



14

POTABLE WATER VALVES**Certified, Safe and Maintenance Free**

- Lead-free to NSF/ANSI 61 by the methods prescribed in NSF/ANSI 372 to ensure customer safety.
- Zero leakage preventing energy loss, reducing operating costs.
- Ideal for domestic water applications.
- Available with press fit connections for easy field assembly and installation.

Jamell Scott, Technical Support Representative

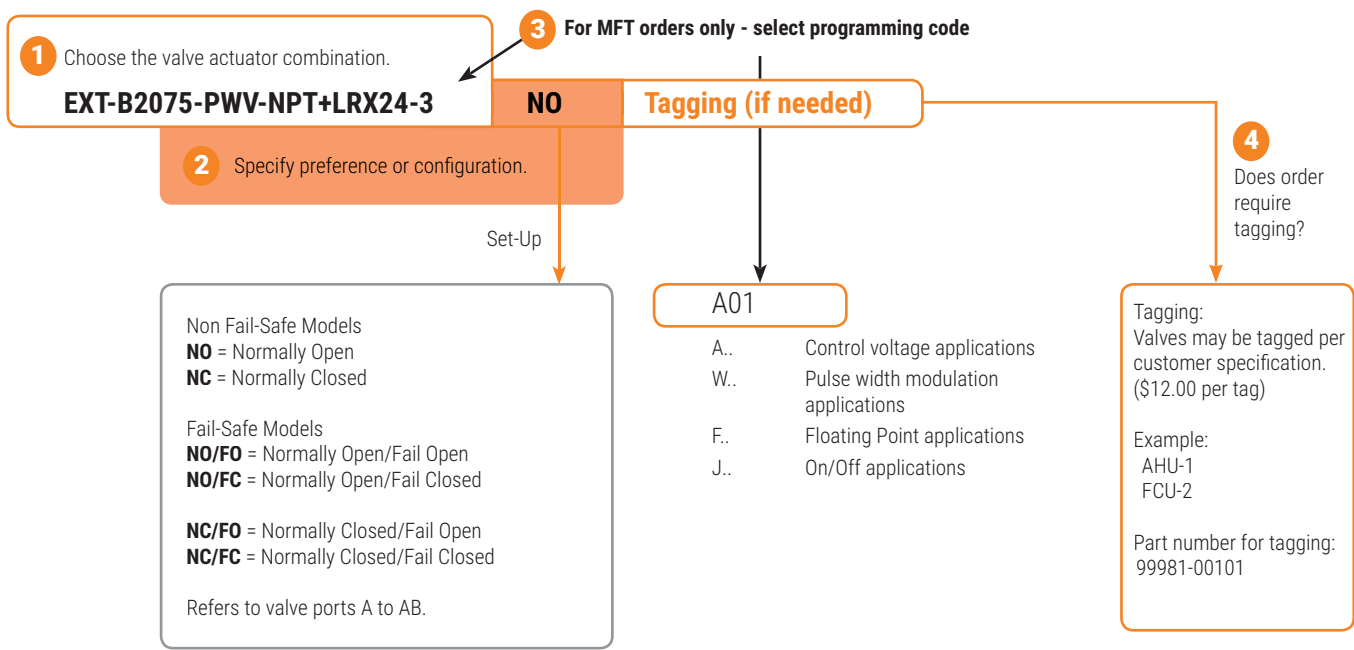
Potable Water Valve Nomenclature

EXT-B2	075	-PWV	-NPT	+LRX	24	-3		
Valve EXT-B2 = 2-way (½...1") EXT-LD141 = 2-way Flanged (2...6")	Valve Size 50...100 = ½...1" 02...06 = 2...6" (Flanged)	Potable Water Valve	Connection NPT PF (Press Fit)	Actuator Type Non Fail-Safe CQB, CQX LRB, LRX GR, DR, AMB, AMX GMB, GMX Fail-Safe Spring Return AF, LF Electronic Fail-Safe CQKB,CQKX GKX, DKRX	Power Supply 24 = AC/DC 24 V 120 = AC 120 V 230 = AC 230 V UP = AC 24...240 V or DC 24...125 V	Control -3 = On/Off, Floating Point	Direction of Rotation* -LL = Normally Open, Fail Open -RR = Normally Close, Fail Close	N4 = NEMA 4X -T = Terminal Block

"X" models are customizable.
Refer to page 12-4 for programming options.

