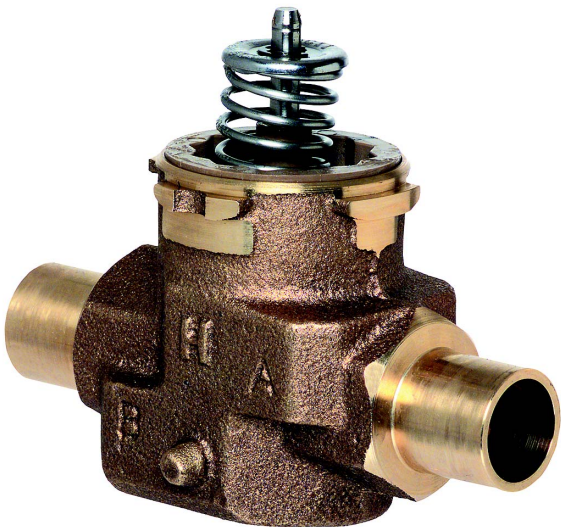


Valves



VCZA; VCZB Two-way Cartridge Cage Valves

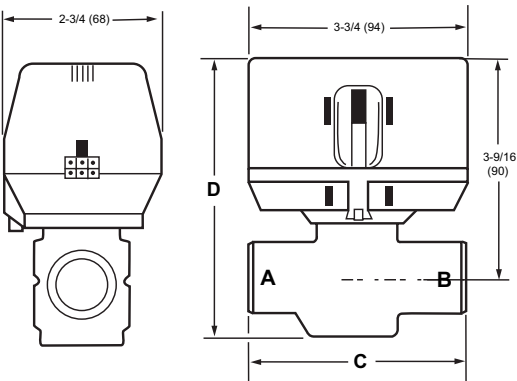
Two-way Cartridge Cage Valves. These 2-position (open/closed) hydronic valves are intended for use in a normal indoor environment to control the flow of hot and/or cold water, or glycol solution to 50% concentration. These valves are designed for on-off zone control of heating/cooling systems, or to control individual fan coil, baseboard radiator or convector applications. Depending on the model selected they can be controlled by either a low or line voltage SPST or SPDT controller, such as a room thermostat, aquastat or flow switch. For trouble-free operation of the product, good installation practice must include initial system flushing, chemical water treatment, and the use of a 50 micron (or finer) system side stream filter(s). Remove all filters before flushing.

Product Literature

- Installation Instructions—95C-10919
- Specification Data—95C-10750
- Product Data—95C-10789

Valve Type	Unitary
Body Pattern	Two-way, straight through
Controlled Medium	Water w/max of 50% Glycol
Stem Travel	0.4 in. (10 mm)
Valve Action	Stem up to close A port
Maximum Operating Pressure	300 psi (20 Bar)
Maximum Close-off Pressure	60 psi (4 Bar)
Timing (sec, min.) when used with VC series Actuator	On/Off models with 6 sec; Floating and modulating with 2 min.
Fluid Temperature Range	36 F to 230 F (1 C to 95 C)
Ambient Temperature Range	32 F to 150 F (0 C to 65 C)
Materials	
(Body)	Bronze
(Stem)	Stainless Steel
(Cartridge)	Ryton®, Noryl® engineering plastic
(Packing)	EPDM rubber
Comments	Characterized cartridge for use with floating and modulating actuators
Approvals:	
Canadian Standards Association	CSA Certified

Dimensions Diagram



Pipe Fitting Sizes North American Standard	C		D		Pipe Fitting Sizes North American Standard	C		D	
	in.	mm	in.	mm		in.	mm	in.	mm
3/8" FLARE	3-7/8	98	4-3/8	111	1/2" BSPP (int.)	3-7/8	98	4-3/8	111
1/2" SWEAT	3-1/2	89			1/2" BSPT (int.)				
1/2" FLARE	3-7/8	98			3/4" BSPP (int.)	3-11/16	94	4-7/16	113
1/2" INVERTED FLARE					3/4" BSPT (int.)				
1/2" NPT (int.)					3/4" BSPP (ext.)				
3/4" NPT (int.)	3-11/16	94	4-7/16	113	22 mm Compression	4-7/16	112		
3/4" SWEAT					1" BSPP (int.)	3-11/16	94		
1" NPT (int.)					1" BSPP (ext.)	3-11/17	95	4-7/17	114
1" SWEAT					1" BSPT (int.)	3-11/16	94	4-7/16	113
1-1/4" SWEAT	4-5/16	110	4-5/8	118	28 mm Compression	4-9/16	116		
1-1/4" NPT (int.)									

