

ULTRA-ZONE[®]

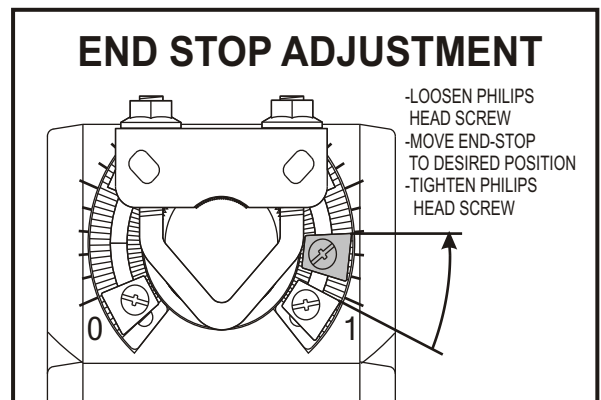
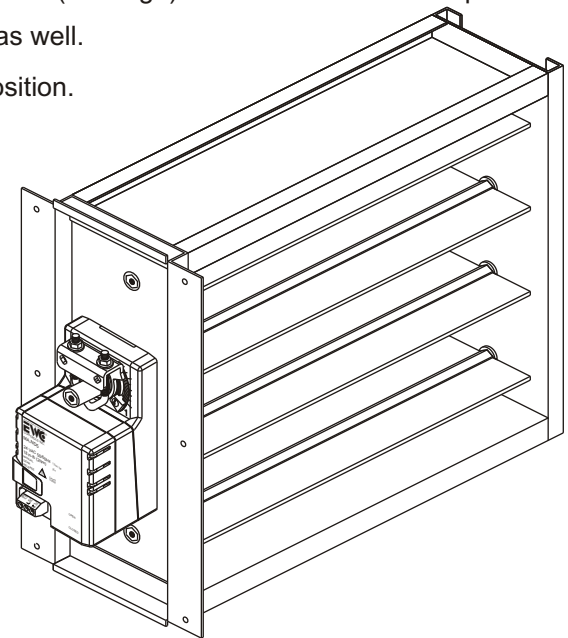
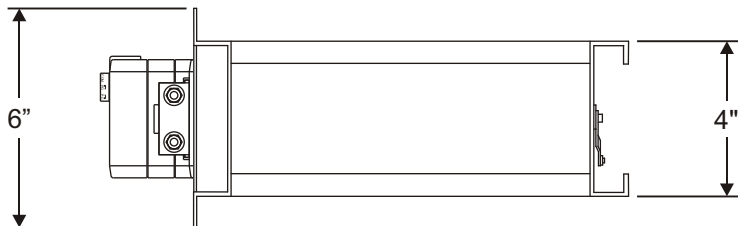
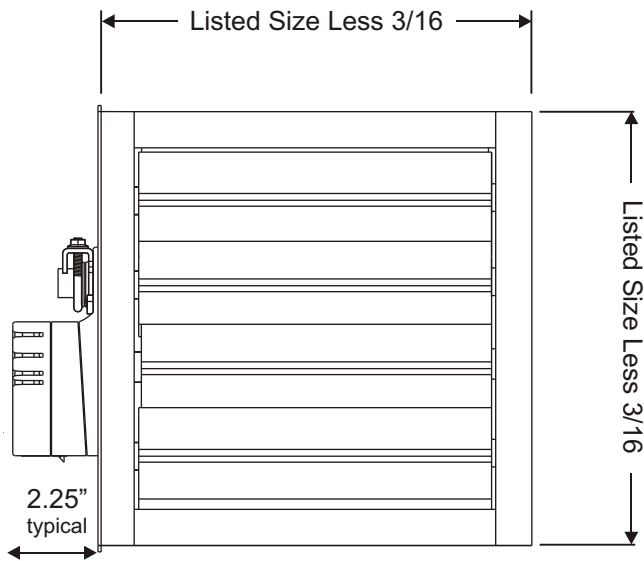
Forced Air Zone Controls

