

SMARTZONE[®] DAMPERS & DUCT SYSTEM

ECOJAY DAMPERS ARE AVAILABLE IN OVER 100 DIFFERENT SIZES, SHAPES AND STYLES

ECOJAY'S 24VAC AIR DAMPERS ARE DESIGNED AND PRECISION BUILT FOR LONG TERM RELIABILITY. THE GASKET INSURES A TIGHT AIR SEAL WHEN CLOSED AND ALLOWS UNOBSTRUCTED AIR FLOW WHEN OPEN. ECOJAY DAMPERS USE HEAVY GAUGE GALVANIZED STEEL RIBBED CAN & ALUMINUM RECTANGULAR CONSTRUCTION INSURING LONG-LIFE AND STRUCTURAL INTEGRITY UNDER HARSH OPERATING CONDITIONS. FLEXIBILITY FOR A WIDE RANGE OF APPLICATIONS.

IT IS IMPORTANT FOLLOW SOME GUIDELINES TO ENSURE THE MOST EFFECTIVE ZONING INSTALL POSSIBLE. A ZONING SYSTEM CAN TYPICALLY USE THE SAME DUCT SIZING AS A TRADITIONAL SINGLE-THERMOSTAT SYSTEM. HOWEVER, INCREASE THE DUCT DIAMETER BY ONE SIZE FOR EACH ZONE LESS THAN 25% OF THE TOTAL SYSTEM AIR FLOW CAPACITY. ALSO, FOR SYSTEMS WITH MORE THAN 4 ZONES, INCREASING THE DUCT & DAMPER SIZES OF THE SMALLER ZONES (OR ALL THE ZONES) WILL MINIMIZE THE AMOUNT OF PRESSURE RELIEF NEEDED. WHEN POSSIBLE, CONNECT DAMPERS DIRECTLY TO THE PLENUM THEN BRANCH OFF SMALLER DUCTS GOING TO DIFFERENT AREAS WITHIN THE ZONES. USING THIS TRUNK/BRANCH DUCT DESIGN WILL MINIMIZE COST (# OF DAMPERS NEEDED) AND REDUCE AIR NOISE.

ZONE BALANCING

TO MAINTAIN OPTIMAL EQUIPMENT PERFORMANCE IN A TYPICAL ZONING APPLICATION, IT IS PREFERABLE FOR ALL ZONES TO BE CLOSE TO EQUAL IN SIZE. (IN TERMS OF CFM). THIS DOES NOT MEAN THAT EVERY ZONE MUST HAVE EXACTLY THE SAME CFM REQUIREMENTS BUT THE SYSTEM WILL WORK MOST EFFECTIVELY IF THEY ARE APPROXIMATELY THE SAME SIZE. **NOTE:** AVOID CREATING MORE THAN THREE ZONES WITH OR ZONES SMALLER THAN 20% OF THE TOTAL EQUIPMENT CFM CAPACITY WHEN USING SINGLE SPEED EQUIPMENT TO ENSURE BEST PERFORMANCE.

AIR NOISE

TO MINIMIZE AIR NOISE, INSTALL THE DAMPERS AS CLOSE AS POSSIBLE TO THE SUPPLY PLENUM. A GOOD RULE FOR ACCEPTABLE AIR NOISE IS THAT THE SUPPLY DUCT SHOULD BE DESIGNED TO PROVIDE 600 TO 700 FPM VELOCITY AIRFLOW. USE THE "NORMAL CFM" CHART TO CHECK ROUND DUCT SIZE(S) THAT WILL ACHIEVE THIS VELOCITY RANGE.

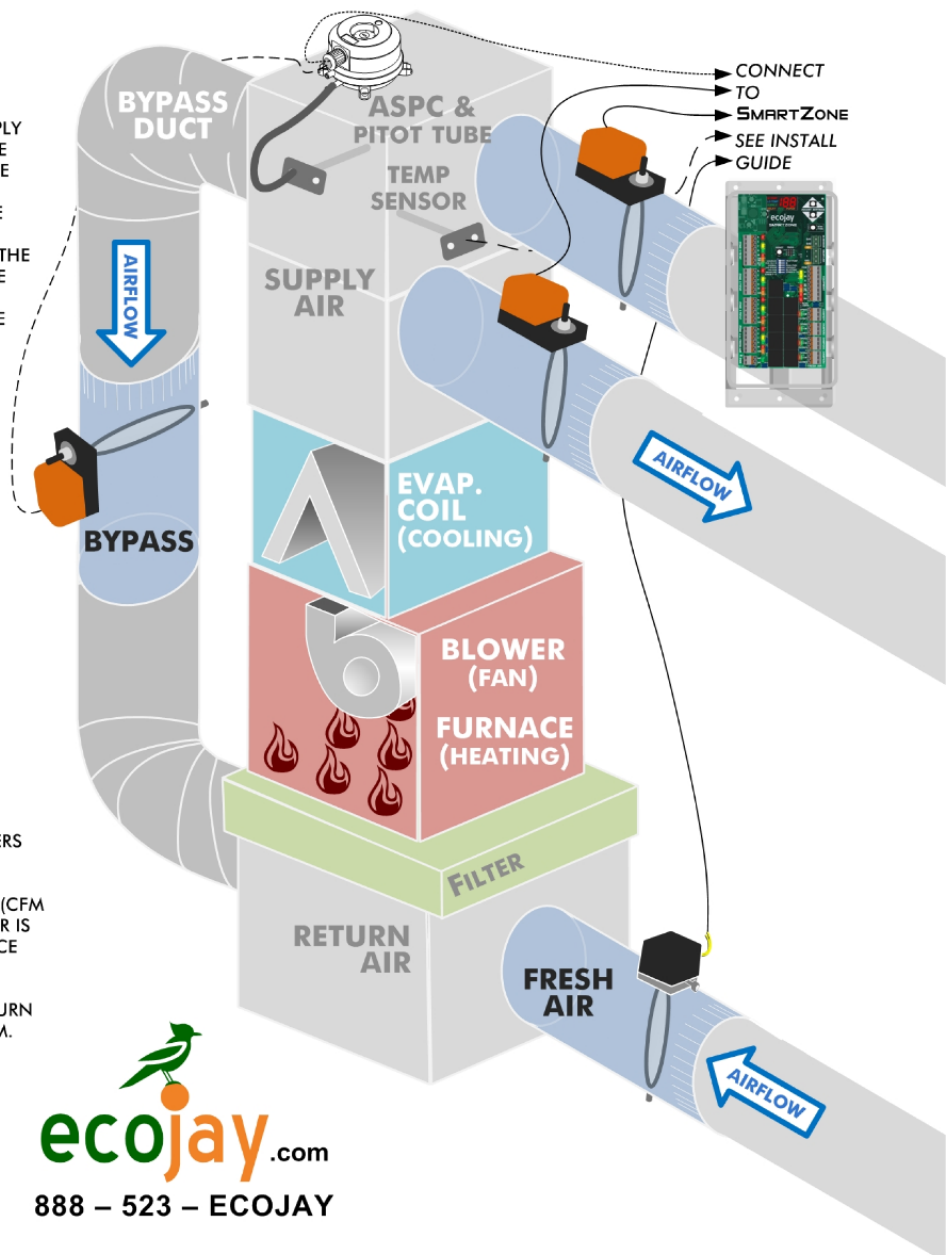
- ▶ FOR ZONES WITH MULTIPLE DAMPERS, THE TOTAL ZONE CFM IS THE SUM OF ALL THE DAMPERS "NORMAL CFM"
- ▶ FOR RECTANGULAR DUCT SYSTEMS USE THE RECTANGULAR CFM EQUATION PROVIDED FOR "NORMAL CFM" (FORMULAS & CHARTS INSIDE PAGE)

