

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.

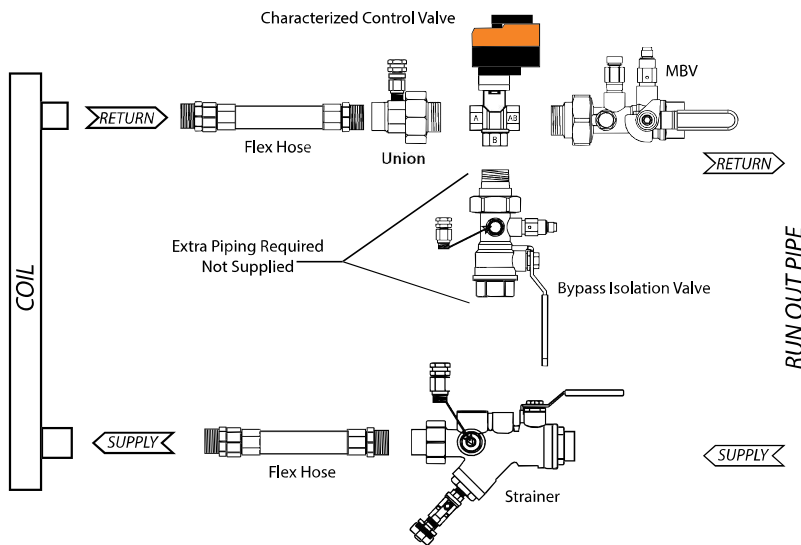
Non-Standard items include:

- 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.

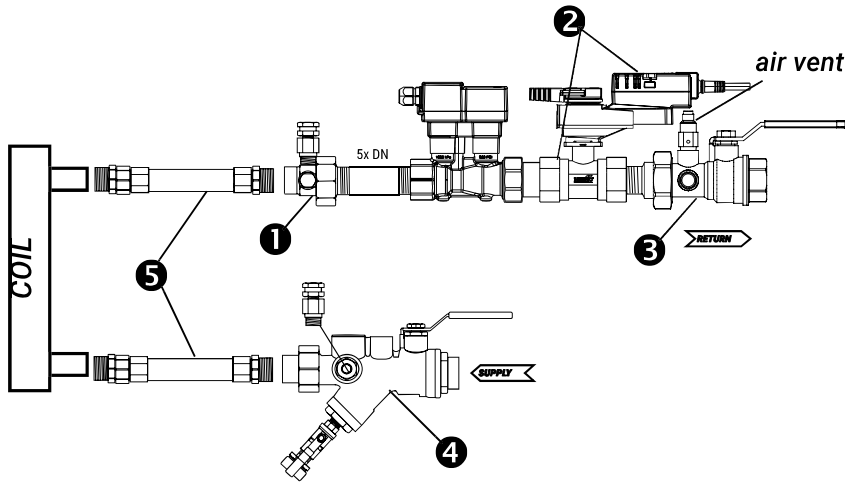
Please Note: For return policy, refer to Piping Package section in Terms and Conditions.

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Piping Packages for 2-way Electronic Pressure Independent Valves (EPIV) and Energy Valves (EV)



PIPING PACKAGES



2-way EPIV/EV (1/2...2") Return Side Package (Standard)

- ❶ Union with integral 5 X DN tail
- ❷ Belimo Valve and Actuator (Not included in Smart Code or List Price)
- ❸ Isolation Valve
- ❹ Strainer or Isolation Valve (Strainer shown)
- 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.



5-year warranty

Union Technical Specifications

Fluid	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 with red brass tail extension
O-ring	EPDM
Readout port body & cap	extruded brass
Readout port seal	Nordel
Pressure/temperature ratings:	
1/2...2"	600 psi
Component temperature	250°F maximum
Fluid temperature range	14...250°F [-10...120°C] 39°F [4°C] on P2200S-1000/ EV200S-1000

Isolation Valve Technical Specifications

Fluid	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...3/4"	600 psi
1...2"	500 psi
Component temperature	300°F maximum
Fluid temperature range	14...250°F [-10...120°C] 39°F [4°C] on P2200S-1000/ EV200S-1000
Leakage	0%