SUBMITTAL SHEET

Model ND Rectangular Dampers
with MA-ND5 Actuator

- The ND Damper is constructed using Heavy Duty 0.80" extruded aluminum.
- Nylon Bearings for quiet operation.
- Overlapping parallel blade design insures low leakage.
- Designed to operate at static pressures up to 1.5" w.c.
- The UL Listed Motor Actuator is a 24vac 3 wire power open/ power close type.
- The motor actuator is rated at 18"lbs. of torque. Superior to low torque Spring type motors.
- The Motor Actuator housing has a NEMA1 Rating.
- Integrated End-Stop Adjustment allows for a percentage of Relief Air (Leakage) to be set when the damper is powered to closed and/or you may set a maximum open position as well.
- Bright green and red LED's Indicate damper open and closed position.

DIMENSIONAL DRAWINGS



SUBMITTAL FORM

SUBMITTED BY: _____

JOB: _____

ARCHITECT: _____

ENGINEER: _____

CONTRACTOR: _____

LOCATION: _____



385 Hwy. 33
Englishtown, NJ 07726
Ph: 800-446-3110
Fx: 732-446-5362

SIZING

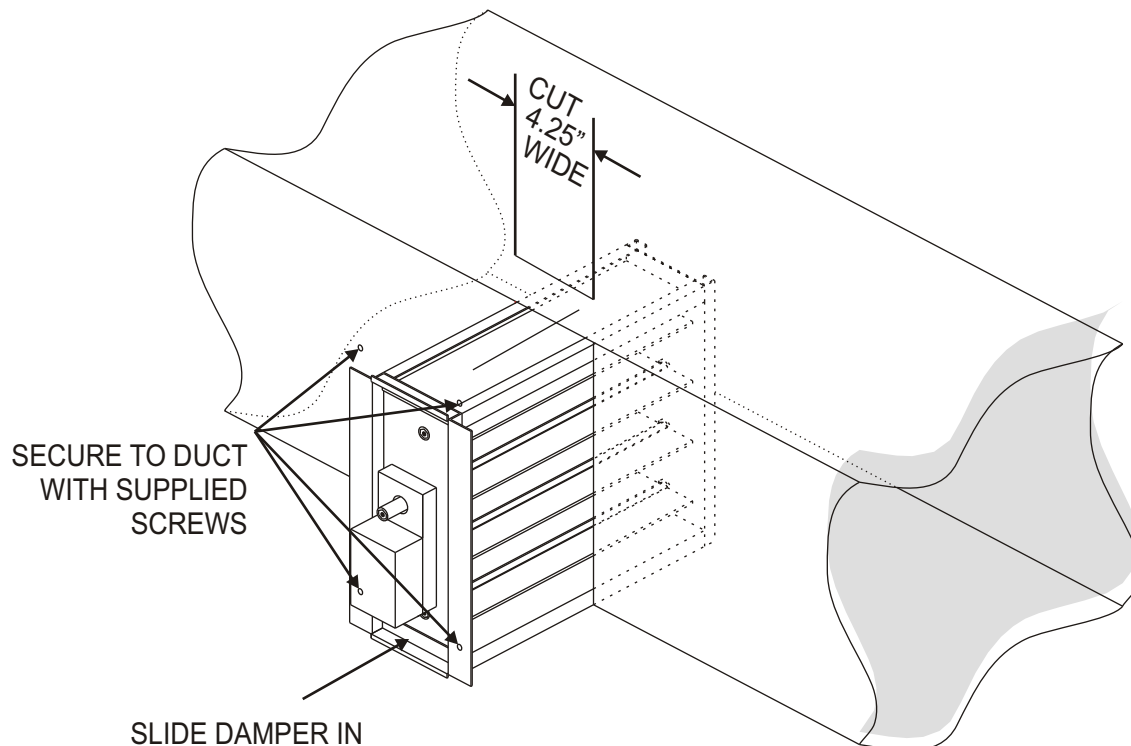
ND Dampers are available in sizes 6" x 8" thru 30" x 30" in one inch increments.

