OCV Series 300

Basic Valves

Aquestia
Directing the Flow

General representation

Fire Protection

Series 300 Basic Valve (Models 30, 30U, 30CU)

Description

The OCV Series 300 control valves are automatic, hydraulically actuated, diaphragm operated, rigid seal globe pattern control valves. These valves are designed for use in fire protection applications, including deluge, pre-action, pressure control, monitors, hydrants and are suitable for water, foam and seawater systems. The valves consist of three major components: body, cover, and internal trim assembly.

Model 30:	Up to 375psi working pressure, globe pattern, flanged, grooved & threaded.
Model 30U:	Up to 375psi working pressure, globe pattern, flanged, grooved & threaded, with drain port.
Model 30CU:	Up to 375psi working pressure, globe pattern, double-chamber, flanged, grooved & threaded, with drain port.

Certification & Compliance

UL Listed under categories:
QXZQ (Model 30), VLMT (Models 30 & 30U), & VLFT (Models 30U & 30CU)

Lloyd's Type Approval

GOST-R

Manufacture & Conformity Assessment of Pressure Equipment & Assemblies Directive (97/23/EC / EN1074)

Consult the UL Listing Guide, or contact Aquestia USA for a complete list of approved applications & valve sizes.

Features & Benefits

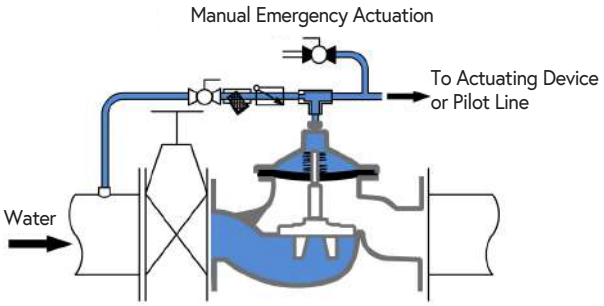
- Listed & approved for use in fire protection systems by various global standards
- Quick opening; Non-slam closing operation
- Drip-tight shut off to ANSI FCI 70-2 VI seat leakage class
- Simple & reliable design
- Low lifelong maintenance costs due to unique frictionless internal trim design
- Easy installation & inline maintenance
- Double or single chamber
- High grade construction materials
- Reliable prressure control from near zero flow
- Low pressure losses at high flow rates
- Optional remote or manual reset
- Optional manual, electric, hydraulic, pneumatic & combined control trims
- Optional explosion proof, SIL redundant solenoids & trim accessories
- Optional seawater & foam concentrate service

Operation

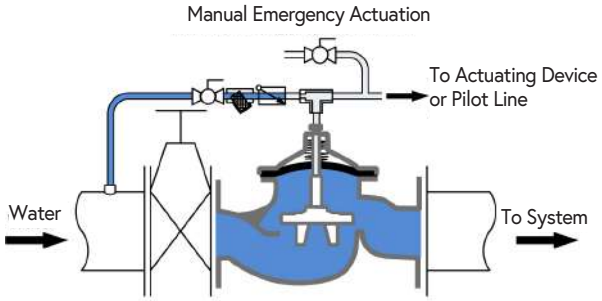
Figure showing OCV Model 30. Same principle of operation is applicable for OCV Models 30U & 30CU.

Standard Operation:

Standby Position (Valve Closed)

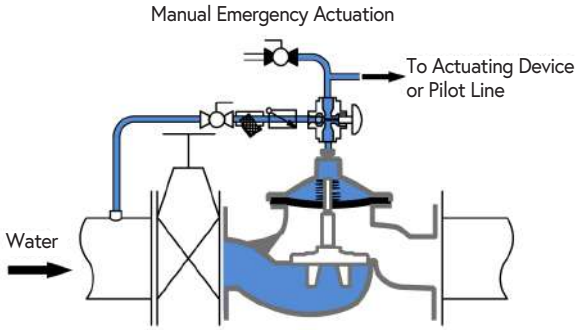


Fire Event (Valve Actuated Automatically or Manually)

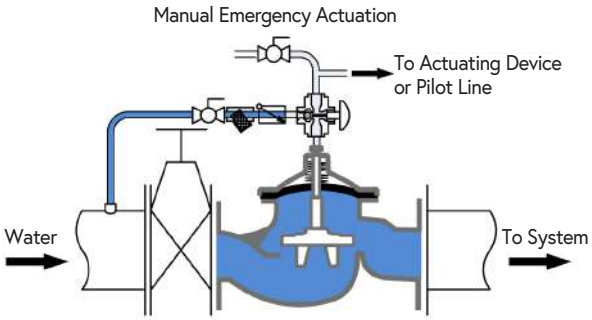


Manual Reset Operation:

