

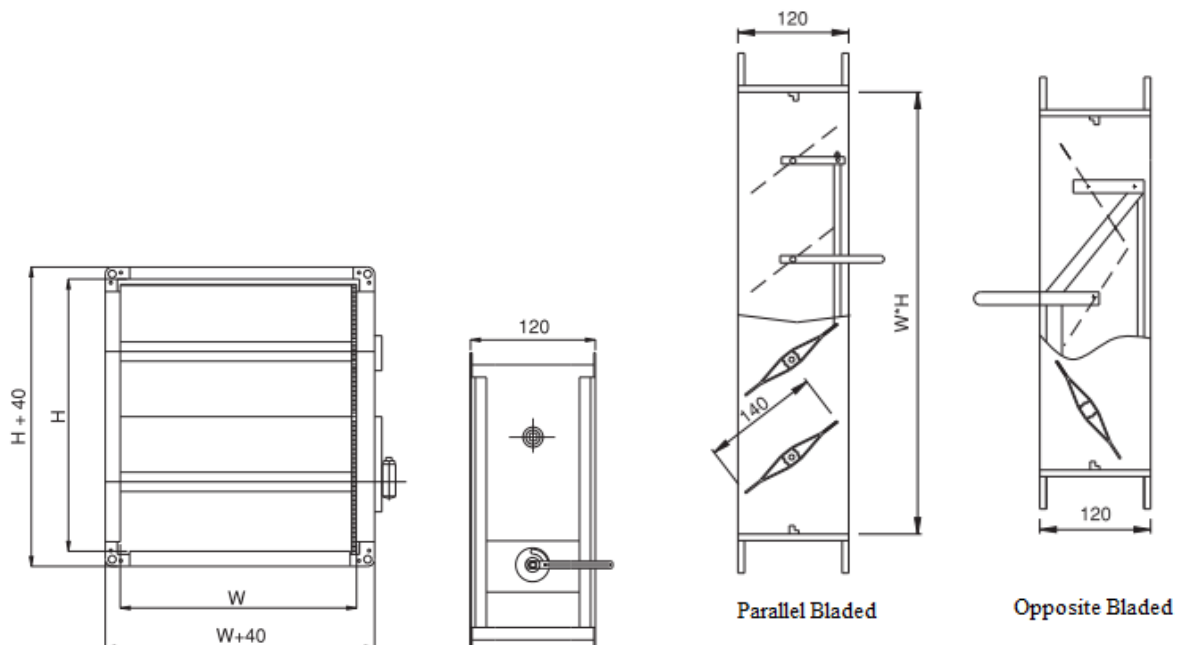
VOLUME CONTROL DAMPERS

Rev.02
26-05-2015



GMC VCD-041 PRODUCT SPECIFICATIONS:

- Standard: Aluminum sheet material. Optional: Galvanized or stainless steel.
- Usable for adjusting the air volume at supply and return air ducts.
- Highly resistant to corrosion.
- Position of blades is controlled with PVC gear mechanism and metal handles.
- Also, supplied with a servo-motor on request.
- Leak-proof gaskets can be applied on blades, on request.
- Has three models: 103mm Bladed / PVC-Geared Volume Damper (VCD-141), 140mm Bladed / Levered Volume Damper (VCD-241), Circular Volume Damper (VCD-341) and Iris Type Volume Damper (VCD-441).
- Finishing; Electrostatic powder coating with the color from RAL catalogue.

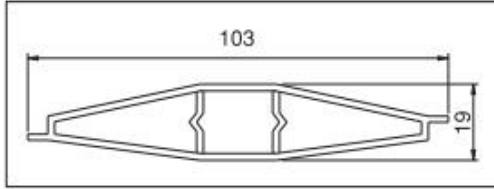


VOLUME CONTROL DAMPERS

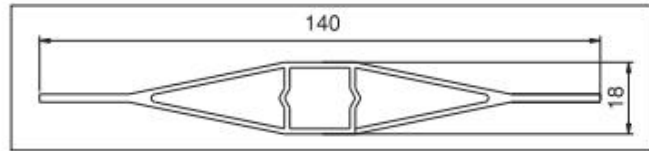
Rev.02
26-05-2015



BLADE TYPES



VCD-141



VCD-241



STANDART SIZES

VCD-141

W	100	300	500	600	800	1000	1200	1500	1800	2000
H	110	210	310	410	510	610	710	810	910	1010
#Blades	1	2	3	4	5	6	7	8	9	10

