BASIC VALVES
SERIES 300
MODELS 30, 30U, 30CU

Series 300

UL Listed Basic Untrimmed Valve Models:
30, 30U, 30CU

The 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.

Model 30

LISTINGS & APPROVALS

- Valves are UL Listed under the following categories:
  - "Special Systems Water Control Valves" Deluge (VLFT) - Models 30U & 30CU
  - "Fire Pump Pressure Relief Valves" (QXZQ) - Model 30
  - "Special System Water Control Valves, Pressure Reducing and Pressure Control" (VLMT) - Models 30 & 30U
- Lloyd's type approval
- GOST-R
- Manufacture and conformity assessment of pressure equipment & assemblies Directive (97/23/EC / EN1074)

Consult the UL listing guide or contact OCV Fluid Solutions for a complete list of approved applications and valve sizes.

FEATURES

- 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 and reliable design
- Low lifelong maintenance due to unique frictionless internal trim design
- Easy installation & inline maintenance
- Double or single chamber
- High-grade construction materials
- Reliable pressure control from near zero flow
- Low pressure losses at high flow rates

OPTIONAL FEATURES

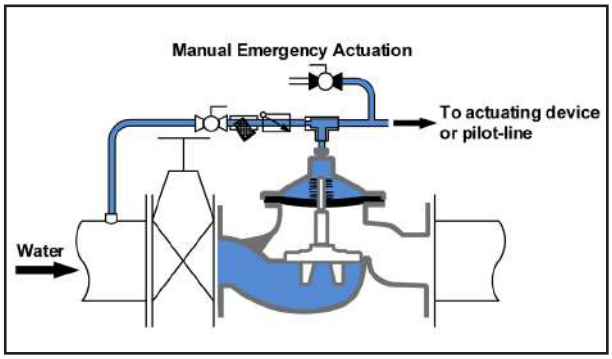
- Remote or manual reset
- Manual, electric, hydraulic, pneumatic and combined control trims
- Explosion proof, SIL redundant solenoids & trim accesories
- Seawater & foam concentrate service

OPERATION

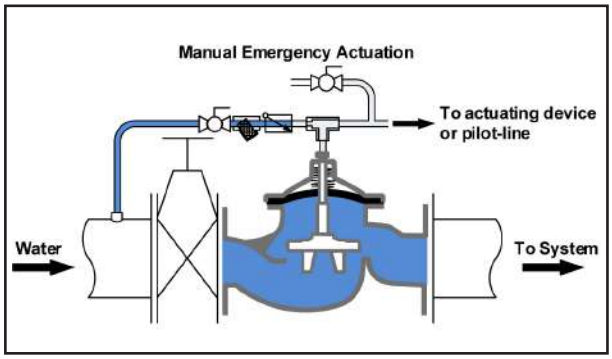
Figure showing Model 30.

Standard Operation

Standby Position (Valve Closed)

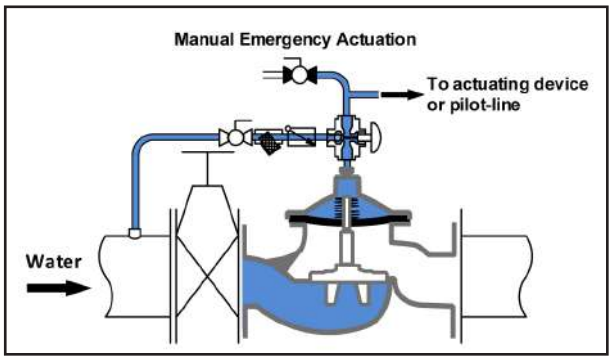


Fire Event (Valve Actuated Automatically or Manually)

