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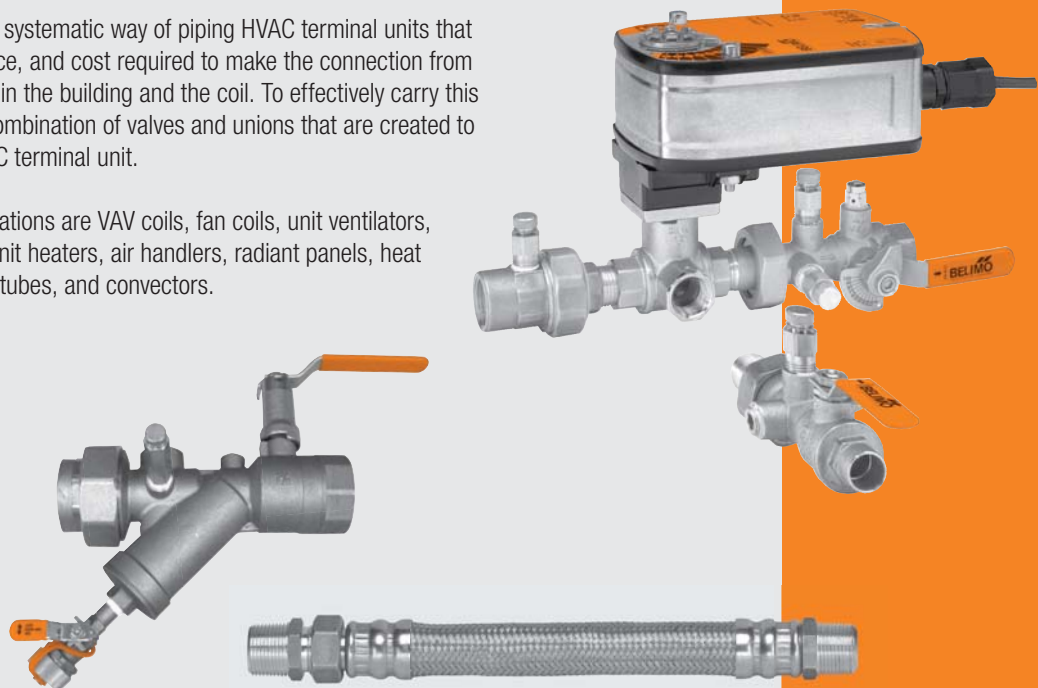
PIPE PACKAGES

- Simple computer selection software makes building proper kits a snap.
- One point of ordering providing reliable solutions with fast delivery.
- Full port design minimizes terminal unit piping pressure drop.
- Eliminates numerous piping connections saving time and money.
- 100% tested for guaranteed results.

Applications

The pipe package is a systematic way of piping HVAC terminal units that reduces the time, space, and cost required to make the connection from the distribution piping in the building and the coil. To effectively carry this out, Belimo offers a combination of valves and unions that are created to interface with an HVAC terminal unit.

Typical terminal installations are VAV coils, fan coils, unit ventilators, reheat coils, cabinet unit heaters, air handlers, radiant panels, heat pumps, duct coils, fin tubes, and convectors.



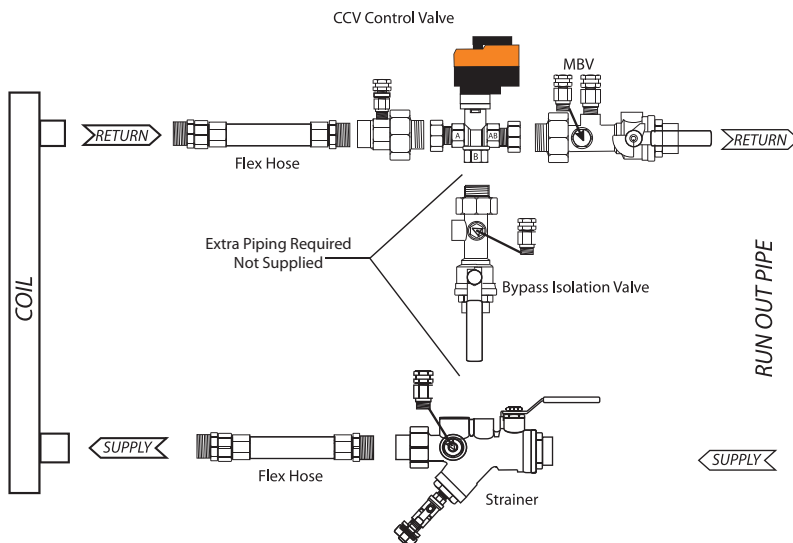
Pipe Package Nomenclature

*P 2	1 1 1	1 2 1 3	1 2 1 1	2
Pipe Package P = Pipe Package Valve Type P = PICCV 2 = 2-way CCV 3 = 3-way CCV Z = Zone Options X = Extension Package S = Supply Side Package	Union Valve Size 1 = 1/2" 2 = 3/4" 3 = 1" 4 = 1" to 3/4" 5 = 3/4" to 1/2" A = 1-1/2" B = 1-1/4" C = 2" D = 1-1/4" to 1" E = 1-1/2" to 1-1/4" F = 2" to 1-1/2" G = 1" to 1/2" H = 1-1/4" to 3/4" J = 1-1/2" to 1" K = 2" to 1-1/4" Body End* 1 = Female NPT 2 = Copper Sweat 3 = Male NPT Configuration 1 = Standard Tailpiece End Male NPT Only	Isolation Valve / Manual Balance Valve Valve Size 1 = 1/2" 2 = 3/4" 3 = 1" 4 = 1" to 3/4" 5 = 3/4" to 1/2" A = 1-1/2" B = 1-1/4" C = 2" D = 1-1/4" to 1" E = 1-1/2" to 1-1/4" F = 2" to 1-1/2" G = 1" to 1/2" H = 1-1/4" to 3/4" J = 1-1/2" to 1" K = 2" to 1-1/4" Body End 1 = Female NPT 2 = Copper Sweat Configuration 1 = Standard Flow Rate 0 = No Setting for Isolation Valve 1 = 1.30 GPM (1/2", 3/4") 2 = 2.65 GPM (1/2", 3/4") 3 = 7.00 GPM (1/2", 3/4") 4 = 7.00 GPM (1") 5 = 17.50 GPM (1") A = 35.80 GPM (1-1/4") B = 40.80 GPM (1-1/2") C = 56.90 GPM (2") D = 95.00 GPM (2") E = 13.00 GPM (3/4") Tailpiece End Male NPT Only	Strainer / Isolation Valve Valve Size 1 = 1/2" 2 = 3/4" 3 = 1" 4 = 1" to 3/4" 5 = 3/4" to 1/2" A = 1-1/2" B = 1-1/4" C = 2" D = 1-1/4" to 1" E = 1-1/2" to 1-1/4" F = 2" to 1-1/2" G = 1" to 1/2" H = 1-1/4" to 3/4" J = 1-1/2" to 1" K = 2" to 1-1/4" Body End 1 = Female NPT 2 = Copper Sweat Configuration 1 = Standard Tailpiece End (Strainer Option) 1 = Female NPT 2 = Copper Sweat 3 = Male NPT Tailpiece End (Isolation Valve Option) 0 = Select "0" for Isolation Valve Option Male NPT Only	Hose (set of 2) Diameter & Length 1 = 1/2" (12" length) 2 = 1/2" (24" length) 3 = 3/4" (12" length) 4 = 3/4" (24" length) 5 = 1" (12" length) 6 = 1" (24" length) 7 = 1/2" (18" length) 8 = 3/4" (18" length) 9 = 1" (18" length) A = 1-1/4" (18" length) H = 1-1/4" (24" length) B = 1-1/4" (36" length) C = 1-1/2" (18" length) D = 1-1/2" (24" length) E = 1-1/2" (36" length) F = 2" (24" length) G = 2" (36" length)

Please refer to typical Pipe Package layouts on pages prior to ordering.