VCD-241

W	100	300	500	600	800	1000	1200	1500	1800	2000
H	150	290	430	570	710	850	990	1130	1270	1410
#Blades	1	2	3	4	5	6	7	8	9	10

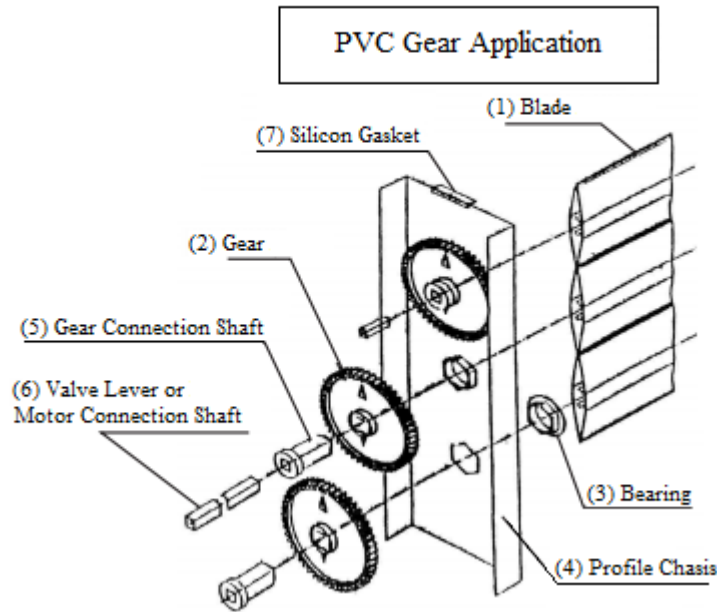


VOLUME CONTROL DAMPERS

Rev.02
26-05-2015



DAMPER PARTS



DATA DIAGRAMS

VCD-141/241, EFFECTIVE AREA TABLE (m²)

S [m ²]		B [mm]																	
		300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000
H [mm]	210	0,063	0,084	0,105	0,126	0,147	0,168	0,189	0,210	0,231	0,252	0,273	0,294	0,315	0,336	0,357	0,378	0,399	0,420
	310	0,093	0,124	0,155	0,186	0,217	0,248	0,279	0,310	0,341	0,372	0,403	0,434	0,465	0,496	0,527	0,558	0,589	0,620
	410	0,123	0,164	0,205	0,246	0,287	0,328	0,369	0,410	0,451	0,492	0,533	0,574	0,615	0,656	0,697	0,738	0,779	0,820
	510	0,153	0,204	0,255	0,306	0,357	0,408	0,459	0,510	0,561	0,612	0,663	0,714	0,765	0,816	0,867	0,918	0,969	1,020
	610	0,183	0,244	0,305	0,366	0,427	0,488	0,549	0,610	0,671	0,732	0,793	0,854	0,915	0,976	1,037	1,098	1,159	1,220
	710	0,213	0,284	0,355	0,426	0,497	0,568	0,639	0,710	0,781	0,852	0,923	0,994	1,065	1,136	1,207	1,278	1,349	1,420
	810	0,243	0,324	0,405	0,486	0,567	0,648	0,729	0,810	0,891	0,972	1,053	1,134	1,215	1,296	1,377	1,458	1,539	1,620
	910	0,273	0,364	0,455	0,546	0,637	0,728	0,819	0,910	1,001	1,092	1,183	1,274	1,365	1,456	1,547	1,638	1,729	1,820
	1010	0,303	0,404	0,505	0,606	0,707	0,808	0,909	1,010	1,111	1,212	1,313	1,414	1,515	1,616	1,717	1,818	1,919	2,020
	1110	0,333	0,444	0,555	0,666	0,777	0,888	0,999	1,110	1,221	1,332	1,443	1,554	1,665	1,776	1,887	1,998	2,109	2,220
	1210	0,363	0,484	0,605	0,726	0,847	0,968	1,089	1,210	1,331	1,452	1,573	1,694	1,815	1,936	2,057	2,178	2,299	2,420
	1310	0,393	0,524	0,655	0,786	0,917	1,048	1,179	1,310	1,441	1,572	1,703	1,834	1,965	2,096	2,227	2,358	2,489	2,620
	1410	0,423	0,564	0,705	0,846	0,987	1,128	1,269	1,410	1,551	1,692	1,833	1,974	2,115	2,256	2,397	2,538	2,679	2,820
	1510	0,453	0,604	0,755	0,906	1,057	1,208	1,359	1,510	1,661	1,812	1,963	2,114	2,265	2,416	2,567	2,718	2,869	3,020
	1610	0,483	0,644	0,805	0,966	1,127	1,288	1,449	1,610	1,771	1,932	2,093	2,254	2,415	2,576	2,737	2,898	3,059	3,220
	1710	0,513	0,684	0,855	1,026	1,197	1,368	1,539	1,710	1,881	2,052	2,223	2,394	2,565	2,736	2,907	3,078	3,249	3,420
	1810	0,543	0,724	0,905	1,086	1,267	1,448	1,629	1,810	1,991	2,172	2,353	2,534	2,715	2,896	3,077	3,258	3,439	3,620
1910	0,573	0,764	0,955	1,146	1,337	1,528	1,719	1,910	2,101	2,292	2,483	2,674	2,865	3,056	3,247	3,438	3,629	3,820	
2010	0,603	0,804	1,005	1,206	1,407	1,608	1,809	2,010	2,211	2,412	2,613	2,814	3,015	3,216	3,417	3,618	3,819	4,020	