BYPASS AIR

IS ONE OF THE MOST IMPORTANT ASPECTS OF MAKING ZONING WORK. CORRECTLY INSTALLING DAMPERS AND DUCT CAN REDUCE THE AMOUNT OF PRESSURE RELIEF NECESSARY. LEAKING AIR USING MINIMUM OPEN SETTING ON THE DAMPERS OR 2ND STAGE LOCKOUT TO REDUCE AIRFLOW WHEN ONLY 1 ZONE CALLING CAN BOTH REDUCE THE AMOUNT OF BYPASS AIR NEEDED. SEE INSIDE PAGE FOR INFO ABOUT BYPASS AIR AND PRESSURE RELIEF

RETURN AIR

UNDERSIZED RETURN AIR DUCTS/REGISTERS CAN RESULT IN PROBLEMS SUCH AS INCREASED RUN TIME, EVEN EQUIPMENT FAILURE DUE TO INSUFFICIENT AIRFLOW (CFM & VELOCITY). TO ENSURE THE RETURN AIR IS LARGE ENOUGH, VERIFY THAT ITS SURFACE AREA IS SUFFICIENT TO PASS FULL SPEED BLOWER CFM. ENSURE ALL ZONES HAVE UNRESTRICTED AIRFLOW PATH TO A RETURN AIR GRILL EQUIVALENT TO THE ZONE CFM.



ecojay.com
888 - 523 - ECOJAY

DAMPERS

ALL ECOJAY SMARTZONE DAMPERS ARE CONTRACTOR GRADE, SUPER-DUTY QUALITY. MADE IN THE USA WITH ONLY THE BEST PARTS AND MATERIALS, THEY ARE BUILT TO WORK PROPERLY AND RELIABLY FOR A LONG TIME!



ROUND

DIAMETER:
4" TO 18"

PART #

D S U P D
DAMPER SUPPLY ROUND POWER DIAMETER

POWER OPEN / CLOSE

A 24VAC SIGNAL TO EITHER THE PO (POWER OPEN) OR PC (POWER CLOSED) TERMINAL WILL RESPECTIVELY OPEN AND CLOSE THE DAMPER. LOWER (2.5 TO 3VA) POWER CONSUMPTION, QUIET OPERATION & HIGHEST RELIABILITY. 3 WIRES REQUIRED

POWER MOTOR ONLY



A P D M



RECTANGLE

SIZES:
6" X 6" TO 24" X 24"

PART #

D S E P W H
DAMPER SUPPLY RECTANGLE POWER WIDTH HEIGHT



TAKE-OFF

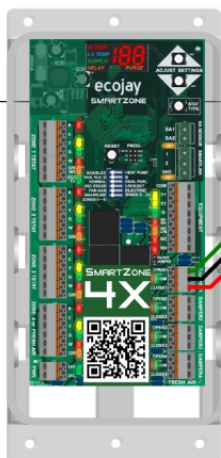
D T U P D
DAMPER TAKE-OFF ROUND POWER DIAMETER

INSERT (SLIP-IN)

D I U P D
DAMPER INSERT ROUND POWER DIAMETER

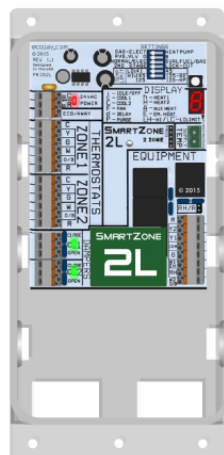


4 ZONE - ZS4X



CONTROL WITH SMARTZONE®
(UP TO 20 ZONES)

2 ZONE - ZS2L



WIRING

USE 18-AWG SOLID WIRE TO CONNECT "COM", "PO" & "PC" TERMINALS TO ZONE CONTROLLER

CLUTCH

USE THIS BUTTON TO MANUALLY ROTATE THE BLADE OF THE DAMPER

SHAFT CLAMP

TO REMOVE MOTOR, LOOSEN TWO NUTS ATTACHED TO THE V-BOLT

MIN / MAX SETTING

MOVE SCREWS TO SET A MINIMUM OR MAXIMUM OPEN OR CLOSE OF THE DAMPER

SPRING OPEN / POWER CLOSE

A MOTOR POWERS THE DAMPER CLOSED AND A SPRING OPENS. ONLY 2 WIRES NEEDED. **WARNING:** SPRING DAMPERS CONSUME MORE ELECTRICITY THAN POWER-OPEN/POWER-CLOSE DAMPERS. (10 TO 12 VA WHEN POWERED)

ROUND DIAMETER:
4" TO 16"

D S U S D
DAMPER SUPPLY ROUND SPRING DIAMETER

SPRING MOTOR ONLY

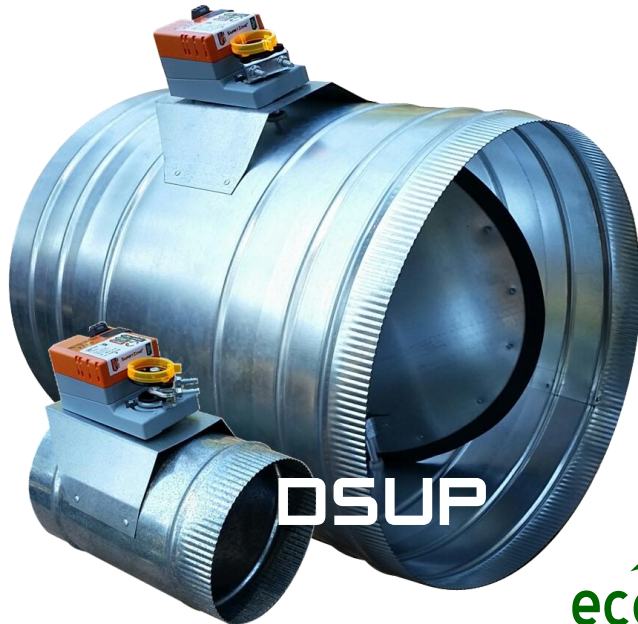
A S D M



ROUND POWER OPEN/POWER CLOSE*

POWER DAMPERS POWER OPEN /POWER CLOSE DAMPERS USE THREE WIRES TO POWER THE DAMPER OPEN OR POWER IT CLOSED. THE ZONE PANEL IS RESPONSIBLE FOR SUPPLYING A 24VAC SIGNAL TO EITHER THE PO (POWER OPEN) OR PC (POWER CLOSED) TERMINAL OF THESE DAMPERS. PRIMARY ADVANTAGES OF POWER OPEN/POWER CLOSE DAMPERS INCLUDE LOWER POWER CONSUMPTION, QUIET OPERATION AND GREATER RELIABILITY.

- **RELIABLE ACTUATOR WITH HIGH TORQUE & LOW POWER CONSUMPTION**
- **HEAVY DUTY GALVANIZED DAMPER WITH 1 CRIMPED & 2 BEADED ENDS**
- **PRECISION CONSTRUCTION & QUALITY PARTS FOR LONG-LIFE & QUIET OPERATION**
- **360° FULL-DIAMETER POLY GASKET FOR LOWEST LEAKAGE SEAL**
- **SET MINIMUM OR MAXIMUM OPEN & CLOSE**
- **ALL METAL SHAFT WITH NYLON BUSHINGS & TENSION CLIPS TO ENSURE FREE MOVEMENT**



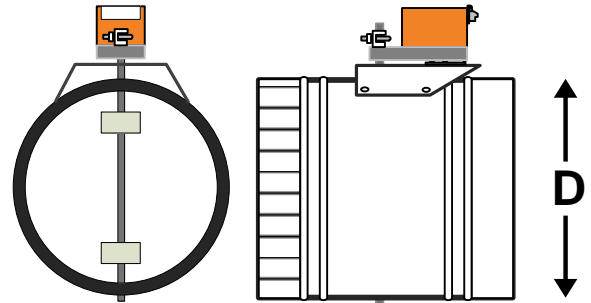
DAMPERS



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DSUP18

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6"
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14"
16"
18"