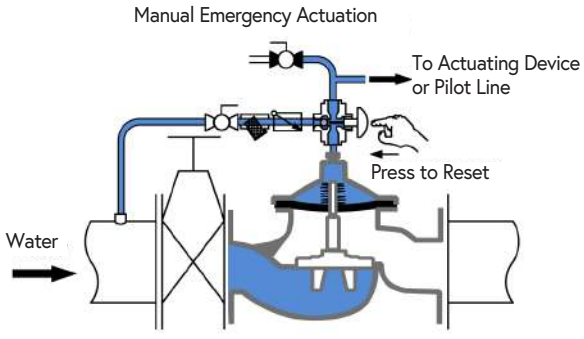
Standby Position (Valve Closed)

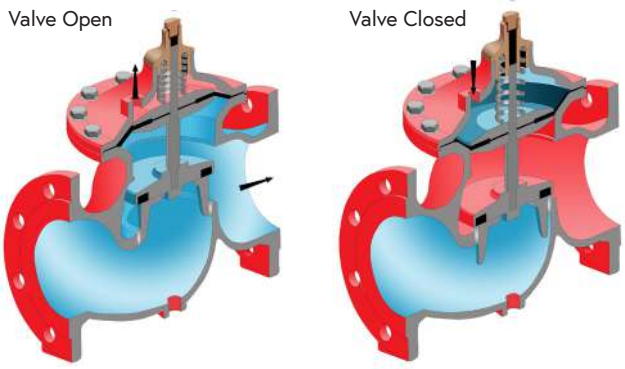


Fire Event (Valve Actuated Automatically or Manually)



Reset to Close

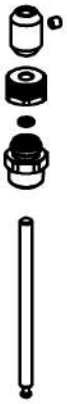




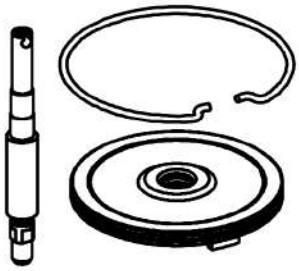
Resetting, maintenance, and periodic testing instructions must be followed as described in detail in the applicable OCV IOM (Installation, Operation & Maintenance) Manual.