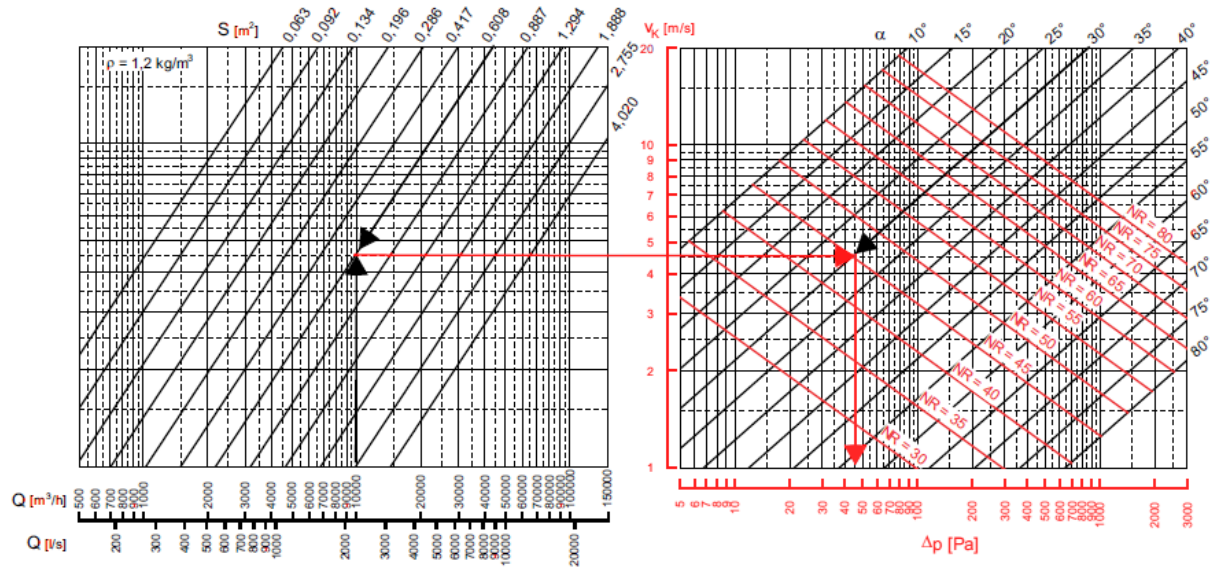


VOLUME CONTROL DAMPERS

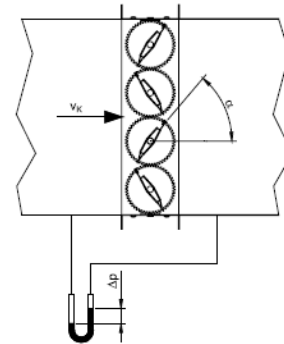
Rev.02
26-05-2015



VCD-141/241, PRESSURE DROP AND NOISE LEVELS



- Q [m^3/h] [l/s] through air flow rate
- S [m^2] Damper surface area
- v_k [m/s] velocity relating to the effective outlet area S
- Δp [Pa] total pressure loss
- α angle of inclination of the blade
- NR noise rating (ISO standard, in relation to 10^{-12} W) taking no account of the attenuation of the room