SPECIFICATIONS

TUBE (CAN):	22 - 24 GA. GALVANIZED STEEL
BLADE:	GALVANIZED STEEL WITH SANDWICHED URETHANE (RUBBERIZED) GASKET
SHAFT:	5/16" ROUND ALUMINUM
BUSHINGS:	HARDENED NYLON
WIRING:	18 OR 20 AWG (OPEN -PO, CLOSE - PC, COM -24VAC COMMON)
MOUNTING:	ANY ORIENTATION, FLEX DUCT, HARD DUCT, SPIRAL DUCT, STARTING COLLAR, ETC
MOTOR:	PART # APDM-B POWER OPEN/POWER CLOSE (3-WIRE) VOLTAGE: 24VAC / 60HZ POWER: 2.5VA (1.5W) TORQUE: 18IN-LB (2NM) TRAVEL TIME: 35 SEC +/- 0.25 TRAVEL ANGLE: 90 DEG (FULL OPEN/CLOSE)



WIRING

USE 18-AWG SOLID WIRE TO CONNECT "COM", "OPEN" & "CLOSE" TERMINALS TO ZONE PANEL

CLUTCH

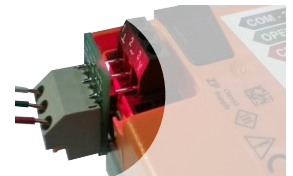
USE THIS BUTTON TO MANUALLY ROTATE THE SHAFT/BLADE

SHAFT CLAMP

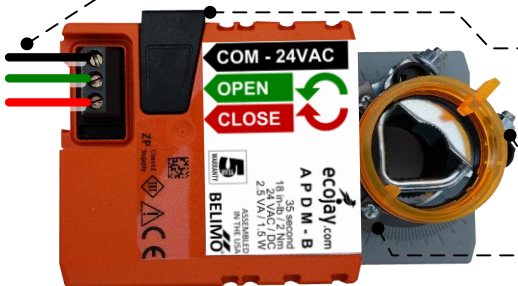
TO REMOVE MOTOR, LOOSEN TWO NUTS ON THE V-BOLT

MIN / MAX SETTING

MOVE SCREWS TO SET A MINIMUM OR MAXIMUM OPEN OR CLOSE OF THE DAMPER



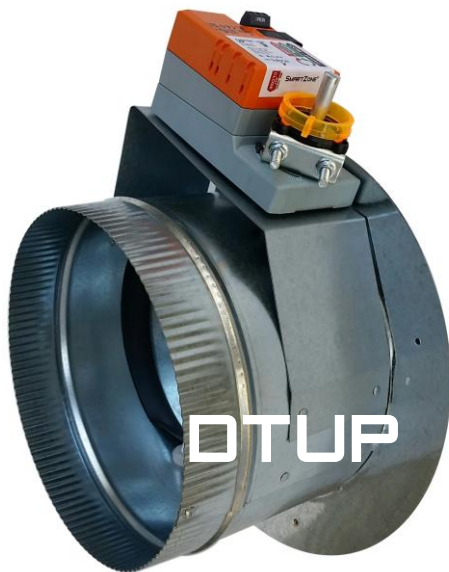
LED & SCREWLESS TERMINAL
ADD-ON AVAILABLE
GREEN = OPEN
RED = CLOSED



ROUND -TAKEOFF POWER OPEN/POWER CLOSE*

POWER DAMPERS POWER OPEN /POWER CLOSE DAMPERS USE THREE WIRES TO POWER THE DAMPER OPEN OR POWER IT CLOSED. THE ZONE PANEL IS RESPONSIBLE FOR SUPPLYING A 24VAC SIGNAL TO EITHER THE PO (POWER OPEN) OR PC (POWER CLOSED) TERMINAL OF THESE DAMPERS. PRIMARY ADVANTAGES OF POWER OPEN/POWER CLOSE DAMPERS INCLUDE LOWER POWER CONSUMPTION, QUIET OPERATION AND GREATER RELIABILITY.

- **RELIABLE ACTUATOR WITH HIGH TORQUE & LOW POWER CONSUMPTION**
- **HEAVY DUTY GALVANIZED DAMPER WITH 1 CRIMPED & 2 BEADED ENDS**
- **PRECISION CONSTRUCTION & QUALITY PARTS FOR LONG-LIFE & QUIET OPERATION**
- **360° FULL-DIAMETER POLY GASKET FOR LOWEST LEAKAGE SEAL**
- **SET MINIMUM OR MAXIMUM OPEN & CLOSE**
- **ALL METAL SHAFT WITH NYLON BUSHINGS & TENSION CLIPS TO ENSURE FREE MOVEMENT**

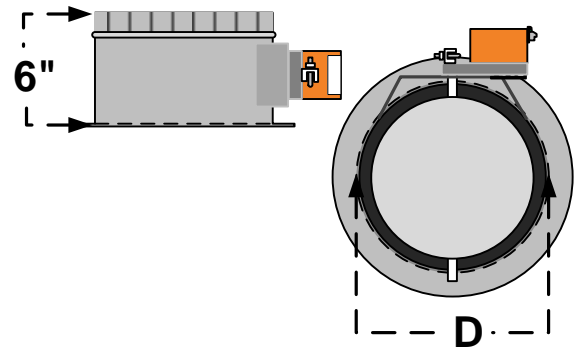


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14"
16"
18"

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ECOJAY.COM



SPECIFICATIONS

TUBE (CAN):	22 - 24 GA. GALVANIZED STEEL
BLADE:	GALVANIZED STEEL WITH SANDWICHED URETHANE (RUBBERIZED) GASKET
SHAFT:	5/16" ROUND ALUMINUM
BUSHINGS:	HARDENED NYLON
WIRING:	18 OR 20 AWG (OPEN -PO, CLOSE- PC, COM -24VAC COMMON)
MOUNTING:	ANY ORIENTATION, FLEX DUCT, HARD DUCT, SPIRAL DUCT, STARTING COLLAR, ETC
MOTOR:	PART # APDM-B POWER OPEN/POWER CLOSE (3-WIRE) VOLTAGE: 24VAC / 60HZ POWER: 2.5VA (1.5W) TORQUE: 18IN-LB (2NM) TRAVEL TIME: 35 SEC +/- 0.25 TRAVEL ANGLE: 90 DEG (FULL OPEN/CLOSE)



WIRING

USE 18-AWG SOLID WIRE TO CONNECT "COM", "OPEN" & "CLOSE" TERMINALS TO ZONE PANEL

CLUTCH

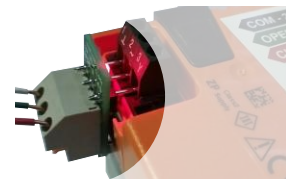
USE THIS BUTTON TO MANUALLY ROTATE THE SHAFT/BLADE

SHAFT CLAMP

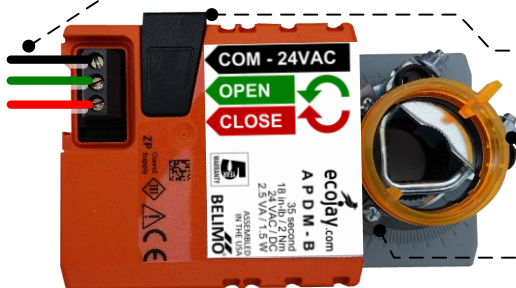
TO REMOVE MOTOR, LOOSEN TWO NUTS ON THE V-BOLT

MIN / MAX SETTING

MOVE SCREWS TO SET A MINIMUM OR MAXIMUM OPEN OR CLOSE OF THE DAMPER



LED & SCREWLESS TERMINAL
ADD-ON AVAILABLE
GREEN = OPEN
RED = CLOSED



INSERTABLE POWER OPEN/POWER CLOSE*

POWER DAMPERS POWER OPEN /POWER CLOSE DAMPERS USE THREE WIRES TO POWER THE DAMPER OPEN OR POWER IT CLOSED. THE ZONE PANEL IS RESPONSIBLE FOR SUPPLYING A 24VAC SIGNAL TO EITHER THE PO (POWER OPEN) OR PC (POWER CLOSED) TERMINAL OF THESE DAMPERS. PRIMARY ADVANTAGES OF POWER OPEN/POWER CLOSE DAMPERS INCLUDE LOWER POWER CONSUMPTION, QUIET OPERATION AND GREATER RELIABILITY.

