OCV Model 30 PS\UL

Aquestia
Directing the Flow

Pressure Reducing & Pressure Relief Valves

General representation

Fire Protection

Pressure Relief Valve

Description

An automatic, pilot controlled, pressure relief valve, actuated by the pipeline pressure. The valve modulates to maintain a steady, predetermined pressure in the network. Should the upstream pressure exceed the required set point, the valve opens, releasing the excessive pressure. When the pressure falls below the set value, the valve closes drip tight.

Certification & Compliance

UL Listed under QXZQ category

Lloyd's Register Approval

ANSI FCI 70-2 Class VI seat leakage class

Features & Benefits

- Simple field adjustable pressure setting; no special tools & no system downtime
- Superior design featuring low pressure losses at high flow rates
- Low lifelong maintenance costs due to unique frictionless internal trim design
- High flows & working pressures (PN25/375psi)
- Maintains a steady preset system pressure, regardless of fluctuating supply
- Protects the system by accurately limiting maximum pressure
- Out of the box fully assembled & tested valves
- Extensive valve and trim materials selection and corrosion protection coating
- Stainless Steel seat as standard

Typical Applications

Pump & Water Tanks

Fire Suppression Systems

Petrochemical, Oil & Gas Installations

Tunnels

Power Generation, Transformer & Transmission Plants

Onshore/Offshore

Mining

Operation

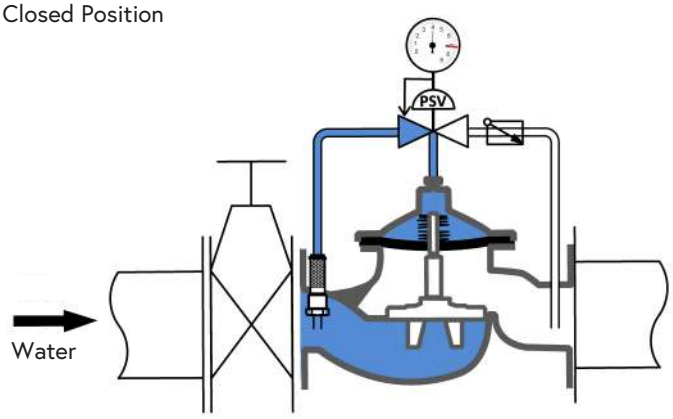
The OCV 30 PS\UL is a pilot controlled, pressure relief valve, actuated by the pipeline pressure. The valve accurately maintains a set pipeline pressure regardless of pump start and stop conditions. The relief pressure can easily be set and modified by use of the adjustment bolt on the pressure relief pilot's cover.

When the system's upstream pressure exceeds the required set point, the valve modulates to maintain a steady, predetermined pressure in the network. When pressure falls below the set value, the valve closes drip tight.

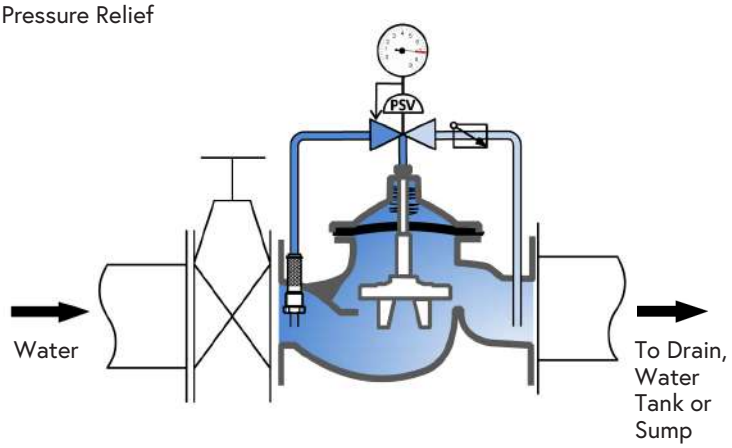
The CXPS pressure relief pilot, contains an integral and adjustable Stainless Steel needle valve which enables high pilot accuracy and control of the valve's closing speed.

The valve's low friction internal trim design utilizes an LTP® (Linear Throttling Plug) guide and a preshaped reinforced diaphragm. The standard and simple single chamber valve allows easy assembly, improved longevity and reduces periodic inspections and maintenance. When required, maintenance is easily done onsite and inline.

