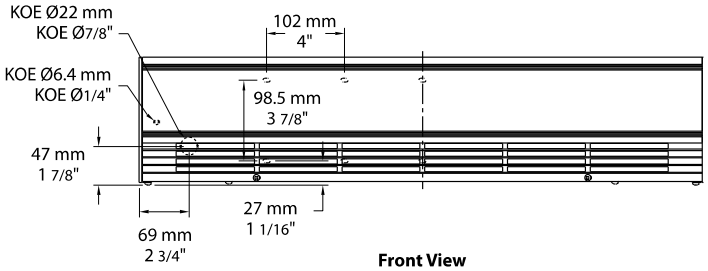
Warranty
- 3-year warranty against defects.

Application
- Commercial building, office building, hospital, daycare center, private residence.

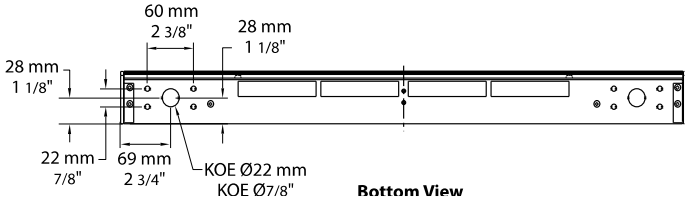
Approval Drawings



Side View



Front View



Bottom View

Average Standard Watt Density Models 275W/ft.

Watts	Watts 240/208V[1]	Product #										Length		Weight	
		120V	Qty	208V	Qty	240/208V	Qty	347V	Qty	600V	Qty	in.	mm	lb	kg
500	500/375	ODB0502		ODB0508		ODB0500	1	ODB0507		-	-	29 1/16	738	8.0	3.6
750	750/563	ODB0752		ODB0758		ODB0750		ODB0757		ODB0756		39 1/16	992	10.4	4.7
1000	1000/750	ODB1002		ODB1008		ODB1000		ODB1007		ODB1006		49 5/16	1253	12.8	5.8
1250	1250/938	ODB1252		ODB1258		ODB1250		ODB1257		ODB1256		58 13/16	1494	15.1	6.8
1500	1500/1125	ODB1502		ODB1508		ODB1500		ODB1507		ODB1506		67 1/2	1715	17.2	7.8
1750	1750/1313	-	-	ODB1758		ODB1750		ODB1757		ODB1756		76 7/8	1952	19.4	8.8
2000	2000/1500	-	-	ODB2008		ODB2000		ODB2007		ODB2006		85 5/8	2175	21.5	9.7
2250	2250/1688	-	-	ODB2258		ODB2250		ODB2257		ODB2256		94 1/2	2400	23.6	10.7
2500	2500/1875	-	-	ODB2508		ODB2500		ODB2507		ODB2506		103 5/8	2632	25.8	11.7

Average Low Watt Density Models

Product #[2]	Length	Weight	Average Density W/ft.	Watts	Watts 240/208V[1]	120V	Qty	208V	Qty	240/208V	Qty	347V	Qty	600V	Qty
~~ODB020X-738~~			~~100~~	~~200~~	~~200/150~~	√		√		√		-----	-----	-----	-----
ODB030X-738	29 1/16" (738 mm)	8.0 lb (3.6 kg)	150	300	300/225	√		√		√		-----	-----	-----	-----
~~ODB040X-738~~			~~200~~	~~400~~	~~400/300~~	√		√		√		√		-----	-----
ODB030X-992	39 1/16" (992 mm)	10.4 lb (4.7 kg)	100	300	300/225	√		√		√		√		-----	-----
ODB045X-992			150	450	450/338	√		√		√		√		-----	-----
ODB060X-992			200	600	600/450	√		√		√		√		-----	-----
ODB040X-1253	49 5/16" (1253 mm)	12.8 lb (5.8 kg)	100	400	400/300	√		√		√		√		-----	-----
ODB060X-1253			150	600	600/450	√		√		√		√		-----	-----
ODB080X-1253			200	800	800/600	√		√		√		√		√	
ODB050X-1494	58 13/16" (1494 mm)	15.1 lb (6.8 kg)	100	500	500/375	√		√		√		√		-----	-----
ODB075X-1494			150	750	750/563	√		√		√		√		√	
ODB100X-1494			200	1000	1000/750	√		√		√		√		√	
ODB060X-1715	67 1/2" (1715 mm)	17.2 lb (7.8 kg)	100	600	600/450	√		√		√		√		√	
ODB090X-1715			150	900	900/675	√		√		√		√		√	
ODB120X-1715			200	1200	1200/900	√		√		√		√		√	
ODB070X-1952	76 7/8" (1952 mm)	19.6 lb (8.8 kg)	100	700	700/525	√		√		√		√		√	
ODB105X-1952			150	1050	1050/788	√		√		√		√		√	
ODB140X-1952			200	1400	1400/1050	√		√		√		√		√	
ODB080X-2175	85 5/8"	21.5 lb	100	800	800/600	√		√		√		√		√	