*For ½" CQ Actuators only

Ordering Example



Potable Water Valve Product Range

Ball Valves

	Valve Nominal Size			Type	Suitable Actuators	
	C _v	Inches	DN [mm]		Non Fail-Safe	Fail-Safe
NPT	32	½	15	EXT-B2050-PWV-NPT	CQ	CQK
	49	¾	20	EXT-B2075-PWV-NPT	LR Series	LF Series
	81	1	25	EXT-B2100-PWV-NPT	LR Series	LF Series
Press Fit	32	½	15	EXT-B2050-PWV-PF	CQ	CQK
	49	¾	20	EXT-B2075-PWV-PF	LR Series	LF Series
	81	1	25	EXT-B2100-PWV-PF	LR Series	LF Series



Mode of Operation

The potable water valve is operated by a rotary actuator. The actuator is controlled by standard voltage for on/off or floating point control system which move the ball of the valve to the position dictated by the control system.

Butterfly Valves

		Valve Nominal Size		Type	Suitable Actuators			
C _v @ 90°	C _v @ 60°	Inches	DN [mm]		Non Fail-Safe	Fail-Safe	N4	
115	44	2	50	EXT-LD14102BE1AX	AM Series	AF Series	GR Series	GK Series
196	75	2½	65	EXT-LD14125BE1AX	AM Series	AF Series	GR Series	GK Series
302	116	3	80	EXT-LD14103BE1AX	GM	GK	GR Series	GK Series
600	230	4	100	EXT-LD14104BE1AX	DR Series	DK Series	DR Series	DK Series
1022	392	5	125	EXT-LD14105BE1AX	DR Series	DK Series	DR Series	DK Series
1579	605	6	150	EXT-LD14106BE1AX	DR Series	DK Series	DR Series	DK Series

Product Features

NSF/ANSI 61 - Water Quality
NSF/ANSI 372 - Lead Free

Actuator Specifications

Control type	on/off, floating point
Manual override	LR, AM, AF, GM, GR, GK, DR, DK series
Electrical connection	3 ft. [1 m] cable with ½" conduit fitting, terminal block

Valve Specifications

Fluid	potable water
Flow characteristic	full port
Sizes	½", ¾", 1", 2", 2½", 3", 4", 5", 6"
End fittings	
Ball Valve	NPT female, press fit
Butterfly Valve	for ASME/ANSI Class 125/150 flange

Materials - Ball Valve

Body	lead free brass
Characterizing ball	chrome plated lead free brass
Stem	lead free brass
Seats	PTFE
O-rings	EPDM

Materials - Butterfly Valve

Body	ductile iron ASTM A536
Body Finish	black epoxy powder coating
Disc	aluminum bronze
Shaft	416 stainless steel
Seat	EPDM
O-ring	Buna-N
Bushings	RPTFE

Fluid temp. range	
Ball Valves	-4...212°F [-20...100°C]
Butterfly Valves	-20...250°F [-32...120°C]

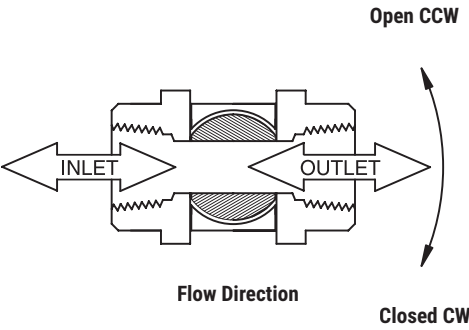
Body pressure rating	NPT, 600 psi press fit, 250 psi flanged, 200 psi
Close-off pressure	200 psid

Maximum operating pressure	
Ball Valve	230 psi
Butterfly Valve	200 psi
Leakage	0%

