

SELECTION GUIDE

TERMINAL UNIT ZONE VALVE V200/V300 SERIES

A broad selection of inlet and outlet configurations and choice of sizes.

1 SELECT YOUR VALVE BODY

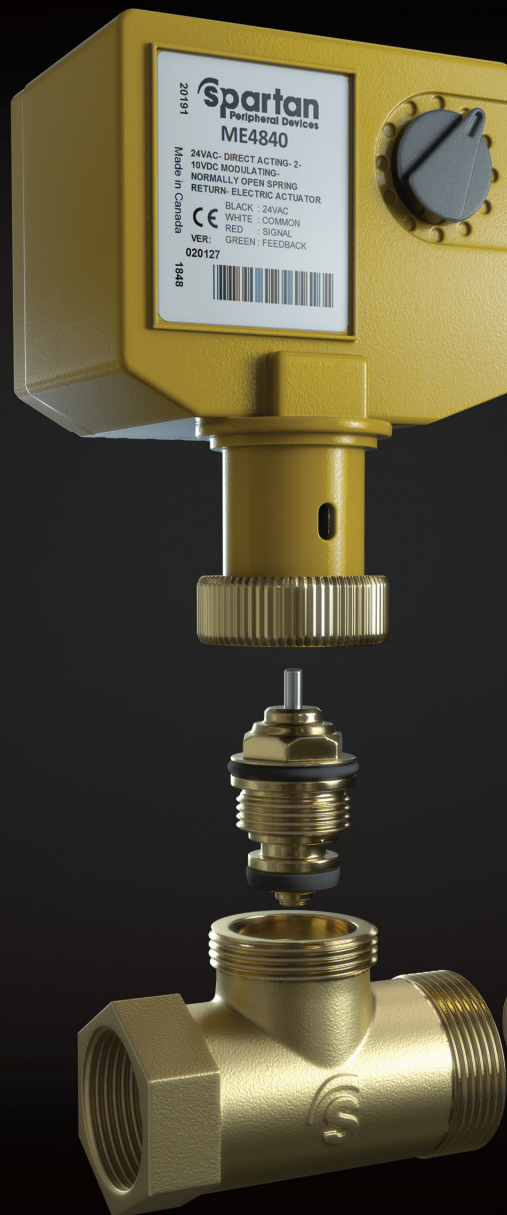
- Female Thread
- Male Thread
- Solder
- Single Union
- Double Union

2 SELECT YOUR CARTRIDGE TYPE

- Choice of CV
- Hot and Chilled Water
- 50% Glycol
- Low Pressure Steam
- Pressure Balanced

3 SELECT YOUR ACTUATOR

- Electric
- Pneumatic
- Thermoelectric
- Thermostatic
- Wireless
- Spring Return
- FLP Non Spring Return



EASILY SELECTABLE EASILY SERVICEABLE

Install a Spartan valve body assembly and easily change the cartridge or actuator while the valve body remains « in-line ».

Servicing is so much quicker and easier... it's the ultimate green solution for piping installations.

This guide will help you select the right assembly for your needs.

INTERCHANGEABILITY AS EASY AS 1-2-3!

1/2" | 3/4" | 1"



1

SELECT THE VALVE BODY TO BEST SUIT YOUR PIPING APPLICATIONS AND CHOOSE FROM MANY CONNECTION TYPES

Spartan Peripheral Devices 2 way V200 series and 3 way V300 series globe control valve bodies are available in a wide range of styles and connection types. These valve bodies are common to the complete line of Spartan Terminal Unit actuators (wireless, electric, electronic, pneumatic and thermostatic) and are easily interchangeable with a thumb nut.

The commercial application globe valve bodies utilize low zinc anti dezincification bronze. All valve bodies are globe type rated ANSI 250 (PN 25).