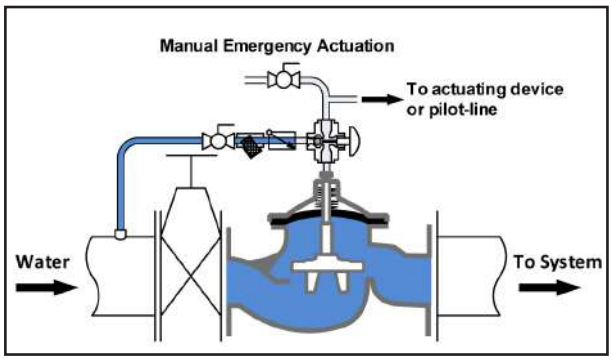


Manual Reset Operation

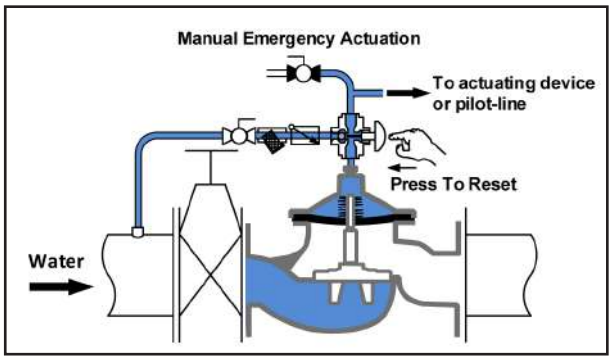
Standby Position (Valve Closed)



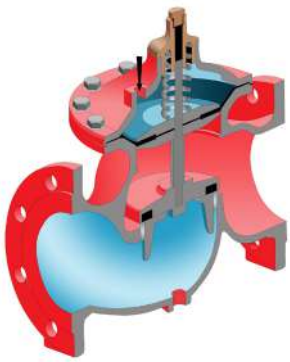
Fire Event (Valve Actuated Automatically or Manually)



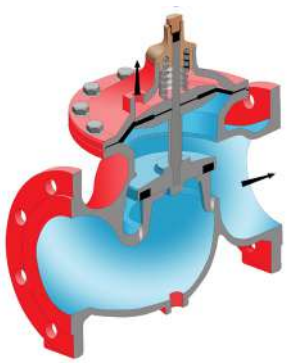
Reset to Close



Valve Closed



Valve Open



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

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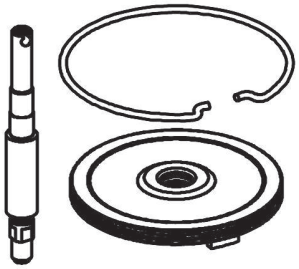
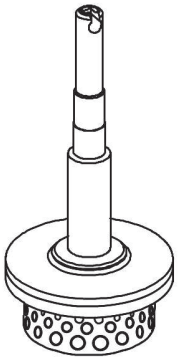
BASIC VALVE COMPONENTS