Dead end service	
Butterfly Valves	bidirectional approved

FLOW PATTERN

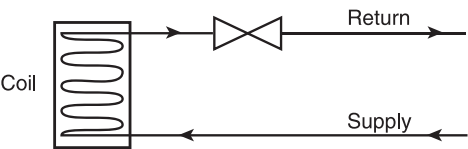
EXT-B2....-PWV



PIPING DIAGRAMS

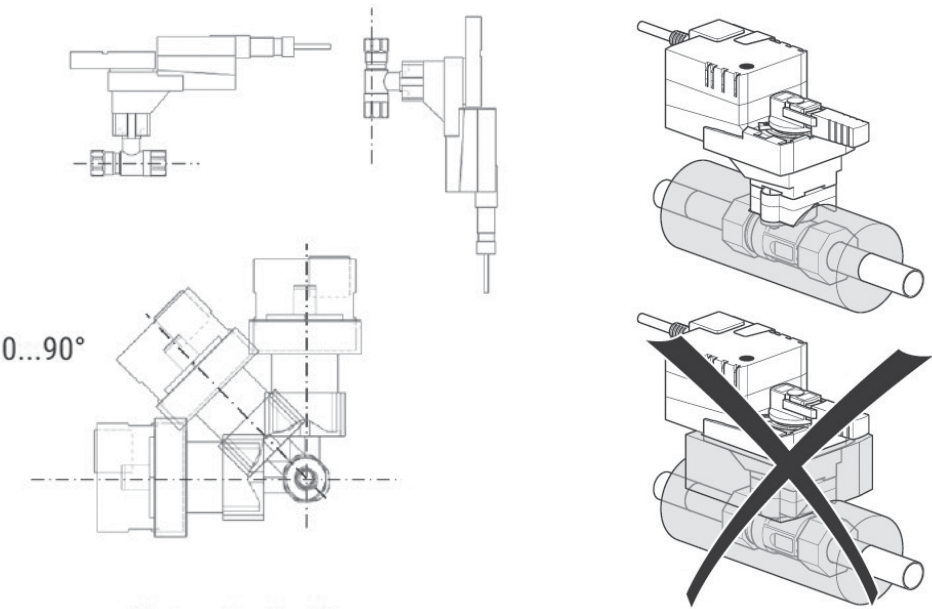
Water Application

2-way Valve Piping Diagram



PIPING/MOUNTING ORIENTATION

Assembly can be mounted horizontally or vertically for water applications. When mounted horizontally, the valve must be 0...90° off center of the pipe. Do not install with actuator below pipe.



Water Applications

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All prices are in US Dollars (USD)

SET-UP - Specify Upon Ordering

2-WAY VALVES

NON FAIL-SAFE Stays in Last Position	CQB(X)UP-3	On/Off: Power to brown wire (pin 2) will drive valve CW (closed). Power to brown wire (pin 2) and white wire (pin 3) will drive valve CCW (open).	Floating: Power to brown wire (pin 2) will drive valve CW (closed). Power to white wire (pin 3) will drive valve CCW (open).
	CQB(X)24-3	On/Off: Power to red wire (pin 2) will drive valve CW (closed). Power to red wire (pin 2) and white wire (pin 3) will drive valve CCW (open).	Floating: Power to red wire (pin 2) will drive valve CW (closed). Power to white wire (pin 3) will drive valve CCW (open).
	LRB24-3, AMX24-3-X1, GMX24-3-X1, GRCX24-3-T, DRCX24-3-T	Power to pin 2 will drive valve CW. Power to pin 3 will drive valve CCW. The above will function when the directional switch is in the "1" position to reverse, select the "0" position.	
FAIL-SAFE Note Fail Position	CQKB(X)24 CQKB(X)24-S CQKB(X)UP	CQKB24-LL, CQKB24-S-LL, CQKBUP-LL: Normally open CCW, valve will drive closed when energized. Fail-Safe Action: Actuator will fail open CCW upon power loss.	CQKB24-RR, CQKB24-S-RR, CQKBUP-RR: Normally closed CW, valve will drive open when energized. Fail-Safe Action: Actuator will fail closed CW upon power loss.
	LF24-3 US, AFX24-X1, GKB24-3-X1, GKRX24-3, DKRX24-3-T	NC/FO: Normally closed A to AB, valve will open as voltage increases. Actuator switch on CW. Spring Action: Will fail open upon power loss.	NC/FC: Normally closed A to AB, valve will open as voltage increases. Actuator switch on CW. Spring Action: Will fail closed upon power loss.