Custom Sizes can be manufactured, contact EWC Controls Inc. Make sure to specify your required dimensions.

The 2nd specified dimension is ALWAYS the motor side. i.e. 12" X 14" ND Damper will place the motor on the 14" side.

DAMPER INSTALLATION

On the side of the duct, where the damper is to be mounted, cut a 4.25" wide slotted opening. Slide the damper into the opening and secure the damper to the duct with the sheet metal screws. *Airflow can be from either direction and the Motor can be oriented in any position.* Larger sizes may require additional support by securing the back of the damper.

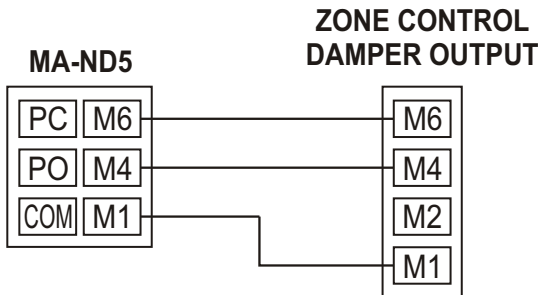


WIRING SOLUTIONS

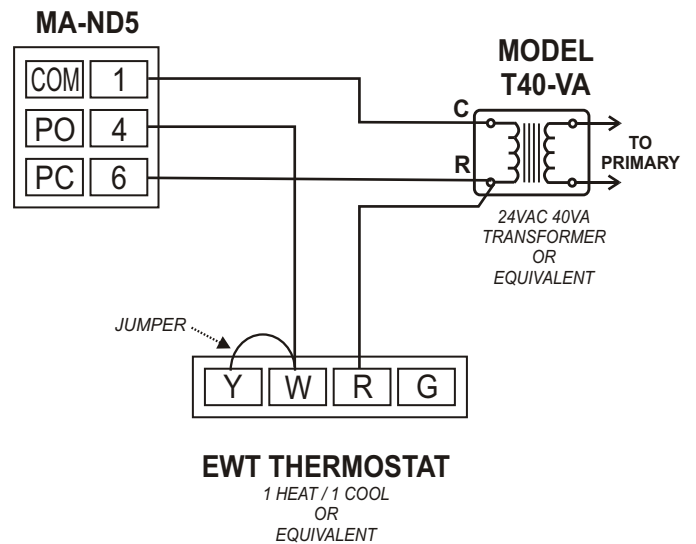
Motor Actuator Terminals

TERMINAL	DESCRIPTION
1 / COM	24v Common
4 / PO	24v Power to Open
6 / PC	24v Power to Close

