

Piping Package Nomenclature

P 2	1 1 1	1 2 1 3	1 2 1 1	2
Piping Package P = Piping Package Valve Type 2 = 2-way CCV 3 = 3-way CCV E = EPIV / EV P = PIQCV Q = QCV Z = Zone Options S = Supply Side Package X = Extension Package	Union Valve Size 1 = ½" 2 = ¾" 3 = 1" 4 = 1...¾" 5 = ¾...½" A = 1½" B = 1¼" C = 2" D = 1¼...1" E = 1½...1¼" F = 2...1½" G = 1...½" H = 1¼...¾" J = 1½...1" K = 2...1¼" Body End 1 = Female NPT 2 = Copper Sweat Configuration 1 = Standard Tailpiece End Male NPT Only	Isolation Valve / Manual Balance Valve Valve Size 1 = ½" 2 = ¾" 3 = 1" 4 = 1...¾" 5 = ¾...½" A = 1½" B = 1¼" C = 2" D = 1¼...1" E = 1½...1¼" F = 2...1½" G = 1...½" H = 1¼...¾" J = 1½...1" K = 2...1¼" Body End 1 = Female NPT 2 = Copper Sweat Configuration 1 = Standard Tailpiece End Male NPT Only	Strainer / Isolation Valve Valve Size 1 = ½" 2 = ¾" 3 = 1" 4 = 1...¾" 5 = ¾...½" A = 1½" B = 1¼" C = 2" D = 1¼...1" E = 1½...1¼" F = 2...1½" G = 1...½" H = 1¼...¾" J = 1½...1" K = 2...1¼" 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 Diameter & Length 1 = ½" (12" length) 2 = ½" (24" length) 3 = ¾" (12" length) 4 = ¾" (24" length) 5 = 1" (12" length) 6 = 1" (24" length) 7 = ½" (18" length) 8 = ¾" (18" length) 9 = 1" (18" length) A = 1¼" (18" length) H = 1¼" (24" length) B = 1¼" (36" length) C = 1½" (18" length) D = 1½" (24" length) E = 1½" (36" length) F = 2" (24" length) G = 2" (36" length)

Please refer to typical Piping Package layouts on pages prior to ordering. Nomenclature chart does not include all configuration options or press connection types. Manual Balance Valves require flow consideration for proper sizing. Download Select-Pro software for complete options and available configurations. Consult factory for lead time. Non-standard items have increased lead time.

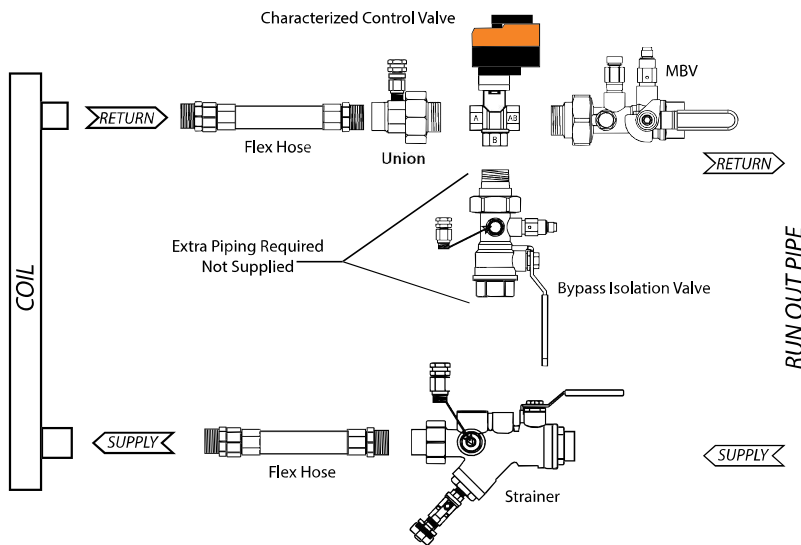
Non-Standard items include:

- 1¼...2" packages of all types
- All sizes of Unions, Manual Balance Valves, Strainers and Isolation Valves without P/T ports
- All sizes of Unions, Manual Balance Valves, Strainers and Isolation Valves with extensions
- All sizes of components with press fit connections

Note: Piping Package smart code does not include the Belimo control valve in the price.