GENERAL SPECIFICATIONS FOR ALL VALVE BODIES

BODY MATERIAL Low zinc bronze, alloy C84400

PRESSURE RATING ANSI 250 (400 PSI to 150°F (66°C), 250 PSI to 250° F (120°C))

MAX. TEST PRESSURE 1200 PSI (81 bar)

MAX. DIFFERENTIAL P 50 PSI (3.5 bar) can be exceeded but with possible water noise

VALVE STEM «Mirror – maker» burnished stainless steel stems

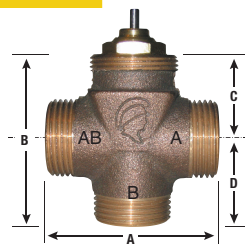
RANGEABILITY See Internal Cartridge Specification table, on page 4

STEM TRAVEL 5/32" (4mm)

Stem Position UP = valve open, DOWN = valve closed

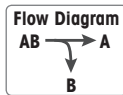
V300 SERIES 3 WAY CONTROL VALVE BODIES

V320



1/2" or 3/4", 3 Way Diverting Valve Body. Conical Unions on all 3 ports

V320	A	B	C	D	Weight
	2.24	2.24	1.09	1.09	8.5oz
	(56,90)	(56,90)	(27,69)	(27,69)	(240g)



Stem UP flow AB to A (default position),

Stem DOWN flow AB to B

Select to include:

V320-12N for 1/2" threaded unions

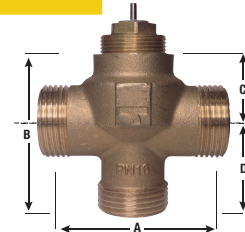
V320-12S for 1/2" solder unions (for 5/8" copper pipe)

V320-34N for 3/4" threaded unions

V320-34S for 3/4" solder unions (for 7/8" copper pipe)

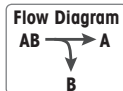
Select CV from cartridge type **ED**

V345



3/4" or 1", 3 Way Diverting Valve Body. Conical Unions on all 3 ports

V345	A	B	C	D	Weight
	3.25	3.00	1.50	1.50	2.35lbs
	83	76	38	38	(1.07kgs)



Stem UP flow AB to A (default position),

Stem DOWN flow AB to B

Select to include:

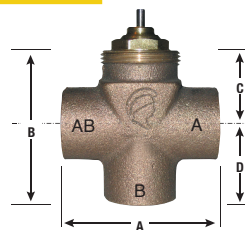
V345-34N for 3/4" threaded unions

V345-34S for 3/4" solder unions (for 7/8" copper pipe)

V345-10N for 1" threaded unions

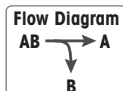
Replacement cartridge V345PKG-5.5

V325



1/2" or 3/4", 3 Way Diverting Valve Body. Direct Solder

1/2" Valve	A	B	C	D	Weight
V325-12	2.24	2.21	1.09	1.12	8.1oz
	(56,90)	(56,13)	(27,69)	(28,45)	(230g)
3/4" Valve	A	B	C	D	Weight
V325-34	2.24	3.32	1.09	2.23	8.5oz
	(56,90)	(84,30)	(25,00)	(56,64)	(240g)



Stem UP flow AB to A (default position),

Stem DOWN flow AB to B

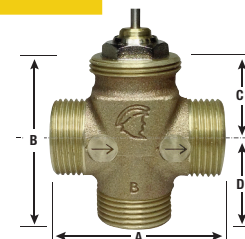
Select to include:

V325-12S for 1/2" solder (for 5/8" (16mm) OD copper pipe)

V325-34S for 3/4" solder (for 7/8" (22mm) OD copper pipe)

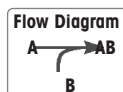
Select CV from cartridge type **ED**

V321



1/2" or 3/4", 3 Way Mixing Valve Body. Conical Unions on all 3 ports

A	B	C	D	Weight
2.24	2.24	1.09	1.09	8.5oz
(56,90)	(56,90)	(27,69)	(27,69)	(240g)



Stem UP flow B to AB (default position),

Stem DOWN flow A to AB

Select to include:

V321-12N for 1/2" threaded unions

V321-12S for 1/2" solder unions (for 5/8" copper pipe)

V321-34N for 3/4" threaded unions

V321-34S for 3/4" solder unions (for 7/8" copper pipe)

Select CV from cartridge type **EX**

3 WAY DIVERTING

3 WAY MIXING

SELECTION GUIDE

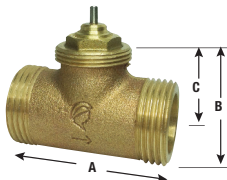
V200 SERIES 2 WAY GLOBE CONTROL VALVE BODIES

All dimensions in inches (mm).
Weight includes the internal cartridge.