- **RELIABLE ACTUATOR WITH HIGH TORQUE & LOW POWER CONSUMPTION**
- **18 GAUGE MOUNTING PLATE & UL LISTED GASKET MATERIAL**
- **PRECISION CONSTRUCTION & QUALITY PARTS FOR LONG-LIFE & QUIET OPERATION**
- **360° FULL-DIAMETER POLY GASKET FOR LOWEST LEAKAGE SEAL**
- **SET MINIMUM OR MAXIMUM OPEN & CLOSE**

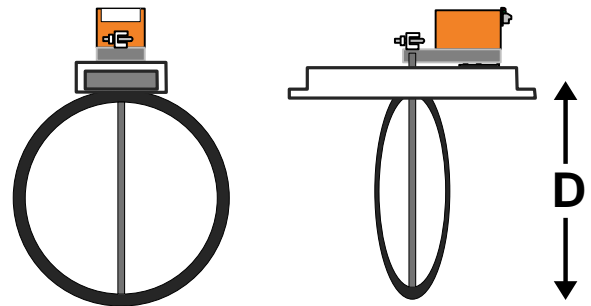
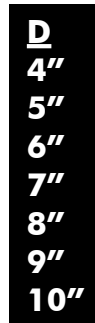


DAMPERS



PART

- DIUP04
- DIUP05
- DIUP06
- DIUP07
- DIUP08
- DIUP09
- DIUP10



SPECIFICATIONS

BRACKET:	18 GA. GALVANIZED STEEL
BLADE:	GALVANIZED STEEL WITH SANDWICHED URETHANE (RUBBERIZED) GASKET – UL LISTED
SHAFT:	5/16" ROUND ALUMINUM
BUSHINGS:	HARDENED NYLON
WIRING:	18 OR 20 AWG (OPEN -PO, CLOSE - PC, COM -24VAC COMMON)
MOUNTING:	ANY ORIENTATION, HARD DUCT, SPIRAL DUCT, STARTING COLLAR, ETC
MOTOR:	PART # APDM-B POWER OPEN/POWER CLOSE (3-WIRE) VOLTAGE: 24VAC / 60HZ POWER: 2.5VA (1.5W) TORQUE: 18IN-LB (2NM) TRAVEL TIME: 35 SEC +/- 0.25 TRAVEL ANGLE: 90 DEG (FULL OPEN/CLOSE)



WIRING

USE 18-AWG SOLID WIRE TO CONNECT "COM", "OPEN" & "CLOSE" TERMINALS TO ZONE PANEL

CLUTCH

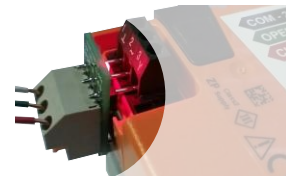
USE THIS BUTTON TO MANUALLY ROTATE THE SHAFT/BLADE

SHAFT CLAMP

TO REMOVE MOTOR, LOOSEN TWO NUTS ON THE V-BOLT

MIN / MAX SETTING

MOVE SCREWS TO SET A MINIMUM OR MAXIMUM OPEN OR CLOSE OF THE DAMPER



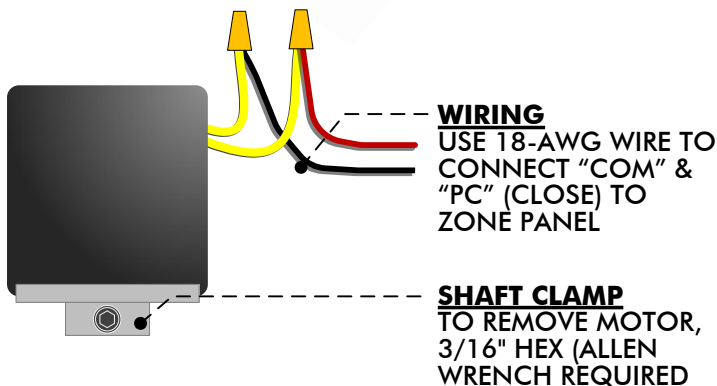
LED & SCREWLESS TERMINAL
ADD-ON AVAILABLE
GREEN = OPEN
RED = CLOSED



ROUND SPRING OPEN/POWER CLOSE

SPRING OPEN /POWER CLOSE DAMPERS USE TWO WIRES TO POWER THE DAMPER CLOSED & IT AUTOMATICALLY SPRINGS OPEN WHEN POWER IS REMOVED. THE ZONE PANEL IS RESPONSIBLE FOR SUPPLYING A 24VAC SIGNAL TO EITHER THE PC (POWER CLOSED) TERMINAL OF THESE DAMPERS. ECOJAY'S SPRING DAMPERS PROVIDE A TOP QUALITY ROUND DAMPER AT A BUDGET-DRIVEN PRICE POINT.

- **RELIABLE & QUIET SPRING ACTUATOR**
- **HEAVY DUTY GALVANIZED DAMPER WITH 1 CRIMPED & 2 BEADED ENDS**
- **PRECISION CONSTRUCTION & QUALITY PARTS FOR LONG-LIFE & QUIET OPERATION**
- **360° FULL-DIAMETER POLY GASKET FOR LOWEST LEAKAGE SEAL**
- **ALL METAL SHAFT WITH NYLON BUSHINGS & TENSION CLIPS TO ENSURE FREE MOVEMENT**



DAMPERS

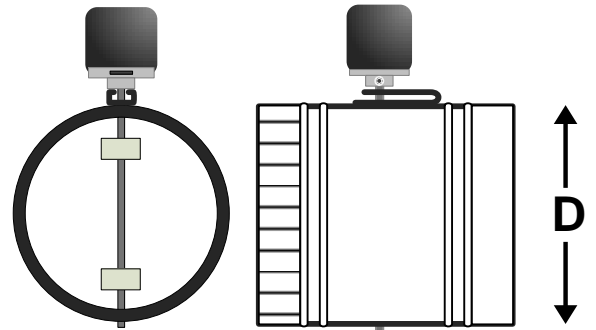


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12"
14"
16"



SPECIFICATIONS

TUBE (CAN):	22 - 24 GA. GALVANIZED STEEL
BLADE:	URETHANE (RUBBERIZED) GASKET
SHAFT:	5/16" ROUND ALUMINUM
BUSHINGS:	HARDENED NYLON
WIRING:	18 OR 20 AWG (CLOSE - PC, COM -24VAC COMMON)
MOUNTING:	ANY ORIENTATION, FLEX DUCT, HARD DUCT, SPIRAL DUCT, STARTING COLLAR, ETC
ACTUATOR (DIRECT DRIVE)	MODEL # ASDM-2
	MOTOR-CLOSE / SPRING-OPEN
	VOLTAGE: 24VAC
	POWER: 2.5VA / 60HZ, 10 VA
	TORQUE: 45 IN-OZ (MOTOR) 20 IN-OZ (SPRING)
	TRAVEL TIME: 30 SEC (CLOSE) 8 SEC (OPEN)
	TRAVEL ANGLE: 90 DEG (FULL OPEN/CLOSE)
SET SCREW	ALLEN/HEX: 3/16"

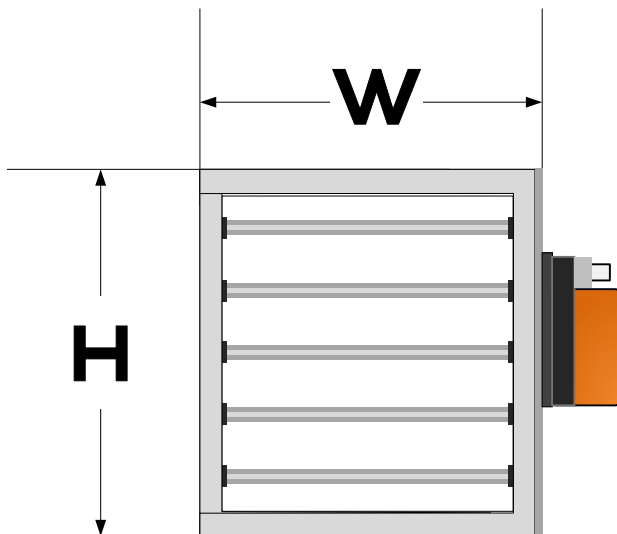


RECTANGLE POWER OPEN/POWER CLOSE



POWER DAMPERS POWER OPEN /POWER CLOSE DAMPERS USE THREE WIRES TO POWER THE DAMPER OPEN OR POWER IT CLOSED. THE ZONE PANEL IS RESPONSIBLE FOR SUPPLYING A 24VAC SIGNAL TO EITHER THE PO (POWER OPEN) OR PC (POWER CLOSED) TERMINAL OF THESE DAMPERS. PRIMARY ADVANTAGES OF POWER OPEN/POWER CLOSE DAMPERS INCLUDE LOWER POWER CONSUMPTION, QUIET OPERATION AND GREATER RELIABILITY.