Strainer Technical Specifications

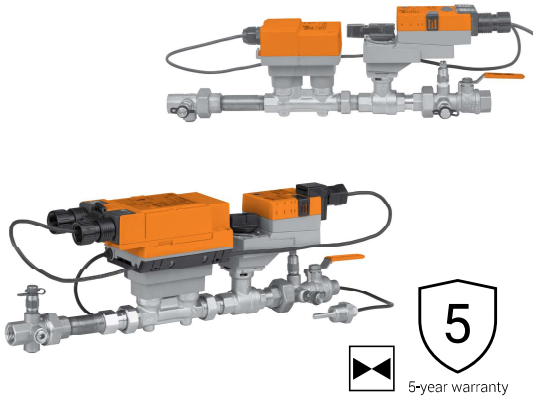
Fluid	chilled or hot water, 60% glycol
Sizes	1/2", 3/4", 1", 1 1/4", 1 1/2", 2"
Materials:	
Body	forged brass
Union nut	forged brass
Ball	chrome plated/forged brass
Stem & gland nut	forged brass
Tailpiece	forged brass
Seals & packing	PTFE
Stem o-rings	Viton
Strainer screen	304 stainless steel /20 mesh standard
Readout port body & cap	extruded brass
Readout port seal	Nordel
Pressure/temperature ratings:	
1/2...2"	600 psi
Component temperature	325°F maximum
Fluid temperature range	14...250°F [-10...120°C] 39°F [4°C] on P2200S-1000/ EV200S-1000
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 *400 psi <195°F [90°C] 1500 psi burst pressure
3/4"	300 psi operating *400 psi <195°F [90°C] 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 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

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COMPONENT ORDER NOMENCLATURE

EXAMPLE: PE	21C	2110	2111	3
	Union PPU21C	Isolation PPV2110	Strainer PPS2111	Hose PHOSE3


UNION WITH 5X DN TAIL

Nominal Size	Part Number	LIST PRICE
½"	PPU11C	\$115
¾"	PPU21C	\$148
1"	PPU31C	\$202
1¼"	PPUB1C	\$326
1½"	PPUA1C	\$429
2"	PPUC1C	\$633

Note: EV/EPIV hybrid unions currently available in F-NPT, no size reduction.
All combinations of reorder numbers are not reflected. Please contact customer service or download the SelectPro software at www.belimo.us to configure other possible combinations.

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

* Contains Non-Standard Items

PIPING PACKAGE SMARTCODE (EPIV/EV)			UNION	ISOLATION VALVE	STRAINER
Piping Package Part # (2-way EPIV/EV) without hose	Valve Nominal Size		Body End/ Tailpiece End	Body End/ Tailpiece End	Body End/ Tailpiece End
	Inches	DN [mm]			
PE 11C 1110 1111 0	½	15	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT
PE 11C 1210 1212 0	½	15	F-NPT/M-NPT	Sweat/M-NPT	Sweat/Sweat
PE 11C 11B0 11B3 0*	½	15	F-NPT/M-NPT	Press/M-NPT	Press/F-NPT
PE 21C 2110 2111 0	¾	20	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT
PE 21C 2210 2212 0	¾	20	F-NPT/M-NPT	Sweat/M-NPT	Sweat/Sweat
PE 21C 21B0 21B3 0*	¾	20	F-NPT/M-NPT	Press/M-NPT	Press/F-NPT
PE 31C 3110 3111 0	1	25	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT
PE 31C 3210 3212 0	1	25	F-NPT/M-NPT	Sweat/M-NPT	Sweat/Sweat
PE 31C 31B0 21B3 0*	1	25	F-NPT/M-NPT	Press/M-NPT	Press/F-NPT
PE B1C B110 B111 0*	1¼	32	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT
PE B1C B210 B212 0*	1¼	32	F-NPT/M-NPT	Sweat/M-NPT	Sweat/Sweat
PE B1C B1B0 B1B3 0*	1¼	32	F-NPT/M-NPT	Press/M-NPT	Press/F-NPT
PE A1C A110 A111 0*	1½	40	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT
PE A1C A210 A212 0*	1½	40	F-NPT/M-NPT	Sweat/M-NPT	Sweat/Sweat
PE A1C A1B0 A1B3 0*	1½	40	F-NPT/M-NPT	Press/M-NPT	Press/F-NPT
PE C1C C110 C111 0*	2	50	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT
PE C1C C210 C212 0*	2	50	F-NPT/M-NPT	Sweat/M-NPT	Sweat/Sweat
PE C1C C1B0 C1B3 0*	2	50	F-NPT/M-NPT	Press/M-NPT	Press/F-NPT

