



Automatic Control Valves





Zurn Engineered Water Solutions® is a recognized leader in commercial, municipal, and industrial markets, delivering sustainable building solutions for new construction and retrofit applications.

At Zurn we are committed to providing smart solutions that save both time and money. Our goal is serving the customer through innovation, continuous improvement, and assurance behind every installation.

Choose Zurn for a reliable, recognized manufacturer to supply your entire installation, from behind the wall rough-in, to finish trim product and fixture systems.

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Zurn Wilkins Value Proposition

Building Owner



- Zurn Wilkins automatic control valves offer the lowest total cost of ownership
- Products come standard with isolation valves, enabling inline service and maintenance
- Conserves water through superior performance over direct acting PRVs (regulators)

Engineer



- Specification under one part number with a standardized feature set
- Web-based Zurn tools simplify the specification process
- Full range of approvals from 1-1/4" to 10"
- Specify entire plumbing project using One Choice. One Zurn.

Contractor



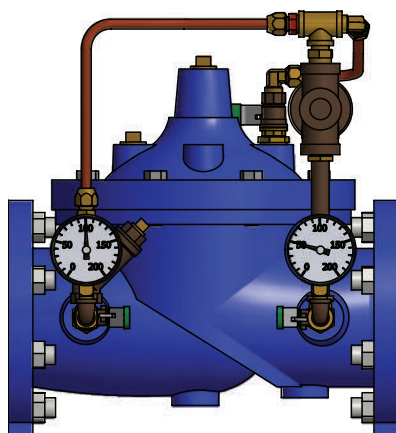
- Isolation valves and gauges come standard allowing for simple installation and maintenance (commissioning and service)
- Repair parts readily available
- Excellent customer and technical support and training

Distributor



- Best in industry lead time
- Bundle entire plumbing project using One Choice. One Zurn.
- Superior brand equity

Features and Benefits



Lead-Time:

Industry-leading lead-time

Standard Accessories:

Pressure Gauges, Isolation Valves, and Wye Strainers come standard

Approvals:

Full set of approvals up to 10"

ZurnSpec(SM):

Platform of online tools to assist in specification

Even Seal Closure:

Diaphragm assembly is guided top and bottom by a precision machined stem

Drip Tight Seal:

Rubber disc fully retained to provide a drip tight seal

Increased Diaphragm Life:

Fully supported diaphragm reduces fatigue

Ease of Repair:

O-ring stem seals for positive sealing

Epoxy Coating Standard:

Valves come standard with inside and outside NSF Listed epoxy coating, providing resistance to harsh water and environmental conditions

Lead Law Compliant:

Materials comply with Reduction of Lead in Drinking Water Act

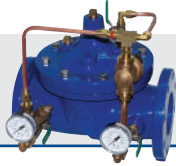
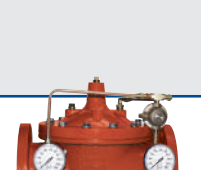
In-line Service:

Replaceable seat and internal components allow complete service without removal from the pipeline

Automatic Control Valve Function Matrix

Function	Product Description	Operational Characteristics
Pressure Reducing Valves	Pressure Reducing Valve	Designed to reduce a high inlet pressure to a lower downstream pressure.
	Pressure Reducing Valve with Low-flow By-pass	Designed to reduce a high inlet pressure to a lower downstream pressure, and is equipped with a direct acting PRV to handle very low flows from zero to 10 GPM.
	Pressure Reducing Valve with Solenoid Shut-Off	Designed to reduce a high inlet pressure to a lower downstream pressure, and can be closed electrically
	Pressure Reducing / Pressure Sustaining Valve	Designed to reduce a high inlet pressure to a lower downstream pressure, and maintain inlet pressure above a predetermined, user adjusted value.
	Pressure Reducing Valve with Downstream Surge Protection	Designed to reduce a high inlet pressure to a lower downstream pressure, and will provide quick closure should downstream demand rapidly decrease, thereby preventing surges in the downstream piping
Equipment Protection	Excess Pressure Shut-off Valve	Valve will close when downstream pressure exceeds a pre-set limit.
Automated Open/Close	Solenoid Operated Valve	Designed to open or close when the valve receives an electric signal.
Relief/Sustain	Pressure Relief / Pressure Sustaining Valve	Relieves excess pressure or maintains inlet pressure.
Level Control	Non-Modulating Float Valve	Controls the water level in a tank.
Fire Protection Systems	Fire Protection Pressure Reducing Valve	Designed to reduce a high inlet pressure to a lower downstream pressure in Fire Protection Systems.
	Fire Pump Pressure Relief Valve	Relieves excess pressure in a Fire Protection System
	Fire Protection Pump Suction Control	Maintains a minimum suction pressure to a Fire Protection Pump.
System/Pump Protection	Check Valve	Valve closes when downstream pressure exceeds upstream pressure.

Automatic Control Valve Function Matrix

Model #		Market Segments		
ZW209		Commercial, Education, Healthcare, Industrial, Irrigation, Penal, Retail, Waterworks		
ZW209BP		Commercial, Education, Healthcare, Irrigation, Penal, Retail		
ZW209E		Commercial, Education, Healthcare, Industrial, Irrigation, Penal, Waterworks		
ZW209H		Commercial, Education, Healthcare, Industrial, Penal, Waterworks		
ZW209Q		Commercial, Education, Healthcare, Industrial, Irrigation, Penal, Waterworks		
ZW207		Commercial, Education, Healthcare, Industrial, Irrigation, Penal, Retail, Waterworks		
ZW206		Commercial, Industrial, Irrigation, Penal, Waterworks		
ZW205		Commercial, Education, Industrial, Penal, Waterworks		
ZW204		Industrial, Irrigation, Waterworks		
ZW209FP		Fire Protection		
ZW205FP		Fire Protection		
ZW215FP		Fire Protection		
ZW218		Commercial, Industrial, Irrigation, Penal, Waterworks		



= Not for use in fire protection applications.

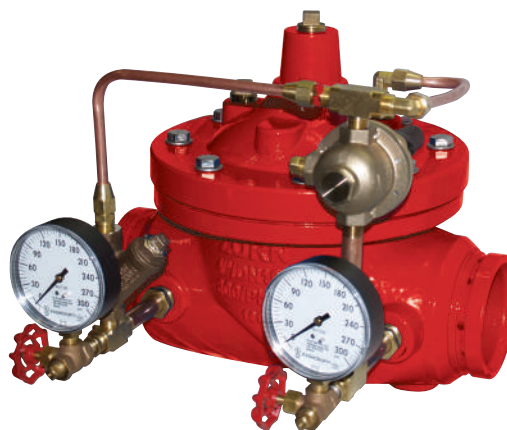


= Specifically designed for use in fire protection applications.

Specification Overview



Globe, Flanged
ZW209 Shown



Globe, Grooved
ZW209FPG Shown

GLOBE SIZES, END CONNECTIONS, STANDARDS, PRESSURE RATING

End Connections	ANSI Standard	Size Range	Pressure Rating
Threaded	ANSI B1.20.1	1-1/4" - 3"	400 psi
ANSI CLASS 150	ANSI B16.42; ANSI/AWWA C110/ A21.10	1-1/2" - 10"	250 psi
ANSI CLASS 300	ANSI B16.42	1-1/2" - 10"	400 psi
IPS Grooved ends	ANSI/AWWA C606	1-1/2" - 10"	300 psi

FUNCTIONAL DATA

Valve Size	Inches	1-1/4	1-1/2	2	2-1/2	3	4	6	8	10
	DN	32	40	50	65	80	100	150	200	250
CV Factor	GPM	24	27	55	80	130	200	460	830	1280
	Liters/Sec	5.8	6.5	13	19	31	48	110	200	308
Equivalent Length	Feet	38	65	55	63	70	116	170	206	270
	Meters	12	20	17	19	21	35	52	63	82
K Factor		5.6	8.2	5.4	5.2	4.7	5.9	5.7	5.3	5.5
Liquid Displaced from Diaphragm Chamber When Valve Opens	Gallons	0.02	0.02	0.04	0.06	0.09	0.16	0.52	1.29	2.31
	Liters	0.10	0.10	0.13	0.21	0.32	0.59	1.95	4.88	8.72