UNION BODY x TAIL	PART NUMBER	ISOLATION VALVE BODY x TAIL	PART NUMBER
½" x ½"	PPU111	½" x ½"	PPV1110
¾" x ¾"	PPU211	¾" x ¾"	PPV2110
1" x 1"	PPU311	1" x 1"	PPV3110
1" x ¾"	PPU411	1" x ¾"	PPV4110
¾" x ½"	PPU511	¾" x ½"	PPV5110
1½" x 1½"	PPUA11*	1½" x 1½"	PPVA110*
1¼" x 1¼"	PPUB11*	1¼" x 1¼"	PPVB110*
2" x 2"	PPUC11*	2" x 2"	PPVC110*
1¼" x 1"	PPUD11*	1¼" x 1"	PPVD110*
1½" x 1¼"	PPUE11*	1½" x 1¼"	PPVE110*
2" x 1½"	PPUF11*	2" x 1½"	PPVF110*
1" x ½"	PPUG11*	1" x ½"	PPVG110*
1¼" to ¾"	PPUH11*	1¼" to ¾"	PPVH110*
1½" x 1"	PPUJ11*	1½" x 1"	PPVJ110*
2" x 1¼"	PPUK11*	2" x 1¼"	PPVK110*

MANUAL BALANCE VALVE BODY x TAIL**	PART NUMBER
½" x ½" (Cv 1.30, 0.48...1.21 GPM)	PPL1111
½" x ½" (Cv 2.65, 0.89...2.47 GPM)	PPL1112
½" x ½" (Cv 7.05, 2.22...6.60 GPM)	PPL1113
¾" x ¾" (Cv 1.30, 0.48...1.21 GPM)	PPL2111
¾" x ¾" (Cv 2.65, 0.89...2.47 GPM)	PPL2112
¾" x ¾" (Cv 7.05, 2.22...6.60 GPM)	PPL2113
1" x 1" (Cv 7.05, 2.6...6.60 GPM)	PPL3114
1" x 1" (Cv 17.6, 5.5...16.5 GPM)	PPL3115
1" x ¾" (Cv 7.05, 2.6...6.60 GPM)	PPL4114
1" x ¾" (Cv 17.6, 5.5...16.5 GPM)	PPL4115
¾" x ½" (Cv 1.30, 0.48...1.21 GPM)	PPL5111
¾" x ½" (Cv 2.65, 0.89...2.47 GPM)	PPL5112
¾" x ½" (Cv 7.05, 2.22...6.60 GPM)	PPL5113
1½" x 1½" (Cv 57.0, 12.8...38.0 GPM)	PPLA11B*
1¼" x 1¼" (Cv 34.0, 10.6...31.8 GPM)	PPLB11A*
2" x 2" (Cv 57.0, 18.0...53.0 GPM)	PPLC11C*
2" x 2" (Cv 88, 30.0...88.0 GPM)	PPLC11D*
1¼" x 1" (Cv 34.0, 10.6...31.8 GPM)	PPLD114*
1½" x 1¼" (Cv 57.0, 12.8...38.0 GPM)	PPLE11B*
2" x 1½" (Cv 57.0, 18.0...53.0 GPM)	PPLF11C*
1" x ½" (Cv 7.05, 2.6...6.6 GPM)	PPLG114*
1" x ½" (Cv 17.6, 5.5...16.5 GPM)	PPLG115*
1¼" x ¾" (Cv 34.0, 10.6...31.8 GPM)	PPLH11A*
1½" x 1" (Cv 57.0, 12.8...38.0 GPM)	PPLJ11B*
2" x 1¼" (Cv 57.0, 18.0...53.0 GPM)	PPLK11C*



***Non-Standard Items**

**Referenced flow values are based on 10...90" Dp range at 2 ft. head.

STRAINER BODY x TAIL	PART NUMBER
½" x ½"	PPS1111
¾" x ¾"	PPS2111
1" x 1"	PPS3111
1" x ¾"	PPS4111
¾" x ½"	PPS5111
1½" x 1½"	PPSA111*
1¼" x 1¼"	PPSB111*
2" x 2"	PPSC111*
1¼" x 1"	PPSD111*
1½" x 1¼"	PPSE111*
2" x 1½"	PPSF111*
1" x ½"	PPSG111*
1¼" x ¾"	PPSH111*
1½" x 1"	PPSJ111*
2" x 1¼"	PPSK111*

