

Actuated Dry Pipe Valve

Presentational Literature for ECO200V –
ECO600V Vertical Dry Pipe Valves



Patent Pending

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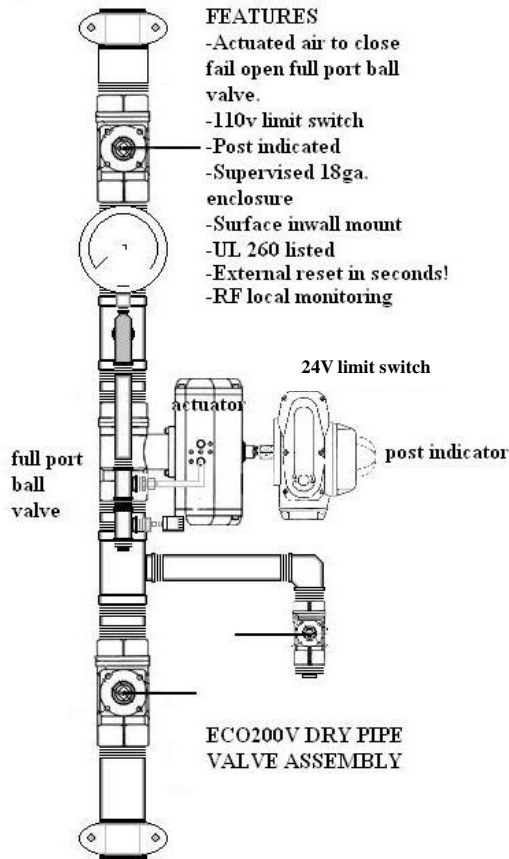
Michigan • Colorado



Actuated Dry Pipe Valve ECO200V – ECO600V



FEATURES



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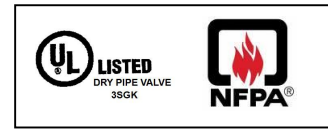
Product Description

Model ECO200V – ECO600V is a dry pipe valve for NFPA 13, 13R, 13D and NFPA 15 metallic and non-metallic systems. It utilizes a direct actuated air to close, fail open ball valve used to separate the water supply from the dry pipe sprinkler system or system zone. The valve incorporates a low pressure air to close, fail open actuator with minimum operational pressure differential. The ball valve provides 100% closure of water to the system with most common pressure ratings up to 600 psi. The low differential design (10% of set point) allows for accelerated valve activation times. The positive closure ball valve is unaffected by water pressure spikes, water hammer and water pressure fluctuations. Air pressure loss on the fire suppression system side +/- 10% will initiate a single reaction of the ball valve to allow for the immediate entry of water into the system. The actuator is designed and integrates a post indicated 24 Volt limit switch which can be connected to building monitoring systems, lights and/or alarms. Assembly incorporates a single two point radiofrequency transducer and internal alarm panel for notification of pressure losses at 12.5% and 25% of initial set point. The valve is designed to be mounted in a vertical or horizontal position so as to reduce friction and head loss to an absolute minimum. The assembly can be used as a standalone device or as an extension to the wet system. Components certifications include UL, FM, CSA and ISO9001. Common sizes are available from 3/4" to 6".

JOB/OWNER	CONTRACTOR	ENGINEER
System No. _____	Submitted By _____	Spec Sect _____
Location _____	Date _____	Approved _____ Date _____