- **RELIABLE ACTUATOR WITH HIGH TORQUE & LOW POWER CONSUMPTION**
- **STURDY EXTRUDED ALUMINUM FRAME AND LOUVER BLADES**
- **PRECISION CONSTRUCTION & QUALITY PARTS FOR LONG-LIFE & QUIET OPERATION**
- **SET MINIMUM OR MAXIMUM OPEN & CLOSE**
- **GALVANIZED STEEL LINKAGE & BRASS BUSHINGS ENSURE SMOOTH MOVEMENT**



SPECIFICATIONS

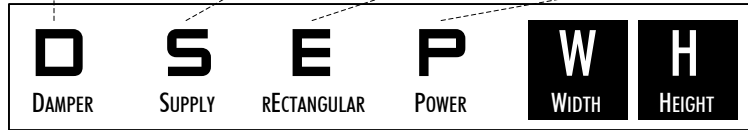
FRAME:	ALUMINUM
BLADE:	ALUMINUM
SHAFT:	ALUMINUM
BUSHINGS:	BRASS
LINKAGE:	GALVANIZED STEEL & BRASS
WIRING:	18 OR 20 AWG (OPEN, CLOSE, COM)
MOUNTING:	ANY ORIENTATION, FITS INSIDE STANDARD SIZE HARD DUCT OR DIRECT TO PLENUM
MOTOR:	PART # APDM-3 POWER OPEN/POWER CLOSE (3-WIRE)
	VOLTAGE: 24VAC
	POWER: 2.5VA (1.5W)
	TORQUE: 18IN-LB (2NM)
	TRAVEL TIME: 35 SEC
	TRAVEL ANGLE: 90 DEG (FULL OPEN/CLOSE)

		W - WIDTH (INCHES)								
		08	10	12	14	16	18	20	22	24
H - HEIGHT (ACTUATOR MOUNTED)	08	DSEP0808	DSEP1008	DSEP1208	DSEP1408	DSEP1608	DSEP1808	DSEP2008	DSEP2208	DSEP2408
	10	DSEP0810	DSEP1010	DSEP1210	DSEP1410	DSEP1610	DSEP1810	DSEP2010	DSEP2210	DSEP2410
	12	DSEP0812	DSEP1012	DSEP1212	DSEP1412	DSEP1612	DSEP1812	DSEP2012	DSEP2212	DSEP2412
	14	DSEP0814	DSEP1014	DSEP1214	DSEP1414	DSEP1614	DSEP1814	DSEP2014	DSEP2214	DSEP2414
	16	DSEP0816	DSEP1016	DSEP1216	DSEP1416	DSEP1616	DSEP1816	DSEP2016	DSEP2216	DSEP2416
	18	DSEP0818	DSEP1018	DSEP1218	DSEP1418	DSEP1618	DSEP1818	DSEP2018	DSEP2218	DSEP2418
	20	DSEP0820	DSEP1020	DSEP1220	DSEP1420	DSEP1620	DSEP1820	DSEP2020	DSEP2220	DSEP2420
	22	DSEP0822	DSEP1022	DSEP1222	DSEP1422	DSEP1622	DSEP1822	DSEP2022	DSEP2222	DSEP2422
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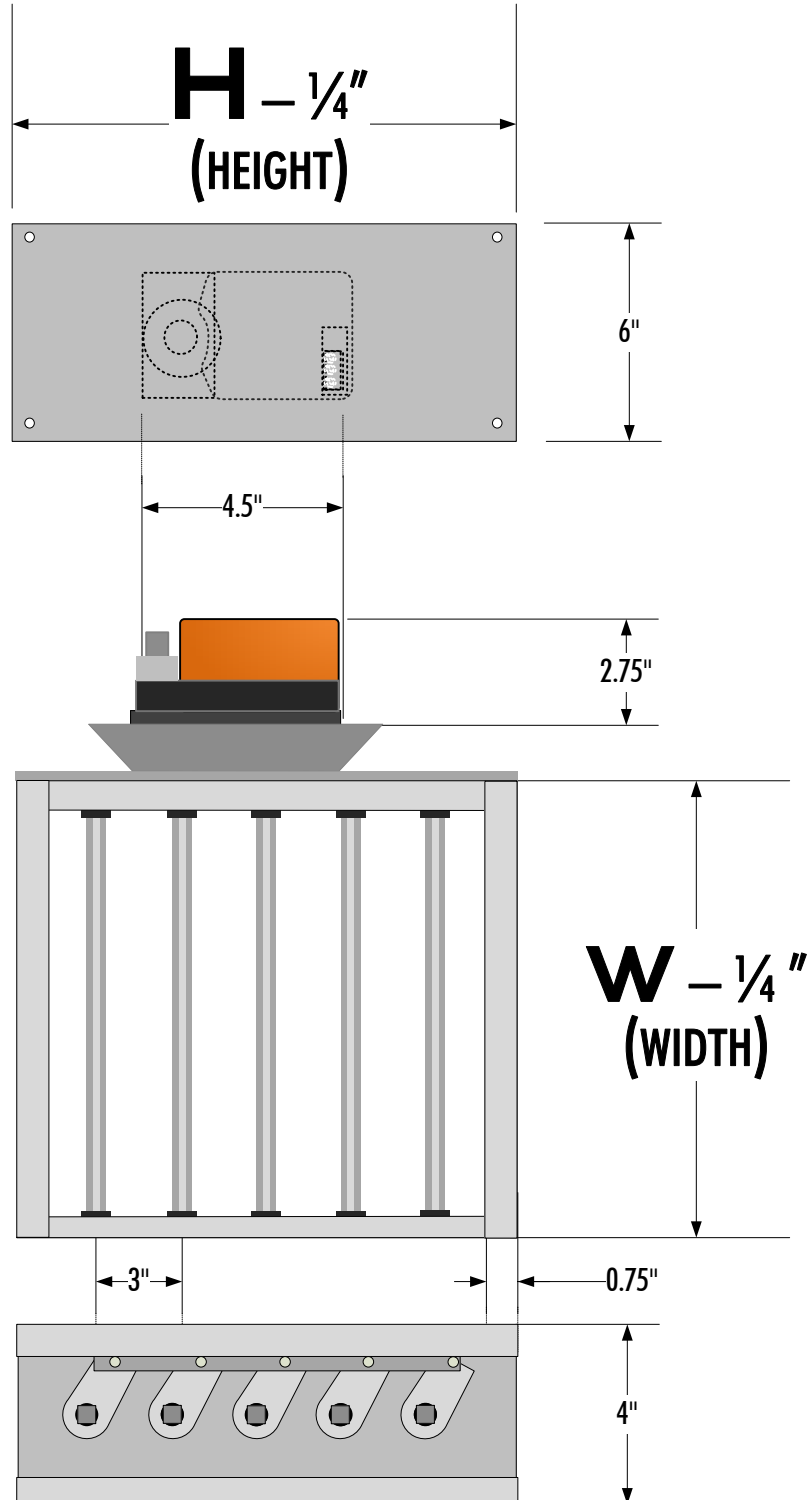
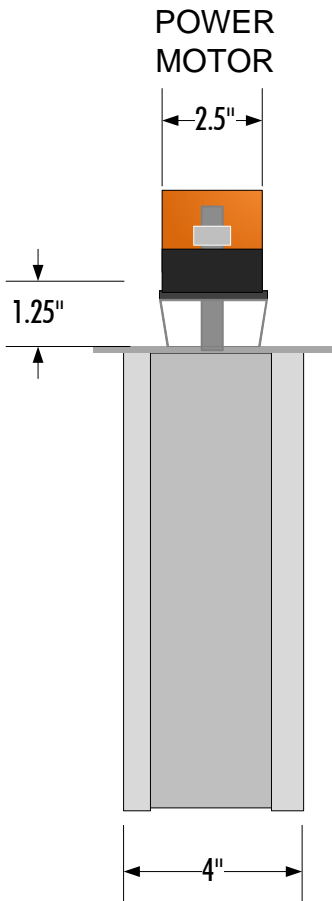