HOSE	PART NUMBER
½" (12" length)	PHOSE1
½" (24" length)	PHOSE2
¾" (12" length)	PHOSE3
¾" (24" length)	PHOSE4
1" (12" length)	PHOSE5
1" (24" length)	PHOSE6
½" (18" length)	PHOSE1C*
¾" (18" length)	PHOSE3C*
1" (18" length)	PHOSE5C*
1¼" (18" length)	PHOSEAA*
1¼" (24" length)	PHOSEAB*
1¼" (36" length)	PHOSEAC*
1½" (18" length)	PHOSEBA*
1½" (24" length)	PHOSEBB*
1½" (36" length)	PHOSEBC*
2" (24" length)	PHOSECA*
2" (36" length)	PHOSECB*

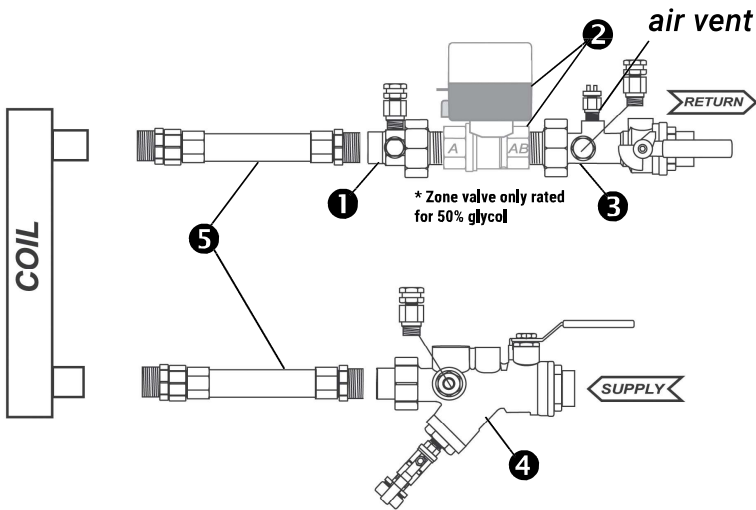
***Non-Standard Items**

Add price for Isolation Bypass Valve for 3-way CCV Packages. Bypass Valve is not shown in the reorder number.

Example: A ½" 3-way CCV, will get a ½" Isolation Valve for the Bypass Port. The adder for the Isolation Valve in this example is \$127 List Price.

F-NPT configurations shown above. For complete selection of all available connection types including press and sweat, refer to Select-Pro software.

Please Note: For return policy, refer to Piping Package section in Terms and Conditions.



2-way Zone Valve (½...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 (Ships loose with the package)

Supply side packages feature the Belimo control valve on the supply side of the coil and the above components arranged in a supply configuration. Refer to the SelectPro software for supply side configurations.



2-year warranty

Union Technical Specifications

Fluid	chilled or hot water, 50% glycol
Sizes	½", ¾", 1"
Materials:	
Body	forged brass
Union nut	forged brass
Tailpiece	forged brass
O-ring	EPDM
Readout port body & cap	extruded brass
Readout port seal	Nordel
Pressure/temperature ratings:	
½...1"	600 psi
Component temperature	250°F maximum
Fluid temperature range	32...212°F [0...100°C]

Manual Balance Valve Technical Specifications

Fluid	chilled or hot water, 50% glycol
Sizes	½", ¾", 1"
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...1"	400 psi
Component temperature	300°F maximum
Fluid temperature range	32...212°F [0...100°C]
Leakage	0%

Strainer Technical Specifications

Fluid	chilled or hot water, 50% glycol
Sizes	½", ¾", 1"
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:	
½...1"	600 psi
Component temperature	325°F maximum
Fluid temperature range	32...212°F [0...100°C]
Leakage	0%

Hose Technical Specifications

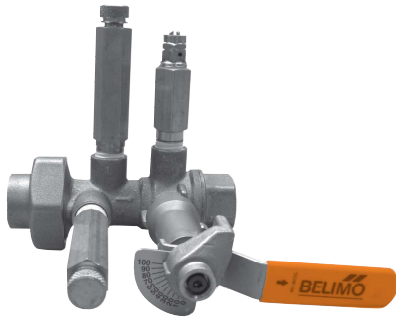
External braiding	stainless steel AISI 304
Crimping ferrules	stainless steel AISI 304
Connectors	machined brass
Fiber gasket	BA-U fiber washer
Core	formulated EPDM
Operating & burst pressure rating:	
½"	375 psi operating *400 psi <195°F [90°C] 1500 psi burst pressure
¾"	300 psi operating *400 psi <195°F [90°C] 1200 psi burst pressure
1"	225 psi operating 900 psi burst pressure
Component temperature	-5...+230°F [-20...+110°C] less than 41°F with use of glycol additive.