VOLUME CONTROL DAMPERS

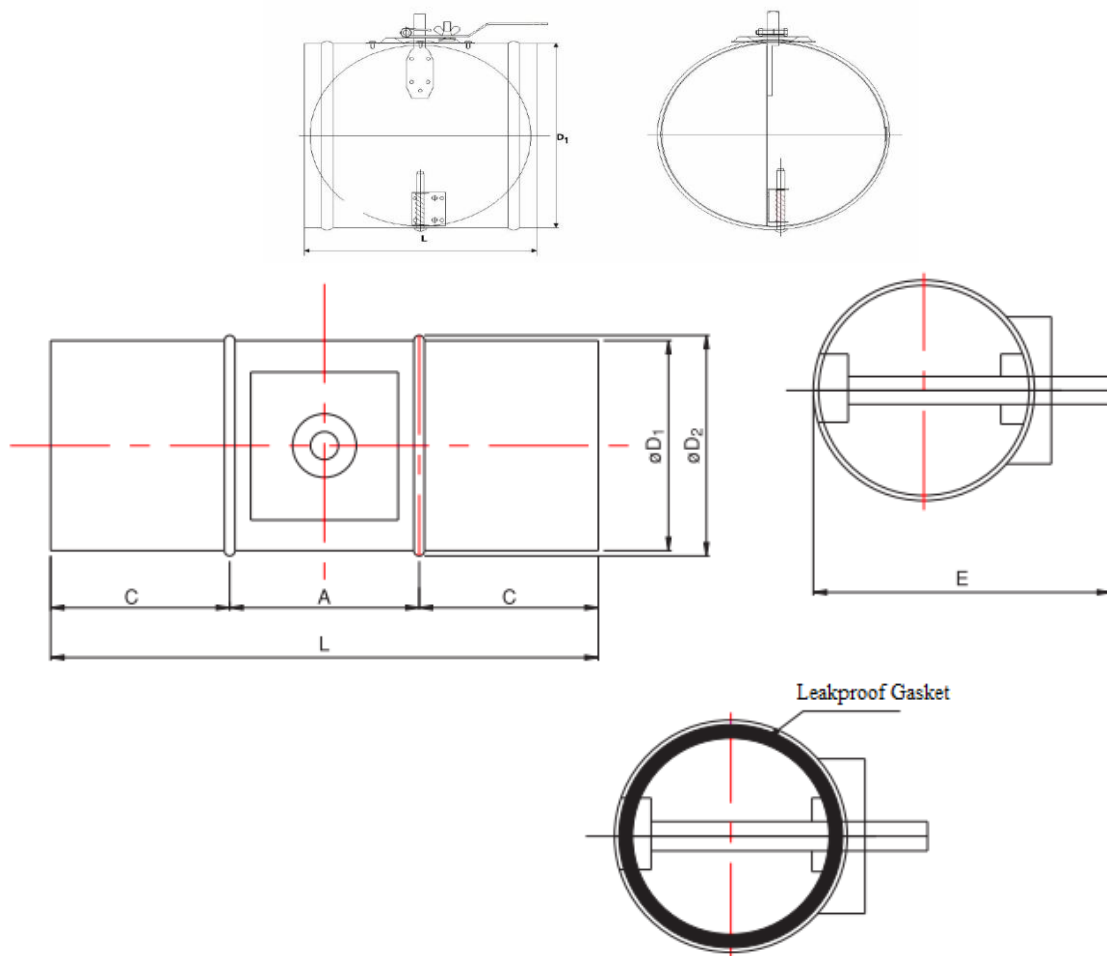
Rev.02
26-05-2015



VCD 341 - CIRCULAR VOLUME CONTROL DAMPERS