MATERIALS/INTERNALS

Main Valve Body	Ductile Iron ASTM A536
Main Valve Cover	Ductile Iron ASTM A536
Disc Guide	Bronze ASTM B 176
Seat	Bronze ASTM B 176
Disc	Buna-N Rubber
Diaphragm	Nylon Reinforced Buna-N
Stem	Stainless Steel
Spring	Stainless Steel

OPTIONS AND ACCESSORIES

Function Options

BP	Low-flow by-pass on ZW209 Pressure Reducing Valve
Q	Surge Control
E	Solenoid to add electrical shut-off to any valve
H	Add a pressure sustaining feature to main valve
R	Add a pressure reducing feature to main valve
C	Add a hydraulic check valve feature to main valve
L	Closing Speed Control
O	Opening Speed Control

Connection Options

G	IPS grooved connections
TH	NPT female threaded connections
	British threaded options available
Y	ANSI Class 300 flanges
	British and ISO flange connections available

Main Valve Options

SS	Stainless steel seat and internal trim
V	Viton rubber
Z	Visual position indicator

Pilot Options

See individual specs for pilot options with each model

OPERATING TEMPERATURE RANGE:

Water 33°F to 140°F



* Refer to www.zurn.com for updated information

Model ZW209 - Pressure Reducing Valve



TYPICAL APPLICATION

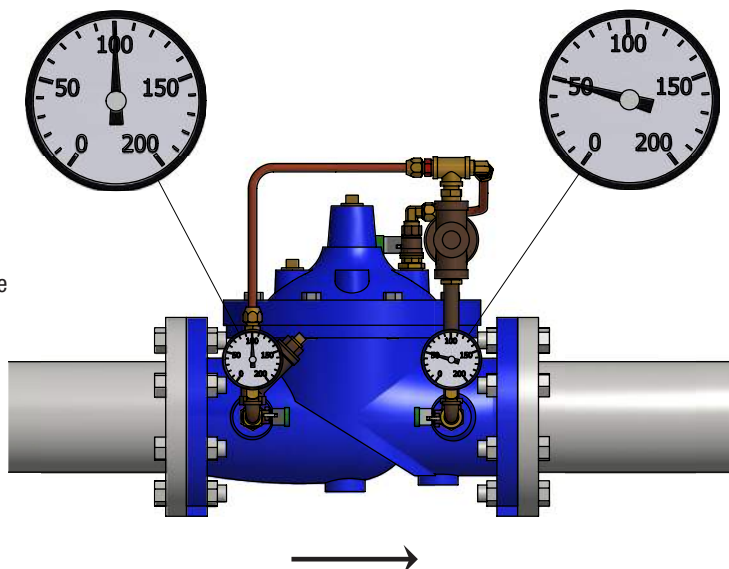
- ZW209 pilot operated pressure reducing valve is designed for applications where the reduction of high inlet pressures to a safe and stable outlet pressure is required
- The pilot assembly reacts to changes in downstream pressure, allowing the main valve to modulate, ensuring a constant downstream set pressure
- Pressure regulation is not dependent upon flow rate, resulting in minimal pressure loss through the valve
- Available with an optional checking feature

STANDARD EQUIPMENT

Wye Type Strainer
Opening Speed Control (sizes 1-1/4" thru 3")
Pilot Isolation Valves
Inlet and Outlet Pressure Gauges
Epoxy Coated
ANSI Class 150 Flanges

OPTIONS (add suffix letters to ZW209)

Function	Description
BP	with Low Flow By-Pass
Q	with Surge Control
E	Solenoid Shutoff
H	with Pressure Sustaining
Connections	
G	IPS Grooved
TH	NPT Threaded
Y	ANSI Class 300 Flanges
Main Options	
SS	Stainless Steel Seat/Retainer/Cover Guide
V	Viton Rubber Internals
Z	Visual Position Indicator
Pilot System	
HP	30-300 psi High Pressure Range
PV-PRD	Pilot (Replaces NR3)
ST	Stainless Tubing and Fittings
RV	Pilot Installed on Reverse Side
GL	With Liquid Filled Gauge(s)
* The closing speed control (optional) on this valve should always be open at least three full turns off its seat.	



OPERATING TEMPERATURE RANGE

Water 33°F to 140°F

PILOT SPRING RANGES

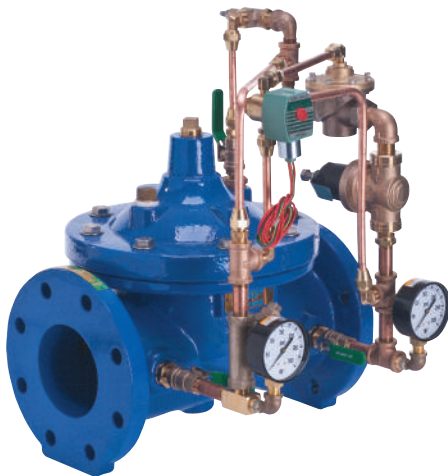
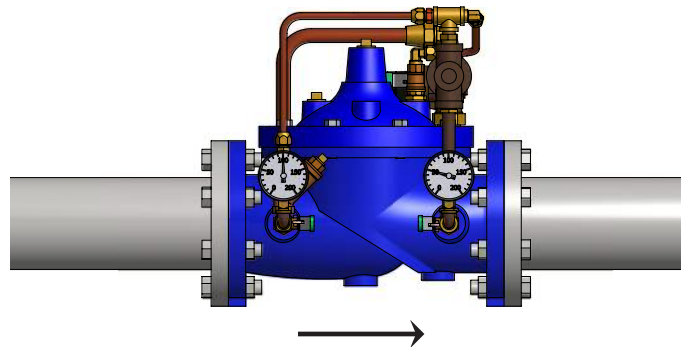
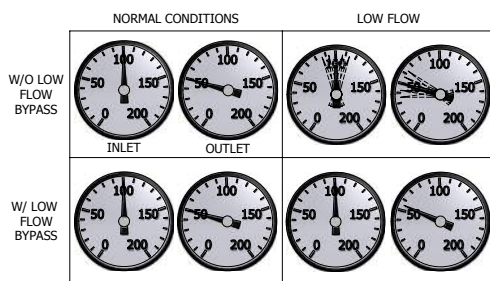
15-150 psi standard
30-300 also available

* Refer to www.zurn.com for updated information



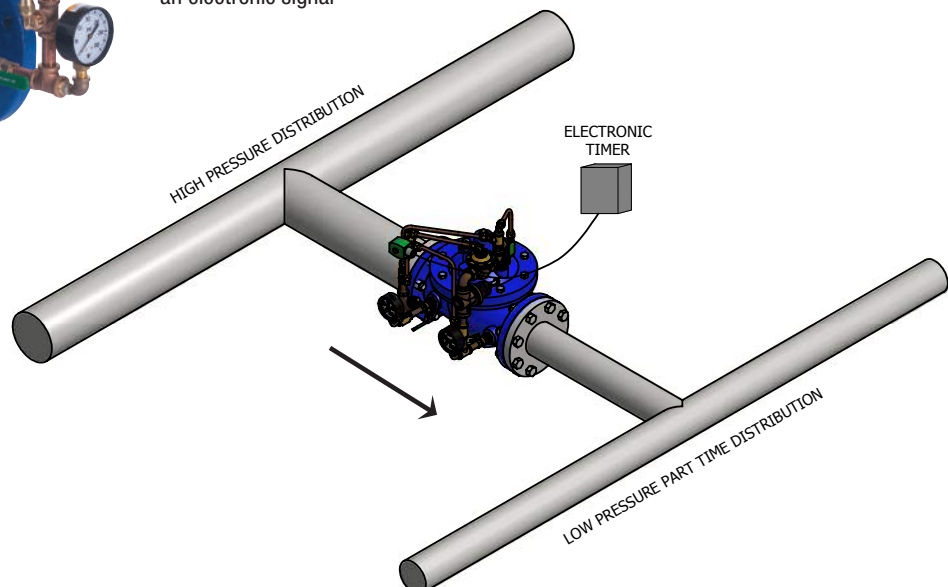
Model ZW209BP - Pressure Reducing Valve with Low-Flow By-Pass