Note: Fluid temperature may be limited by the hose rating



COMPONENT ORDER NOMENCLATURE

EXAMPLE:	111	1111	1111	0
PZ	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

PIPING PACKAGE SMARTCODE (ZONE)			UNION	MANUAL BALANCE VALVE**	STRAINER
Piping Package Model # (2-way Zone Valve) 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	½	15	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT
PZ 121 1211 1212 0	½	15	Sweat/M-NPT	Sweat/M-NPT	Sweat/Sweat
PZ 131 1111 1113 0	½	15	M-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT
PZ 11B 11B1 11B3 0*	½	15	Press/M-NPT	Press/M-NPT	Press/F-NPT
PZ 211 2111 2111 0	¾	20	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT
PZ 221 2211 2212 0	¾	20	Sweat/M-NPT	Sweat/M-NPT	Sweat/Sweat
PZ 231 2111 2113 0	¾	20	M-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT
PZ 21B 21B1 21B3 0*	¾	20	Press/M-NPT	Press/M-NPT	Press/F-NPT
PZ 311 3114 3111 0	1	25	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT
PZ 321 3214 3212 0	1	25	Sweat/M-NPT	Sweat/M-NPT	Sweat/Sweat
PZ 331 3114 3113 0	1	25	M-NPT/M-NPT	F-NPT/M-NPT	F-NPT/M-NPT
PZ 31B 31B4 21B3 0*	1	25	F-NPT/M-NPT	Press/M-NPT	Press/F-NPT

PIPING PACKAGE SMARTCODE (ZONE)			UNION	MANUAL BALANCE VALVE**	STRAINER
Piping Package Model # (2-way Zone Valve) with short hose	Valve Nominal Size		Body End/ Tailpiece End	Body End/ Tailpiece End	Body End/ Tailpiece End
	Inches	DN [mm]			
PZ 111 1111 1111 1	½	15	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT
PZ 111 1211 1211 1	½	15	F-NPT/M-NPT	Sweat/M-NPT	Sweat/F-NPT
PZ 111 11B1 11B3 1*	½	15	F-NPT/M-NPT	Press/M-NPT	Press/F-NPT
PZ 211 2111 2111 3	¾	20	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT
PZ 211 2211 2211 3	¾	20	F-NPT/M-NPT	Sweat/M-NPT	Sweat/F-NPT
PZ 211 21B1 21B3 3*	¾	20	F-NPT/M-NPT	Press/M-NPT	Press/F-NPT
PZ 311 3114 3111 5	1	25	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT
PZ 311 3214 3211 5	1	25	F-NPT/M-NPT	Sweat/M-NPT	Sweat/F-NPT
PZ 311 31B4 31B3 5*	1	25	F-NPT/M-NPT	Press/M-NPT	Press/F-NPT

PIPING PACKAGE SMARTCODE (ZONE)			UNION	MANUAL BALANCE VALVE**	STRAINER
Piping Package Model # (2-way Zone Valve) with long hose	Valve Nominal Size		Body End/ Tailpiece End	Body End/ Tailpiece End	Body End/ Tailpiece End
	Inches	DN [mm]			
PZ 111 1111 1111 2	½	15	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT
PZ 111 1211 1211 2	½	15	F-NPT/M-NPT	Sweat/M-NPT	Sweat/F-NPT
PZ 111 11B1 11B3 2*	½	15	F-NPT/M-NPT	Press/M-NPT	Press/F-NPT
PZ 211 2111 2111 4	¾	20	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT
PZ 211 2211 2211 4	¾	20	F-NPT/M-NPT	Sweat/M-NPT	Sweat/F-NPT
PZ 211 21B1 21B3 4*	¾	20	F-NPT/M-NPT	Press/M-NPT	Press/F-NPT
PZ 311 3114 3111 6	1	25	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT
PZ 311 3214 3211 6	1	25	F-NPT/M-NPT	Sweat/M-NPT	Sweat/F-NPT
PZ 311 31B4 31B3 6*	1	25	F-NPT/M-NPT	Press/M-NPT	Press/F-NPT

All combinations of reorder numbers are not reflected above. Please use the nomenclature or contact customer service for assistance with other configurations.

** Manual Balance Valve require flow consideration for proper selection. Reference 18-1 or Select-Pro for flow ranges.

Please Note: For return policy, refer to Piping Package section in Terms and Conditions.

* Contains Non-Standard Items

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PIPING PACKAGES