DAMPER — SUPPLY RECTANGULAR POWER



06" TO 24"
IN 2" INCREMENTS



BYPASS MODULATING

THE ECOJAY MODULATING BYPASS DAMPER INCLUDES THE STANDARD DSUP OR DSEP DAMPER WITH A PRE-WIRED STATIC PRESSURE SWITCH. MODULATING (STATIC PRESSURE CONTROLLED) BYPASS DAMPERS SHOULD BE USED WHERE RELIABILITY AND QUIET OPERATION ARE NEEDED. THIS METHOD PROVIDES THE MOST ACCURATE AND EFFICIENT VERSION OF PRESSURE RELIEF IN THE SUPPLY DUCT FOR ANY ZONING SYSTEM. ASSEMBLED BY HAND IN THE USA.

- **ACCURATE AND RELIABLE STATIC PRESSURE CONTROLLED**
- **HEAVY DUTY GALVANIZED DAMPER WITH 1 CRIMPED & 2 BEADED ENDS**
- **PRECISION CONSTRUCTION & QUALITY PARTS FOR LONG-LIFE & QUIET OPERATION**
- **FULL-DIAMETER POLY GASKET FOR LOW LEAKAGE SEAL**
- **ALL METAL SHAFT WITH NYLON BUSHINGS**

DAMPERS

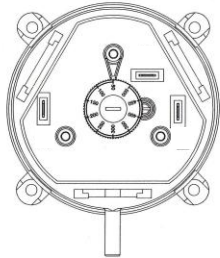
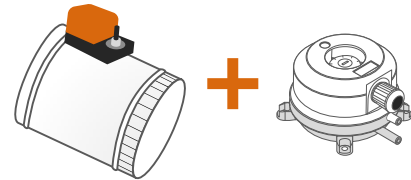
D	B	U	M	D
DAMPER	BYPASS	ROUND	MODULAT	DIAMETER

PART

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DBUM10
DBUM12
DBUM14
DBUM16
DBUM18

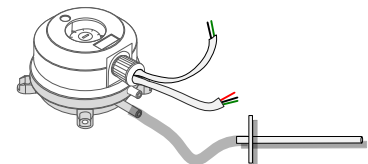
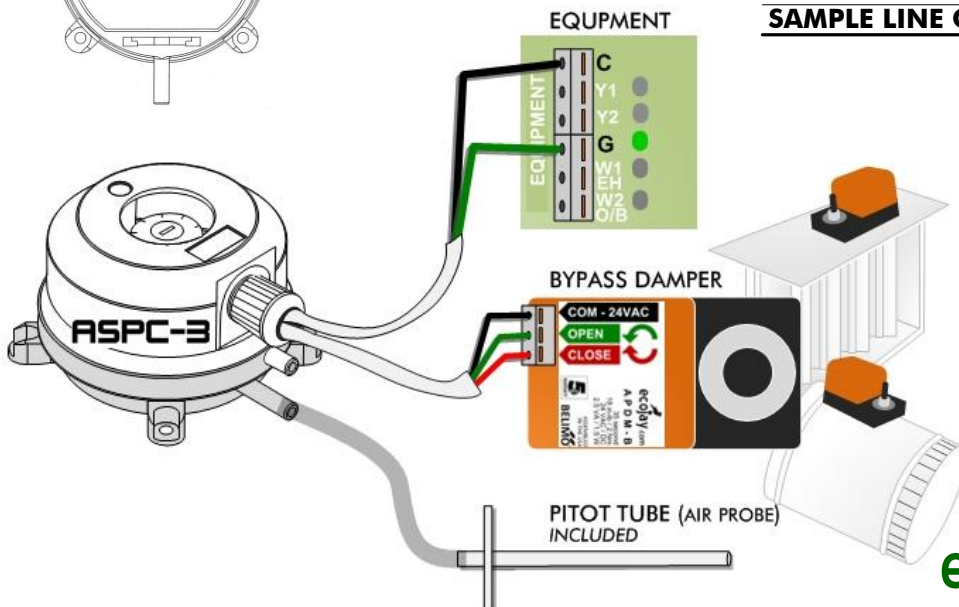
D

8"
10"
12"
14"
16"
18"



SPECIFICATIONS

SET POINT RANGE	0.08" w.c. TO 0.80" w.c. (20 TO 200 PA)
PRESSURE CONNECTIONS	P1 (+) HIGH PRESSURE P2 (-) LOW PRESSURE
SWITCHING DIFFERENTIAL	5PA (0.02" w.c.)
MAXIMUM PRESSURE	10KPA
OPERATING TEMPERATURE	-4 °F TO +140 °F
ELECTRICAL RATING	1.0 A MAX
ELECTRICAL CONNECTIONS	1 NO – NORMALLY OPEN 2 NC – NORMALLY CLOSED 3 COM – POWER SUPPLY
CONDUIT CONNECTION	1/2" NPT THREADED
SAMPLE LINE CONNECTIONS	1/4" ID TUBING



ASPC-3

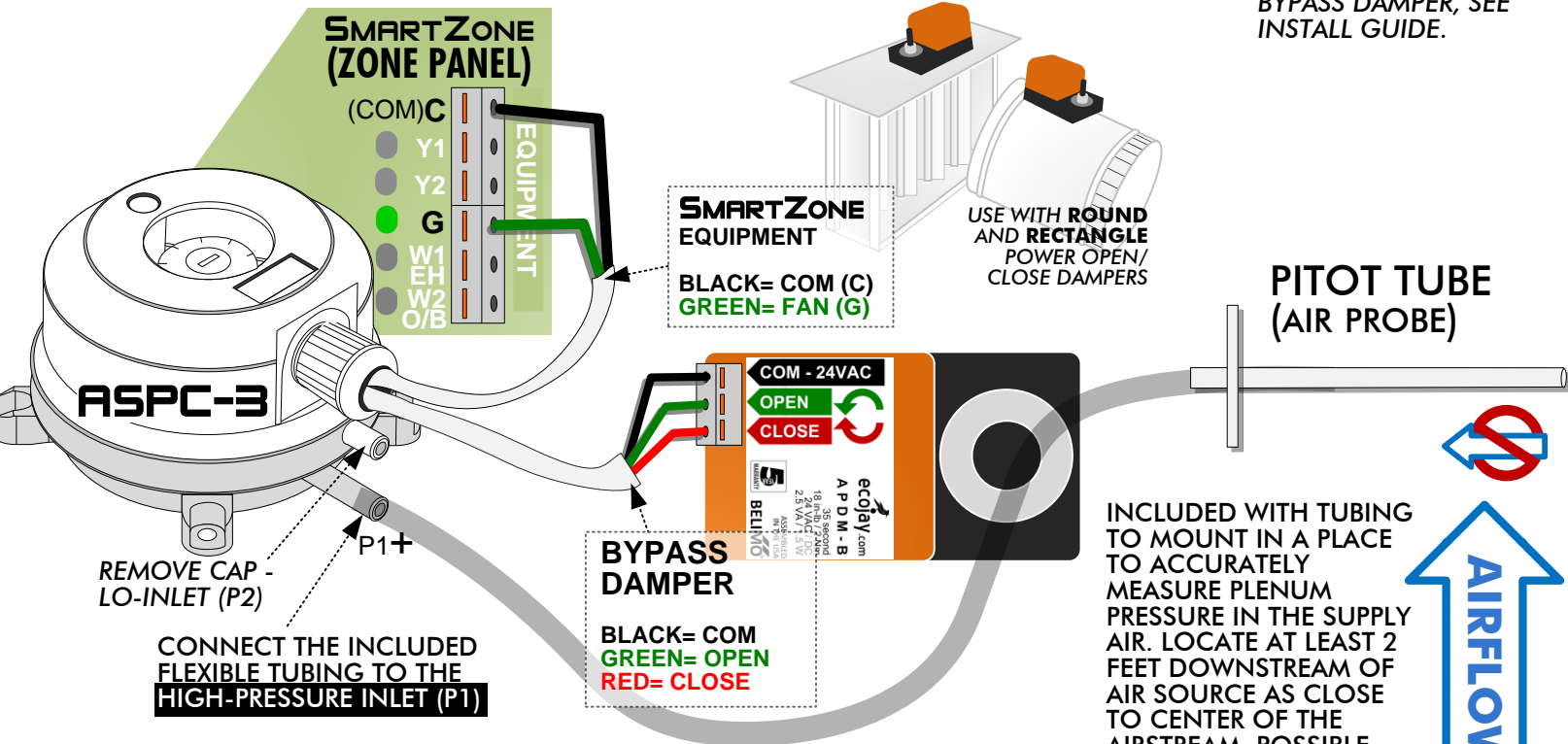
INCLUDES PITOT TUBE, AIR PRESSURE TUBING, & WIRES PRE-CONNECTED TO THE ASPC-3. CAN BE PURCHASED SEPARATELY AND USED WITH ANY 3-WIRE DAMPER TO CREATE A BYPASS OR PRESSURE RELIEF SYSTEM.