2 WAY

V240FLT

Straight Flat Face Male NPT Union Connections on Both Ports, 1/2", 3/4" or 1"



Part No.	Used with union nut	A	B	C	Weight
1/2" Valve	3/4" BSPP	2 1/4"	1 1/8"	1 1/8"	8.5oz
V24020FLT		(57,2)	(39,7)	(27,0)	(240g)
3/4" Valve	1" BSPP	2 1/2"	2 1/8"	1 1/8"	12.7oz
V24025FLT		(63,5)	(54,0)	(36,5)	(360g)
1" Valve	1 1/4" BSPP	3 1/2"	2 3/8"	1 1/2"	33.2oz
V24032FLT		(88,9)	(60,3)	(38,1)	(940g)

STEM UP OPEN (DEFAULT POSITION)

Select to include:

V24020-12N for 1/2" threaded unions

V24020-12S for 1/2" solder unions (for 5/8" copper pipe)

V24025-34N for 3/4" threaded unions

V24025-34S for 3/4" solder unions (for 7/8" copper pipe)

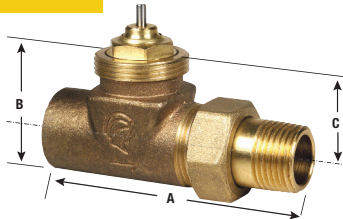
V24032-10N for 1" threaded unions

V24032-10S for 1" solder unions (for 1 1/8" copper pipe)

Select CV from cartridge type EP, EB, EV or BC

V241

Straight Female NPT Port In & NPT Male Union Out, 1/2", 3/4" or 1"



	A	B	C	Weight
1/2" Valve	3.34	1.76	1.09	10.6oz
V241-12	(84,84)	(44,70)	(27,69)	(240g)
3/4" Valve	3.90	2.20	1.09	12.7oz
V241-34	(99,06)	(55,88)	(27,69)	(360g)
1" Valve	5.44	2.50	1.24	35.3oz
V241-10	(138,00)	(63,50)	(31,50)	(1000g)

STEM UP OPEN (DEFAULT POSITION)

Select to include:

V241-12N for 1/2" threaded union

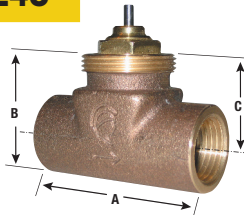
V241-34N for 3/4" threaded union

V241-10N for 1" threaded union

Select CV from cartridge type EP, EB, EV or BC

V243

Straight Female NPT Ports In and Out, 1/2", 3/4" or 1"



	A	B	C	Weight
1/2" Valve	2.29	1.60	1.09	8.5oz
V243-12	(58,17)	(40,64)	(27,69)	(240g)
3/4" Valve	2.70	2.20	1.09	12.7oz
V243-34	(68,58)	(55,88)	(27,69)	(360g)
1" Valve	3.88	2.84	1.80	33.2oz
V243-10	(98,50)	(71,10)	(45,70)	(940g)

STEM UP OPEN (DEFAULT POSITION)

Select to include:

V243-12N 1/2" Valve Body

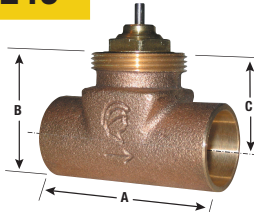
V243-34N 3/4" Valve Body

V243-10N 1" Valve Body

Select CV from cartridge type EP, EB, EV or BC

V245

Straight Direct Solder Connections, 1/2" or 3/4"



	A	B	C	Weight
1/2" Valve (16mm)	2.24	1.60	1.09	7.8oz
V245-12	(56,90)	(40,64)	(27,69)	(220g)
3/4" Valve (22mm)	2.29	1.60	1.09	8.1oz
V245-34	(58,17)	(40,64)	(27,69)	(230g)

STEM UP OPEN (DEFAULT POSITION)

Select to include:

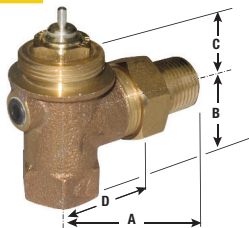
V245-12S 1/2" Valve Body (for 5/8" copper pipe)

V245-34S 3/4" Valve Body (for 7/8" copper pipe)

Select CV from cartridge type EP, EB, EV or BC

V261

Angle Female NPT In & Male NPT Union Out, 1/2", 3/4" or 1"