- ZW209BP is a pressure reducing automatic control valve with a by-pass to handle low-flow rates
- ZW209BP maintains the downstream pressure within narrow limits, regardless of inlet pressure fluctuations or varying flow rates
- The by-pass line is equipped with a direct acting PRV in parallel with the main valve to handle very low flows from zero to approximately 10 GPM



Model ZW209E - Pressure Reducing Valve with Solenoid Shut-Off

- ZW209E is a pressure reducing automatic control valve with a solenoid shut-off in the pilotry
- Maintains the downstream pressure within narrow limits, regardless of inlet pressure fluctuations or varying flow rates
- The solenoid and accelerator pilotry allows the valve to be shut down remotely via an electronic signal

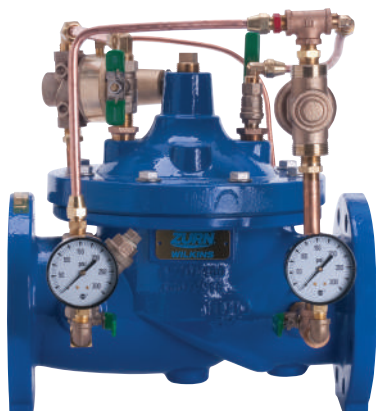
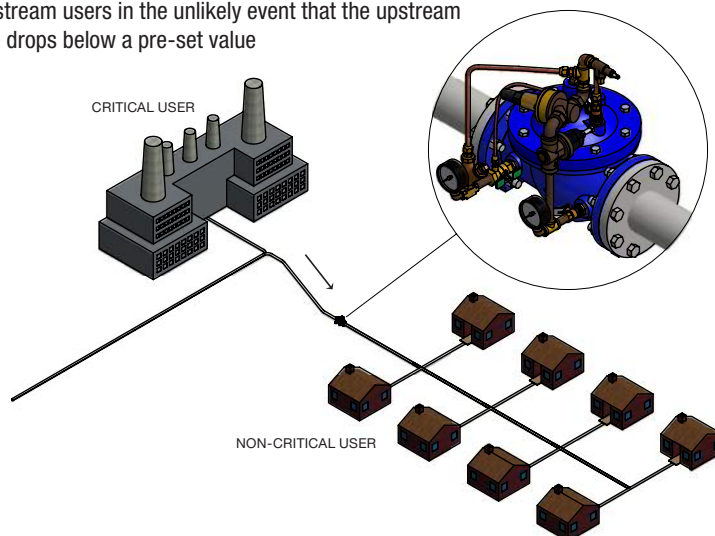


* Refer to www.zurn.com for updated information



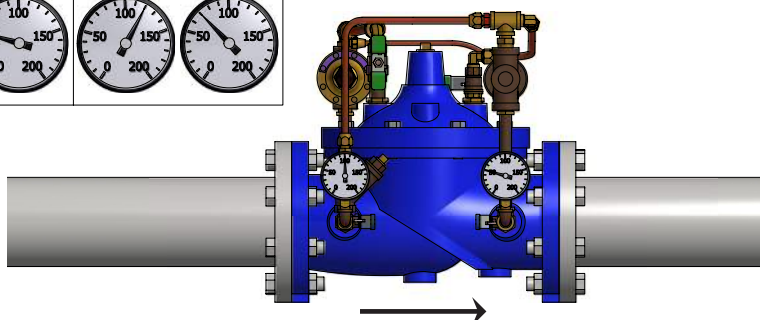
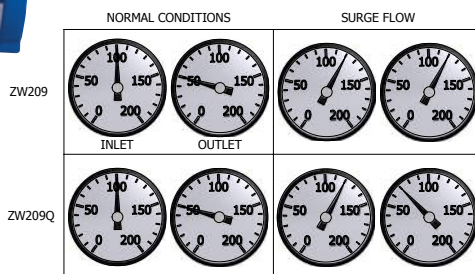
Model ZW209H - Pressure Reducing / Pressure Sustaining Valve

- ZW209H is a pressure reducing valve used where it is also critical to sustain upstream pressure
- Maintains the downstream pressure within narrow limits, regardless of inlet pressure fluctuations or varying flow rates
- Sustains upstream pressure to a critical user and will completely shut-off supply to downstream users in the unlikely event that the upstream pressure drops below a pre-set value

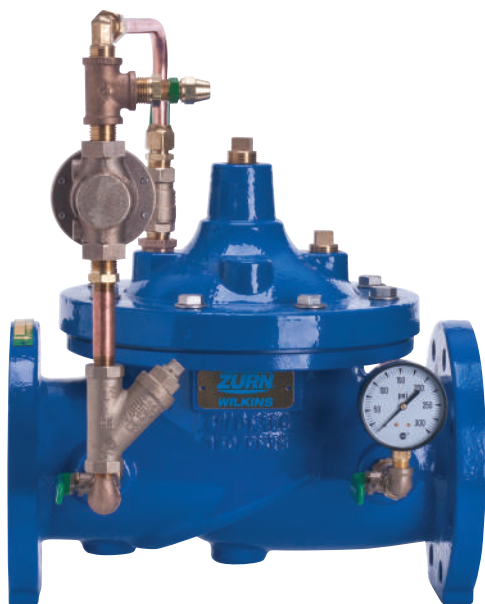


Model ZW209Q - Pressure Reducing Valve with Downstream Surge Protection

- ZW209Q is a pressure reducing valve used where a sudden decrease in downstream demand can create a pressure surge in the plumbing system
- Maintains the downstream pressure within narrow limits, regardless of inlet pressure fluctuations or varying flow rates
- In the event of a pressure surge created by a sudden decrease in downstream demand, the ZW209Q will close rapidly, protecting the plumbing system
- Once the surge dissipates the ZW209Q will return to normal operation



Model ZW207 - Excess Pressure Shut-Off Valve



STANDARD EQUIPMENT

Wye Type Strainer
Closing Speed Control (sizes 1 1/4" thru 4")
Pilot Isolation Valves
Inlet Pressure Gauge
Epoxy Coated
ANSI Class 150 Flanges

OPERATING TEMPERATURE RANGE

Water 33°F to 140°F

PILOT SPRING RANGES

15 to 150 psi (standard)
30 to 300 psi (also available)

TYPICAL APPLICATION

- ZW207 excess pressure shut-off valve is commonly used in conjunction with a standard ZW209 pressure reducing valve
- In instances where the ZW209 cannot react quick enough or becomes damaged, the ZW207 will shut down the system, protecting against excess pressure
- ZW207 is designed for many applications where protection of downstream components from high pressure is required

OPTIONAL FEATURES

Function Description

C 40XL Hydraulic Check with Isolation Valve

Connections

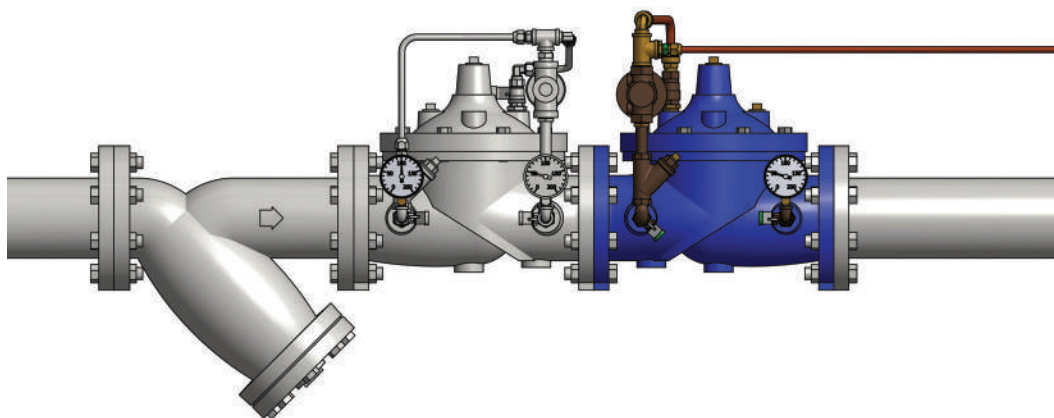
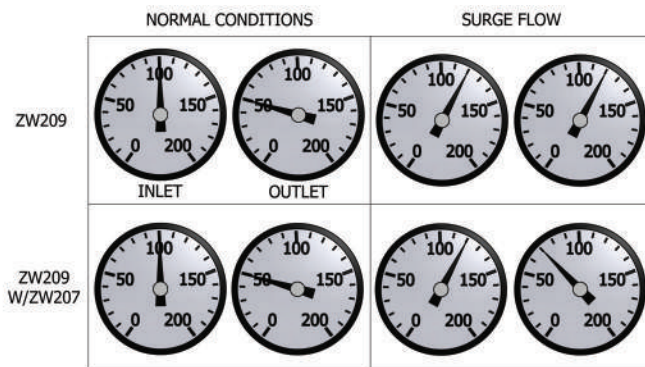
G IPS Grooved
TH NPT Threaded
Y ANSI Class 300 Flanges