EXT-B2...-PWV Potable Water Ball Valves with Non Fail-Safe and Fail-Safe Actuators

2-way Valves with Chrome Plated Lead Free Brass Ball and Stem



Valve Specifications

Fluid	potable water
Flow Characteristic	full port
Controllable Flow Range	75°
End Fitting	NPT female, press fit
Body	forged lead free brass
Ball	chrome plated lead free brass
Stem	lead free brass
Seat	PTFE
Fluid Temperature Limit	212°F [100°C]
Leakage	0%



ACTUATOR PART #	CQB24-3	LRB24-3
Control	On/Off, Floating Point	On/Off, Floating Point
Power Supply	AC/DC 24 V	AC/DC 24 V
Running Time (Motor)	70 seconds (0...90°)	90 seconds (0...90°)
Electrical Connection	3 ft, 18 GA plenum rated cable with ½" conduit connector	3 ft, 18 GA plenum rated cable with ½" conduit connector

2-Way NPT and Press Fit

Model #	Cv	Size [mm]	Body Pressure Rating	Close-Off Pressure [psid]		
EXT-B2050-PWV-NPT	32	½" [15]	600 psi CWP	200	\$357	
EXT-B2075-PWV-NPT	49	¾" [20]		200		\$465
EXT-B2100-PWV-NPT	81	1" [25]		200		\$559
EXT-B2050-PWV-PF*	32	½" [15]	250 psi CWP	200	\$425	
EXT-B2075-PWV-PF*	49	¾" [20]		200		\$553
EXT-B2100-PWV-PF*	81	1" [25]		200		\$665

*Valves with press fit connections.



ACTUATOR PART #	CQKB24-LL	CQKB24-RR	CQKBUP-LL	CQKBUP-RR	LF24-3 US
Control	On/Off	On/Off	On/Off	On/Off	On/Off, Floating Point
Power Supply	AC/DC 24 V	AC/DC 24 V	AC 100...230 V	AC 100...230 V	AC/DC 24 V
Set-Up	NO/FO	NC/FC	NO/FO	NC/FC	
Running Time (Motor)	75 seconds (0...90°)	75 seconds (0...90°)	75 seconds (0...90°)	75 seconds (0...90°)	150 seconds (0...90°)
Running Time (Fail-Safe)	60 seconds	60 seconds	60 seconds	60 seconds	<25 seconds
Electrical Connection	3 ft, 18 GA plenum cable with ½" conduit connector	3 ft, 18 GA plenum cable with ½" conduit connector	3 ft, 18 GA plenum cable with ½" conduit connector	3 ft, 18 GA plenum cable with ½" conduit connector	3 ft, 18 GA plenum cable with ½" conduit connector

2-Way NPT and Press Fit

Model #	Cv	Size [mm]	Body Pressure Rating	Close-Off Pressure [psid]	*Valves with press fit connections.				
EXT-B2050-PWV-NPT	32	½" [15]	600 psi CWP	200	\$357	\$357	\$380	\$380	
EXT-B2075-PWV-NPT	49	¾" [20]		200					\$707
EXT-B2100-PWV-NPT	81	1" [25]		200					\$800
EXT-B2050-PWV-PF*	32	½" [15]	250 psi CWP	200	\$425	\$425	\$452	\$452	
EXT-B2075-PWV-PF*	49	¾" [20]		200					\$840
EXT-B2100-PWV-PF*	81	1" [25]		200					\$953

800-543-9038 USA

866-805-7089 CANADA

203-791-8396 LATIN AMERICA/CARIBBEAN

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All prices are in US Dollars (USD)

Valve Specifications

Fluid	chilled or hot water, potable
Flow Characteristic	F6- modified equal percentage
End Fitting	for use with ANSI Class 125/150 flanges
Body	ductile iron ASTM A536
Body Finish	black epoxy powder coating
Disc	aluminum bronze
Shaft	416 stainless steel
Seat	EPDM
O-ring	Buna-N
Bushings	RPTFE
Fluid Temperature Range (Water)	-20...+250°F [-32...+120°C]
Rangeability	30:1
Maximum Velocity	12 FPS
Dead End Service	bidirectional approved