	A	B	C	D	Weight
1/2" Valve	2.25	1.13	1.13	1.25	7.8oz
V261-12	(58,00)	(29,00)	(29,00)	(32,00)	(221g)
3/4" Valve	2.68	1.13	0.75	1.138	8.1oz
V261-34	(67,00)	(30,00)	(19,00)	(36,00)	(230g)
1" Valve	3.15	1.50	2.37	1.65	32.5
V261-10	(80,00)	(38,00)	(60,00)	(42,00)	(921g)

STEM UP OPEN (DEFAULT POSITION)

Select to include:

V261-12N for 1/2" Valve Size

V261-34N for 3/4" Valve Size

V261-10N for 1" Valve Size

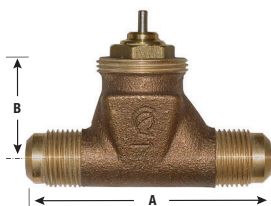
Select CV from cartridge type EP, EB, EV or BC

V246-12F

1/2", Flared Male
SAE 45° union

Selection :

V246-12F for 1/2" union



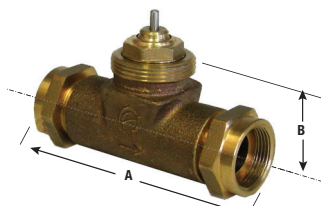
A	B	Weight
3.125	1.32	7.8oz
(79,00)	(33,53)	(220g)

V243-12i

1/2", Flared Female
SAE 45° union

Selection :

V243-12i for 1/2" union



A	B	Weight
3.125	1.32	12.7oz
(79,00)	(33,53)	(360g)

Select CV from cartridge type EP, EB, EV or BC - see page 4. STEM UP OPEN (DEFAULT POSITION)

Select the valve cartridge type and CV value to best suit your application such as hot and chilled water, low pressure steam or high close-off pressures.

INTERNAL CARTRIDGE TYPES - FIELD REPLACEABLE & INTERCHANGEABLE

All Spartan valve body assemblies are service/maintenance free with interchangeable internals (in the form of a replaceable cartridge) for specific applications with variations of equal percentage parabolic or linear characterized globe plungers. CV (KV) values can be changed without having to remove the valve from the line simply by changing the cartridge.

The internals are equipped with 1½ million cycles (3 million repositions), packings with burnished mirror finish stainless steel stems and micro machined accurate parabolic characterized plugs.

Compatible with Ethylene/Propylene Glycol.



EP TYPE CARTRIDGE (for 2 way valve body)



Used for hot and chilled water.

Select from available CV's 0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0
Can be installed in all 2 way ½" valve bodies

Select from available CV's 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.5
Can be installed in all 2 way ¾" valve bodies



EV TYPE CARTRIDGE (for 2 way valve body)



Used for low pressure up to 15PSI steam applications recognizable by nickel plated cap.

Select from available CV's 0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0
Can be installed in all 2 way ½" valve bodies

Select from available CV's 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.5
Can be installed in all 2 way ¾" valve bodies

Select from available CV's 6.4, 9.0
Can be installed in 2 way 1" valve bodies



BC TYPE CARTRIDGE (for 2 way valve body)



Cage type cartridge used for low CV values.

Used for hot and chilled water.

Select from available CV's 0.15, 0.25, 0.50
Can be installed in all 2 way ½" valve bodies



For ½" & ¾" valve bodies

EB TYPE CARTRIDGE (for 2 way valve body)



Balanced cartridge used for high close-off pressure applications (up to 100 psi) for hot and chilled water.

For 2 way ½" valve bodies select from CV's 0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5

For 2 way ¾" valve bodies select from CV's 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.5

For 2 way 1" valve bodies select from CV's 6.0, 6.4, 8.0, 9.0



For 1" valve bodies

The EB cartridge is recommended for use on certain spring return actuators. See note on page 5.



ED TYPE CARTRIDGE (for 3 way valve body)



Used for 3 way diverting V320, V323, V325 valve bodies for hot and chilled water.

Select from available CV's 1.0, 2.0, 3.0
Can be installed in 3 way ½" and ¾" valve bodies



EX TYPE CARTRIDGE (for 3 way valve body)



Used for 3 way mixing V321 valve bodies for hot and chilled water.