Main Options

SS Stainless Steel Seat/Seal Ring Retainer/Stem Guide
Z ZPI Visual Position Indicator

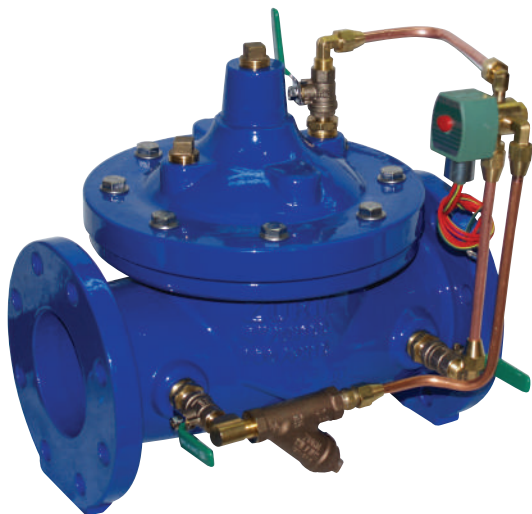
Pilot System

LP3 5-15 psi Low Pressure Range PV-RLF Pilot
LP2 10-35 psi Low Pressure Range PV-RLF Pilot
LP 30-90 psi Low Pressure Range PV-RLF Pilot
HP 150-300 psi High Pressure Range PV-RLF Pilot
ST Stainless Steel Tubing and Fittings
RV Pilot on Reverse Side
GL Liquid Filled Gauge



* Refer to www.zurn.com for updated information

Model ZW206 - Solenoid Control Valve



STANDARD EQUIPMENT

Wye Type Strainer
Pilot Isolation Valves
Epoxy Coated
Closing Speed Control (sizes 6" thru 10")
ANSI Class 150 Flanges

PILOT SYSTEM SPECIFICATIONS

Rubber Parts:

Buna-N Rubber Synthetic Rubber

Solenoid Control Body:

Brass ASTM B283

Enclosure:

NEMA Type 1,2,3,3S,4,4X General Purpose Watertight

Voltages:

24, 120, 240, 480-60Hz AC, 110, 220-50Hz AC,
6, 12, 24, 120, 240-DC Others Available

Max. Operating Pressure Differential:

200 psi

Coil:

Insulation Molded Class	F
Watts AC, 60Hz	6.1
AC Volt Amps Inrush	30
AC Volt Amps Holding	16
Watts DC	10.6

OPERATING TEMPERATURE RANGE

Water 33°F to 140°F

TYPICAL APPLICATION

- ZW206 solenoid operated control valve is used to control the flow of water in remote locations or hazardous environments via an electrical signal from remote locations or hazardous environments
- Can be used to initiate flow or as a protection/shut-off device
- Factory configured as normally closed (energized to open) or normally open (energized to close)
- Used in conjunction with the Zurn Wilkins 375MS and the Zurn Wilkins Electronic Solenoid Timer (EST) system can prevent against flooding from backflow discharge
- Complete Flood Control Integrated System (FCIS) available as a turnkey assembly

OPTIONS (add suffix letters to ZW206)

Function	Description
C	40XL Check Valve with Isolation Valve
L	SC1 Closing Speed Control
O	SC1 Opening Speed Control

Connections

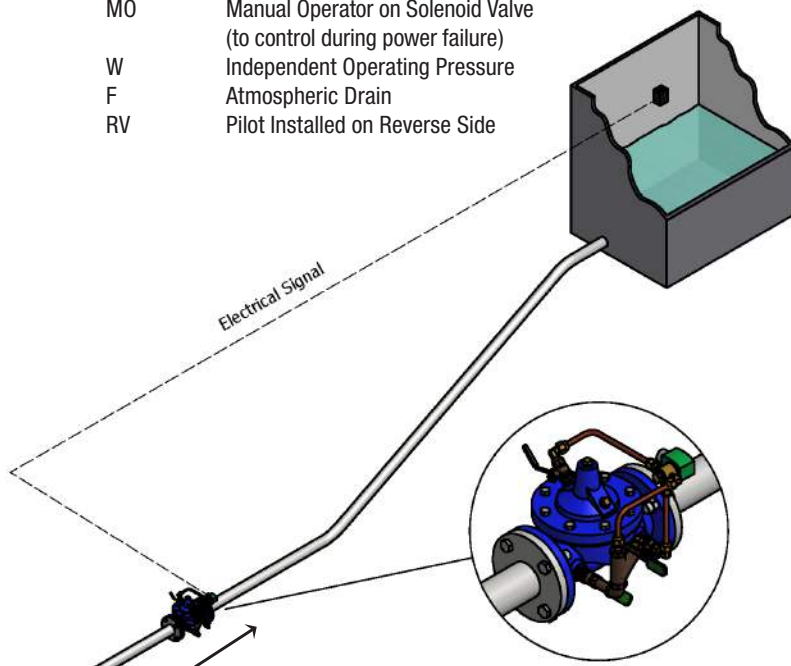
G	IPS Grooved
TH	NPT Threaded
Y	ANSI Class 300 Flanges

Main Options

SS	Stainless Steel Seat/Retainer/Cover Guide
Z	Visual Position Indicator

Pilot System

ST	Stainless Tubing and Fittings
NC	Normally Closed (energize to open) Main Valve, 120vac Solenoid
NO	Normally Open (energize to close) Main Valve, 120vac Solenoid
24NC	Normally Closed (energize to open) Main Valve, 24vac Solenoid
24NO	Normally Open (energize to close) Main Valve, 24vac Solenoid
NS	Non-Standard Solenoid Specify Voltage/AC/DC/Operation
MO	Manual Operator on Solenoid Valve (to control during power failure)
W	Independent Operating Pressure
F	Atmospheric Drain
RV	Pilot Installed on Reverse Side



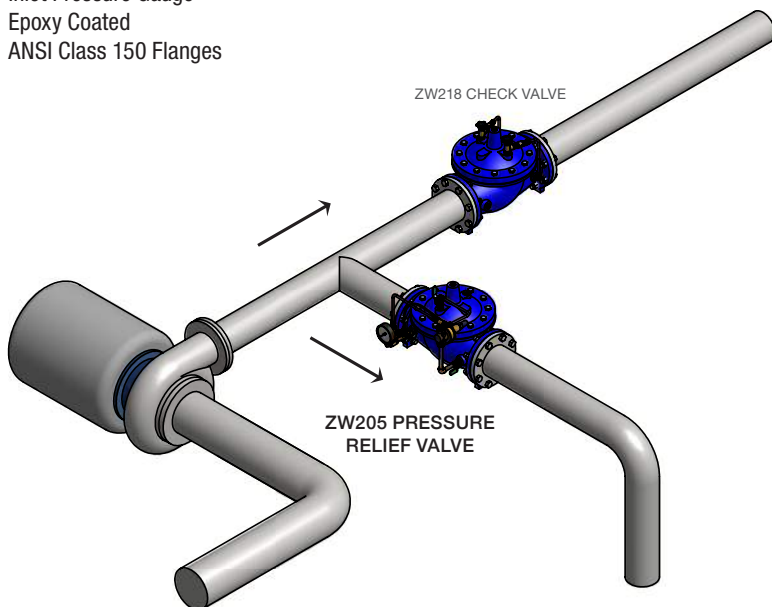
* Refer to www.zurn.com for updated information