* Pipe Package Smart Code does not include the Belimo Control Valve and price.

UNION BODY x TAIL	PART NUMBER	UNION LIST PRICE	ISOLATION VALVE BODY x TAIL	PART NUMBER	ISOLATION VALVE LIST PRICE	MANUAL BALANCE VALVE BODY x TAIL	PART NUMBER	MANUAL BALANCE VALVE LIST PRICE
1/2" x 1/2"	PPU111	\$65.00	1/2" x 1/2"	PPV1110	\$116.00	1/2" x 1/2" (Max 1.30 GPM)	PPL1111	\$196.00
3/4" x 3/4"	PPU211	\$75.00	3/4" x 3/4"	PPV2110	\$133.00	1/2" x 1/2" (Max 2.65 GPM)	PPL1112	\$196.00
1" x 1"	PPU311	\$98.00	1" x 1"	PPV3110	\$198.00	1/2" x 1/2" (Max 7.00 GPM)	PPL1113	\$196.00
1" x 3/4"	PPU411	\$98.00	1" x 3/4"	PPV4110	\$198.00	3/4" x 3/4" (Max 1.30 GPM)	PPL2111	\$200.00
3/4" x 1/2"	PPU511	\$75.00	3/4" x 1/2"	PPV5110	\$133.00	3/4" x 3/4" (Max 2.65 GPM)	PPL2112	\$200.00
1-1/2" x 1-1/2"	PPUA11	\$198.00	1-1/2" x 1-1/2"	PPVA110	\$581.00	3/4" x 3/4" (Max 7.00 GPM)	PPL2113	\$200.00
1-1/4" x 1-1/4"	PPUB11	\$142.00	1-1/4" x 1-1/4"	PPVB110	\$452.00	1" x 1" (Max 7.00 GPM)	PPL3114	\$304.00
2" x 2"	PPUC11	\$288.00	2" x 2"	PPVC110	\$785.00	1" x 1" (Max 17.50 GPM)	PPL3115	\$304.00
1-1/4" x 1"	PPUD11	\$142.00	1-1/4" x 1"	PPVD110	\$452.00	1" x 3/4" (Max 7.00 GPM)	PPL4114	\$304.00
1-1/2" x 1-1/4"	PPUE11	\$198.00	1-1/2" x 1-1/4"	PPVE110	\$581.00	1" x 3/4" (Max 7.00 GPM)	PPL4115	\$304.00
2" x 1-1/2"	PPUF11	\$288.00	2" x 1-1/2"	PPVF110	\$785.00	1" x 3/4" (Max 17.50 GPM)	PPL5111	\$304.00
1" x 1/2"	PPUG11	\$98.00	1" x 1/2"	PPVG110	\$196.00	1" x 3/4" (Max 17.50 GPM)	PPL5112	\$304.00
1-1/4" to 3/4"	PPUH11	\$142.00	1-1/4" to 3/4"	PPVH110	\$452.00	3/4" x 1/2" (Max 1.30 GPM)	PPL5113	\$200.00
1-1/2" x 1"	PPUJ11	\$198.00	1-1/2" x 1"	PPVJ110	\$581.00	3/4" x 1/2" (Max 2.65 GPM)	PPLA11B	\$200.00
2" x 1-1/4"	PPUK11	\$288.00	2" x 1-1/4"	PPVK110	\$785.00	3/4" x 1/2" (Max 7.00 GPM)	PPLB11A	\$200.00
						1-1/2" x 1-1/2" (Max 40.80 GPM)	PPLC11D	\$536.00
						1-1/4" x 1-1/4" (Max 35.80 GPM)	PPLD114	\$441.00
						2" x 2" (Max 56.90 GPM)	PPLE11B	\$738.00
						2" x 2" (Max 95.00 GPM)	PPLF11C	\$738.00
						1-1/4" x 1" (Max 35.80 GPM)	PPLF11D	\$445.00
						1-1/2" x 1-1/4" (Max 40.80 GPM)	PPGF114	\$536.00
						2" x 1-1/2" (Max 56.90 GPM)	PPLG114	\$738.00
						2" x 1-1/2" (Max 95.00 GPM)	PPLH11A	\$738.00
						1" x 1/2" (Max 7.00 GPM)	PPLK11B	\$304.00
						1" x 1/2" (Max 17.50 GPM)	PPLJ11C	\$304.00
						1-1/4" x 3/4" (Max 35.80 GPM)	PPLH11A	\$441.00
						1-1/2" x 1" (Max 40.80 GPM)	PPLE11B	\$536.00
						2" x 1-1/4" (Max 56.90 GPM)	PPLK11C	\$738.00



STRAINER BODY x TAIL	PART NUMBER	STRAINER LIST PRICE	HOSE SET (2)	PART NUMBER	HOSE SET (2) LIST PRICE
1/2" 1/2"	PPS1111	\$157.00	1/2" (12" length)	PHOSE1	\$102.00
3/4" x 3/4"	PPS2111	\$192.00	1/2" (24" length)	PHOSE2	\$126.00
1" x 1"	PPS3111	\$214.00	3/4" (12" length)	PHOSE3	\$159.00
1" x 3/4"	PPS4111	\$214.00	3/4" (24" length)	PHOSE4	\$204.00
3/4" x 1/2"	PPS5111	\$192.00	1" (12" length)	PHOSE5	\$302.00
1-1/2" x 1-1/2"	PPSA111	\$349.00	1" (24" length)	PHOSE6	\$351.00
1-1/4" x 1-1/4"	PPSB111	\$349.00	1/2" (18" length)	PHOSE1C	\$126.00
2" x 2"	PPSC111	\$600.00	3/4" (18" length)	PHOSE3C	\$196.00
1-1/4" x 1"	PPSD111	\$349.00	1" (18" length)	PHOSE5C	\$359.00
1-1/2" x 1-1/4"	PPSE111	\$349.00	1-1/4" (18" length)	PHOSEAA	\$543.00
2" x 1-1/2"	PPSF111	\$600.00	1-1/4" (24" length)	PHOSEAB	\$604.00
1" x 1/2"	PPSG111	\$214.00	1-1/4" (36" length)	PHOSEAC	\$706.00
1-1/4" x 3/4"	PPSH111	\$349.00	1-1/2" (18" length)	PHOSEBA	\$779.00
1-1/2" x 1"	PPSJ111	\$349.00	1-1/2" (24" length)	PHOSEBB	\$865.00
2" x 1-1/4"	PPSK111	\$600.00	1-1/2" (36" length)	PHOSEBC	\$1,081.00
			2" (24" length)	PHOSECA	\$1,656.00
			2" (36" length)	PHOSEC	\$1,930.00

Add price for Isolation Bypass Valve for 3-way CCV Packages. Bypass Valve is not shown in the reorder number.
 Example: A 1/2" 3-way CCV, will get a 1/2" Isolation Valve for the Bypass Port. The adder for the Isolation Valve in this example is \$116.00 List Price.