Components

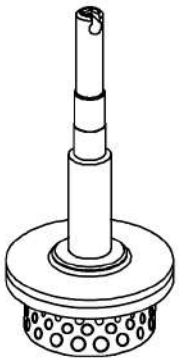
POSITION INDICATOR KIT

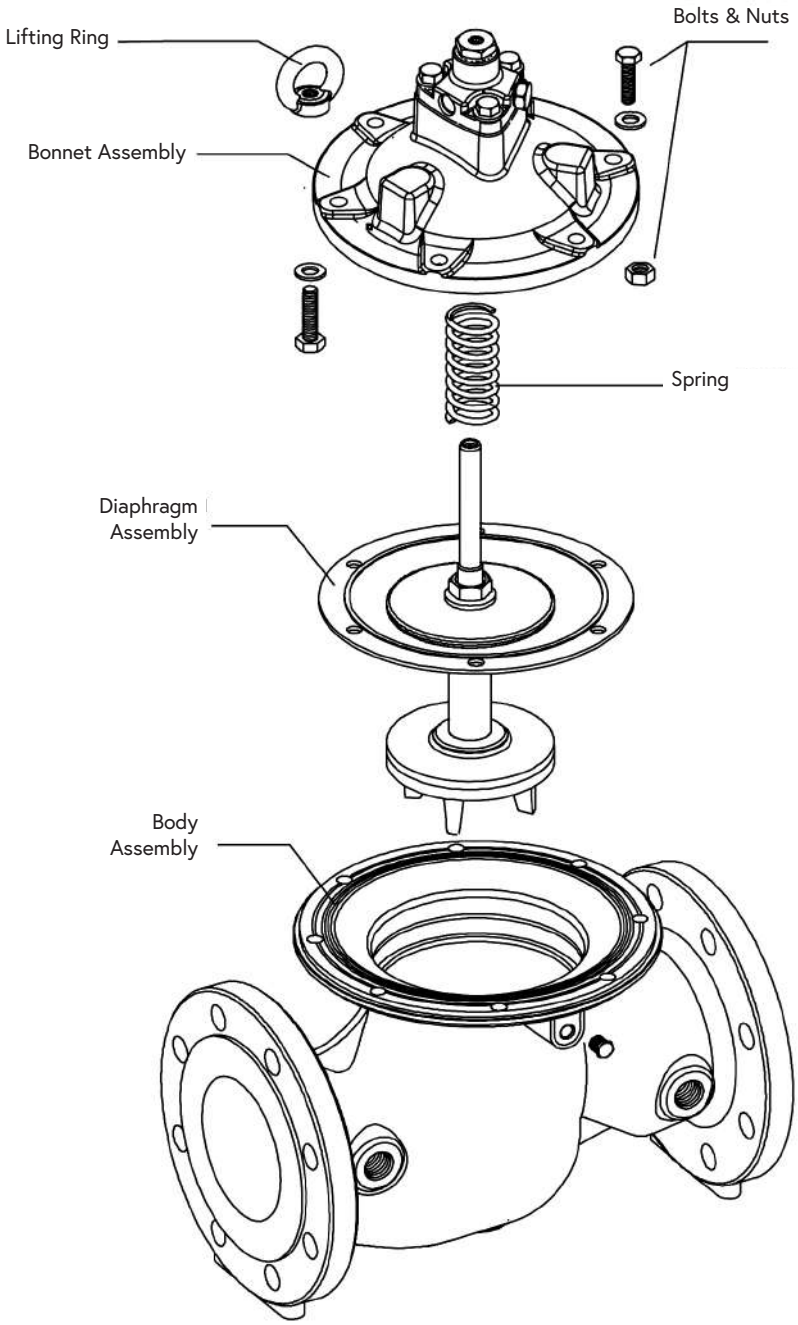


DOUBLE-CHAMBER CONVERSION KIT



'F' VERSION CONVERSION KIT





General Arrangement & Dimensions

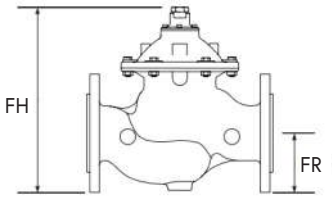
30, 30U & 30CU	1 1/2" (40)		2" (50)		2 1/2" (65)		3" (80)		4" (100)		6" (150)		8" (200)		10" (250)		12" (300)	
DIM	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
FL	9 1/16	230	9 1/16	230	11 1/2	292	12 3/16	310	13 3/4	350	18 7/8	480	23 1/16	600	28 3/4	730	33 7/16	850
FH	7 5/16	185	7 5/16	185	7 5/16	185	9 1/16	230	8 7/16	240	13	330	15 3/8	390	20 1/2	520	25	635
FR	3 1/4	82 1/2	3 1/4	82 1/2	3 5/8	92 1/2	3 15/16	100	4 5/16	110	5 5/8	142 1/2	6 3/4	172 1/2	8 1/16	205	9	230
W*	6	153	6 11/16	170	7 3/16	185	7 7/8	200	9 1/4	235	13	330	16 5/16	415	20 11/16	525	24	610
Approx. Weight	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg
	26	12	26	12	29	13	49	22	82	37	176	80	346	157	540	245	893	405

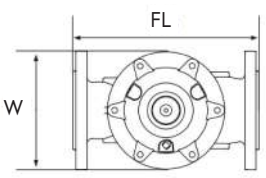
30 & 30U (Grooved)			2" (50)		2.5" (65)		3" (80)		4" (100)		6" (150)		8" (200)			
DIM			inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm		
VL			8 1/2	215	11	280	13 13/16	351	14 13/16	376	20 1/2	521	27 5/8	702		
VH	NA		6 13/16	173	6 13/16	173	9	228	9 7/16	240	13	330	15 1/2	393	NA	
VR			3	78	3	75	4 3/16	106	4 5/8	118	5 13/16	147 1/2	6 13/16	175		
VW			5	128	5 3/16	130	7 3/4	197	9 3/8	236	13	331	16 3/16	412		
Approx. Weight			lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg		
			14.4	6.5	17.2	7.8	33.4	15.2	58.5	26.5	128.4	58.2	302.7	137.3		

30 & 30U (Threaded)	1 1/2" (40)		2" (50)		
DIM	inch	mm	inch	mm	
TL	8 7/16	215	8 7/16	215	
TH	7 5/16	185	7 5/16	185	
TR	2 3/8	62	2 3/8	62	
TW	5	129	5	129	
Approx. Weight	lbs	kg	lbs	kg	NA
	15	7	15	7	