Model ZW205 - Pressure Relief Pressure Sustaining Valve



STANDARD EQUIPMENT

Wye Type Strainer
Closing Speed Control (sizes 1 1/4" thru 4")
Pilot Isolation Valves
Inlet Pressure Gauge
Epoxy Coated
ANSI Class 150 Flanges



TYPICAL APPLICATION

- ZW205 pilot operated pressure relief/pressure sustaining automatic control valve can be plumbed in two different ways
 - 1 - **Mounted on a branch line** - ZW205, in a relieving function, will open when the pressure exceeds a pre-set limit, relieving pressure from the system
 - 2 - **Mounted inline** - ZW205, in a sustaining function, maintains a minimum upstream pressure by closing off as the upstream pressure begins to drop
- Pilot assembly reacts to changes in upstream pressure, allowing the main valve to modulate between the closed and open position, maintaining desired upstream set pressure
 - As long as the upstream pressure is below the set point of the pilot assembly, the main valve will stay in the closed position (sustaining)
 - Once the upstream pressure exceeds the set point of the pilot assembly, the main valve will open and relieve the excess pressure (relief)
- Available with an optional checking feature

OPTIONAL FEATURES

Function	Description
C	40XL Hydraulic Check with Isolation Valve
L	SC1 Closing Speed Control
O	SC1 Opening Speed Control

Connections

G	IPS Grooved
TH	NPT Threaded
Y	ANSI Class 300 Flanges

Main Options

SS	Stainless Steel Seat/Retainer/Cover Guide
Z	Visual Position Indicator

Pilot System

ST	Stainless Tubing and Fittings
W	Independent Operating Pressure
F	Atmospheric Drain
RV	Pilot Installed on Reverse Side
GL	With Liquid Filled Gauge(s)

OPERATING TEMPERATURE RANGE

Water 33°F to 140°F

PILOT SPRING RANGES

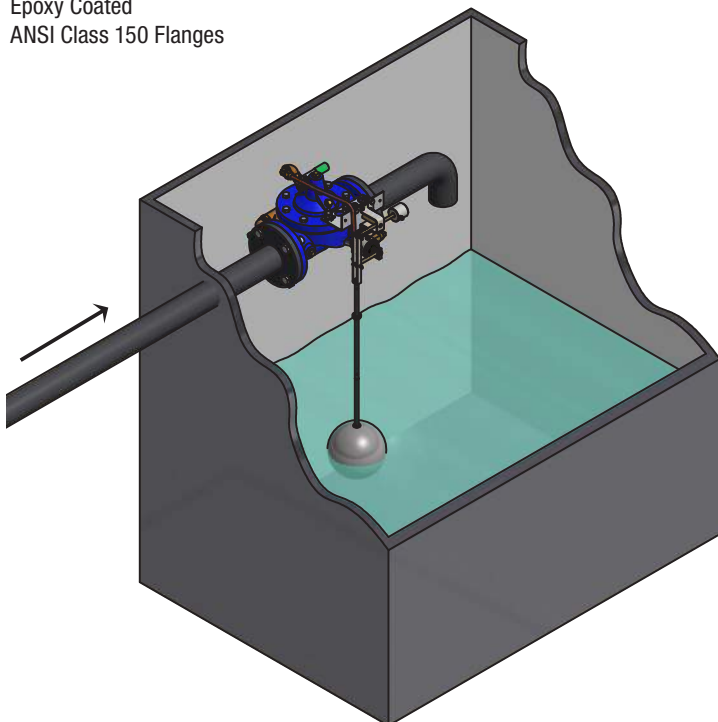
5 to 15 psi
10 to 35 psi
30 to 90 psi
50 to 200 psi (standard)
150 to 300 psi

* Refer to spec sheet for various ranges



STANDARD EQUIPMENT

Wye Type Strainer
Pilot Isolation Valves
Epoxy Coated
ANSI Class 150 Flanges



TYPICAL APPLICATION

- ZW204 pilot operated non-modulating float automatic control valve opens or closes based on the position of a float
- Maintains accurate fluid levels in tanks
 - Once the fluid level reaches the low set-point of the float rod assembly, the main valve opens to fill the tank
 - Once the fluid level reaches the high set-point of the float rod assembly, the main valve closes drip-tight
- ZW204 is a non-modulating valve - it is either fully open or fully closed
- Standard configuration - float pilot is remote-mounted from the valve
- "VM" option allows for valve mounted pilotry (illustrated below)

OPTIONS (add suffix letters to ZW204)

Function	Description
C	40XL Hydraulic Check with Isolation Valve
L	SC1 Closing Speed Control
O	SC1 Opening Speed Control

Connections

G	IPS Grooved
TH	NPT Threaded
Y	ANSI Class 300 Flanges

Main Options

SS	Stainless Steel Seat/Retainer/Cover Guide
Z	Visual Position Indicator

Pilot System

ST	Stainless Steel Tubing and Fitting
VM	Valve Mounted Float Pilot
R1, R2, R3	1', 2', or 3' Float Rod Extension (5' total length max)
W	Independent Operating Pressure
RV	Pilot Installed on Reverse Side

OPERATING TEMPERATURE RANGE

Water	33°F to 140°F
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* Refer to www.zurn.com for updated information

Zurn Wilkins Automatic Control Valves for Fire Protection



STANDARD EQUIPMENT

Wye Type Strainer
3-Way Gauge Isolation Valves
Epoxy Coated
ANSI Class 300 Flanges

TYPICAL APPLICATION

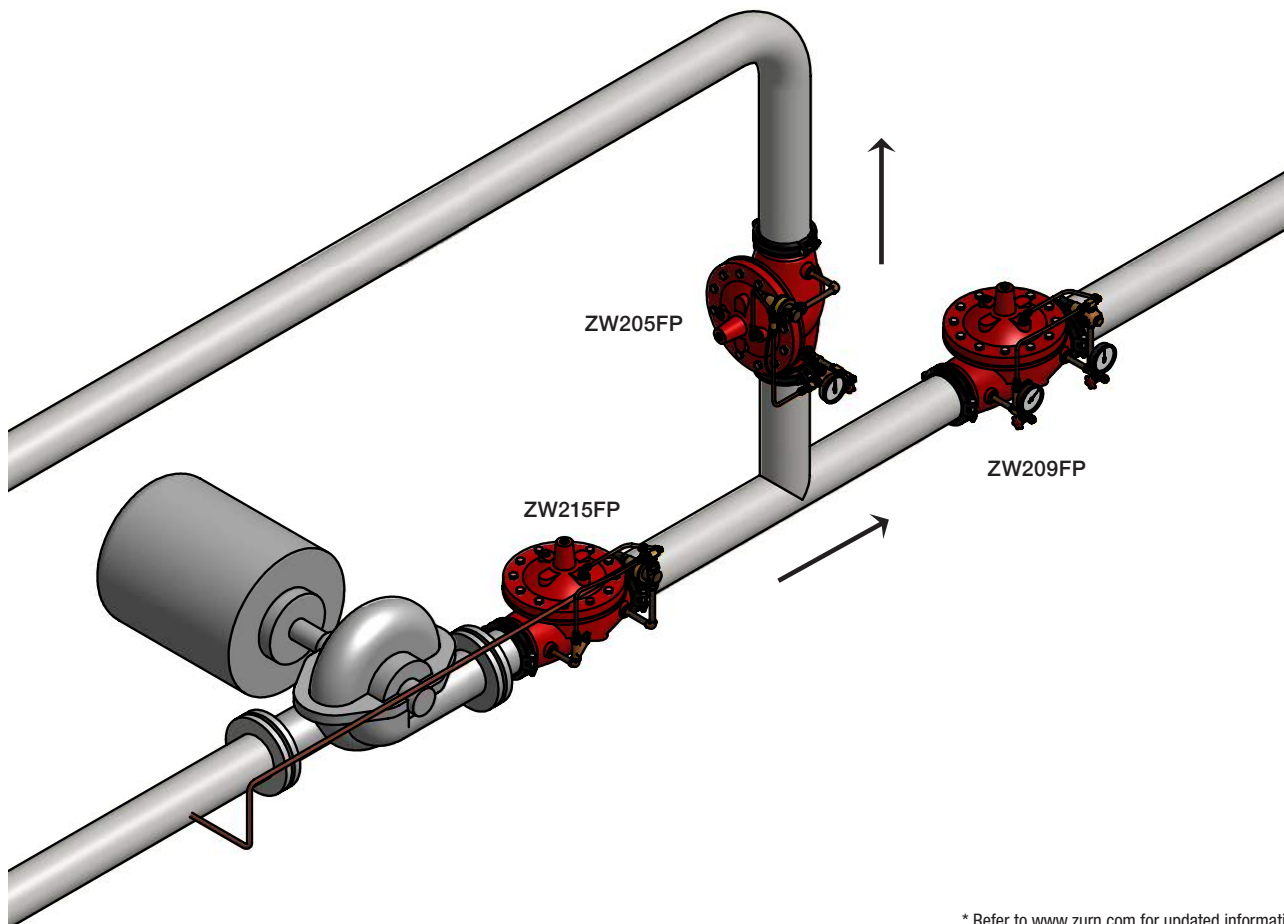
- The Fire Protection Series of pilot operated automatic control valves come fully equipped to handle fire protection plumbing needs
- Standard features:
 - Epoxy coating inside and out for corrosion protection
 - Pressure gauges for quick and easy installation, maintenance, or repair
 - Full complement of agency approvals
- Provided in grooved, flanged, or threaded end connections
- State-of-the-art design and construction with necessary approval sets