TECHNICAL DETAILS



VOLUME CONTROL DAMPERS

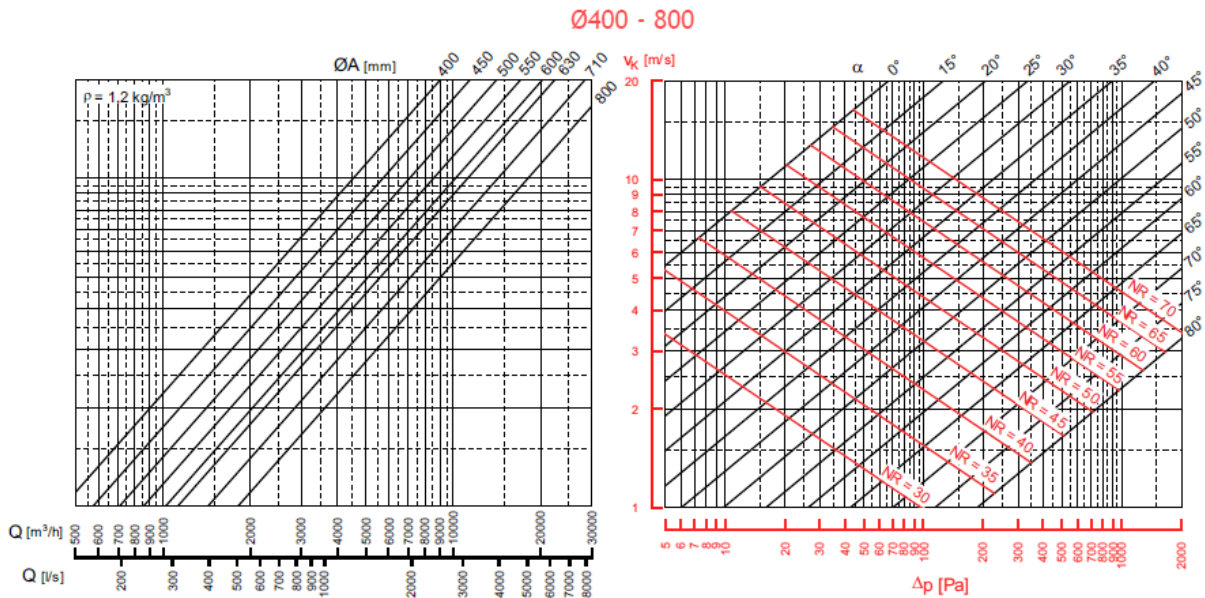
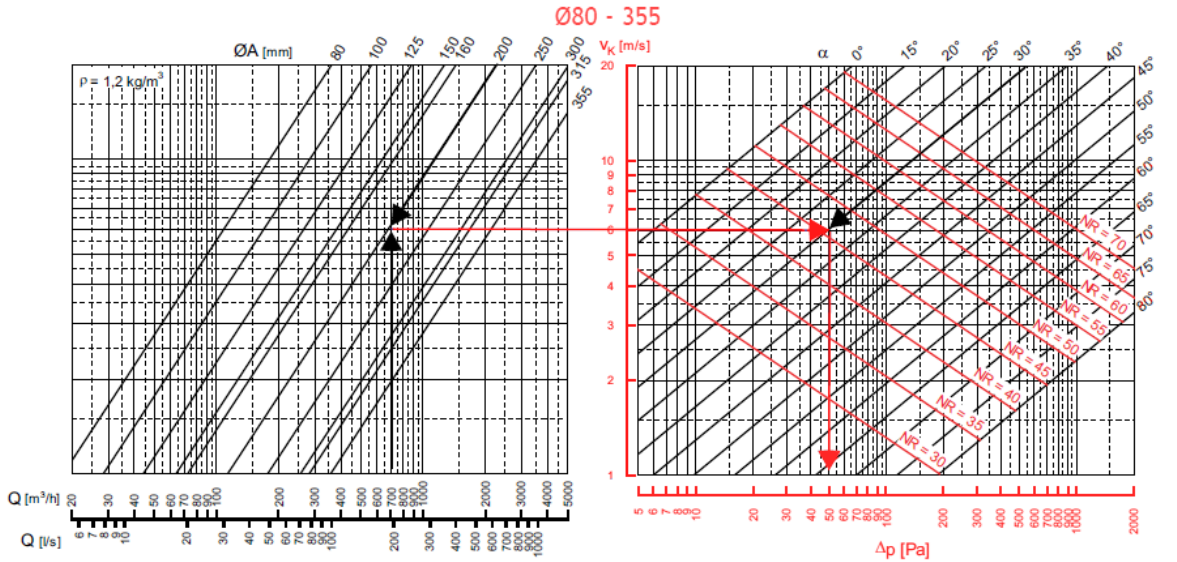
Rev.02
26-05-2015