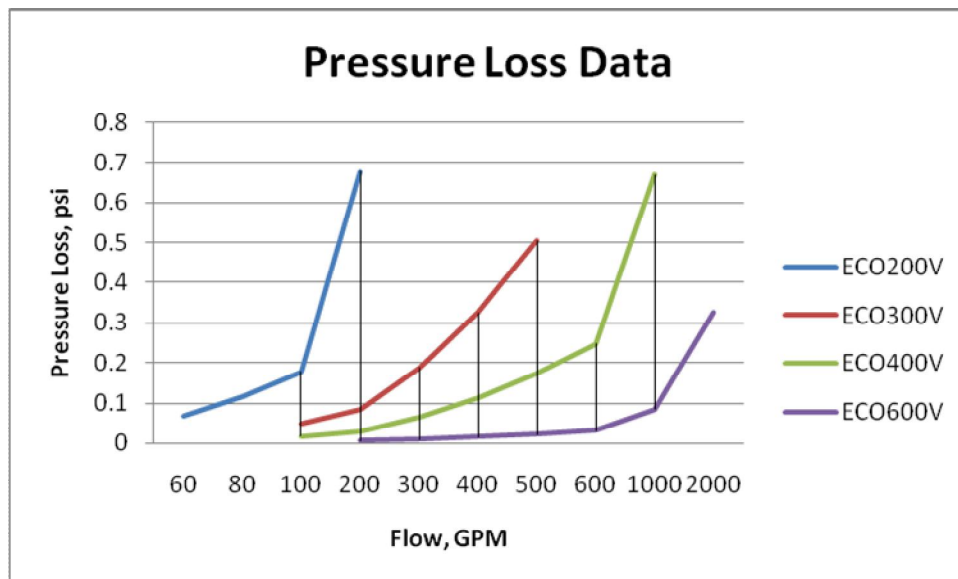
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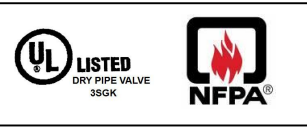
PERFORMANCE

Model	Pressure Loss									
	psi									
ECO200V	0.067	0.115	0.177	0.678						
ECO300V			0.049	0.085	0.187	0.326	0.505			
ECO400V			0.017	0.03	0.65	0.113	0.173	0.247	0.671	
ECO600V				0.006	0.009	0.015	0.022	0.032	0.084	0.325
Flow GPM	60	80	100	200	300	400	500	600	1000	2000

This data expresses the flow of water at 65 degrees Fahrenheit through a full open valve with straight line calculation of equivalent feet of straight pipe.



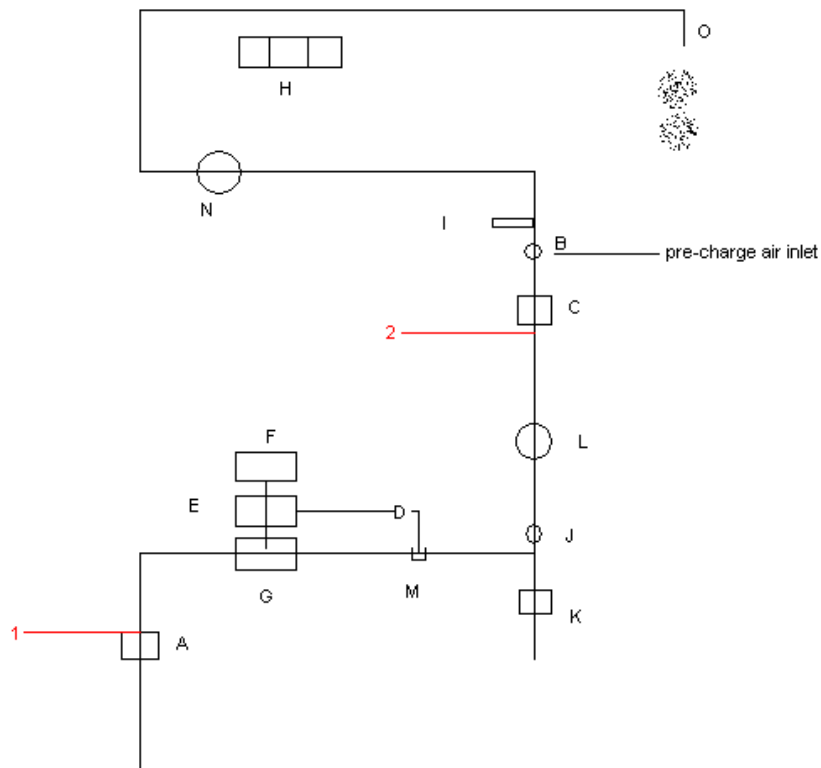
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OPERATION

The ECO Group P.S.I. Pneumatic Fire Valve schematic and sequence of operation.

