

▲ Model 765
6" Flanged x 4" Port Shown

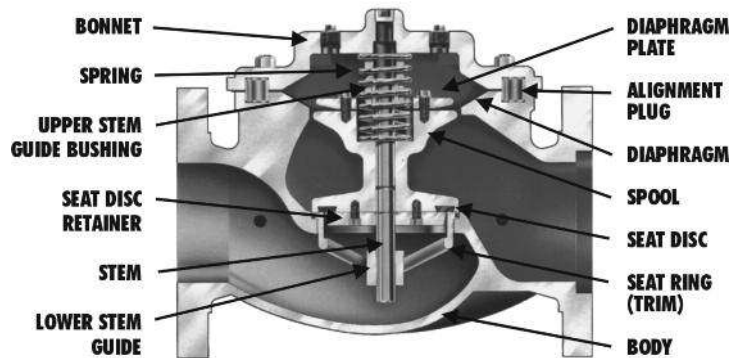
The OCV 765 Control Valve is a globe pattern, reduced port engineered valve. The body, bonnet, internals and seat area are a size smaller than the flange size. Reduced port valves address the need for correctly sized valves without the use of pipeline reducers, allowing the valve to handle an application that demands flow rates of a smaller valve. An example would be an application where the flow rate dictates a 3" valve is used but the line size is 4 inches; thus a Model 765, 4" flanged body with 3" internals appropriately fits this condition.

When equipped with a variety of pilots and accessories the 765 valve performs a wide range of automatic fluid control, making it a specified valve in many applications. Reduced port valves are not applicable for all applications; consult factory for proper sizing assistance. Most common applications are found in modulating or regulating valves; i.e. pressure reducing, pressure relief and among others.

Reduced port valves are available in most OCV valve series. Valve models using the reduced port basic valve start with a number 7. For example: Model 127-3 (full port pressure reducing) would become a Model 727-3 (reduced port pressure reducing).

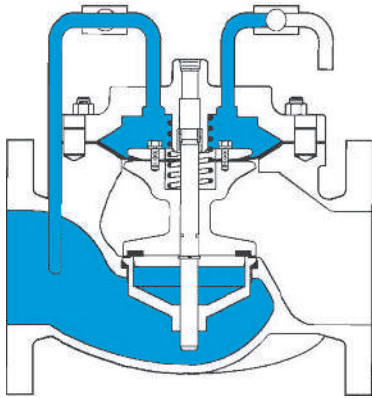
FEATURES / BENEFITS

- ▶ Operates automatically off of line pressure
- ▶ Heavy-duty, nylon-reinforced diaphragm
- ▶ Rectangular-shaped, soft seat seal provides drip-tight Class VI closure
- ▶ Diaphragm assemble guided top and bottom
- ▶ Throttling seat retainer for flow and pressure stability
- ▶ Easily maintained without removal from the line
- ▶ Diaphragm replaced without removing internal stem assembly
- ▶ Replaceable seat ring
- ▶ Alignment pins assure proper reassembly after maintenance
- ▶ Center-tapped bonnet facilitates installation of position indicator or valve-actuated switches
- ▶ Ductile iron and steel valves are epoxy coated inside and outside for maximum corrosion protection
- ▶ Factory tested
- ▶ Serial numbered and registered to facilitate replacement parts and factory support
- ▶ Use is dictated by flow rate instead of line size, which allows for the correct valve sizing without the use of pipeline reducers



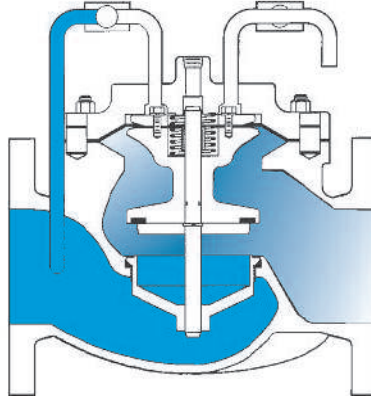
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VALVE OPERATION



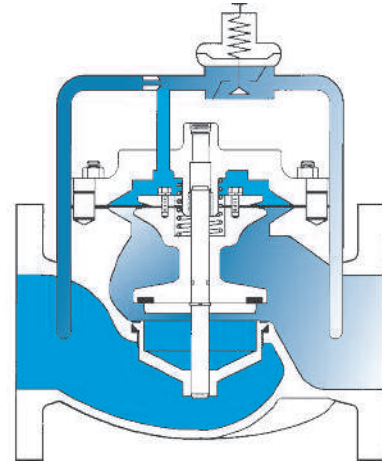
Valve Closed

When line pressure from the valve inlet is applied to the cover chamber, pressuring the diaphragm, the valve is closed drip-tight.



Valve Open

When diaphragm chamber pressure is vented the valve travels to the full open position.



Valve Modulating

The valve is between full open and closed. The valve's control pilot modulates the pressure in the diaphragm chamber, positioning the valve to control the desired pressure or flow. OCV pilot systems provide accurate control in a wide range of performance requirements.