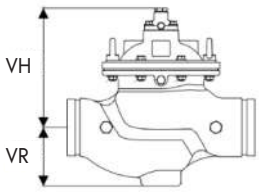
Approximate dimensions. Contact OCV for information on additional valve sizes & models.
*Valve Width

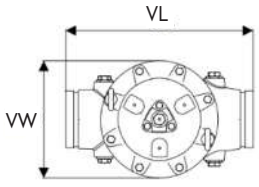
OCV Models 30, 30U & 30CU



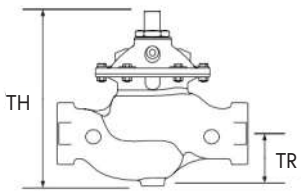


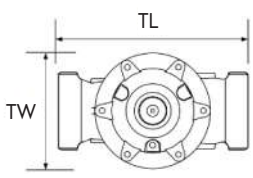
OCV Models 30 & 30U





OCV Models 30 & 30CU

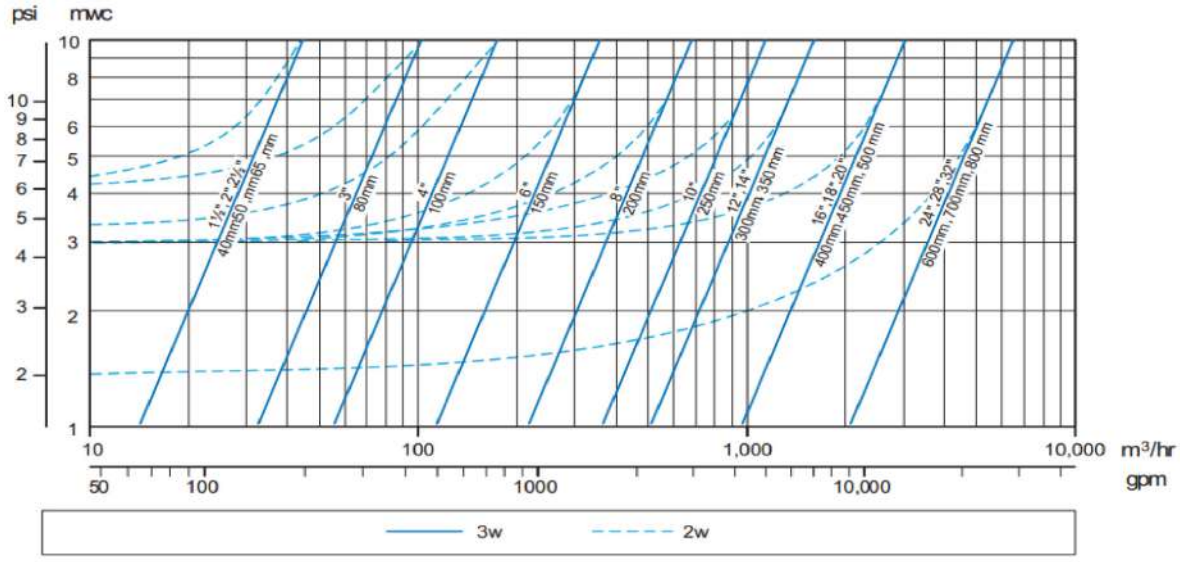




* General representation of valve

Head Loss & Hydraulic Characteristics

OCV Model 30, 30U & 30CU Head Loss



OCV Model 30, 30U & 30CU (Globe Pattern)
(UL Listed diameters shown in chart)

Valve Size		2" (50)	2 1/2" (65)	3" (80)	4" (100)	6" (150)	8" (200)	10" (250)	12" (300)
Kv	m³/hr @ 1 bar	43	43	115	167	407	676	1160	1600
Cv	gpm @ 1 psi	50	50	133	193	470	781	1341	1850
K Factor	NA	5 2/5	15 2/5	5	5 7/10	4.9	5 3/5	4 3/5	5 1/10
Equivalent Pipe Length @ C_{HW} = 120	Meters	11	40	18	26	37	58	63	85
	Feet	37	131	58	87	120	190	207	278
Control Chamber Displacement Volume	Liters	0.10	0.10	0.30	0.70	1.50	4.30	9.70	18.60
	Gallons	0.03	0.03	0.08	0.18	0.40	1.14	2.56	4.91