Union Technical Specifications

Service	chilled or hot water, 60% glycol
Sizes	½", ¾", 1", 1¼", 1½", 2"
Materials:	
Body	forged brass
Union Nut	forged brass
Tailpiece	forged brass
Gasket	EPDM
Insulator	glass reinforced nylon (dielectric)
Readout port body & cap	extruded brass
Readout port seal	Nordel
Pressure/temperature ratings:	
½" to 2"	400 psi
Component temp.	250°F maximum
Media temp. range	0°F to 212°F [-18°C to +100°C]

Isolation Valve Technical Specifications

Service	chilled or hot water, 60% glycol
Sizes	½", ¾", 1", 1¼", 1½", 2"
Materials:	
Body	forged brass
Gland Nut	extruded brass
Ball	chrome plated/hot forged brass
Stem	extruded brass
Union Nut	forged brass
Tailpiece	forged brass
Seats	Virgin PTFE
Packing	Virgin PTFE
Stem O-Rings	Viton
Readout port body & cap	extruded brass
Readout port seal	Nordel
Pressure/temperature ratings:	
½" to ¾"	600 psi
1" to 2"	500 psi
Component temp.	300°F maximum
Media temp. range	0°F to 212°F [-18°C to +100°C]
Leakage	0%

Strainer Technical Specifications

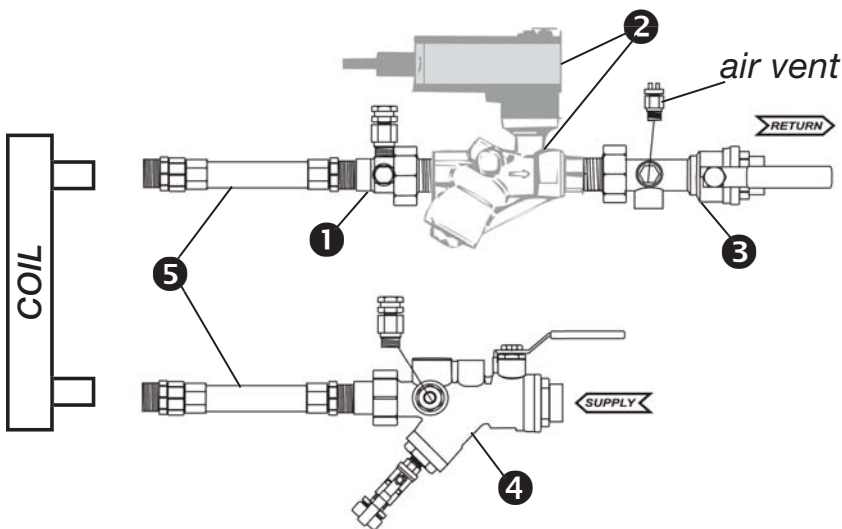
Service	chilled or hot water, 60% glycol
Sizes	½", ¾", 1", 1¼", 1½", 2"
Materials:	
Body	forged brass
Union Nut	forged brass
Ball	chrome plated/forged brass
Stem & Gland Nut	forged brass
Tailpiece	forged brass
Seals & Packing	PTFE
Stem O-Rings	Viton
Strainer Screen	304 stainless steel / 20 mesh standard
Readout port body & cap	extruded brass
Readout port seal	Nordel
Pressure/temperature ratings:	
½" to 2"	600 psi
Component temp.	325°F maximum
Media temp. range	0°F to 212°F [-18°C to +100°C]
Leakage	0%

Please Note: PICCV packages have a 5-year warranty. Minimum 75% restock fee pending inspection.

Hose Technical Specifications

External Braiding	stainless steel AISI 304
Crimping Ferrules	stainless steel AISI 304
Connectors	machined brass
Fiber Gasket	BA-U fiber washer
Core	formulated EPDM
Operating & Burst Pressure Rating	
1/2"	375 psi operating 1500 psi burst pressure
3/4"	300 psi operating 1200 psi burst pressure
1"	225 psi operating 900 psi burst pressure
1 1/4"	200 psi operating 800 psi burst pressure
1 1/2"	175 psi operating 600 psi burst pressure
2"	150 psi operating 500 burst pressure
Component temp.	5°F to 230°F [-15°C to +110°C] Less than 41°F with use of Glycol additive.

Note: Media temperature may be limited by the hose rating



PICCV (½" to 2") Return Side Package (Standard)

- ① Union
- ② Belimo Valve and Actuator (Not Included in Smart Code or List Price)
- ③ Isolation Valve
- ④ Strainer or Isolation Valve (Strainer Shown)
- ⑤ Optional hoses are available

Supply Side Packages Feature the Belimo Control Valve on the Supply Side of the Coil and Above Components Arranged in a Supply Configuration. Refer to Software for Supply Side Configurations.



**SMARTCODE ORDER NOMENCLATURE
COMPONENT ORDER NOMENCLATURE**

EXAMPLE: PP-PICCV	PP	211	2110	2111	3
		Union PPU211	Isolation PPV2110	Strainer PPS2111	Hose PHOSE3



Extension Packages Include:

- Extended handle for Isolation Valve and Strainer
- Extended P/T port for Union, Isolation Valve and Strainer
- Extended air vent for Isolation Valve

PIPE PACKAGE SMARTCODE (PICCV)		UNION		ISOLATION VALVE		STRAINER		LIST PRICE
Pipe Package Part # (2-way PICCV) without Hose	Valve Nominal Size Inches DN (mm)	Body End/ Tailpiece End	Body End/ Tailpiece End	Body End/ Tailpiece End	Body End/ Tailpiece End	Body End/ Tailpiece End		
*PP 111 1110 1111 0	1/2 15	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	\$338.00	
PP 121 1210 1212 0	1/2 15	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/Sweat	\$338.00	
PP 131 1110 1113 0	1/2 15	M-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	\$338.00	
PP 131 1210 1213 0	1/2 15	M-NPT/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	\$338.00	
PP 211 2110 2111 0	3/4 20	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT	\$400.00	
PP 221 2210 2212 0	3/4 20	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/Sweat	\$400.00	
PP 231 2110 2113 0	3/4 20	M-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	\$400.00	
PP 231 2210 2213 0	3/4 20	M-NPT/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	\$400.00	
PP 311 3110 3111 0	1 25	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT	\$508.00	
PP 321 3210 3212 0	1 25	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/Sweat	\$508.00	
PP 331 3110 3113 0	1 25	M-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	\$508.00	
PP 331 3210 3213 0	1 25	M-NPT/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/Sweat	\$508.00	

PIPE PACKAGE SMARTCODE (PICCV)		UNION		ISOLATION VALVE		STRAINER		LIST PRICE
Pipe Package Part # (2-way PICCV) with 12" Hose	Valve Nominal Size Inches DN (mm)	Body End/ Tailpiece End	Body End/ Tailpiece End	Body End/ Tailpiece End	Body End/ Tailpiece End	Body End/ Tailpiece End		
PP 111 1110 1111 1	1/2 15	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT	\$441.00	
PP 111 1210 1211 1	1/2 15	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/F-NPT	\$441.00	
PP 211 2110 2111 3	3/4 20	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT	\$559.00	
PP 211 2210 2211 3	3/4 20	F-NPT/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/F-NPT	\$559.00	
PP 311 3110 3111 5	1 25	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT	\$810.00	
PP 311 3210 3211 5	1 25	F-NPT/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/F-NPT	\$810.00	

PIPE PACKAGE SMARTCODE (PICCV)		UNION		ISOLATION VALVE		STRAINER		LIST PRICE
Pipe Package Part # (2-way PICCV) with 24" hose	Valve Nominal Size Inches DN (mm)	Body End/ Tailpiece End	Body End/ Tailpiece End	Body End/ Tailpiece End	Body End/ Tailpiece End	Body End/ Tailpiece End		
PP 111 1110 1111 2	1/2 15	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT	\$465.00	
PP 111 1210 1211 2	1/2 15	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/F-NPT	\$465.00	
PP 211 2110 2111 4	3/4 20	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT	\$604.00	
PP 211 2210 2211 4	3/4 20	F-NPT/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/F-NPT	\$604.00	
PP 311 3110 3111 6	1 25	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT	\$859.00	
PP 311 3210 3211 6	1 25	F-NPT/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/F-NPT	\$859.00	

All combinations of reorder numbers are not reflected above. Please use the nomenclature or download the software at www.belimo.us to configure other possible combinations.