- NO ADAPTERS
- SUITABLE FOR USE AS 15 MM COMPRESSION FITTING
- DIMENSIONS SHOWN WITH NUTS AND OLIVES INSTALLED
- SOME MODELS NOT AVAILABLE IN ALL COUNTRIES

M18942

Product Number	Pipe Size		Connection Type	Fitting Size (in.)	Capacity		Flow Characteristic	Comments	Includes
	(inch)	DN			(Cv)	(Kv)			
VCZAA1500	1/2 in.	DN15	Sweat	—	0.7 Cv	0.6 Kv	Equal Percentage	It can be controlled by either a low or a line voltage spdt or spst or floating controller	Cartridge changing tool
VCZBB1500	1/2 in.	DN15	Female NPT	—	0.7 Cv	0.6 Kv	Equal Percentage	—	—
VCZAA1600	1/2 in.	DN15	Sweat	—	1.3 Cv	1.1 Kv	Equal Percentage	—	Cartridge changing tool
VCZBB1600	1/2 in.	DN15	Female NPT	—	1.3 Cv	1.1 Kv	Equal Percentage	—	—
VCZAA1400	1/2 in.	DN15	Sweat	—	2.9 Cv	2.5 Kv	Equal Percentage	It can be controlled by either a low or a line voltage spdt or spst or floating controller	Cartridge changing tool
VCZBB1400	1/2 in.	DN15	Female NPT	—	2.9 Cv	2.5 Kv	Equal Percentage	It can be controlled by either a low or a line voltage spdt or spst or floating controller	—
VCZAE1100	1/2 in.	DN15	Inverted Flare	5/8 in.	3.2 Cv	2.74 Kv	Linear	It can be controlled by either a low or a line voltage spdt or spst or floating controller	—
VCZAA1100	1/2 in.	DN15	Sweat	—	3.5 Cv	3 Kv	Linear	It can be controlled by either a low or a line voltage spdt or spst or floating controller	Cartridge changing tool
VCZBB1100	1/2 in.	DN15	Female NPT	—	3.5 Cv	3 Kv	Linear	It can be controlled by either a low or a line voltage spdt or spst or floating controller	—
VCZAL1600	3/4 in.	DN20	Female NPT	—	1.3 Cv	1.1 Kv	Equal Percentage	—	—
VCZAL1400	3/4 in.	DN20	Female NPT	—	3.9 Cv	3.4 Kv	Equal Percentage	It can be controlled by either a low or a line voltage spdt or spst or floating controller	—
VCZAM1400	3/4 in.	DN20	Sweat	—	3.9 Cv	3.4 Kv	Equal Percentage	It can be controlled by either a low or a line voltage spdt or spst or floating controller	Cartridge changing tool
VCZAM1100	3/4 in.	DN20	Sweat	—	4.6 Cv	3.9 Kv	Linear	It can be controlled by either a low or a line voltage spdt or spst or floating controller	Cartridge changing tool
VCZAL1100	3/4 in.	DN20	Female NPT	—	4.7 Cv	4 Kv	Linear	It can be controlled by either a low or a line voltage spdt or spst or floating controller	—
VCZAR1400	1 in.	DN25	Female NPT	—	4.2 Cv	3.6 Kv	Equal Percentage	It can be controlled by either a low or a line voltage spdt or spst or floating controller	—
VCZAS1400	1 in.	DN25	Sweat	—	4.2 Cv	3.6 Kv	Equal Percentage	It can be controlled by either a low or a line voltage spdt or spst or floating controller	Cartridge changing tool
VCZAR1100	1 in.	DN25	Female NPT	—	6.6 Cv	5.7 Kv	Linear	It can be controlled by either a low or a line voltage spdt or spst or floating controller	—
VCZAS1100	1 in.	DN25	Sweat	—	6.6 Cv	5.7 Kv	Linear	It can be controlled by either a low or a line voltage spdt or spst or floating controller	Cartridge changing tool
VCZBD1100	1 1/4 in.	DN32	Female NPT	—	7 Cv	6 Kv	Linear	It can be controlled by either a low or a line voltage spdt or spst or floating controller	—
VCZBE1100	1 1/4 in.	DN32	Sweat	—	7 Cv	6 Kv	Linear	It can be controlled by either a low or a line voltage spdt or spst or floating controller	Cartridge changing tool