Select from available CV's 1.0, 2.0, 3.0
Can be installed in 3 way ½" and ¾" valve bodies

Internal Cartridge Specifications - each CV/KV is stamped on the face of the cartridge

Replaceable Cartridge Type	2 WAY				3 WAY	
	EP Type	EV Type	BC Type	EB Type	ED Type	EX Type
Valve seat	Integral bronze	Integral bronze	Bronze - replaceable	Integral bronze	Integral bronze	Integral bronze
Valve disc/plunger	EPDM / brass	Hi-temperature EPDM	Brass cage	EPDM / brass	EPDM / brass	EPDM / brass
Valve spring	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
Valve stem	Burnished 303 Stainless Steel	(same as EP Type)	(same as EP Type)	(same as EP Type)	(same as EP Type)	(same as EP Type)
Packing	Double EPDM	Hi-temperature Double EPDM	Double EPDM	Double EPDM	Double EPDM	Double EPDM
Stroke	4mm	4mm	4mm	4mm	4mm	4mm
Tight close off	100 %	100 %	0.1% of Cv	100%	100%	100%
Steam rated	N / A	15 psi. (250°F / 120°C)	N / A	N / A	N / A	N / A
Water rated	(250°F / 120°C)	N / A	(250°F / 120°C)	(250°F / 120°C)	(250°F / 120°C)	(250°F / 120°C)
Glycol rated	To 50%	N / A	To 50%	To 50%	To 50%	To 50%
Cv Equal % - 4mm lift	0.5, 1.0, 1.5, 2.0, 2.5, 3.0	0.5, 1.0, 1.5, 2.0, 2.5, 3.0	0.15, 0.25, 0.50	0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 6.0, 8.0	N/A	N/A
Rangeability	100:1	100:1	100:1	100:1	-	-
Cv Linear - 4mm lift	2.2, 3.5, 4.5	2.2, 3.5, 4.5, 6.4, 9.0	N/A	2.2, 3.5, 4.5, 6.4, 9.0	1.0, 2.0, 3.0 Bottom port CV 2.0	1.0, 2.0, 3.0

SELECTION GUIDE

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Select the valve actuator to best suit your control signal, voltage application, spring return or FLP requirements.

TERMINAL UNIT ACTUATORS

ELECTRIC - FAIL LAST POSITION - SYNCUBE ACTUATORS

MODEL	SIGNAL	VOLT	FEATURES
ME4140	Floating	24Vac	End of travel switch-off, complete shutdown *
ME4240	PWM	24Vac	Pulse Width Modulation 0.25-5.0 secs. Feedback 1-5 Vdc *
ME4340	Modulating	24Vac	Selectable 0-10Vdc, 2-10Vdc, 4-20mA. Feedback 1-5 Vdc *
ME4344	Modulating	24Vac	Selectable 0-5Vdc, 5-10Vdc. Feedback 1-5 Vdc *



Standard clear cover
Optional white cover

3 YEAR WARRANTY
Spartan

ELECTRIC - SPRING RETURN (FAIL SAFE) - POWERCUBE ACTUATORS

ME4430	ON-OFF	24Vac	N.O. (Normally open) *
ME4430S	ON-OFF	24Vac	N.O. (Normally open) with SPDT auxillary switch
ME4431	ON-OFF	110Vac	N.O. (Normally open)
ME4431S	ON-OFF	110Vac	N.O. (Normally open) with SPDT auxillary switch
ME4530	ON-OFF	24Vac	N.C. (Normally closed) *
ME4530S	ON-OFF	24Vac	N.C. (Normally closed) with SPDT auxillary switch
ME4531	ON-OFF	110Vac	N.C. (Normally closed)
ME4531S	ON-OFF	110Vac	N.C. (Normally closed) with SPDT auxillary switch
ME4740	PWM	24Vac	N.O. (Normally open), Pulse Width Modulation 0.25-5.0 secs. Feedback 1-5 Vdc *
ME4840	Modulating	24Vac	N.O. (Normally open), Selectable 0-10Vdc, 2-10Vdc, 4-20mA. Feedback 1-5 Vdc *
ME4844	Modulating	24Vac	N.O. (Normally open), Selectable 0-5Vdc, 5-10Vdc. Feedback 1-5 Vdc *
ME4940	Modulating	24Vac	N.C. (Normally closed), Selectable 0-10Vdc, 2-10Vdc, 4-20mA. Feedback 1-5 Vdc *
ME4944	Modulating	24Vac	N.C. (Normally closed), Selectable 0-5Vdc, 5-10Vdc. Feedback 1-5 Vdc *