Union Technical Specifications

Service	chilled or hot water, 60% glycol
Sizes	½", ¾", 1", 1¼", 1½", 2"
Materials:	
Body	forged brass
Union Nut	forged brass
Tailpiece	forged brass
Gasket	EPDM
Insulator	glass reinforced nylon (dielectric)
Readout port body & cap	extruded brass
Readout port seal	Nordel
Pressure/temperature ratings:	
½" to 2"	400 psi
Component temp.	250°F maximum
Media temp. range	0°F to 250°F [-18°C to +121°C]

Manual Balance Valve Technical Specifications

Service	chilled or hot water, 60% glycol
Sizes	½", ¾", 1", 1¼", 1½", 2"
Materials:	
Body	forged brass
Ball	chrome plated/forged brass
Stem	extruded brass
Union	forged brass
Tailpiece	forged brass
Gland Nut	extruded brass
Seats & Packing	Virgin PTFE
O-Rings	Viton
Venturi	extruded brass
Readout port body & cap	extruded brass
Readout port seal	Nordel
Memory Stop	forged brass
Pressure/temperature ratings:	
½" to 2"	400 psi
Component temp.	300°F maximum
Media temp. range	0°F to 250°F [-18°C to +121°C]
Leakage	0%

Strainer Technical Specifications

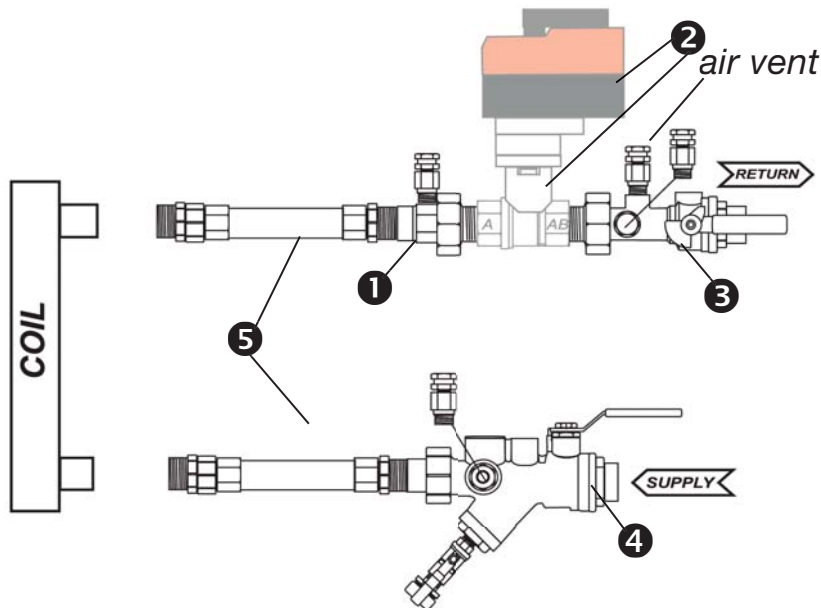
Service	chilled or hot water, 60% glycol
Sizes	½", ¾", 1", 1¼", 1½", 2"
Materials:	
Body	forged brass
Union Nut	forged brass
Ball	chrome plated/forged brass
Stem & Gland Nut	forged brass
Tailpiece	forged brass
Seals & Packing	PTFE
Stem O-Rings	Viton
Strainer Screen	304 stainless steel / 20 mesh standard
Readout port body & cap	extruded brass
Readout port seal	Nordel
Pressure/temperature ratings:	
½" to 2"	600 psi
Component temp.	325°F maximum
Media temp. range	0°F to 250°F [-18°C to +121°C]
Leakage	0%

Please Note: 2-way CCV Pipe Packages have a 5-year warranty. Minimum 75% restock fee pending inspection.

Hose Technical Specifications

External Braiding	stainless steel AISI 304
Crimping Ferrules	stainless steel AISI 304
Connectors	machined brass
Fiber Gasket	BA-U fiber washer
Core	formulated EPDM
Operating & Burst Pressure Rating	
1/2"	375 psi operating 1500 psi burst pressure
3/4"	300 psi operating 1200 psi burst pressure
1"	225 psi operating 900 psi burst pressure
1 1/4"	200 psi operating 800 psi burst pressure
1 1/2"	175 psi operating 600 psi burst pressure
2"	150 psi operating 500 psi burst pressure
Component temp.	5°F to 230°F [-15°C to +110°C] Less than 41°F with use of Glycol additive.

Note: Media temperature may be limited by the hose rating



2-way CCV (½" to 2") Return Side Package (Standard)

- 1 Union
- 2 Belimo Valve and Actuator (Not Included in Smart Code or List Price)
- 3 Manual Balance Valve
- 4 Strainer
- 5 Optional hoses are available

Supply Side Packages Feature the Belimo Control Valve on the Supply Side of the Coil and Above Components Arranged in a Supply Configuration. Refer to Software for Supply Side Configurations.



**SMARTCODE ORDER NOMENCLATURE
COMPONENT ORDER NOMENCLATURE**

EXAMPLE: P2	111	1111	1111	1
	Union PPU111	MBV PPL1111	Strainer PPS1111	Hose PHOSE1



Extension Packages Include:

- Extended handle for Manual Balance Valve, Isolation Valve and Strainer
- Extended P/T ports for Union, Manual Balance Valve, Strainer or Isolation Valve
- Extended air vent for Manual Balance Valve and Isolation Valve

PIPE PACKAGE SMARTCODE (CCV)		UNION		MANUAL BALANCE VALVE		STRAINER		LIST PRICE
Pipe Package Model # (2-way CCV) without hose	Valve Nominal Size Inches DN (mm)	Body End/ Tailpiece End	Body End/ Tailpiece End	Body End/ Tailpiece End	Body End/ Tailpiece End	Body End/ Tailpiece End	Body End/ Tailpiece End	
P2 111 1111 1111 0	1/2 15	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	\$418.00
P2 121 1112 1212 0	1/2 15	Sweat/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	Sweat/Sweat	Sweat/Sweat	\$418.00
P2 131 1113 1113 0	1/2 15	M-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	\$418.00
P2 131 1211 1213 0	1/2 15	M-NPT/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	\$418.00
P2 131 1212 1213 0	1/2 15	M-NPT/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	\$418.00
P2 131 1213 1213 0	1/2 15	M-NPT/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	\$418.00
P2 211 2111 2111 0	3/4 20	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	\$467.00
P2 221 2112 2212 0	3/4 20	Sweat/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	Sweat/Sweat	Sweat/Sweat	\$467.00
P2 231 2113 2113 0	3/4 20	M-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	\$467.00
P2 231 2211 2213 0	3/4 20	M-NPT/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	\$467.00
P2 231 2212 2213 0	3/4 20	M-NPT/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	\$467.00
P2 231 2213 2213 0	3/4 20	M-NPT/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	\$467.00
P2 311 3114 3111 0	1 25	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT	F-NPT/F-NPT	\$610.00
P2 321 3114 3212 0	1 25	Sweat/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	Sweat/Sweat	Sweat/Sweat	\$610.00
P2 331 3115 3113 0	1 25	M-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	\$610.00
P2 311 3115 3213 0	1 25	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	Sweat/M-NPT	Sweat/M-NPT	\$610.00
P2 321 3214 3213 0	1 25	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	\$610.00
P2 331 3215 3213 0	1 25	M-NPT/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	\$610.00