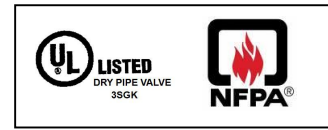
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KEY	SEQUENCE OF OPERATION
(1) municipal water inlet side	<p>In its readied position, control valve A and C is open, actuated ball valve G is closed. Air pressure was supplied to side 2 closing ball valve G via. actuator operation E through port M and supply line D. Limit switch F is activated and its post indicates "closed". Indicator lights H illuminate green.</p> <p>Optional rf transducer J sends information to digital controller which is installed at or near the common area of the dwelling which displays the static pressure.</p> <p>Optional pressure transducer I sends signal to remote dialer which sends information to web portal monitoring off site. Pressure gauges L & N read accordingly.</p> <p>Actuator can operate below or above 15 psi regardless of inlet water pressure. Less than 15 psi will be utilized for non metallic piping arrangements.</p> <p>When tripped, sprinkler O is fused, air pressure is rapidly released (less than 15 seconds) through O. Transducers I & J send local and remote information. Transducer J trips audible rapid beeping at common area panel. Actuator E fails open turning ball valve G to open, limit switch F activates audible alarm, and indicator lights H turn red. Water immediately flows from side 1 to side 2 to sprinkler O.</p> <p>NOTE: actuator air is released through tube D port M.</p>
(2) pneumatic pre charge air pressure side	
(A) system supervised control valve	
(B) schraeder valve air inlet	
(C) system supervised control valve	
(D) 1/8" actuator supply line	
(E) pneumatic actuator	
(F) limit switch	
(G) 600 wog actuated ball valve	
(H) system indicator lights	
(I) 8 point pressure transducer (remote web monitoring)	
(J) 2 point rf pressure transducer (local monitoring)	
(K) full port system drain/test valve	
(L) pressure gauge	
(M) actuator supply port	
(N) pressure gauge	
(O) sprinkler	



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STANDARD FEATURES

- 600 WOG full port brass ball valves npt threaded ends bubble tight shut off ISO9001 rating 600 psi pressure class with Teflon seats
- Spring return pneumatic actuator fail open design
- NEMA 4x limit switch with visual open/close dome indicator
- 2 point rf transducer
- Pressure monitor LED panel with alarm
- 5 year battery
- 18 ga. lockable enclosure with breakaway lock
- UL/FM 600 WOG shut off valves
- Ashcroft 0 – 300 gauge
- System drain valve