OPTIONS

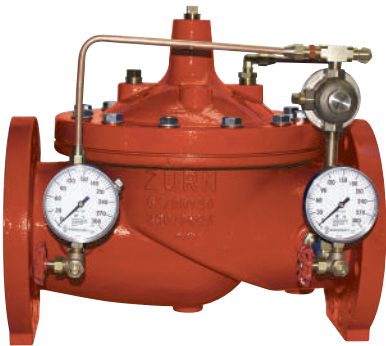
Main Options	Description
G	Grooved Ends (inlet rating 300 psi)
X	ANSI Class 150 Flanges (inlet rating 250 psi)
RV	Pilot Installed on Reverse Side
SS	Stainless Steel Seat/Retainer/Cover Guide

OPERATING TEMPERATURE RANGE

Water 33°F to 140°F



* Refer to www.zurn.com for updated information



Model ZW209FP - Fire Protection Pressure Reducing Valve

- ZW209FP pilot operated pressure reducing valve is designed for fire suppression systems to reduce high inlet pressures
- Reacts to changes in downstream pressure, allowing the main valve to modulate, ensuring a constant downstream set pressure
- Pressure regulation is not dependent upon flow rate, resulting in minimal pressure loss



Model ZW205FP - Fire Pump Relief Valve

- ZW205FP fire pump relief valve can be installed on a branch line and will open when the pressure exceeds a pre-set limit
- Maintains downstream pressure within narrow limits, regardless of inlet pressure fluctuations or varying flow rates



Model ZW215FP - Fire Protection Pump Suction Control

- ZW215FP fire protection pump suction control valve prevents fire pumps from over-drawing from the supply line
- Prevents damage to the pump or the supply network
- Will close if suction pressure drops below the set pressure and open once suction



Model ZW218 - Check Valve



TYPICAL APPLICATION

- ZW218 check valve is generally used after a pump to prevent damage from backflow
- Fully opens when inlet pressure is greater than outlet pressure
- Closes drip tight when outlet pressure is greater than the inlet pressure

OPTIONAL FEATURES

Connections

G	IPS Grooved
TH	NPT Threaded
Y	ANSI Class 300 Flanges

Main Options

SS	Stainless Steel Seat/Retainer/Cover Guide
Z	ZPI Visual Position Indicator

Pilot System

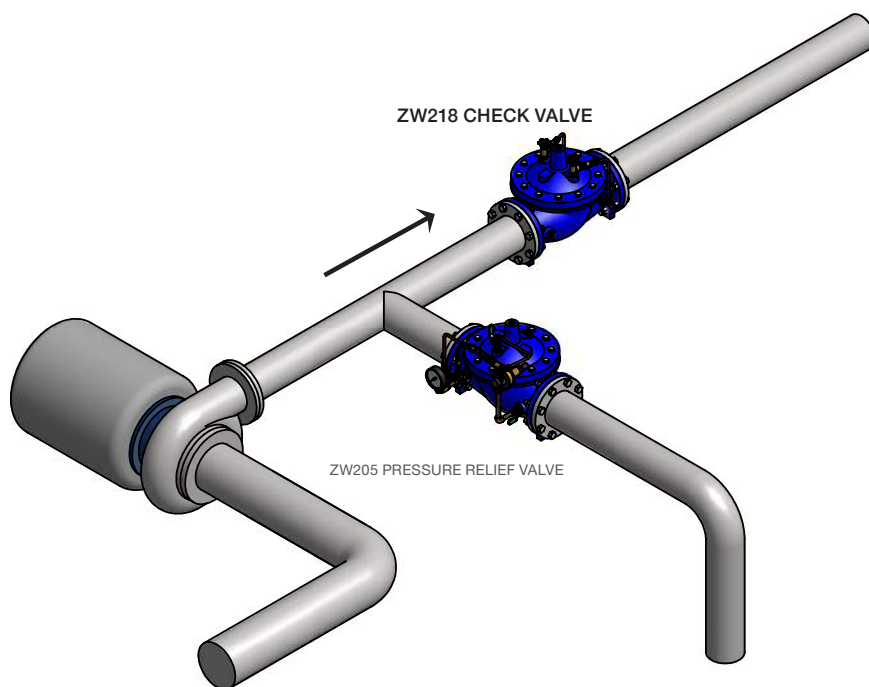
ST	Stainless Tubing and Fittings
RV	Pilot Installed on Reverse Side

STANDARD EQUIPMENT

Standard with open and closing speed controls
Epoxy Coated
ANSI Class 150 Flanges