PIPE PACKAGE SMARTCODE (CCV)		UNION		MANUAL BALANCE VALVE		STRAINER		LIST PRICE
Pipe Package Model # (2-way CCV) with 12" hose	Valve Nominal Size Inches DN (mm)	Body End/ Tailpiece End	Body End/ Tailpiece End	Body End/ Tailpiece End	Body End/ Tailpiece End	Body End/ Tailpiece End	Body End/ Tailpiece End	
P2 111 1111 1111 1	1/2 15	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT	F-NPT/F-NPT	\$520.00
P2 111 1112 1211 1	1/2 15	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	Sweat/F-NPT	Sweat/F-NPT	\$520.00
P2 111 1113 1111 1	1/2 15	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT	F-NPT/F-NPT	\$520.00
P2 111 1211 1211 1	1/2 15	F-NPT/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/F-NPT	Sweat/F-NPT	\$520.00
P2 111 1212 1111 1	1/2 15	F-NPT/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	F-NPT/F-NPT	F-NPT/F-NPT	\$520.00
P2 111 1213 1211 1	1/2 15	F-NPT/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/F-NPT	Sweat/F-NPT	\$520.00
P2 211 2111 2111 3	3/4 20	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT	F-NPT/F-NPT	\$626.00
P2 211 2112 2211 3	3/4 20	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	Sweat/F-NPT	Sweat/F-NPT	\$626.00
P2 211 2113 2111 3	3/4 20	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT	F-NPT/F-NPT	\$626.00
P2 211 2211 2211 3	3/4 20	F-NPT/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/F-NPT	Sweat/F-NPT	\$626.00
P2 211 2212 2111 3	3/4 20	F-NPT/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	F-NPT/F-NPT	F-NPT/F-NPT	\$626.00
P2 211 2213 2211 3	3/4 20	F-NPT/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/F-NPT	Sweat/F-NPT	\$626.00
P2 311 3114 3111 5	1 25	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT	F-NPT/F-NPT	\$918.00
P2 311 3115 3211 5	1 25	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	Sweat/F-NPT	Sweat/F-NPT	\$918.00
P2 311 3214 3111 5	1 25	F-NPT/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	F-NPT/F-NPT	F-NPT/F-NPT	\$918.00
P2 311 3215 3211 5	1 25	F-NPT/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/F-NPT	Sweat/F-NPT	\$918.00

PIPE PACKAGE SMARTCODE (CCV)		UNION		MANUAL BALANCE VALVE		STRAINER		LIST PRICE
Pipe Package Model # (2-way CCV) with 24" hose	Valve Nominal Size Inches DN (mm)	Body End/ Tailpiece End	Body End/ Tailpiece End	Body End/ Tailpiece End	Body End/ Tailpiece End	Body End/ Tailpiece End	Body End/ Tailpiece End	
P2 111 1111 1111 2	1/2 15	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT	F-NPT/F-NPT	\$544.00
P2 111 1112 1211 2	1/2 15	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	Sweat/F-NPT	Sweat/F-NPT	\$544.00
P2 111 1113 1111 2	1/2 15	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT	F-NPT/F-NPT	\$544.00
P2 111 1211 1211 2	1/2 15	F-NPT/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/F-NPT	Sweat/F-NPT	\$544.00
P2 111 1212 1111 2	1/2 15	F-NPT/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	F-NPT/F-NPT	F-NPT/F-NPT	\$544.00
P2 111 1213 1211 2	1/2 15	F-NPT/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/F-NPT	Sweat/F-NPT	\$544.00
P2 211 2111 2111 4	3/4 20	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT	F-NPT/F-NPT	\$671.00
P2 211 2112 2211 4	3/4 20	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	Sweat/F-NPT	Sweat/F-NPT	\$671.00
P2 211 2113 2111 4	3/4 20	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT	F-NPT/F-NPT	\$671.00
P2 211 2211 2211 4	3/4 20	F-NPT/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/F-NPT	Sweat/F-NPT	\$671.00
P2 211 2212 2111 4	3/4 20	F-NPT/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	F-NPT/F-NPT	F-NPT/F-NPT	\$671.00
P2 211 2213 2211 4	3/4 20	F-NPT/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/F-NPT	Sweat/F-NPT	\$671.00
P2 311 3114 3111 6	1 25	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT	F-NPT/F-NPT	\$967.00
P2 311 3115 3211 6	1 25	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	Sweat/F-NPT	Sweat/F-NPT	\$967.00
P2 311 3214 3111 6	1 25	F-NPT/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	F-NPT/F-NPT	F-NPT/F-NPT	\$967.00
P2 311 3215 3211 6	1 25	F-NPT/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	Sweat/F-NPT	Sweat/F-NPT	\$967.00

All combinations of reorder numbers are not reflected above. Please use the nomenclature or download the software at www.belimo.us to configure other possible combinations.

Pipe Package for 3-way CCVs



Union Technical Specifications

Service	chilled or hot water, 60% glycol
Sizes	1/2", 3/4", 1", 1 1/4", 1 1/2", 2"
Materials:	
Body	forged brass
Union Nut	forged brass
Tailpiece	forged brass
Gasket	EPDM
Insulator	glass reinforced nylon (dielectric)
Readout port body & cap	extruded brass
Readout port seal	Nordel
Pressure/temperature ratings:	
1/2" to 2"	400 psi
Component temp.	250°F maximum
Media temp. range	0°F to 250°F [-18°C to +121°C]

Manual Balance Valve Technical Specifications

Service	chilled or hot water, 60% glycol
Sizes	1/2", 3/4", 1", 1 1/4", 1 1/2", 2"
Materials:	
Body	forged brass
Ball	chrome plated/forged brass
Stem	extruded brass
Union	forged brass
Tailpiece	forged brass
Gland Nut	extruded brass
Seats & Packing	Virgin PTFE
O-Rings	Viton
Venturi	extruded brass
Readout port body & cap	extruded brass
Readout port seal	Nordel
Memory Stop	forged brass
Pressure/temperature ratings:	
1/2" to 2"	400 psi
Component temp.	300°F maximum
Media temp. range	0°F to 250°F [-18°C to +121°C]
Leakage	0%

Strainer Technical Specifications

Service	chilled or hot water, 60% glycol
Sizes	1/2", 3/4", 1", 1 1/4", 1 1/2", 2"
Materials:	
Body	forged brass
Union Nut	forged brass
Ball	chrome plated/forged brass
Stem & Gland Nut	forged brass
Tailpiece	forged brass
Seats & Packing	PTFE
Stem O-Rings	Viton
Strainer Screen	304 stainless steel / 20 mesh standard
Readout port body & cap	extruded brass
Readout port seal	Nordel
Pressure/temperature ratings:	
1/2" to 2"	600 psi
Component temp.	325°F maximum
Media temp. range	0°F to 250°F [-18°C to +121°C]
Leakage	0%

Please Note: 2-way CCV Pipe Packages have a 5-year warranty. Minimum 75% restock fee pending inspection.

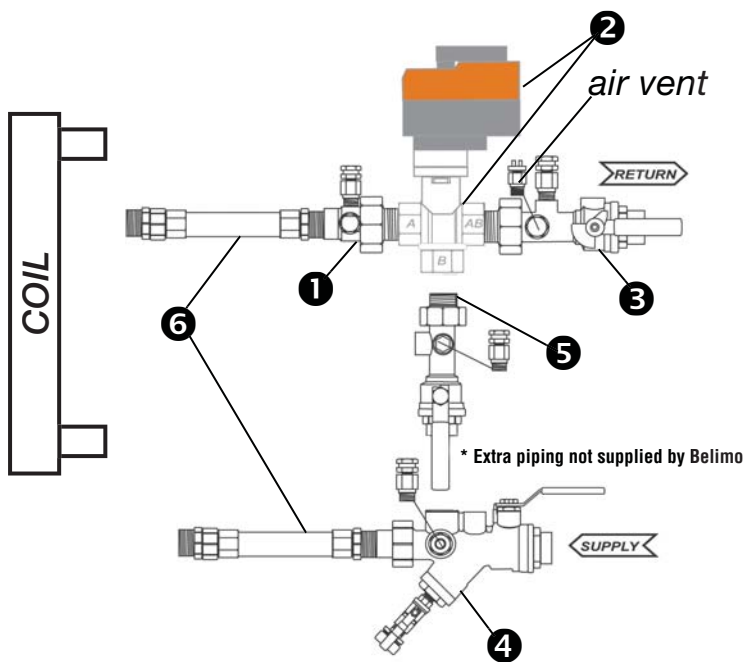
Isolation Valve Technical Specifications