ACTUATOR PART #	AMX24-3-X1	GMX24-3-X1	DRCX24-3-T	AFX24-X1	GKB24-3-X1	DKRX24-3-T
Control	On/Off, Floating Point	On/Off, Floating Point	On/Off or Floating Point*	On/Off	On/Off, Floating Point	On/Off, Floating Point
Manual Override	.	.	.	.	.	.
Running Time (Motor)	90 seconds	150 seconds	35 seconds	75 seconds	150 seconds	150 seconds
Running Time (Fail-Safe)				20 seconds	35 seconds	35 seconds
Fail-Safe				.	.	.
Electrical Connection	3 ft, 18 GA plenum rated cable with ½" conduit connector	3 ft, 18 GA plenum rated cable with ½" conduit connector	terminal block	3 ft, 18 GA appliance cable with ½" conduit connector	3 ft, 18 GA appliance cable with ½" conduit connector	terminal block

2-Way Full Rated Disc

Model #	Cv 90°	Cv 60°	Size [mm]	Body Pressure Rating	Close-Off Pressure [psid]					
EXT-LD14102BE1AX	115	44	2" [50]	200 psi CWP	200	\$999			\$1,246	
EXT-LD14125BE1AX	196	75	2½" [65]		200	\$1,051			\$1,298	
EXT-LD14103BE1AX	302	116	3" [80]		200		\$1,360			\$1,906
EXT-LD14104BE1AX	600	230	4" [100]		200			\$1,519		\$2,009
EXT-LD14105BE1AX	1022	392	5" [125]		200			\$1,640		\$2,929
EXT-LD14106BE1AX	1579	605	6" [150]		200			\$1,803		\$3,219

*Must select On/Off OR Floating Point at time of ordering, not field changeable.

EXT-LD.....BE1AX Potable Water Butterfly Valves with NEMA 4X Non Fail-Safe and Fail-Safe Actuators

2-way Valves, Standard (Full Rated) Disc

Valve Specifications

Fluid	chilled or hot water, potable
Flow Characteristic	F6- modified equal percentage
End Fitting	for use with ANSI Class 125/150 flanges
Body	ductile iron ASTM A536
Body Finish	black epoxy powder coating
Disc	aluminum bronze
Shaft	416 stainless steel
Seat	EPDM
O-ring	Buna-N
Bushings	RPTFE
Fluid Temperature Range (Water)	-20...+250°F [-32...+120°C]
Rangeability	30:1
Maximum Velocity	12 FPS
Dead End Service	bidirectional approved



ACTUATOR PART #	GRCX24-3-T N4*	DRCX24-3-T N4*	GKRX24-3 N4*	DKRX24-3-T N4*
Control	On/Off or Floating Point*	On/Off or Floating Point*	On/Off, Floating Point	On/Off, Floating Point
Manual Override	.	.	.	.
Running Time (Motor)	35 seconds	35 seconds	90 seconds	90 seconds
Running Time (Fail-Safe)			35 seconds	35 seconds
Fail-Safe			.	.
Electrical Connection	terminal block	terminal block	3 ft, 18 GA plenum rated cable with ½" conduit connector	terminal block

2-Way Full Rated Disc

Model #	Cv 90°	Cv 60°	Size [mm]	Body Pressure Rating	Close-Off Pressure [psid]			
EXT-LD14102BE1AX	115	44	2" [50]	200 psi CWP	200	\$1,650		\$2,700
EXT-LD14125BE1AX	196	75	2½" [65]		200	\$1,700		\$2,750
EXT-LD14103BE1AX	302	116	3" [80]		200	\$1,860		\$2,906
EXT-LD14104BE1AX	600	230	4" [100]		200		\$2,860	\$3,009
EXT-LD14105BE1AX	1022	392	5" [125]		200		\$3,140	\$3,929
EXT-LD14106BE1AX	1579	605	6" [100]		200		\$3,303	\$4,219

*Heater option for NEMA 4X products has a list price adder of \$500. Please specify when ordering.
*Must select On/Off OR Floating Point at time of ordering, not field changeable.