OPERATING TEMPERATURE RANGE

Water 33°F to 140°F

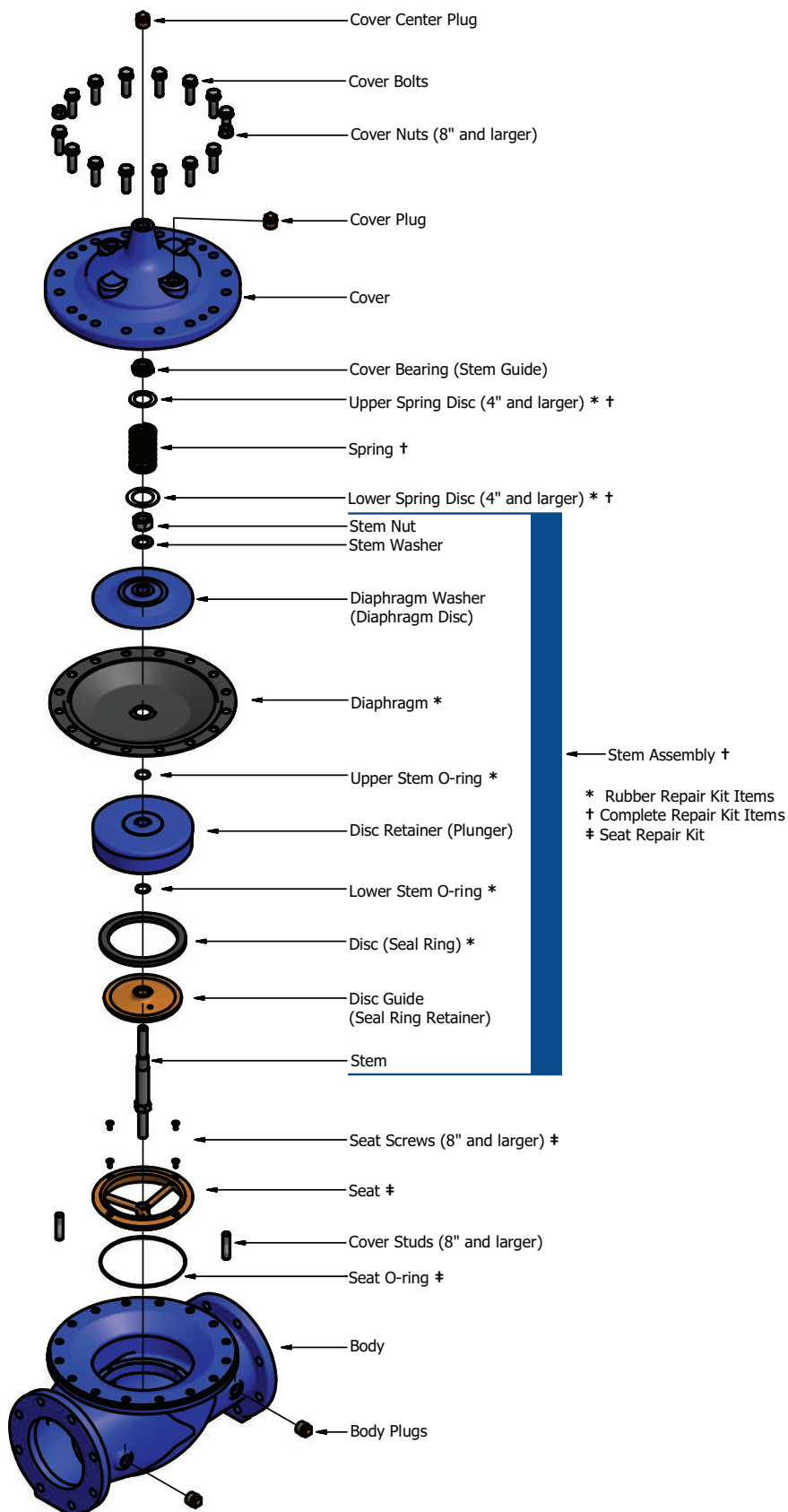


Repair Kits for All Zurn ZW200 Series ACV Parts

Wilkins ZW200 Series ACV Rubber Repair Kits	
Rubber Repair Kit contains: diaphragm, stem o-rings, and disc (with spring discs for 4" and larger sizes)	
Size	Repair Kit Part Number
1-1/4" - 1-1/2"	RK114-112-ZW200R
2"	RK2-ZW200R
2-1/2"	RK212-ZW200R
3"	RK3-ZW200R
4"	RK4-ZW200R
6"	RK6-ZW200R
8"	RK8-ZW200R
10"	RK10-ZW200R

Wilkins ZW200 Series ACV Complete Repair Kits	
Complete Repair Kit contains: spring and complete stem assembly (with spring discs for 4" and larger sizes)	
Size	Repair Kit Part Number
1-14" - 1-1/2"	RK114-112-ZW200C
2"	RK2-ZW200C
2-1/2"	RK212-ZW200C
3"	RK3-ZW200C
4"	RK4-ZW200C
6"	RK6-ZW200C
8"	RK8-ZW200C
10"	RK10-ZW200C

Wilkins ZW200 Series ACV Seat Repair Kits	
Seat Repair Kit contains: seat and seat o-ring (with seat screws for 8" and larger sizes)	
Size	Repair Kit Part Number
1-1/4" - 1-1/2"	RK114-112-ZW200SK
2"	RK2-ZW200SK
2-1/2"	RK212-ZW200SK
3"	RK3-ZW200SK
4"	RK4-ZW200SK
6"	RK6-ZW200SK
8"	RK8-ZW200SK
10"	RK10-ZW200SK



Model ZPI Valve Position Indicator



- Positive Visual Indicator of current operating position
- Frictionless
- Leak Proof
- Easy Maintenance and Cleaning
- Protected Indicator Rod
- Can be installed to replace the top plug on any Zurn Wilkins basic main valve

Model ZPI Size	Height Above Cover	NPT
1-1/4"	4-1/4"	1/2"
1-1/2"	4-1/4"	1/2"
2"	4-1/4"	1/2"
2 1/2"	4-1/4"	1/2"
3"	4-1/4"	1/2"
4"	4-1/4"	3/4"
6"	6"	3/4"
8"	6-3/8"	1"
10"	6-3/8"	1"

Pressure Gauges



Standard Equipment on all Zurn Wilkins Pressure Reducing and Pressure Relief Automatic Control Valves

Face Diameter: 2 1/2"
 Connection Size: 1/4" NPT Bottom Mount
 Range: 0-300 psi for 150# Flange and Grooved End Connections, 0-400 psi for Threaded, 300# Flange End Connections
 Accuracy: +/- 3-2-3% of Span
 Bourdon Tube: Phosphor Bronze
 Window: Plastic
 Movement: Brass

Model 40XL2 Check Valve



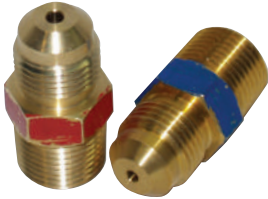
Size: 3/8" thru 3/4"
 Body: Cast Brass
 Poppet: Polyetherimide
 Seal Ring: NBR
 Spring: Stainless Steel

Model SXL Wye Strainer



Size: 3/8" thru 3/4"
 Body and Cap: Cast Bronze ASTM B584 or B806, Lead-Free
 Screen: 20 Mesh Stainless Steel, 300 Series

Pilot Restriction Fitting



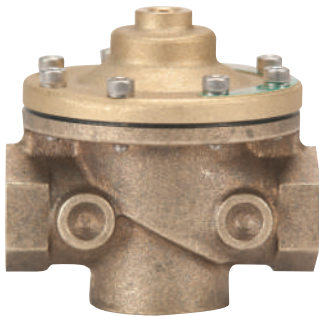
Size: 3/8"
Body and
Restriction: Brass ASTM B16

Model 850XL Isolation Valve



Size: 3/8" thru 3/4"
Body: Cast Bronze ASTM B584 or B806, Lead-Free
Ball: Chrome Plated Bronze ASTM B584 or B806, Lead-Free
Seats: TFE Virgin Teflon
Stem: Brass ASTM B16
Stem Packing: PTFE Virgin Teflon
Thrust Washer: PTFE Virgin Teflon
Handle and Nut: Stainless Steel

Model PV-ACL Accelerator Pilot



- Corrosion Resistant
- Automatic Operation
- Accelerates the opening and closing of any Automatic Control Valve
- Used on any solenoid or float controlled Automatic Control Valve for faster closure
- Available as both a 2-way valve and a 3-way valve
 - Additional port available on the bottom of the valve
- Operates In Any Position
- No Lubrication Required
- Easy Adjustments
- Easy Maintenance

SPECIFICATIONS

Size: 1/2"
End Detail: 1/2" NPT Female
Control Port: 1/8" NPT Female
Pressure Rating: 400 psi Max
Temperature Rating: 140° F Max
Body: Cast Lead-Free Bronze

Model SC1 Opening and Closing Speed Controls



- Corrosion Resistant
- Automatic Operation
- Needle valve allowing free flow in one direction and restricted flow in the opposite direction
- Used to slow down the rate at which the main valve opens or closes
- Operates In Any Position
- No Lubrication Required
- Easy Adjustments
- Easy Maintenance

SPECIFICATIONS

Size: 3/8"
End Detail: 3/8" NPT (one connection male one connection female)
Pressure Rating: 400 psi Max
Temperature Rating: 140° F Max
Body: Cast Lead-Free Bronze

Frequently Asked Questions

How do I size a Pilot Operated Pressure Reducing Automatic Control Valve?

- Determine the actual inlet pressure, the desired outlet pressure, and the maximum and minimum continuous flow rates. Using the Submittal Sheet, choose the size of valve that will satisfy the maximum and minimum continuous flow rates. Verify that the valve will not be in a potential cavitation zone and the desired pressure drop across the valve does not fall into a cavitation zone.