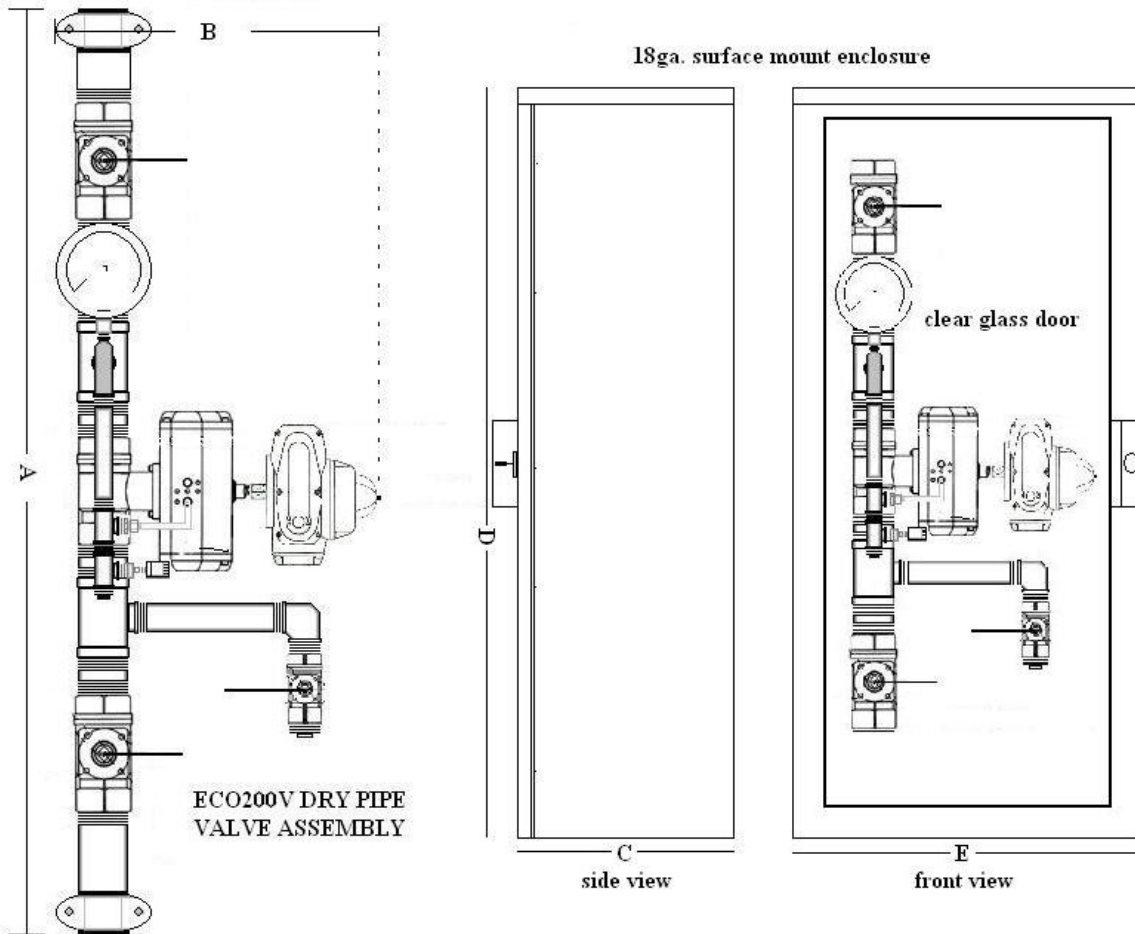
OPTIONAL EQUIPMENT

- 8 point transducer
- External compressor port
- Auto dialer
- Web based monitoring
- Piping configurations to accommodate field installation
- Inlet/Outlet connections grooved, threaded or brazed
- Manufactured options: copper, brass, black iron, stainless steel
- Supervised shut off valves

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DIMENSIONS



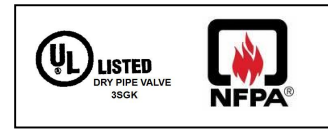
(enlarged for clarity)

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MODEL	A	B	C	D	E	NOTES
ECO200V	32 inches	14.25 inches	9.25 inches	28 inches	14.375 inches	<p>Models eco75s through 200s,v,ut,ub utilize same cabinet dimension</p> <p>Piping and fittings are black iron, sch.40 UL/FM threaded.</p> <p>Valves are UL/FM 600 wog threaded 2 piece ball type.</p> <p>System connections grooved*, threaded, flanged**, or welded.</p> <p>Grooved used on eco150 and larger.</p> <p>Flanged used on eco600 and larger.</p> <p>Cabinet surface mount all models. Inwall for models eco75 through eco200.</p> <p>Auto dialer and web based monitor equipment not shown.</p>



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APPLICATIONS

The ECO Group offers a broad range of innovative fire protection dry pipe valves designed to meet and exceed current markets in NFPA 13, 13R, 13D and NFPA 15 applications. Due to the speed of its single action operation, compact size and versatile piping arrangements The ECO Group can serve existing design applications and meet the need of future lean engineering designs.

The ECO Group is committed to quality and performance through a careful selection of component manufacturers. Each unit is assembled under the highest quality standards in concurrence and audited by Underwriters Laboratories.

The ECO Group provides prompt product delivery, integrated customer engineering and design support.

Whether you need a standalone dry pipe system or a zone type dry pipe system The ECO Group is committed to serve.



The ECO Group, Inc. manufacturing, Genesee County, Michigan