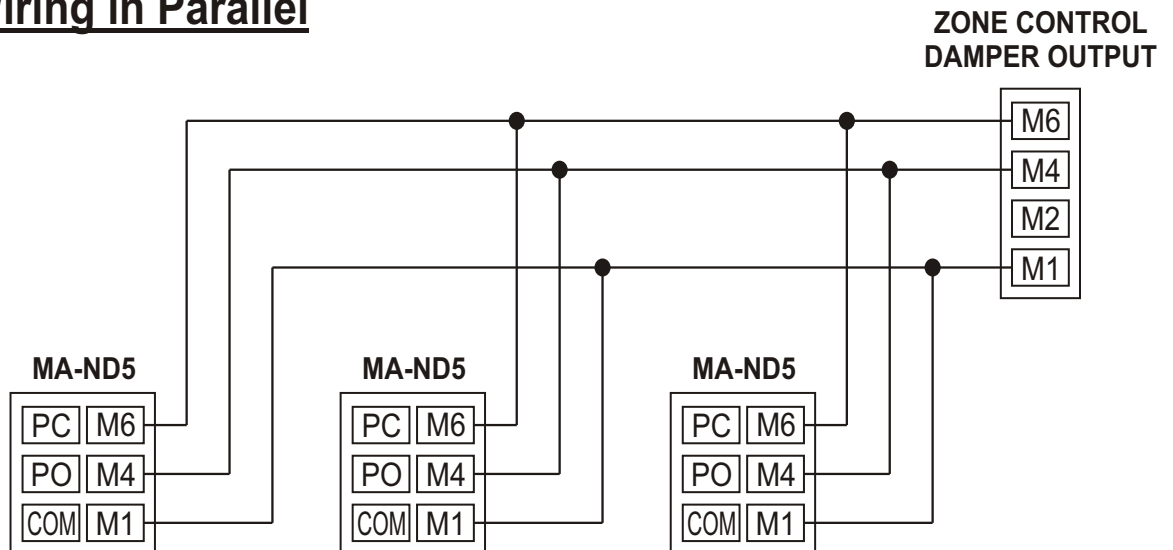
Wiring to a Zone Control Panel



Wiring a Thermostat to Control a Single Damper



Wiring in Parallel



	8	10	12	14	16	18	20	22	24	26	28	30
6	Free Area (Sq. In.) CFM	19.46 150	28.08 190	34.84 220	41.60 260	48.35 340	55.11 360	63.74 410	77.25 480	84.01 540	90.76 560	99.39 600
8	Free Area (Sq. In.) CFM	28.49 180	41.11 270	51.00 350	60.89 390	70.78 470	80.67 510	93.30 630	113.08 750	122.97 820	132.86 840	145.49 950
10	Free Area (Sq. In.) CFM	37.51 250	54.14 360	67.16 450	80.19 540	93.21 630	106.24 720	122.86 850	148.91 1040	161.93 1110	174.96 1180	191.58 1300
12	Free Area (Sq. In.) CFM	46.54 310	67.16 450	83.32 550	99.48 690	115.64 780	131.80 930	152.42 1080	184.74 1340	200.90 1410	217.06 1530	237.68 1690
14	Free Area (Sq. In.) CFM	55.56 340	80.19 540	99.48 690	118.77 820	138.07 910	157.36 1070	181.98 1360	220.57 1620	239.86 1680	259.16 1790	283.78 2160
16	Free Area (Sq. In.) CFM	64.59 400	93.21 630	115.64 780	138.07 910	160.49 1120	182.92 1280	211.55 1610	256.40 1860	278.83 2040	301.25 2300	329.88 2590
18	Free Area (Sq. In.) CFM	73.62 420	106.24 720	131.80 930	157.36 1070	182.92 1280	208.48 1440	241.11 1790	292.23 2200	317.79 2380	343.35 2480	375.98 3070
20	Free Area (Sq. In.) CFM	82.64 460	119.27 790	147.96 990	176.66 1240	205.35 1450	234.05 1590	270.67 2070	328.06 2590	356.75 2770	385.45 2940	422.07 3360
22	Free Area (Sq. In.) CFM	91.67 530	132.29 880	164.12 1100	195.95 1340	227.78 1550	259.61 1840	300.23 2250	363.89 2820	395.72 2970	427.55 3180	468.17 4220
24	Free Area (Sq. In.) CFM	100.69 570	145.32 950	180.28 1210	215.24 1440	250.21 1640	285.17 1920	329.79 2590	399.72 3030	434.68 3450	469.65 3670	514.27 4570
26	Free Area (Sq. In.) CFM	109.72 640	158.34 1060	196.44 1260	234.54 1580	272.63 1900	310.73 2210	359.36 2770	435.55 3450	473.65 3730	511.74 3910	560.37 5560
28	Free Area (Sq. In.) CFM	118.75 700	171.37 1110	212.60 1440	253.83 1670	295.06 1980	336.29 2280	388.92 3170	471.38 3670	512.61 3910	553.84 4890	606.47 6030
30	Free Area (Sq. In.) CFM	127.77 760	184.40 1160	228.76 1490	273.13 1750	317.49 2050	361.86 2400	418.48 3360	507.21 3860	551.57 4900	595.94 52200	652.56 6500