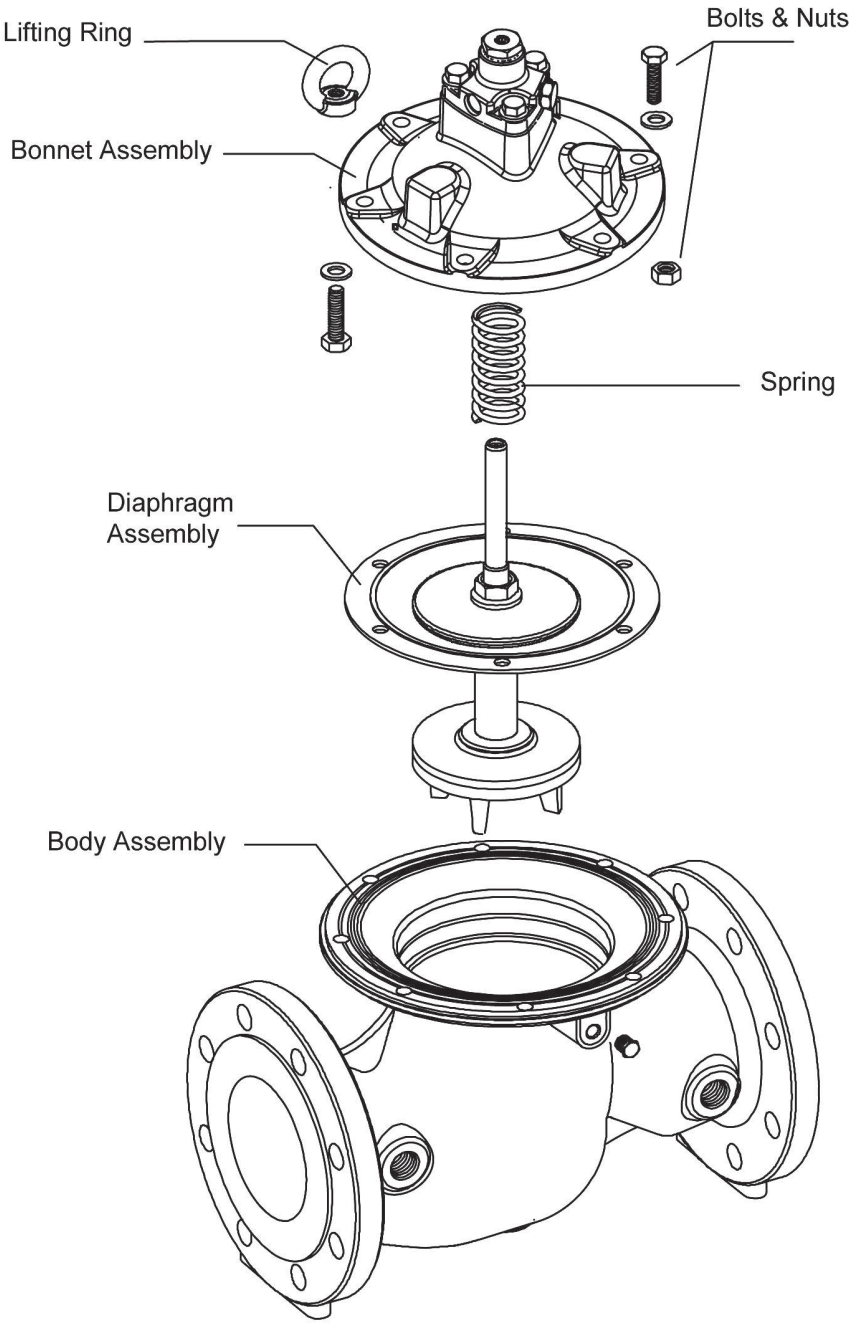
Position Ind. Kit

Double-Chamber Conversion Kit



'F' Version Conversion Kit

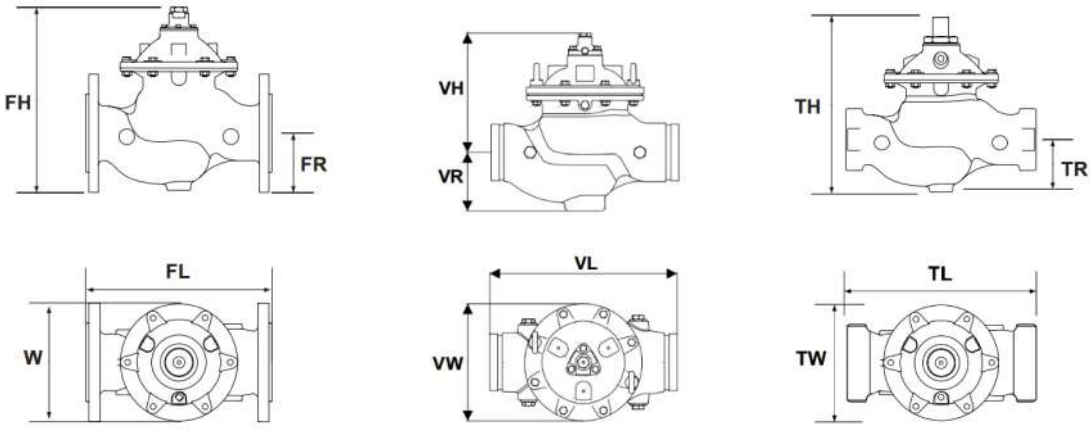




BASIC VALVE DIMENSIONS & WEIGHTS

Valve Size			40 (1.5")		50 (2")		65 (2.5")		80 (3")		100 (4")		150 (6")		200 (8")		250 (10")		300 (12")	
			mm	Inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
Dimensions	30, 30U & 30CU	FL	230	9 1/16	230	9 1/16	292	11 1/2	310	12 3/16	350	13 3/4	480	18 7/8	600	23 1/16	730	28 3/4	850	33 7/16
		FH	185	7 5/16	185	7 5/16	185	7 5/16	230	9 1/16	240	8 7/16	330	13	390	15 3/8	520	20 1/2	635	25
		FR	82.5	3 1/4	82.5	3 1/4	92.5	3 5/8	100	3 15/16	110	4 5/16	142.5	5 5/8	172.5	6 3/4	205	8 1/16	230	9
		W*	153	6	170	6 11/16	185	7 3/16	200	7 7/8	235	9 1/4	330	13	415	16 5/16	525	20 11/16	610	24