PIPING PACKAGE SMARTCODE (EPIV/EV)			UNION	ISOLATION VALVE	STRAINER
Piping Package Part # (2-way EPIV/EV) with short hose	Valve Nominal Size		Body End/ Tailpiece End	Body End/ Tailpiece End	Body End/ Tailpiece End
	Inches	DN [mm]			
PE 11C 1110 1111 1	½	15	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT
PE 11C 1210 1211 1	½	15	F-NPT/M-NPT	Sweat/M-NPT	Sweat/F-NPT
PE 11C 11B0 11B3 1*	½	15	F-NPT/M-NPT	Press/M-NPT	Press/F-NPT
PE 21C 2110 2111 3	¾	20	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT
PE 21C 2210 2211 3	¾	20	F-NPT/M-NPT	Sweat/M-NPT	Sweat/F-NPT
PE 21C 21B0 21B3 3*	¾	20	F-NPT/M-NPT	Press/M-NPT	Press/F-NPT
PE 31C 3110 3111 5	1	25	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT
PE 31C 3210 3211 5	1	25	F-NPT/M-NPT	Sweat/M-NPT	Sweat/F-NPT
PE 31C 31B0 31B3 5*	1	25	F-NPT/M-NPT	Press/M-NPT	Press/F-NPT
PE B1C B110 B111 A*	1¼	32	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT
PE B1C B210 B211 A*	1¼	32	F-NPT/M-NPT	Sweat/M-NPT	Sweat/Sweat
PE B1C B1B0 B1B3 A*	1¼	32	F-NPT/M-NPT	Press/M-NPT	Press/F-NPT
PE A1C A110 A111 C*	1½	40	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT
PE A1C A210 A211 C*	1½	40	F-NPT/M-NPT	Sweat/M-NPT	Sweat/Sweat
PE A1C A1B0 A1B3 C*	1½	40	F-NPT/M-NPT	Press/M-NPT	Press/F-NPT
PE C1C C110 C111 F*	2	50	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT
PE C1C C210 C211 F*	2	50	F-NPT/M-NPT	Sweat/M-NPT	Sweat/Sweat
PE C1C C1B0 C1B3 F*	2	50	F-NPT/M-NPT	Press/M-NPT	Press/F-NPT

PIPING PACKAGE SMARTCODE (EPIV/EV)			UNION	ISOLATION VALVE	STRAINER
Piping Package Part # (2-way EPIV/EV) with long hose	Valve Nominal Size		Body End/ Tailpiece End	Body End/ Tailpiece End	Body End/ Tailpiece End
	Inches	DN [mm]			
PE 11C 1110 1111 2	½	15	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT
PE 11C 1210 1211 2	½	15	F-NPT/M-NPT	Sweat/M-NPT	Sweat/F-NPT
PE 11C 11B0 11B3 2*	½	15	F-NPT/M-NPT	Press/M-NPT	Press/F-NPT
PE 21C 2110 2111 4	¾	20	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT
PE 21C 2210 2211 4	¾	20	F-NPT/M-NPT	Sweat/M-NPT	Sweat/F-NPT
PE 21C 21B0 21B3 4*	¾	20	F-NPT/M-NPT	Press/M-NPT	Press/F-NPT
PE 31C 3110 3111 6	1	25	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT
PE 31C 3210 3211 6	1	25	F-NPT/M-NPT	Sweat/M-NPT	Sweat/F-NPT
PE 31C 31B0 31B3 6*	1	25	F-NPT/M-NPT	Press/M-NPT	Press/F-NPT
PE B1C B110 B111 B*	1¼	32	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT
PE B1C B210 B211 B*	1¼	32	F-NPT/M-NPT	Sweat/M-NPT	Sweat/Sweat
PE B1C B1B0 B1B3 B*	1¼	32	F-NPT/M-NPT	Press/M-NPT	Press/F-NPT
PE A1C A110 A111 E*	1½	40	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT
PE A1C A210 A211 E*	1½	40	F-NPT/M-NPT	Sweat/M-NPT	Sweat/Sweat
PE A1C A1B0 A1B3 E*	1½	40	F-NPT/M-NPT	Press/M-NPT	Press/F-NPT
PE C1C C110 C111 G*	2	50	F-NPT/M-NPT	F-NPT/M-NPT	F-NPT/F-NPT
PE C1C C210 C211 G*	2	50	F-NPT/M-NPT	Sweat/M-NPT	Sweat/Sweat
PE C1C C1B0 C1B3 G*	2	50	F-NPT/M-NPT	Press/M-NPT	Press/F-NPT