OCV 30 PS\UL

Fire Pump Pressure Relief Valve

UL Listed
Lloyd's Type Approved

OCV 30 PR\UL

Pressure Reducing Valve

UL Listed
Lloyd's Type Approved

OCV 30U DE\EL

Electrically Actuated
Remote Reset
Deluge Valve

UL Listed
Lloyd's Type Approved

OCV 30U DE\RCL\PR

Electrically Actuated
Manual Reset
Pressure Reducing
Deluge Valve

UL Listed
Lloyd's Type Approved

Pressure Rating

Recommended nominal system pressure to flange class for typical materials as:

- Ductile Iron ASTM A536
- Stainless Steel ASTM CF8M
- Cast Steel ASTM A216 & ASTM A352 LCB
- NAB ASTM B148 C-95800

- 250psi nominal system pressure for flanges ANSI B16.42 & ANSI B16.50 Class 150# accordingly
- 375psi maximal system pressure for flanges ANSI B16.42 & ANSI B16.50 Class 300# accordingly

Material		End Connections	Valve Sizes	Standard	Max. Recommended Working Pressure
Ductile Iron ASTM A536	Flanged	150# RF (or FF)	2"-12"	ASME / ANSI B16.42	250psi / 17.2 bar
		300# RF (or FF)	2"-12"	ASME / ANSI B16.42	375psi / 25.8 bar
		PN16	2"-12"	ISO 7005-2	230psi / 16 bar
		PN25	2"-12"	ISO 7005-2	360psi / 25 bar
	Grooved	PN16	2"-8"	ASME / ANSI AWWA 606	230psi / 16 bar
		PN25	2"-8"	ASME / ANSI AWWA 606	360psi / 25 bar
	Threaded	PN16	2"-3"	BSP /NPT	230psi / 16 bar
		PN25	2"-3"	BSP / NPT	360psi / 25 bar
Cast Steel WCB ASTM A216 LCB ASTM A352 Stainless Steel ASTM CF8M NAB ASTM B148 C-95800	Flanged	150# RF (or FF)	2"-10"	ASME / ANSI B16.50	250psi / 17.2 bar
		300# RF (or FF)	2"-10"	ASME / ANSI B16.50	375psi / 25.8 bar
		PN16	2"-10"	ISO 7005-2	230psi / 16 bar
		PN25	2"-10"	ISO 7005-2	360psi / 25 bar

For exact pressure & temperature ratings see relevant ASME/ANSI B16 Standards for Pipes and Fittings. Contact OCV for information on additional materials and standards.

OCV Series 300

Basic Valves

Aquestia
Directing the Flow

Technical Data

Temperature (Elastomers)		
Water	up to 85°C / 185°F max	
Sizes		
Straight Flow	1 1/2" - 40" / 40-1000mm	
UL Listed	2"-12" / 50-300mm	
Lloyd's Type Approved	2"- 24" / 50-600mm	
End Connections		
Flanged 1 1/2" - 40"	ISO-PN16 & ISO-PN25	
	ASME/ANSI B16.42 & B16.5 Class 150# & 300#	
	Additional options available upon request	
Grooved 2"- 8"	ASME/ANSI AWWA 606	
Threaded 1 1/2" - 2"	BSP/NPT	
Elastomers		
Buna-N	Viton	EPDM
Coating Material		
High Built, Fusion Bonded Epoxy		
Optional Coating Material		
UV Protection	Polyester	
Other coatings conforming to ISO-12944 C4, C5 & C5M		
Internal Trim Material		
Stainless Steel	Bronze	

Body & Cover Material	
Ductile Iron ASTM A536	Stainless Steel ASTM CF8M
Cast Steel ASTM A216 & A352 LCB	NAB ASTM B148 C-95800
Control Trim & Accessories	
Brass	Stainless Steel
NAB	Monel
Super Duplex	
Optional Components	
Pressure Switch	Alarm Test Trim
Pressure Reducing Feature	Position Indicator
Drain Valve	Explosion Proof
Open/Close Speed Control	Block & Bleed Valves for Pressure Sensing Control
PPCS (Pneumatic Pressure Control System for Pneumatically Actuated Models)	Limit Proximity Switch Assembly
Items to Specify	
Electrical features other than standard (24VDC, IP65/NEMA4)	
If explosion proof accessories are required such as solenoids, pressure switches, etc., please define classification	
Control trim material other than standard	
Required standards, certifications and approvals	

Aquestia USA

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