Service	chilled or hot water, 60% glycol
Sizes	1/2", 3/4", 1", 1 1/4", 1 1/2", 2"
Materials:	
Body	forged brass
Gland Nut	extruded brass
Ball	chrome plated/hot forged brass
Stem	extruded brass
Union Nut	forged brass
Tailpiece	forged brass
Seats	Virgin PTFE
Packing	Virgin PTFE
Stem O-Rings	Viton
Readout port body & cap	extruded brass
Readout port seal	Nordel
Pressure/temperature ratings:	
1/2" to 3/4"	600 psi
1" to 2"	500 psi
Component temp.	300°F maximum
Media temp. range	0°F to 212°F [-18°C to +100°C]
Leakage	0%

Hose Technical Specifications

External Braiding	stainless steel AISI 304
Crimping Ferrules	stainless steel AISI 304
Connectors	machined brass
Fiber Gasket	BA-U fiber washer
Core	formulated EPDM
Operating & Burst Pressure Rating	
1/2"	375 psi operating 1500 psi burst pressure
3/4"	300 psi operating 1200 psi burst pressure
1"	225 psi operating 900 psi burst pressure
1 1/4"	200 psi operating 800 psi burst pressure
1 1/2"	175 psi operating 600 psi burst pressure
2"	150 psi operating 500 psi burst pressure
Component temp.	5°F to 230°F [-15°C to +110°C] Less than 41°F with use of Glycol additive.

Note: Media temperature may be limited by the hose rating



3-way CCV (1/2" to 2") Return Side Package (Standard)

- ❶ Union
- ❷ Belimo Valve and Actuator (Not Included in Smart Code or List Price)
- ❸ Manual Balance Valve
- ❹ Strainer
- ❺ Isolation Valve
- ❻ Optional hoses are available

*Note: Extra piping for Isolation Valve to CCV and Strainer is required (not supplied).

Supply Side Packages Feature the Belimo Control Valve on the Supply Side of the Coil and Above Components Arranged in a Supply Configuration. Refer to Software for Supply Side Configurations.



5
YEAR
WARRANTY

SMARTCODE ORDER NOMENCLATURE
COMPONENT ORDER NOMENCLATURE

EXAMPLE: P3	311	3114	3111	5
	Union PPU311	MBV PPL3114	Strainer PPS3111	Hose PHOSE5



Extension Packages Include:

- Extended handle for Manual Balance Valve, Isolation Valve and Strainer
- Extended P/T ports for Union, Manual Balance Valve, Strainer or Isolation Valve
- Extended air vent for Manual Balance Valve and Isolation Valve

PIPE PACKAGE SMARTCODE (CCV)		UNION		MANUAL BALANCE VALVE		STRAINER		LIST PRICE
Pipe Package Model # (3-way CCV) without hose	Valve Nominal Size Inches DN (mm)	Body End/ Tailpiece End	Body End/ Tailpiece End	Body End/ Tailpiece End	Body End/ Tailpiece End	Body End/ Tailpiece End	Body End/ Tailpiece End	
P3 111 1111 1111 0	1/2 15	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT	Sweat/Sweat	\$534.00		
P3 121 1112 1212 0	1/2 15	Sweat/M-NPT	F-NPT/M-NPT	Sweat/Sweat	\$534.00			
P3 131 1113 1113 0	1/2 15	M-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	\$534.00			
P3 131 1211 1213 0	1/2 15	M-NPT/M-NPT	Sweat/M-NPT	Sweat/M-NPT	\$534.00			
P3 131 1212 1213 0	1/2 15	M-NPT/M-NPT	Sweat/M-NPT	Sweat/M-NPT	\$534.00			
P3 131 1213 1213 0	1/2 15	M-NPT/M-NPT	Sweat/M-NPT	Sweat/M-NPT	\$534.00			
P3 211 2111 2111 0	3/4 20	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT	\$600.00			
P3 221 2112 2212 0	3/4 20	Sweat/M-NPT	F-NPT/M-NPT	Sweat/Sweat	\$600.00			
P3 231 2113 2113 0	3/4 20	M-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	\$600.00			
P3 231 2211 2213 0	3/4 20	M-NPT/M-NPT	Sweat/M-NPT	Sweat/M-NPT	\$600.00			
P3 231 2212 2213 0	3/4 20	M-NPT/M-NPT	Sweat/M-NPT	Sweat/M-NPT	\$600.00			
P3 231 2213 2213 0	3/4 20	M-NPT/M-NPT	Sweat/M-NPT	Sweat/M-NPT	\$600.00			
P3 311 3114 3111 0	1 25	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT	\$812.00			
P3 321 3114 3212 0	1 25	Sweat/M-NPT	F-NPT/M-NPT	Sweat/Sweat	\$812.00			
P3 331 3115 3113 0	1 25	M-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	\$812.00			
P3 311 3115 3213 0	1 25	F-NPT/M-NPT	F-NPT/M-NPT	Sweat/M-NPT	\$812.00			
P3 321 3214 3213 0	1 25	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	\$812.00			
P3 331 3215 3213 0	1 25	M-NPT/M-NPT	Sweat/M-NPT	Sweat/M-NPT	\$812.00			

PIPE PACKAGE SMARTCODE (CCV)		UNION		MANUAL BALANCE VALVE		STRAINER		LIST PRICE
Pipe Package Model # (3-way CCV) with 12" hose	Valve Nominal Size Inches DN (mm)	Body End/ Tailpiece End	Body End/ Tailpiece End	Body End/ Tailpiece End	Body End/ Tailpiece End	Body End/ Tailpiece End	Body End/ Tailpiece End	
P3 111 1111 1111 1	1/2 15	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT	\$636.00			
P3 111 1112 1211 1	1/2 15	F-NPT/M-NPT	F-NPT/M-NPT	Sweat/F-NPT	\$636.00			
P3 111 1113 1111 1	1/2 15	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT	\$636.00			
P3 111 1211 1211 1	1/2 15	F-NPT/M-NPT	Sweat/M-NPT	Sweat/F-NPT	\$636.00			
P3 111 1212 1111 1	1/2 15	F-NPT/M-NPT	Sweat/M-NPT	F-NPT/F-NPT	\$636.00			
P3 111 1213 1211 1	1/2 15	F-NPT/M-NPT	Sweat/M-NPT	Sweat/F-NPT	\$636.00			
P3 211 2111 2111 3	3/4 20	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT	\$759.00			
P3 211 2112 2211 3	3/4 20	F-NPT/M-NPT	F-NPT/M-NPT	Sweat/F-NPT	\$759.00			
P3 211 2113 2111 3	3/4 20	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT	\$759.00			
P3 211 2211 2211 3	3/4 20	F-NPT/M-NPT	Sweat/M-NPT	Sweat/F-NPT	\$759.00			
P3 211 2212 2111 3	3/4 20	F-NPT/M-NPT	Sweat/M-NPT	F-NPT/F-NPT	\$759.00			
P3 211 2213 2211 3	3/4 20	F-NPT/M-NPT	Sweat/M-NPT	Sweat/F-NPT	\$759.00			
P3 311 3114 3111 5	1 25	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT	\$1,114.00			
P3 311 3115 3211 5	1 25	F-NPT/M-NPT	F-NPT/M-NPT	Sweat/F-NPT	\$1,114.00			
P3 311 3214 3111 5	1 25	F-NPT/M-NPT	Sweat/M-NPT	F-NPT/F-NPT	\$1,114.00			
P3 311 3215 3211 5	1 25	F-NPT/M-NPT	Sweat/M-NPT	Sweat/F-NPT	\$1,114.00			