		Weight kg/lbs	12 / 26		12 / 26		13 / 29		22 / 49		37 / 82		80 / 176		157 / 346		245 / 540		405 / 893	
	30 & 30U Grooved	VL	N/A		215	8 1/2	280	11	351	13 13/16	376	14 13/16	521	20 1/2	702	27 5/8				
		VH			173	6 13/16	173	6 13/16	228	9	240	9 7/16	330	13	393	15 1/2				
		VR			78	3	75	3	106	4 3/16	118	4 5/8	147.5	5 13/16	175	6 13/16				
		VW			128	5	130	5 3/16	197	7 3/4	236	9 3/8	331	13	412	16 3/16				
		Weight kg/lbs			6.5 / 14.4		7.8 / 17.2		15.2 / 33.4		26.5 / 58.5		58.2 / 128.4		137.3 / 302.7					
	30 & 30U Threaded	TL	215	8 7/16	215	8 7/16														
		TH	185	7 5/16	185	7 5/16														
		TR	62	2 3/8	62	2 3/8														
		TW	129	5	129	5														
		Weight kg/lbs	7 / 15		7 / 15															

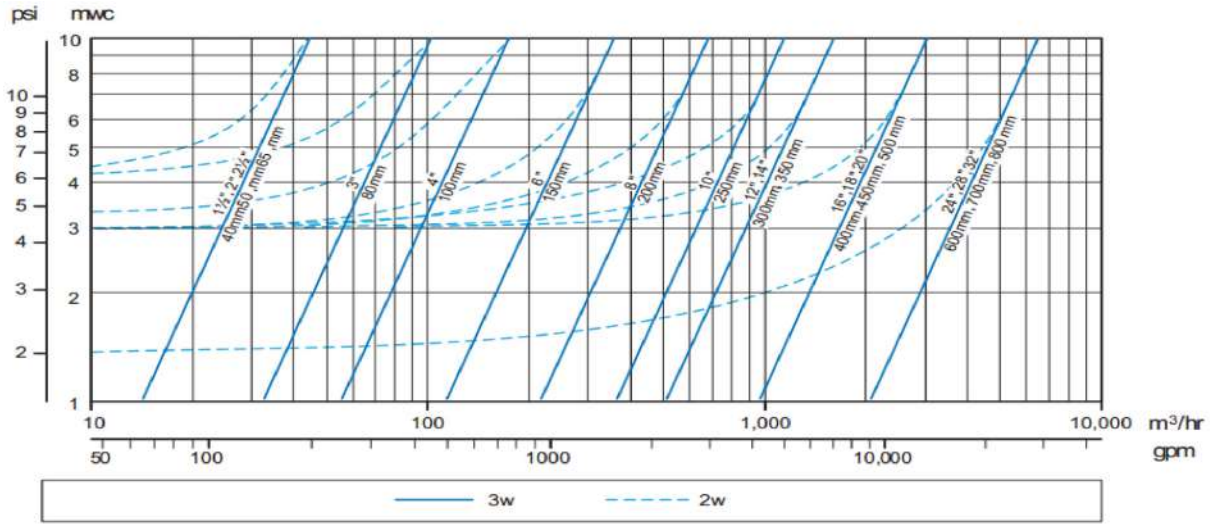
*Valve Width
**Approximate dimensions
***Contact OCV Fluid Solutions for information on additional valve sizes & models