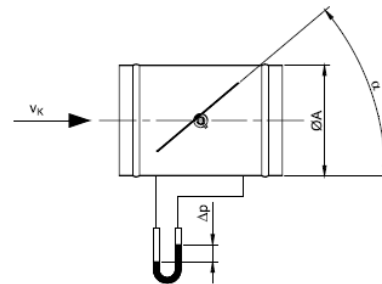
VCD-341, EFFECTIVE AREA TABLE (m²)

ØA (mm)	80	100	125	150	160	200	250	315	355	400	450	500	550	600	630	710	800
S (m ²)	0,005	0,008	0,012	0,018	0,02	0,031	0,049	0,078	0,099	0,126	0,159	0,196	0,238	0,283	0,312	0,396	0,503
(kg)	0,8	0,9	1	1,2	1,4	1,6	1,9	2,4	2,8	3,2	3,7	4,2	4,8	5,4	5,7	6,8	8,1

VCD-341, PRESSURE DROP AND NOISE LEVELS



- Q [m³/h] [l/s] through air flow rate
- ØA [mm] nominal diameter of damper
- v_k [m/s] velocity relating to the effective outlet area S
- Δp [Pa] total pressure loss
- α angle of inclination of the blade
- NR noise rating (ISO standard, in relation to 10⁻¹² W) taking no account of the attenuation of the room

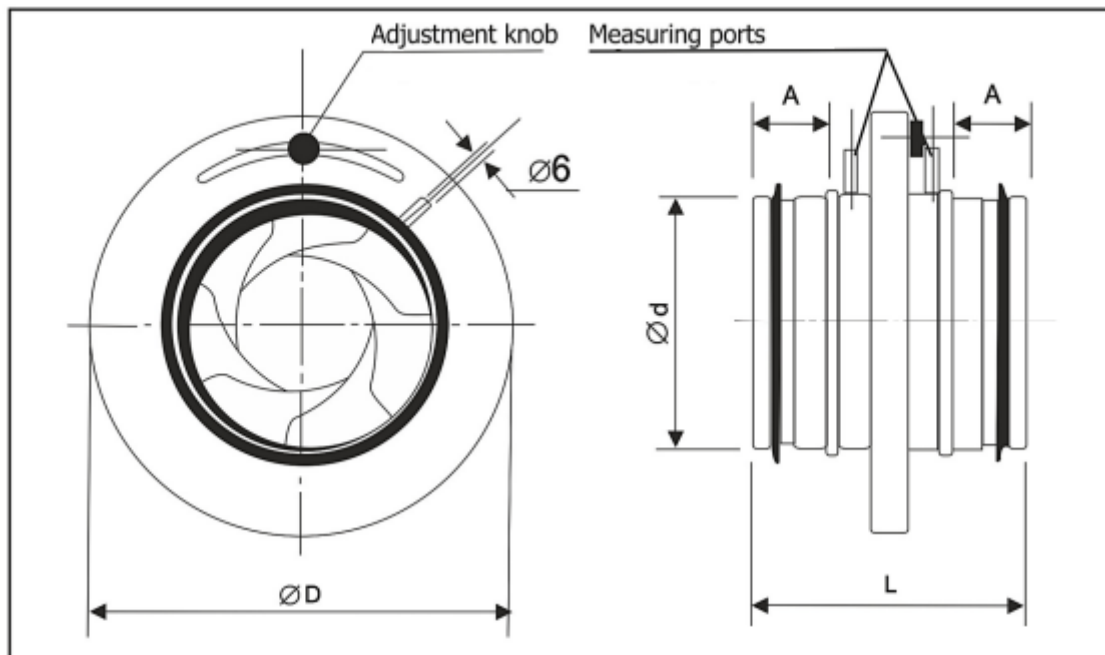
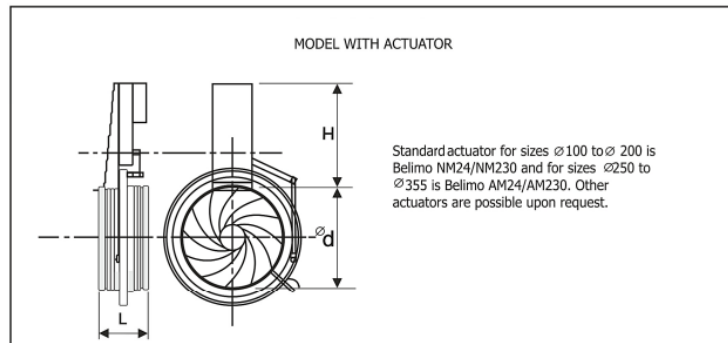
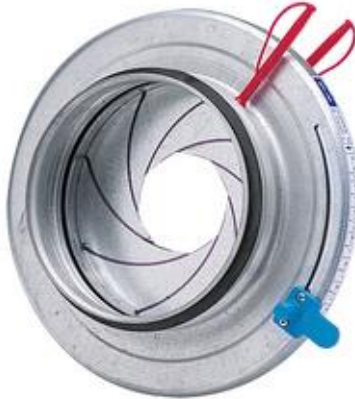