PIPE PACKAGE SMARTCODE (CCV)		UNION		MANUAL BALANCE VALVE		STRAINER		LIST PRICE
Pipe Package Model # (3-way CCV) with 24" hose	Valve Nominal Size Inches DN (mm)	Body End/ Tailpiece End	Body End/ Tailpiece End	Body End/ Tailpiece End	Body End/ Tailpiece End	Body End/ Tailpiece End	Body End/ Tailpiece End	
P3 111 1111 1111 2	1/2 15	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT	\$661.00			
P3 111 1112 1211 2	1/2 15	F-NPT/M-NPT	F-NPT/M-NPT	Sweat/F-NPT	\$661.00			
P3 111 1113 1111 2	1/2 15	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT	\$661.00			
P3 111 1211 1211 2	1/2 15	F-NPT/M-NPT	Sweat/M-NPT	Sweat/F-NPT	\$661.00			
P3 111 1212 1111 2	1/2 15	F-NPT/M-NPT	Sweat/M-NPT	F-NPT/F-NPT	\$661.00			
P3 111 1213 1211 2	1/2 15	F-NPT/M-NPT	Sweat/M-NPT	Sweat/F-NPT	\$661.00			
P3 211 2111 2111 4	3/4 20	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT	\$804.00			
P3 211 2112 2211 4	3/4 20	F-NPT/M-NPT	F-NPT/M-NPT	Sweat/F-NPT	\$804.00			
P3 211 2113 2111 4	3/4 20	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT	\$804.00			
P3 211 2211 2211 4	3/4 20	F-NPT/M-NPT	Sweat/M-NPT	Sweat/F-NPT	\$804.00			
P3 211 2212 2111 4	3/4 20	F-NPT/M-NPT	Sweat/M-NPT	F-NPT/F-NPT	\$804.00			
P3 211 2213 2211 4	3/4 20	F-NPT/M-NPT	Sweat/M-NPT	Sweat/F-NPT	\$804.00			
P3 311 3114 3111 6	1 25	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT	\$1,163.00			
P3 311 3115 3211 6	1 25	F-NPT/M-NPT	F-NPT/M-NPT	Sweat/F-NPT	\$1,163.00			
P3 311 3214 3111 6	1 25	F-NPT/M-NPT	Sweat/M-NPT	F-NPT/F-NPT	\$1,163.00			
P3 311 3215 3211 6	1 25	F-NPT/M-NPT	Sweat/M-NPT	Sweat/F-NPT	\$1,163.00			

All combinations of reorder numbers are not reflected above. Please use the nomenclature or download the software at www.belimo.us to configure other possible combinations.

Union Technical Specifications

Service	chilled or hot water, 60% glycol
Sizes	½", ¾", 1", 1¼", 1½", 2"
Materials:	
Body	forged brass
Union Nut	forged brass
Tailpiece	forged brass
Gasket	EPDM
Insulator	glass reinforced nylon (dielectric)
Readout port body & cap	extruded brass
Readout port seal	Nordel
Pressure/temperature ratings:	
½" to 2"	400 psi
Component temp.	250°F maximum
Media temp. range	32°F to 212°F [0°C to +100°C]

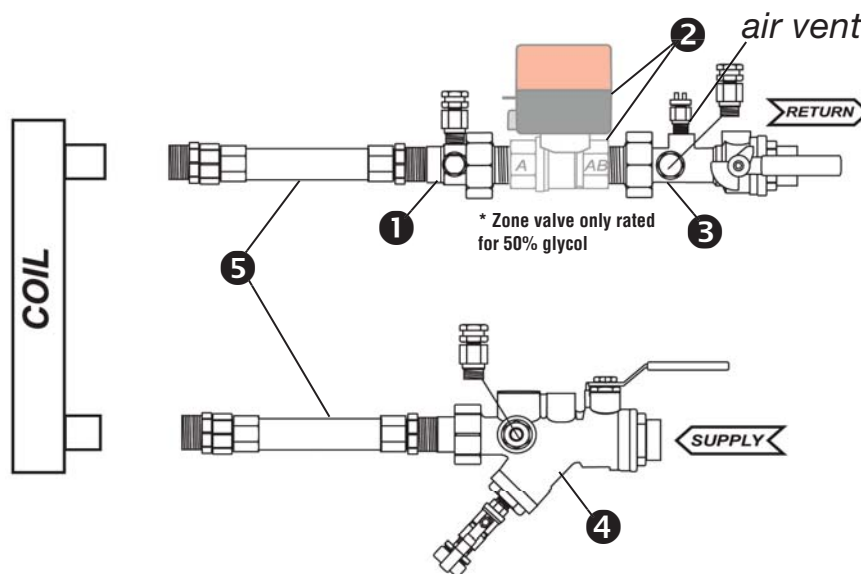
Manual Balance Valve Technical Specifications

Service	chilled or hot water, 60% glycol
Sizes	½", ¾", 1", 1¼", 1½", 2"
Materials:	
Body	forged brass
Ball	chrome plated/forged brass
Stem	extruded brass
Union	forged brass
Tailpiece	forged brass
Gland Nut	extruded brass
Seats & Packing	Virgin PTFE
O-Rings	Viton
Venturi	extruded brass
Readout port body & cap	extruded brass
Readout port seal	Nordel
Memory Stop	forged brass
Pressure/temperature ratings:	
½" to 2"	400 psi
Component temp.	300°F maximum
Media temp. range	32°F to 212°F [0°C to +100°C]
Leakage	0%

Strainer Technical Specifications

Service	chilled or hot water, 60% glycol
Sizes	½", ¾", 1", 1¼", 1½", 2"
Materials:	
Body	forged brass
Union Nut	forged brass
Ball	chrome plated/forged brass
Stem & Gland Nut	forged brass
Tailpiece	forged brass
Seals & Packing	PTFE
Stem O-Rings	Viton
Strainer Screen	304 stainless steel / 20 mesh standard
Readout port body & cap	extruded brass
Readout port seal	Nordel
Pressure/temperature ratings:	
½" to 2"	600 psi
Component temp.	325°F maximum
Media temp. range	32°F to 212°F [0°C to +100°C]
Leakage	0%

Please Note: 2-way Zone Valve Pipe Packages have a 2-year warranty. Minimum 75% restock fee pending inspection.



2-way Zone Valve (½" to 1" NPT) Return Side Package (Standard)

- ❶ Union
- ❷ Belimo Valve and Actuator (Not Included in Smart Code or List Price)
- ❸ Manual Balance Valve
- ❹ Strainer
- ❺ Optional hoses are available

Supply Side Packages Feature the Belimo Control Valve on the Supply Side of the Coil and Above Components Arranged in a Supply Configuration. Refer to Software for Supply Side Configurations.

Hose Technical Specifications

External Braiding	stainless steel AISI 304
Crimping Ferrules	stainless steel AISI 304
Connectors	machined brass
Fiber Gasket	BA-U fiber washer
Core	formulated EPDM
Operating & Burst Pressure Rating	
1/2"	375 psi operating 1500 psi burst pressure
3/4"	300 psi operating 1200 psi burst pressure
1"	225 psi operating 900 psi burst pressure
1 1/4"	200 psi operating 800 psi burst pressure
1 1/2"	175 psi operating 600 psi burst pressure
2"	150 psi operating 500 psi burst pressure
Component temp.	5°F to 230°F [-15°C to +110°C] Less than 41°F with use of Glycol additive.