Closed Position



Pressure Relief



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

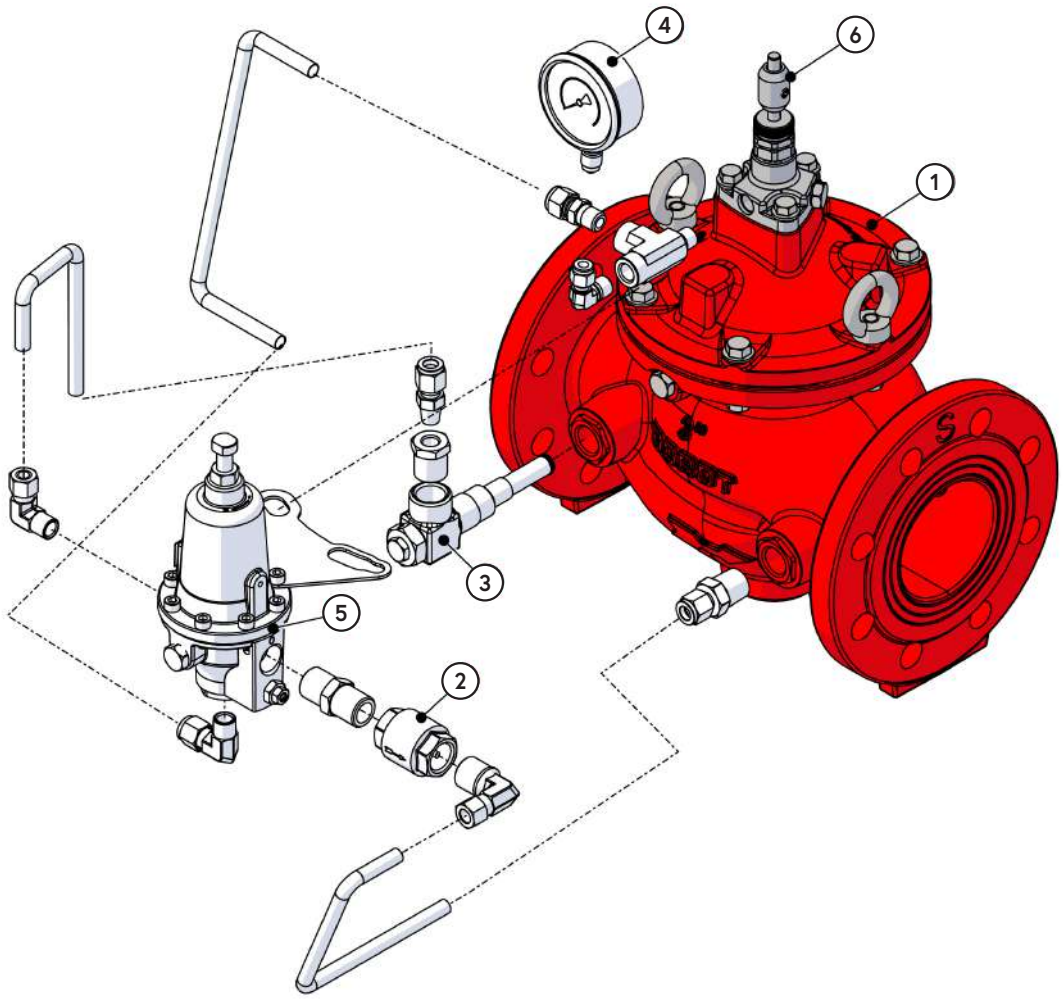
Components & Typical Materials

The OCV 30 PS\UL consists of the following components, arranged as shown on the schematic diagram below.

ID	Part	Standard Material	POG (1) Applications
1	Valve Body	See OCV 300 Engineering Data (2)	
2	Check Valve	Brass	Stainless Steel 316
3	Inline Strainer	Brass, Stainless Steel Screen	Stainless Steel 316
4	Pressure Gauge	Brass	Stainless Steel 316
5	Pressure Relief Pilot	Brass, Stainless Steel 316 Seat	Stainless Steel 316
6	Position Indicator	Stainless Steel 316	Stainless Steel 316

(1) Petrochemical, Oil & Gas

(2) Refer to materials selection guidelines, Engineering Data - Materials: Ductile Iron A-536 65-45-12; Cast Steel A-216 WCB; Cast Steel A-352 LCB; Austenitic Stainless Steel A-351/CF8M; Super Duplex 2507; Nickel-Aluminum-Bronze B-148 UNS C95800