VOLUME CONTROL DAMPERS

Rev.02
26-05-2015



VCD 441, IRIS TYPE VOLUME CONTROL DAMPERS



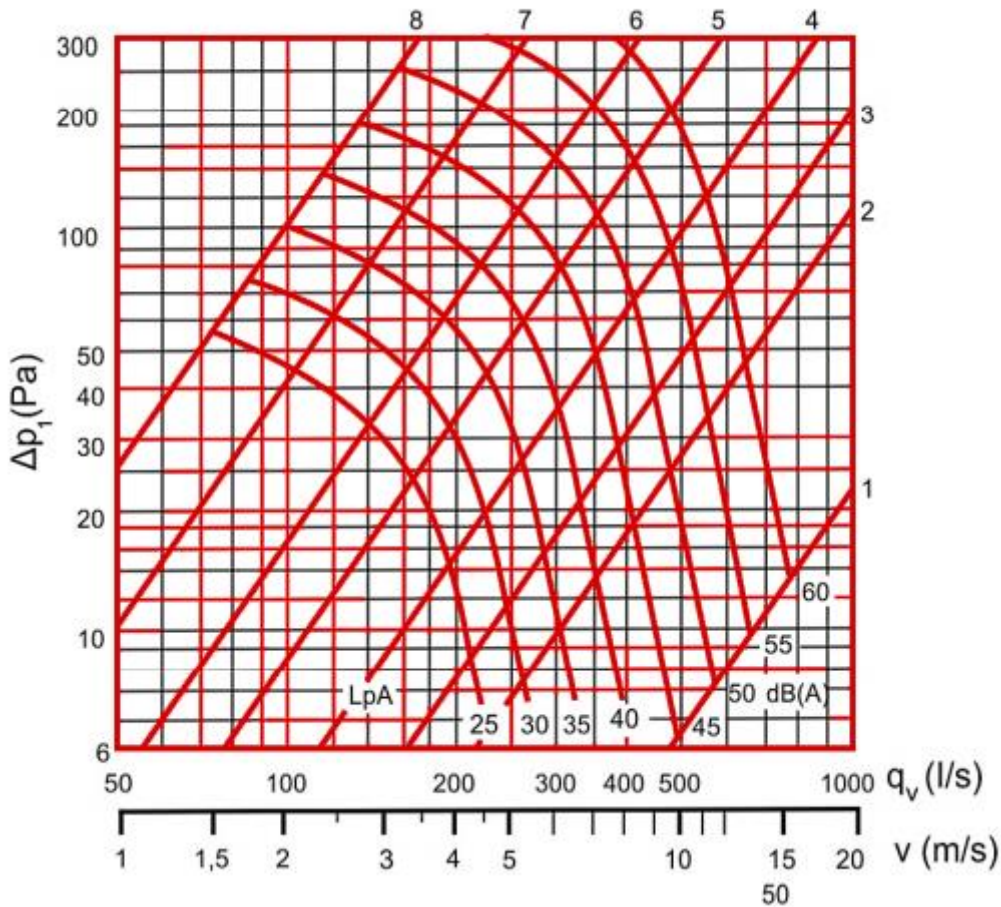
Size	$\varnothing d$ mm	$\varnothing D$ mm	L mm	A mm	weight(kg)
100	99	165	110	30	0,60
125	124	188	110	30	0,90
150	149	230	110	30	1,20
160	159	230	110	30	1,20
200	199	285	110	30	1,60
250	249	335	135	40	2,10
315	314	410	135	40	3,50
355	354	450	135	40	4,50
400	398	525	190	60	6,40
500	498	655	210	70	9,60
630	628	815	210	70	15,60