If the pressure drop across a single valve results in cavitation, a second valve may need to be plumbed in series. Set each valve such that the pressure drop is equal for each valve.

How do I control water hammer or surging that is caused by my Automatic Control Valve?

- Water hammer and surging is caused by a rapidly closing and opening of a valve. This can be resolved with the use of Model SC1 speed controls. The closing speed control can be adjusted to prevent the rapid closure of the control valve, mitigating water hammer. The opening speed control can be adjusted to allow the control valve to open slowly, mitigating surging.

My flow rate is below the minimum continuous flow rate of the Automatic Control Valve. How do I handle this?

- Water flows under the minimum continuous flow rate can be handled by a direct acting pressure reducing valve (PRV) plumbed in parallel to the control valve (ACV). When installed in parallel with the ACV, the PRV is set to the desired static operating pressure required by the water system. The ACV is then set 5 psi below the setting of the PRV. This ensures that all low flows will flow through the PRV.

How do I adjust a Pressure Reducing Automatic Control Valve?

- Go to www.zurn.com to find instruction sheets for each valve model, which contain specific procedures and operating instructions.

What is the difference between a Direct Acting Pressure Reducing Valve (PRV) and a Pilot Operated Pressure Reducing Automatic Control Valve (ACV)?

- Direct acting pressure reducing valves (PRV's) exhibit a condition called fall-off. With PRV's, the downstream pressure decreases as the flow rate increases.

A pilot operated pressure reducing automatic control valve (ACV) has the ability to hold its downstream pressure at a fairly constant value, regardless of changes in inlet pressure or changes in water demand. ACV's have the ability to achieve flow rates far in excess of what a comparably sized PRV could provide.

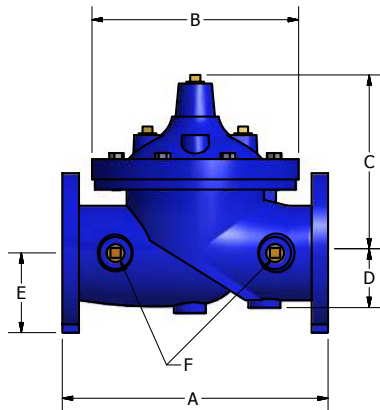
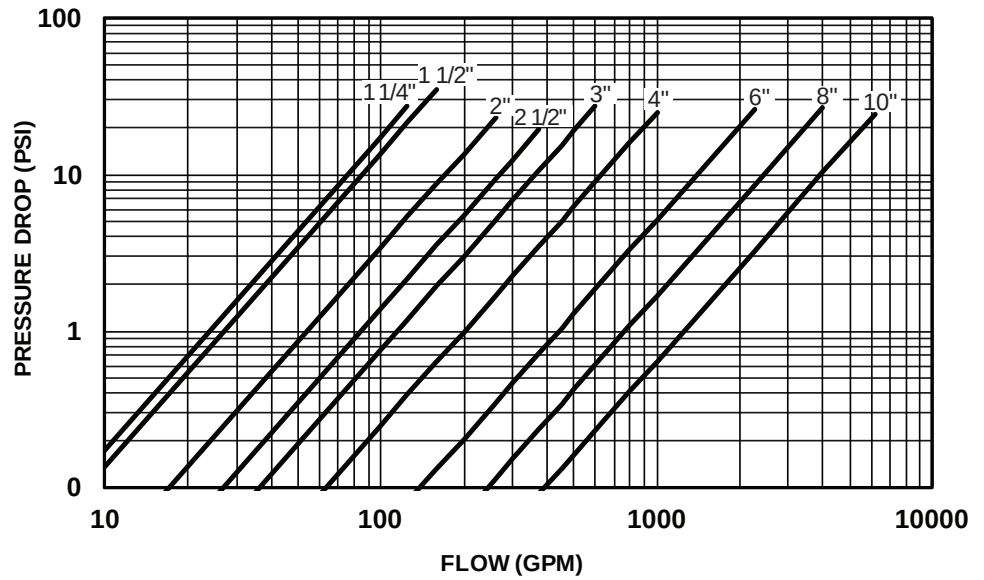
If you still have questions, please contact Zurn Wilkins Customer Care at 855-ONE-ZURN (855-663-9876) for assistance.

Flow Chart and Main Valve Dimensions

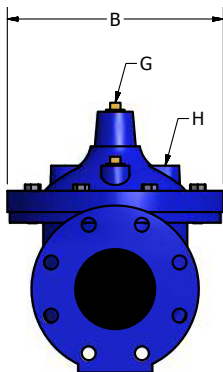
FLOW CHART

(Based on normal flow through a wide open valve)

Body Minimum Friction Loss



DIM	ANSI CLASS	VALVE SIZE inches								
		1-1/4"	1-1/2"	2"	2-1/2"	3"	4"	6"	8"	10"
A	Threaded	7-1/4	7-1/4	9-7/16	11	12-1/2	n/a	n/a	n/a	n/a
	150	N/A	8-1/2	9-3/8	11	12	15	20	25-3/8	29-3/4
	300	N/A	9	10	11-5/8	13-1/4	15 5/8	21	26-7/16	31-1/8
	Grooved	N/A	8-1/2	9	11	12-1/2	15	20	25-3/8	29-3/4
B	Diameter	5-5/8	5-5/8	6-3/4	8-1/16	9-3/16	11-11/16	15-3/4	20-1/8	23-2/3
C	Max	5-3/4	5-3/4	6-3/16	7-3/8	8-1/8	10-3/16	12-5/16	15-9/16	17-5/8
D	Max	1-3/8	1-3/8	1-3/4	2-1/8	2-9/16	3-7/16	4-15/16	5	5-13/16
E	150	N/A	2-1/2	3	3-1/2	3-3/4	4-1/2	5 1/2	6-3/4	8
	300	N/A	3	3-1/4	3-3/4	4-1/8	5	6 1/4	7-1/2	8-3/4
F	NPT Body Tap	3/8	3/8	3/8	1/2	1/2	3/4	3/4	1	1
G	NPT Cover Plug Tap	1/2	1/2	1/2	1/2	1/2	3/4	3/4	1	1
H	NPT Cover Tap	3/8	3/8	3/8	1/2	1/2	3/4	3/4	1	1
Valve Stem Internal Thread UNF		10 - 32	10 - 32	10 - 32	10 - 32	1/4 - 20	1/4 - 20	1/4 - 20	3/8 - 16	3/8 - 16
Stem Travel		7/16	7/16	3/4	7/8	15/16	1-3/16	1-3/4	2-3/8	2-13/16
Approximate Weight Lbs.		23	25	35	50	70	140	285	500	700



DIM	ANSI CLASS	VALVE SIZE mm								
		32	40	50	65	80	100	150	200	250
A	Threaded	184	184	238	280	318	N/A	N/A	N/A	N/A
	150	N/A	216	238	279	305	381	508	645	756
	300	N/A	229	254	295	337	397	533	670	790
	Grooved	N/A	216	229	279	318	381	508	645	756
B	Diameter	142	142	171	205	232	296	400	511	601
C	Max	146	146	156	187	205	258	312	395	446
D	Max	35	35	44	53	65	86	124	127	147
E	150	N/A	64	76	89	95	114	140	171	203
	300	N/A	78	83	95	105	127	159	191	222
F	NPT Body Tap (in.)	3/8	3/8	3/8	1/2	1/2	3/4	3/4	1	1
G	NPT Cover Plug Tap (in.)	1/2	1/2	1/2	1/2	1/2	3/4	3/4	1	1
H	NPT Cover Tap (in.)	3/8	3/8	3/8	1/2	1/2	3/4	3/4	1	1
Valve Stem Internal Thread UNF		10 - 32	10 - 32	10-32	10-32	1/4-20	1/4-20	1/4-20	3/8-16	3/8 - 16
Stem Travel (mm)		10	10	18	21	23	29	43	60	71
Approximate Weight (kg)		10	11	16	23	32	64	129	227	318



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