MODULATING BYPASS

STATIC PRESSURE CONTROLLED BYPASS FOR SUPERIOR AIR NOISE REDUCTION AND PRECISION AIR PRESSURE RELIEF, CHOOSE THE MODULATING BYPASS

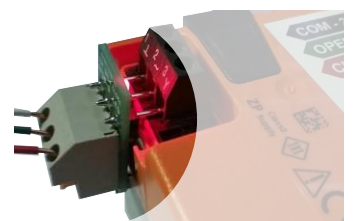
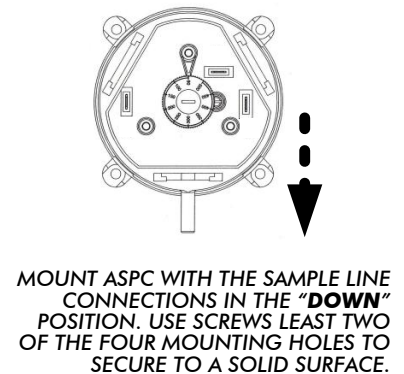
FOR INFORMATION ABOUT SIZING THE BYPASS DAMPER, SEE INSTALL GUIDE.



CONFIGURATION

THE GOAL IS TO CALIBRATE THE BYPASS DAMPER TO OPEN IF SUPPLY DAMPERS CLOSE AND THE PLENUM PRESSURE INCREASES. FOLLOW THE STEPS BELOW.

- 1** MAKE A CALL FROM ALL ZONES FOR COOLING SO ALL ZONE DAMPERS ARE FULLY OPEN AND THE EQUIPMENT FAN (BLOWER) IS RUNNING AT THE HIGHEST SPEED.
- 2** TURN KNOB CLOCKWISE SLOWLY UNTIL THE BYPASS DAMPER MOTOR STARTS CLOSING IF DAMPER STARTS OPENING AGAIN BEFORE FULLY CLOSING, TURN THE KNOB CLOCKWISE SLOWLY UNTIL IT STARTS CLOSING AGAIN. REPEAT THIS PROCESS UNTIL THE DAMPER IS FULLY CLOSED. (RED LED WILL BE ON*)
- 3** VERY SLOWLY TURN THE KNOB COUNTER-CLOCKWISE UNTIL THE BYPASS DAMPER MOTOR STARTS TO OPEN. (RED LED WILL GO OFF & GREEN ON*)
- 4** AS SOON AS THE MOTOR STARTS TO RUN OPEN, TURN THE KNOB BACK CLOCKWISE JUST ENOUGH THAT THE DAMPER MOTOR STAYS CLOSED. (RED LED WILL BE ON*)



*NOTE: LEDES WILL ONLY BE VISIBLE IF LED & SCREWLESS TERMINAL ADD-ON IS INSTALLED ON BYPASS DAMPER ACTUATOR

TESTING

MAKE A CALL FOR COOLING FROM THE SMALLEST ZONE ONLY. WHEN THE FAN IS AT THE HIGHEST SPEED THE BYPASS DAMPER SHOULD MODULATE TO AN OPEN POSITION WITHIN 1 TO 2 MINUTES & AIR NOISE SHOULD BE ACCEPTABLY LOW.

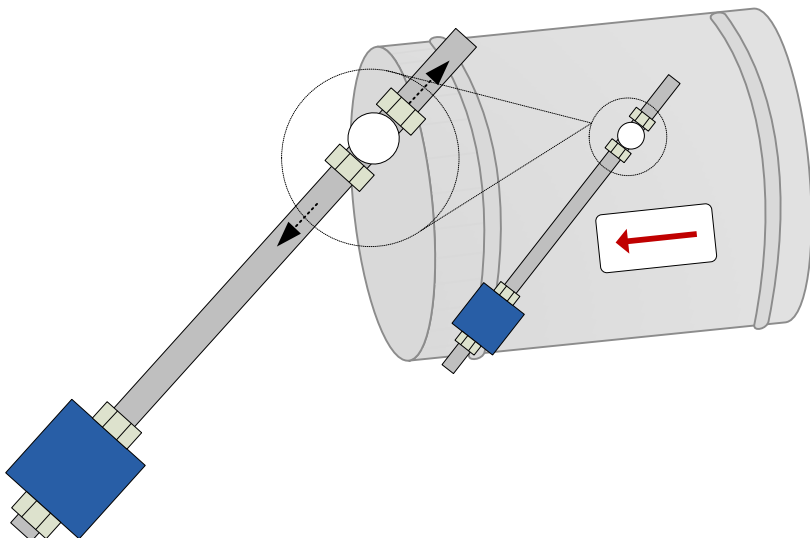
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BYPASS BAROMETRIC ROUND

THE ECOJAY BAROMETRIC BYPASS DAMPER WAS DEVELOPED WITH ECONOMY AND SIMPLICITY IN MIND. THE NEED FOR A BYPASS DAMPER IN MOST ZONING APPLICATIONS CALLS FOR AN EASY TO USE AND COST EFFECTIVE DAMPER TO SERVE THIS PURPOSE. THE "WEIGHTED ARM" BYPASS METHOD OF RELIEVING AIR PRESSURE HAS PROVEN RELIABILITY AND QUIET OPERATION. CUSTOM COMPONENTS WITH CRITICAL DIMENSIONS ARE MANUFACTURED USING LASER CUTTERS TO ENSURE A PRECISION FIT. ASSEMBLED BY HAND IN THE USA.