VOLUME CONTROL DAMPERS

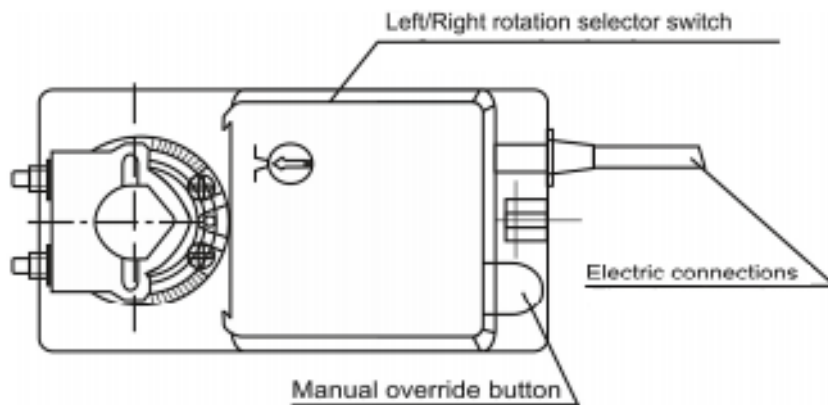
Rev.02
26-05-2015



VCD-441 PRESSURE DROP DIAGRAM



ACTUATOR

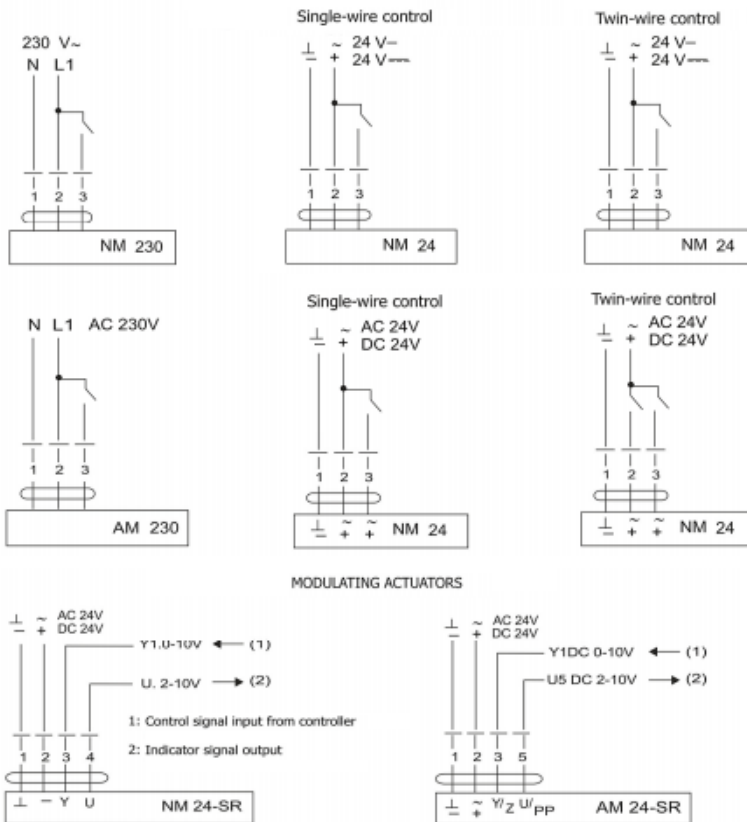


VOLUME CONTROL DAMPERS

Rev.02
26-05-2015



ACTUATOR CONNECTIONS



ORDER PARAMETERS:

VCD-041	A	01	L1000	MNC	N 1000X700
VCD-141: 103 mm Bladed VCD-241: 140 mm Bladed VCD-341: Circular Model VCD-441: Iris Type Model				N: Neck Size D: Neck Diameter	
A: Aluminum Chasis G: Galvanized Chasis				MNC: Manually Operated SRC: Servo-Operated	
00: Lever Operated 01: Pvc Gear Operated				L: Requested Product Length	