Note: Media temperature may be limited by the hose rating



**SMARTCODE ORDER NOMENCLATURE
COMPONENT ORDER NOMENCLATURE**

EXAMPLE: PP2	111	1111	1111	0
	Union PPU111	MBV PPL1111	Strainer PPS1111	No Hose



Extension Packages Include:

- Extended handle for Manual Balance Valve, Isolation Valve and Strainer
- Extended P/T ports for Union, Manual Balance Valve, Strainer or Isolation Valve
- Extended air vent for Manual Balance Valve and Isolation Valve

PIPE PACKAGE SMARTCODE (ZONE)			UNION	MANUAL BALANCE VALVE	STRAINER	LIST PRICE
Pipe Package Model # (2-way Zone) without hose	Valve Nominal Size		Body End/ Tailpiece End	Body End/ Tailpiece End	Body End/ Tailpiece End	
	Inches	DN (mm)				
PZ 111 1111 1111 0	1/2	15	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT	\$418.00
PZ 121 1112 1212 0	1/2	15	Sweat/M-NPT	F-NPT/M-NPT	Sweat/Sweat	\$418.00
PZ 131 1113 1113 0	1/2	15	M-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	\$418.00
PZ 131 1211 1213 0	1/2	15	M-NPT/M-NPT	Sweat/M-NPT	Sweat/M-NPT	\$418.00
PZ 131 1212 1213 0	1/2	15	M-NPT/M-NPT	Sweat/M-NPT	Sweat/M-NPT	\$418.00
PZ 131 1213 1213 0	1/2	15	M-NPT/M-NPT	Sweat/M-NPT	Sweat/M-NPT	\$418.00
PZ 211 2111 2111 0	3/4	20	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT	\$467.00
PZ 221 2112 2212 0	3/4	20	Sweat/M-NPT	F-NPT/M-NPT	Sweat/Sweat	\$467.00
PZ 231 2113 2113 0	3/4	20	M-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	\$467.00
PZ 231 2211 2213 0	3/4	20	M-NPT/M-NPT	Sweat/M-NPT	Sweat/M-NPT	\$467.00
PZ 231 2212 2213 0	3/4	20	M-NPT/M-NPT	Sweat/M-NPT	Sweat/M-NPT	\$467.00
PZ 231 2213 2213 0	3/4	20	M-NPT/M-NPT	Sweat/M-NPT	Sweat/M-NPT	\$467.00
PZ 311 3114 3111 0	1	25	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT	\$614.00
PZ 321 3114 3212 0	1	25	Sweat/M-NPT	F-NPT/M-NPT	Sweat/Sweat	\$614.00
PZ 331 3115 3113 0	1	25	M-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT	\$614.00
PZ 311 3115 3213 0	1	25	F-NPT/M-NPT	F-NPT/M-NPT	Sweat/M-NPT	\$614.00
PZ 321 3214 3213 0	1	25	Sweat/M-NPT	Sweat/M-NPT	Sweat/M-NPT	\$614.00
PZ 331 3215 3213 0	1	25	M-NPT/M-NPT	Sweat/M-NPT	Sweat/M-NPT	\$614.00

PIPE PACKAGE SMARTCODE (ZONE)			UNION	MANUAL BALANCE VALVE	STRAINER	LIST PRICE
Pipe Package Model # (2-way Zone) with 12" hose	Valve Nominal Size		Body End/ Tailpiece End	Body End/ Tailpiece End	Body End/ Tailpiece End	
	Inches	DN (mm)				
PZ 111 1111 1111 1	1/2	15	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT	\$520.00
PZ 111 1112 1211 1	1/2	15	F-NPT/M-NPT	F-NPT/M-NPT	Sweat/F-NPT	\$520.00
PZ 111 1113 1111 1	1/2	15	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT	\$520.00
PZ 111 1211 1211 1	1/2	15	F-NPT/M-NPT	Sweat/M-NPT	Sweat/F-NPT	\$520.00
PZ 111 1212 1111 1	1/2	15	F-NPT/M-NPT	Sweat/M-NPT	F-NPT/F-NPT	\$520.00
PZ 111 1213 1211 1	1/2	15	F-NPT/M-NPT	Sweat/M-NPT	Sweat/F-NPT	\$520.00
PZ 211 2111 2111 3	3/4	20	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT	\$626.00
PZ 211 2112 2211 3	3/4	20	F-NPT/M-NPT	F-NPT/M-NPT	Sweat/F-NPT	\$626.00
PZ 211 2113 2111 3	3/4	20	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT	\$626.00
PZ 211 2211 2211 3	3/4	20	F-NPT/M-NPT	Sweat/M-NPT	Sweat/F-NPT	\$626.00
PZ 211 2212 2111 3	3/4	20	F-NPT/M-NPT	Sweat/M-NPT	F-NPT/F-NPT	\$626.00
PZ 211 2213 2211 3	3/4	20	F-NPT/M-NPT	Sweat/M-NPT	Sweat/F-NPT	\$626.00
PZ 311 3114 3111 5	1	25	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT	\$918.00
PZ 311 3115 3211 5	1	25	F-NPT/M-NPT	F-NPT/M-NPT	Sweat/F-NPT	\$918.00
PZ 311 3214 3111 5	1	25	F-NPT/M-NPT	Sweat/M-NPT	F-NPT/F-NPT	\$918.00
PZ 311 3215 3211 5	1	25	F-NPT/M-NPT	Sweat/M-NPT	Sweat/F-NPT	\$918.00

PIPE PACKAGE SMARTCODE (ZONE)			UNION	MANUAL BALANCE VALVE	STRAINER	LIST PRICE
Pipe Package Model # (2-way Zone) with 24" hose	Valve Nominal Size		Body End/ Tailpiece End	Body End/ Tailpiece End	Body End/ Tailpiece End	
	Inches	DN (mm)				
PZ 111 1111 1111 2	1/2	15	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT	\$545.00
PZ 111 1112 1211 2	1/2	15	F-NPT/M-NPT	F-NPT/M-NPT	Sweat/F-NPT	\$545.00
PZ 111 1113 1111 2	1/2	15	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT	\$545.00
PZ 111 1211 1211 2	1/2	15	F-NPT/M-NPT	Sweat/M-NPT	Sweat/F-NPT	\$545.00
PZ 111 1212 1111 2	1/2	15	F-NPT/M-NPT	Sweat/M-NPT	F-NPT/F-NPT	\$545.00
PZ 111 1213 1211 2	1/2	15	F-NPT/M-NPT	Sweat/M-NPT	Sweat/F-NPT	\$545.00
PZ 211 2111 2111 4	3/4	20	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT	\$671.00
PZ 211 2112 2211 4	3/4	20	F-NPT/M-NPT	F-NPT/M-NPT	Sweat/F-NPT	\$671.00
PZ 211 2113 2111 4	3/4	20	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT	\$671.00
PZ 211 2211 2211 4	3/4	20	F-NPT/M-NPT	Sweat/M-NPT	Sweat/F-NPT	\$671.00
PZ 211 2212 2111 4	3/4	20	F-NPT/M-NPT	Sweat/M-NPT	F-NPT/F-NPT	\$671.00
PZ 211 2213 2211 4	3/4	20	F-NPT/M-NPT	Sweat/M-NPT	Sweat/F-NPT	\$671.00
PZ 311 3114 3111 6	1	25	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT	\$967.00
PZ 311 3115 3211 6	1	25	F-NPT/M-NPT	F-NPT/M-NPT	Sweat/F-NPT	\$967.00
PZ 311 3214 3111 6	1	25	F-NPT/M-NPT	Sweat/M-NPT	F-NPT/F-NPT	\$967.00
PZ 311 3215 3211 6	1	25	F-NPT/M-NPT	Sweat/M-NPT	Sweat/F-NPT	\$967.00

All combinations of reorder numbers are not reflected above. Please use the nomenclature or download the software at www.belimo.us to configure other possible combinations.

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