- **RELIABLE WEIGHT ARM LOCKED IN PLACE (NO GUESSING AT POSITION)**
- **HEAVY DUTY GALVANIZED DAMPER WITH 1 CRIMPED & 2 BEADED ENDS**
- **PRECISION CONSTRUCTION & QUALITY PARTS FOR LONG-LIFE & QUIET OPERATION**
- **FULL-DIAMETER POLY GASKET FOR LOW LEAKAGE SEAL**
- **ALL METAL SHAFT WITH NYLON BUSHINGS**



DAMPERS

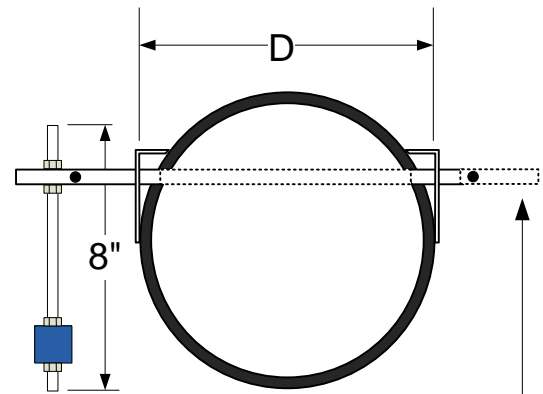


PART

DBUB08
DBUB10
DBUB12
DBUB14
DBUB16

D

8"
10"
12"
14"
16"



**SPECIAL OPTION
AVAILABLE:
WEIGHT ARM MOUNT ON
BOTH SIDES OF DAMPER**

SPECIFICATIONS

PRESSURE RANGE	0.1 TO 2 INCHES-H ₂ O
WEIGHTED ARM	3/8" FULL THREADED 8" LENGTH
SHAFT	1/2" ALL METAL SHAFT PARTS TENSION-FIT REINFORCED L-BRACKET
WEIGHT	~9 OZ
CAN	GALVANIZED, RIVETED, CRIMPED
BLADE	GALVANIZED METAL
INDICATOR	AIR-FLOW ► DIRECTION STICKER

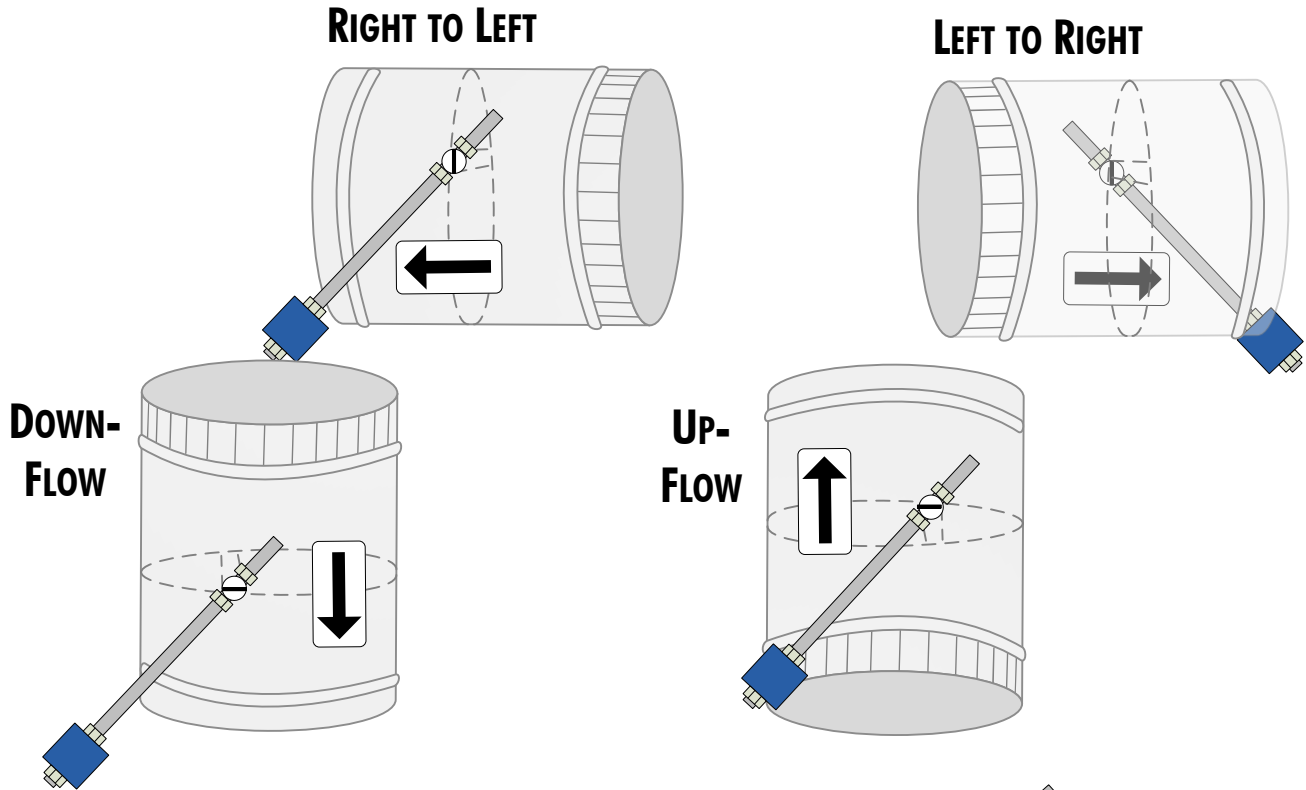


BAROMETRIC BYPASS

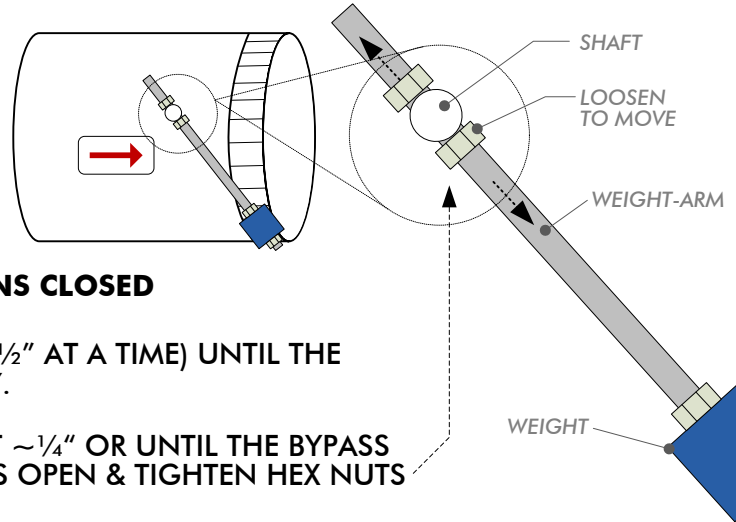
THE ECOJAY BAROMETRIC BYPASS DAMPER WAS DEVELOPED WITH ECONOMY AND SIMPLICITY IN MIND. THE NEED FOR A BYPASS DAMPER IN MOST ZONING APPLICATIONS CALLS FOR AN EASY TO USE AND COST EFFECTIVE DAMPER TO SERVE THIS PURPOSE. THE "WEIGHTED ARM" BYPASS METHOD OF RELIEVING AIR PRESSURE HAS PROVEN RELIABILITY AND QUIET OPERATION. CUSTOM COMPONENTS WITH CRITICAL DIMENSIONS ARE MANUFACTURED USING LASER CUTTERS TO ENSURE A PRECISION FIT. ASSEMBLED BY HAND IN THE USA.

CONFIGURATION

- 1 WITH BLADE CLOSED, POSITION THE "WEIGHT ARM" IN THE INITIAL POSITION SHOWN BASED ON AIRFLOW DIRECTION



- 2 LOOSEN HEX NUTS ON THE WEIGHT ARM FROM THE DAMPER AT THE SHAFT AND SLIDE THE WEIGHT ARM THROUGH THE SHAFT HOLE
- 3 MAKE A CALL FOR COOLING FROM ALL ZONES & VERIFY THAT ALL ZONE DAMPERS ARE OPEN AND HI SPEED FAN IS RUNNING, **MAKE SURE THE BYPASS DAMPER REMAINS CLOSED**
- 4 MOVE THE WEIGHT TOWARD THE SHAFT ($\sim 1/2"$ AT A TIME) UNTIL THE BYPASS DAMPER STARTS TO OPEN SLIGHTLY.
- 5 MOVE THE WEIGHT AWAY FROM THE SHAFT $\sim 1/4"$ OR UNTIL THE BYPASS DAMPER REMAINS CLOSED WITH ALL ZONES OPEN & TIGHTEN HEX NUTS AROUND SHAFT



TESTING

REMOVE THE COOLING CALLS FROM ALL BUT THE SMALLEST ZONE. AFTER DAMPERS FROM ALL BUT THE SMALLEST ZONE HAVE FULLY CLOSED, CONFIRM THAT THE BAROMETRIC BYPASS DAMPER OPENS EASILY. (NOTE: BAROMETRIC BYPASS WILL NOT FULLY OPEN)