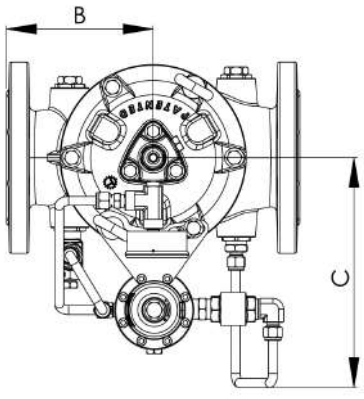
General Arrangement & Dimensions

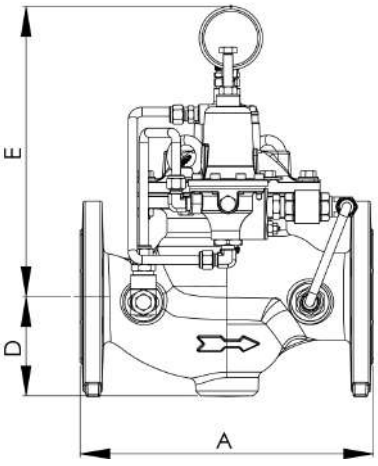
Standard Sizes							
DIM	2"	2 1/2"	3"	4"	6"	8"	10"
A	9 1/8	11 3/16	12 3/16	13 13/16	18 7/8	28 13/16	28 13/16
AG	8 1/2	8 1/2	13 13/16	14 13/16	20 1/2	27 5/8	N/A
B	5 1/2	5 11/16	6 1/8	6 7/8	9 1/2	11 13/16	14 3/8
C	8 1/8	8 1/8	9 1/2	10 3/16	12 1/8	13 11/16	16
D	3 5/16	3 5/8	3 7/8	4 5/16	5 5/8	6 13/16	8 1/8
E	9 11/16	9 11/16	12	12 1/2	15 13/16	18 3/16	22 7/8

Approximate Dimensions.

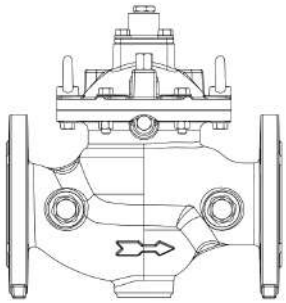
Metric Sizes							
DIM	DN50	DN65	DN80	DN100	DN150	DN200	DN250
A	230	290	310	350	480	600	730
AG	215	215	350	376	520	703	--
B	140	145	155	175	240	300	365
C	206	240 1/2	240 1/2	259 1/2	307	348 1/2	405 1/2
D	82 1/2	92 1/2	100	110	142 1/2	172 1/2	205
E	246	246	305	317	400	462	582

Approximate Dimensions.