3 YEAR WARRANTY
Spartan

* See individual actuator data sheets for additional cable options

WIRELESS ACTUATORS - many other Wireless Actuators available at www.spartan-pd.com

ME8300	Modulating 24Vac FLP, operates on EnOcean TCM320(c) Dolphin module, 902 MHz America, 868 MHz Europe
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3 YEAR WARRANTY
Spartan

THERMO-ELECTRIC ACTUATORS - SPRING RETURN (FAIL SAFE)

ME1607	ON/OFF or PWM	24Vac	N.O. (Normally open)
ME1707	ON/OFF or PWM	24Vac	N.C. (Normally closed)



5 YEAR WARRANTY
Spartan

PNEUMATIC ACTUATORS

MP5100	On-Off Modulating	3-6#	N.O. (Normally Open)
MP5300	On-Off Modulating	8-12#	N.O. (Normally Open)
MP5400	On-Off Modulating	5-11#	N.O. (Normally Open)



5 YEAR WARRANTY
Spartan

THERMOSTATIC ACTUATORS

OT1100	Valve mounted self-acting thermostatic actuator 40-80°F (6-26°C)
OT2100/2115	Remote bulb self-acting thermostatic actuator with 6.5/16.5ft capillary 40-80°F (6-26°C)
OT5100	Remote bulb wall-mounted self-acting thermostatic actuator with 6.5ft capillary 40-80°F (6-26°C)



3 YEAR WARRANTY
Spartan

TERMINAL UNIT NOMENCLATURE

STEP 1
Choose a valve body

STEP 2
Choose a cartridge

STEP 3
Choose an actuator

V E 243 - 12 N - EP 1.0 - 4340

Actuator Type: ME4340

Cv Value: Cv1.0

Cartridge Type: EP

Union Type - N = NPT, B = BSP, S = Solder

Valve Size: 1/2"

Valve Body Type - select from connection type

Valve Assembly Type - Select E for Electric, P for Pneumatic, or T for Thermostatic

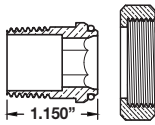
◆ The EB cartridge is recommended when using these actuators

TERMINAL UNIT ACCESSORIES

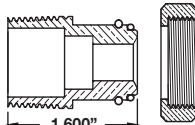
1/2" Tapered Unions (includes nut and nipple)

Used with V241-12, V261-12, V320-20, V321

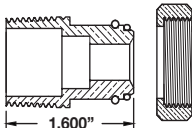
Valve Bodies. Union nut fits on 3/4" BSPP threads



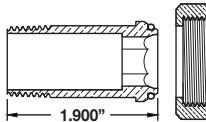
AV6112 - 1/2" NPT Union,
1" nominal length nipple



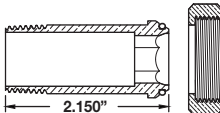
AV6134 - 1/2" Union with 1 1/2"
nominal length. Step up 3/4" NPT nipple



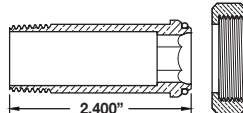
AV6112D - 1/2" NPT Union,
1 1/2" nominal length nipple



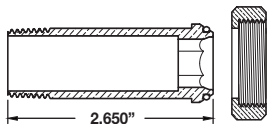
AV6112E - 1/2" NPT Union,
1 3/4" nominal length nipple



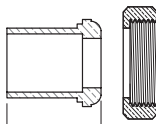
AV6112F - 1/2" NPT Union,
2" nominal length nipple



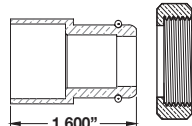
AV6112G - 1/2" NPT Union,
2 1/4" nominal length nipple



AV6112H - 1/2" NPT Union
2 1/2" nominal length nipple



AV6312 - 1/2" solder union for 5/8"
(16mm) OD copper pipe
(for 1/2" valves)



AV6334 - 3/4" solder union step up
for 7/8" (22mm) OD copper pipe
(for 1/2" valves)