ODB120X-2175	(2175 mm)	(9.7 kg)	150	1200	1200/900	√		√		√		√		√	
ODB160X-2175			200	1600	1600/1200	-----	-----	√		√		√		√	
ODB090X-2400	94 1/2" (2400 mm)	23.6 lb (10.7 kg)	100	900	900/675	√		√		√		√		√	
ODB135X-2400			150	1350	1350/1013	-----	-----	√		√		√		√	
ODB180X-2400			200	1800	1800/1350	-----	-----	√		√		√		√	
ODB100X-2632	103 5/8" (2632 mm)	26.8 lb (11.7 kg)	100	1000	1000/750	√		√		√		√		√	
ODB150X-2632			150	1500	1500/1125	-----	-----	√		√		√		√	
ODB200X-2632			200	2000	2000/1500	-----	-----	√		√		√		√	
ODB225X-2632			200	2250	2250/1688	-----	-----	√		√		√		√	

[1] 208V = 75% of wattage at 240V.
[2] X = 2 (120V), 8 (208V), 0 (240/208V), 7 (347V), 6 (600V).
√= Available.
Add "BL" for white, "AM" for almond.
Other colors, accessories and finishes are available upon request.
Other voltages available upon request.

Options

Product # Kit	Product # Factory installed*	Description	Qty
Finish			
-	**BAI**	Bottom fresh air inlet	
-	**BD[1]**	Clean back	
KIT-ODB-CE	**-**	Outside corner, 4 in. (102 mm)	
KIT-ODB-CI	**-**	Inside corner, 4 in. (102 mm)	
KIT-ODB-JT	**-**	Splice plate, 2 in. (51 mm)	
KIT-ODB-JT-PE	**-**	Contour splice plate for BD option and/or heater with pedestals, 2 in. (51 mm)	
KIT-ODB-PE	**-**	Round pedestal kit (2), 3 in. (76 mm)	
KIT-ODB-PEC	**-**	Square-shaped pedestal kit (2), 2 in. (51 mm)	
ODB-SV-XX	**-**	Empty cabinet with length of XX mm (minimum: 154 mm, maximum: 2632 mm)	
Controls			
KIT-ODB-DIS20[4]	**DIS20[4]**	Disconnect switch, 20A at 277V max.	
KIT-ODB-DIS40[4]	**DIS40[4]**	Disconnect switch, 40A at 600V max.	
-	**HA**	Linear high-limit temperature control for high altitude (3000 ft. to 8200 ft.)	
-	**PM**	Pneumatic relay, 20A at 600V max.	
KIT-ODB-R-347	**R**	Single-pole relay, coil 24V, without transformer: 22A at 120V, 208V, 240V - 19A at 277V - 18A at 347V	
KIT-ODB-R-600	**R**	Single-pole relay, coil 24V, without transformer, 10A at 600V	
KIT-ODB-RT-120[2]	**RT[2]**	Single-pole relay, coil 24V, with transformer 120V/24V, 22A at 120V	
KIT-ODB-RT-208	**RT**	Single-pole relay, coil 24V, with transformer 208V/24V, 22A at 208V	
KIT-ODB-RT-240	**RT**	Single-pole relay, coil 24V, with transformer 240V/24V, 22A at 240V	
KIT-ODB-RT-277	**RT**	Single-pole relay, coil 24V, with transformer 277V/24V, 19A at 277V	
KIT-ODB-RT-347	**RT**	Single-pole relay, coil 24V, with transformer 347V/24V, 18A at 347V	
KIT-ODB-RT-600[2]	**RT[2]**	Single-pole relay, coil 24V, with transformer 600V/24V, 10A at 600V (2-wire only)	
KIT-ODB-TB6	**TB6**	Single-pole bi-metal thermostat: 25A at 120V, 208V, 240V, 277V - 10A at 347V, 480V, 600V	**1**
KIT-ODB-TB26[3]	**TB26[3]**	Double-pole bi-metal thermostat: 25A at 120V, 208V, 240V, 277V - 10A at 347V, 480V, 600V	
KIT-ODB-TB6-AV	**TB6AV**	Single-pole bi-metal tamperproof thermostat: 25A at 120V, 208V, 240V, 277V - 10A at 347V, 480V, 600V	
KIT-ODB-TB26-AV[3]	**TB26AV[3]**	Double-pole bi-metal tamperproof thermostat: 25A at 120V, 208V, 240V, 277V - 10A at 347V, 480V, 600V	
KIT-ODB-TRIAC-347	**TRIAC**	Single-pole electronic relay, coil 24V. without transformer, 15A at 347V max.	
KIT-ODB-TRIAC-347T	**TRIACT**	Single-pole electronic relay, coil 24V. with transformer: 15A at 208V, 240V, 347V	
KIT-ODB-TRIAC-600	**TRIAC**	Single-pole electronic relay, coil 24V. without transformer, 6A at 600V max.	

** For factory installed options, add the option number to the product number. See the **Product Code** section inside the front cover.*
[1] For anodized aluminum heaters, the clean back option will be fixed with visible rivets.
[2] These 2-wire relays with transformer can't supply of 3-wire low voltage thermostats.
[3] "Off" position.
[4] For the U.S. only: The nominal current of the unit must not exceed 80% of the capacity of the disconnect.

Others

Type	Quantity	Model et description Complementary informations	Volts	Phase	Watts	Length mm/in.	Informations Color/installation

Specifications may change without prior notice

Project:	Approval Information
Consultant Engineer:	
Eectrician Contractor:	
Distributor:	
Date:	
Contact in Ouellet:	
Comments:	

TAG : BB1