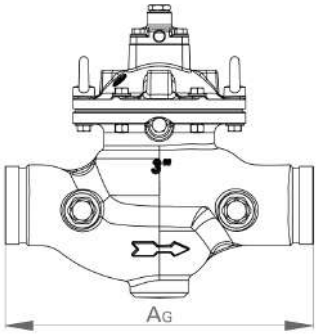




Flanged



Grooved



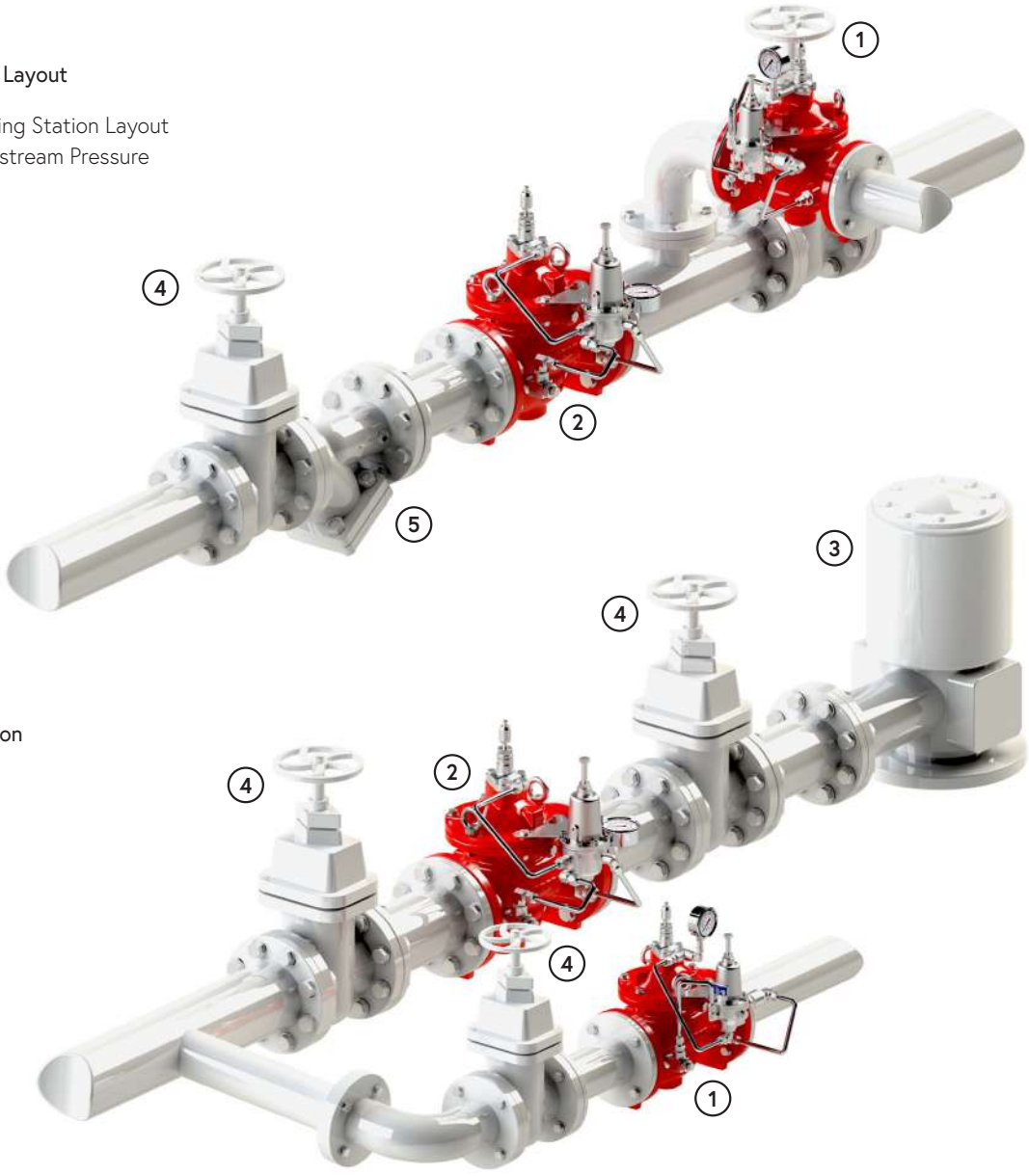
Typical Installation

The typical installation of the OCV 30 PS\UL is as shown:

1 OCV 30 PS\UL Pressure Relief Valve
2 OCV 30 PR\UL Pressure Reducing Valve
3 Pump
4 Isolation Valve
5 Strainer

Typical System Layout

Pressure Reducing Station Layout
Including Downstream Pressure
Relief Valve



Fire Pump Station

General representation.
Not all items pictured reflect products sold by OCV.

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Technical Data

Temperature (Elastomers)	
Media	up to 80°C = 176°F
Elastomers	suitable for extreme climates (available upon request)
Sizes	
UL Listed	2" - 6"
Pressure Rating (ANSI at 100°F)	
250psi for Class 150#	
375psi for Class 300#	
End Connections	
Flanged	ISO-PN16 & ISO-PN25
	ANSI B16.42 & B16.5 Class 150# & 300#
	Additional options available upon request
Grooved	Available

Body & Cover Material	
Ductile Iron	Stainless Steel
Cast Steel	NAB
Trim Material	
Brass - Copper	
Stainless Steel	
Optional Components	
Pressure Switch	
Limit/Proximity Switch	
Items to Specify	
Control trim material other than standard	
Required standards, certifications and approvals	
UL Listed Downstream Pressure Relief Setting Range	
2" up to 205psi	
3"- 6" up to 375psi	
Other Certified (non UL) Downstream Pressure Relief Setting Range	
2"- 12" up to 375psi	

Engineering Specifications

The pressure relief valve shall contain a fabric reinforced rubber diaphragm, elastic & resilient through its entire surface without vulcanized radial discs. The seat shall be stainless steel and interchangeable. The valve shall maintain a constant predetermined upstream pressure regardless of fluctuating demands. Maintenance, disassembly and reassembly of all the valve's components shall be made possible onsite and in-line, without the need to remove the valve from the line. The valve shall be fully trimmed, hydrostatically and operationally tested at the factory and set to a maximum relief pressure of up to 375 psi. Change of factory preset pressure setting can always be performed in-line following simple IOM instructions, without special tools or system downtime. Standard material valves such as ductile iron and cast steel should be coated with high-built fusion-bonded epoxy (FBE). Naval quality/very high corrosivity protection grade conforming to EN12944 C5M is available upon request. Additional coatings and special materials are available upon request. The valve shall be an OCV 30 PS\UL, UL listed under QXZQ category for fire protection service, as manufactured by OCV, an Aquestia Ltd. brand, Tulsa, OK, USA.

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