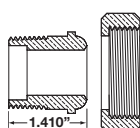


AV199-13 - Pack of 10 "O" rings
for 1/2" unions (3/4" BSPP thread)

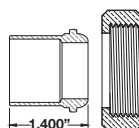
1" Tapered Unions (includes nut and nipple)

Used with V241-10, V261-10, V345-10

Valve Bodies. Union nut fits on 1 1/4" BSPP threads



AV6810 - 1" NPT union,
1 1/2" nominal length nipple

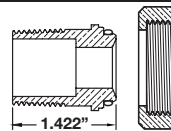


AV6810S - 1" Solder union

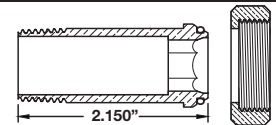
3/4" Tapered Unions (includes nut and nipple)

Used with V241-34, V261-34, V345-34

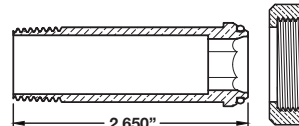
Valve Bodies. Union nut fits on 1" BSPP threads



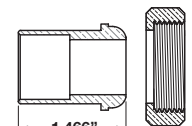
AV6534 - 3/4" NPT Union,
1 1/2" nominal length nipple



AV6534F - 3/4" NPT Union,
2" nominal length nipple



AV6534H - 3/4" NPT Union,
2 1/2" nominal length nipple

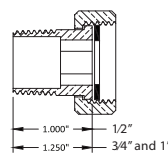


AV6534S - 3/4" Solder Union



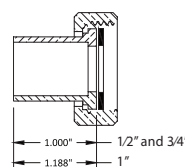
AV199-08 - Pack of 10 "O" rings
for 3/4" union (1" BSPP thread)

Flat Unions with washers for valve body V240FLT



NPT thread

1/2" - **AV6112FLT** (for valve body V24020FLT)
3/4" - **AV6534FLT** (for valve body V24025FLT)
1" - **AV6810FLT** (for valve body V24032FLT)



Sweat

1/2" - **AV6312SFLT** (for valve body V24020FLT)
3/4" - **AV6534SFLT** (for valve body V24025FLT)
1" - **AV6810SFLT** (for valve body V24032FLT)

Terminal Unit Accessories



AVP20 - (1/2", 3/4"), **AVP116** (1"). Cap plug
to replace any valve cartridge when **pipe**
flushing.



AV199-03 - (1/2", 3/4"), **AV199-14** (1") Pack
of 10 "O" rings for internal cartridges for valve
bodies

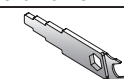


OM1100P - Manual adjuster for all valve
bodies. Box of 10.



AVK100 - Union Selection Kit. Consisting of
different size and length unions

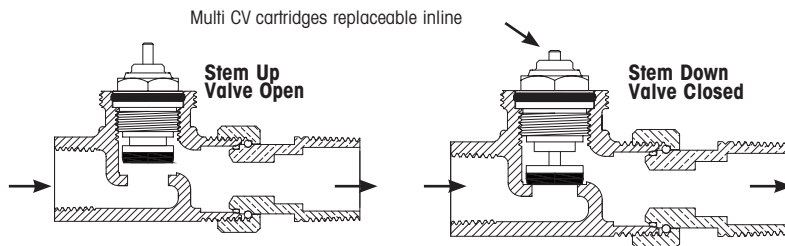
Installation Tools



AV08 - Spud Tool for union nipple installation
1/2", 3/4" and 1" valve bodies

2 WAY AND 3 WAY TERMINAL UNIT PIPING DIAGRAMS

2 WAY - V240FLT, V241, V243, V245, V246, V261 VALVE BODIES - 1/2", 3/4", 1" sizes



V240, V241, V243, V245, V246, V261

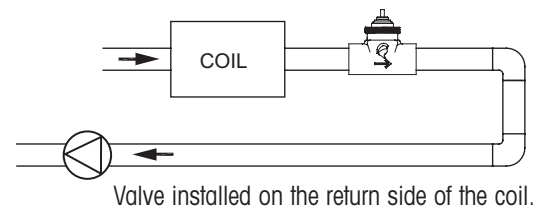
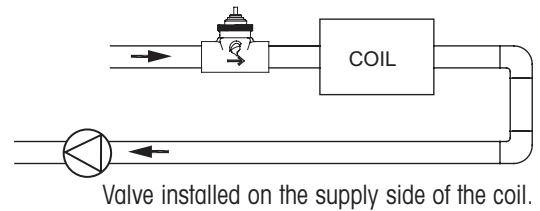
Terminal Unit BODIES ARE NORMALLY OPEN

STEM UP: VALVE IS OPEN

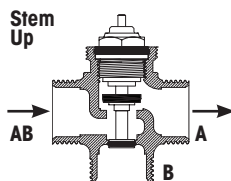
STEM DOWN: VALVE IS CLOSE

When used in conjunction with direct acting actuators they become normally open valve assemblies.