* General representation of valve

HEAD LOSS & HYDRAULIC CHARACTERISTICS

Model 30, 30U & 30CU Head Loss



Model 30, 30U & 30CU (Globe Pattern)

Table showing information for UL listed diameters.

Valve Size		50 (2")	65 (2.5")	80 (3")	100 (4")	150 (6")	200 (8")	250 (10")	300 (12")
K_v	m³/hr @ 1 bar	43	43	115	167	407	676	1160	1600
C_v	gpm @ 1 psi	50	50	133	193	470	781	1341	1850
K Factor	-	5.4	15.4	5.0	5.7	4.9	5.6	4.6	5.1
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

Model 30PS\UL

Fire Pump Pressure Relief Valve

UL Listed
Lloyd's Type Approved

Model 30PR\UL

Pressure Reducing Valve

UL Listed
Lloyd's Type Approved

Model 30U DE\EL

Electrically Actuated Remote Reset Deluge Valve

UL Listed
Lloyd's Type Approved

Model 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
- Cast Steel ASTM A216 & ASTM A352 LCB
- Stainless Steel ASTM CF8M
- 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	250 psi / 17.2 BAR
		#300 RF (or FF)	2″–12″	ASME/ANSI B16.42	375 psi / 25.8 BAR
		PN16	2″–12″	ISO 7005-2	230 psi / 16 BAR
		PN25	2″–12″	ISO 7005-2	360 psi / 25 BAR
		Grooved PN16	2″–8″	ASME/ANSI AWWA 606	230 psi / 16 BAR
		Grooved PN25	2″–8″	ASME/ANSI AWWA 606	360 psi / 25 BAR
		Threaded PN16	2″–3″	BSP / NPT	230 psi / 16 BAR
		Threaded PN25	2″–3″	BSP / NPT	360 psi / 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	250 psi / 17.2 BAR
		#300 RF (or FF)	2″–10″	ASME/ANSI B16.50	375 psi / 25.8 BAR
		PN16	2″–10″	ISO 7005-2	230 psi / 16 BAR
		PN25	2″–10″	ISO 7005-2	360 psi / 25 BAR

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

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SERIES 300
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TECHNICAL DATA

Temperature:
- Water up to 85°C / 185°F max

Sizes:
- Straight Flow: 1.5"- 40" / 40-1000 mm
- UL listed: 2"- 12" / 50-300 mm
- Lloyd's type approved: 2"- 24" / 50-600 mm

End Connections:
- Flanged: 1.5"- 40"
  ISO PN16 and PN25
  ANSI B16.42 & B16.5 Class #150 & #300
  Additional options available upon request
- Grooved: 2" - 8"
  ASME/ANSI AWWA 606
- Threaded: 1.5" - 2"
  BSP or NPT

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

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

Elastomers:
- Buna-N
- Viton
- EPDM

Control Trim & Accessories:
- Brass
- Monel
- Stainless Steel
- Super Duplex
- NAB

Optional Components:
- Pressure Reducing Feature
- Position Indicator & Proximity Switch Assembly
- Pressure Switch
- Alarm Test Trim
- Drain Valve
- Explosion Proof
- Open/Close Speed Control
- Block & Bleed Valves for Pressure Sensing Components
- PPCS (Pneumatic Pressure Control System for Pneumatically Actuated Models)

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