When used in conjunction with reverse acting actuators they become normally closed valve assemblies.



The valve body must be installed in the direction indicated on the valve body cavity



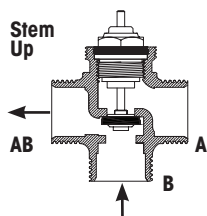
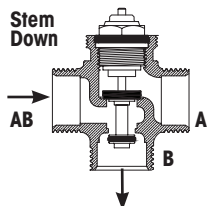
3 WAY - V320, V325, V345 DIVERTING VALVE BODIES 1/2" and 3/4" and 1"

The diverting valve body is installed on the supply side of the coil. The water diverts in the valve and mixes in the "T" the flow enters the common port AB

The side port A must be connected to the supply of the coil
The bottom port B must be connected to the bypass around the coil.

STEM UP: FLOW AB-A

STEM DOWN: FLOW AB-B



3 WAY - V321 MIXING VALVE BODY 1/2" and 3/4"

The mixing valve body is installed on the return side of the coil. The water diverts in the "T" and mixes in the valve.

Piping example No1: The flow enters port A from the coil and port B from the bypass and exits from the common port AB

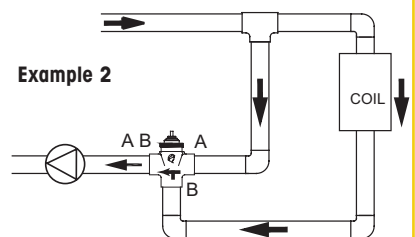
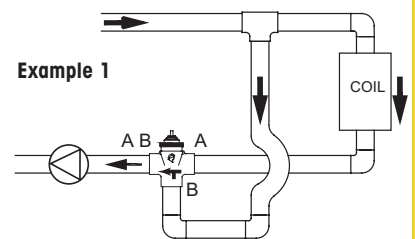
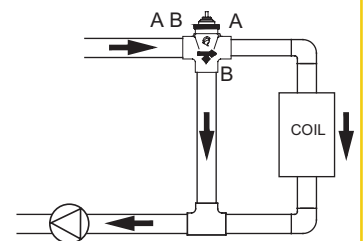
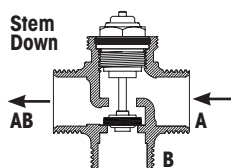
STEM UP: FLOW B-AB

STEM DOWN: FLOW A-AB

Piping example No 2: The flow enters port B from the coil and port A from the bypass and exits from the common port AB

STEM UP: FLOW B-AB

STEM DOWN: FLOW A-AB



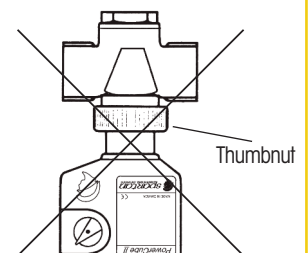
SOLDER INSTRUCTIONS

If direct solder bodies are used, remove the stem packing cartridge before installation as the heat will damage the packing.

If solder unions are used, solder the unions without the sealing O-ring.

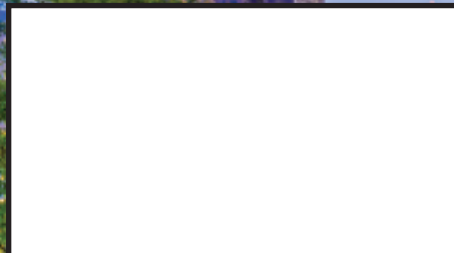
IMPORTANT INSTALLATION NOTES

The complete valve assembly can be installed vertically or horizontally; it cannot be installed upside down. The Actuator mounting thumbnut is to be tightened by hand only, using tools may result in over-tightening.





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