BASIC VALVE FLOW CHARACTERISTICS

| | | | | | | | | | | |
|---------------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| FLANGE SIZE (INCHES) | 3" | 4" | 6" | 8" | 10" * | 12" * | 16" * | 18" | 20" | 24" |
| INTERIOR PORT (INCHES) | 2" | 3" | 4" | 6" | 8" | 10" | 12" | 16" | 16" | 16" |
| FLANGE SIZE (METRIC) | DN80 | DN100 | DN150 | DN200 | DN250 | DN300 | DN400 | DN450 | DN500 | DN600 |
| INTERIOR PORT (METRIC) | 50 | 80 | 100 | 150 | 200 | 250 | 300 | 400 | 400 | 400 |
| C _v (US Gal@ 1 PSID) | 70 | 135 | 215 | 480 | -- | -- | -- | 3000 | 3300 | 3600 |
| C _v (L/Sec @ 1 bar) | 16.7 | 32.3 | 51.4 | 114.7 | -- | -- | -- | 717 | 789 | 860 |

*Consult factory

$$DP = sg \left(\frac{Q}{C_v} \right)^2$$

where:

Q = Flow Rate in USGPM (U.S.) or Q = Flow Rate in liters/sec (Metric)

C_v = Flow Rate in USGPM @ 1 psi pressure drop (U.S.) or C_v = Flow Rate in liter/sec @ 1 bar pressure drop (Metric)

DP = Pressure drop in psi (U.S.) or DP = Pressure drop in bar (Metric)

sg = specific gravity of line fluid

ABOUT YOUR VALVE

OCV Control Valves was founded more than 60 years ago with a vision and commitment to quality and reliability. From modest beginnings, the company has grown to be a global leader just a half century later. In fact, OCV valves can be found in some capacity in nearly every country around the world from fire

protection systems in Malaysia to aircraft fueling systems in Africa and from oil refineries in Russia to water supply systems in the USA and Canada. You will also find our valves in irrigation systems in Europe, South America and the Middle East.

The original foundation on which the company was built allows our team of professionals to not only provide the service required to be a worldwide supplier, but more importantly the opportunity to afford the personal touch necessary to be each of our customers' best partner. Simply stated, we take pride in all that we do.

Committed to the work they do, our employees average over 15 years of service. This wealth of knowledge allows us to provide quality engineering, expert support, exacting control and the know-how to create valves known for their long life.

Being ISO 9001 certified means we are committed to a quality assurance program. Our policy is to supply each customer with consistent quality products and ensure that the process is right every time. Our valves meet and exceed industry standards around the world. Including approvals by:



All valves are not created equal. OCV Control Valves proves that day in and day out. We stand behind our valves and are ready to serve your needs.

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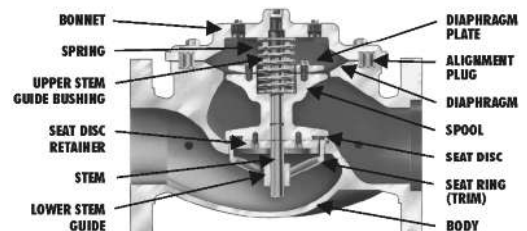
SPECIFICATIONS



NOTE: ALL waterworks valves meet the Low-Lead laws of the United States, including individual state laws, as of March 2014.
 *Valves 1-1/4" through 24" are certified to NSF/ANSI 372. Valves 4" through 24" are also certified to NSF/ANSI 61-G.

| VALVE BODY & BONNET | | DUCTILE IRON | | CAST STEEL | | STAINLESS STEEL | |
|--|-----------------|---|---------|---------------------------------------|---------|-------------------------------------|---------|
| Material Specification | | ASTM A536/65-45-12 (epoxy coated) | | ASTM A216/WCB (epoxy coated) | | ALL GRADES | |
| END CONNECTIONS | | | | | | | |
| Flange Standard (also available in metric) | | ANSI B16.42 | | ANSI B16.5 | | ANSI B16.5 | |
| Flange Class | | 150# | 300# | 150# | 300# | 150# | 300# |
| Flange Face | | Flat | Raised | Raised | Raised | Raised | Raised |
| Maximum Working Pressure | | 250 psi | 640 psi | 285 psi | 740 psi | 285 psi | 740 psi |
| Screwed Working Pressure: ANSI B1.20.1 640 psi | | | | Grooved End Working Pressure: 300 psi | | | |
| INTERNALS | | | | | | | |
| Stem | | STAINLESS STEEL | | | | | |
| Spring | | STAINLESS STEEL | | | | | |
| Spool | | DUCTILE IRON (epoxy coated) / OPTIONAL - STN. STL. | | | | STAINLESS STEEL | |
| Seat Disc Retainer | | DUCTILE IRON (epoxy coated) (10" & LARGER) STN. STL. (8" & SMALLER / OPTIONAL - ALL SIZES) | | | | STAINLESS STEEL | |
| Diaphragm Plate | | DUCTILE IRON (epoxy coated) / OPTIONAL - STN. STL. | | | | STAINLESS STEEL | |
| Seat Ring (Trim) | | LOW-LEAD BRONZE OR STN. STL. | | | | STN. STL. | |
| Upper Stem Bushing | | BRONZE OR TEFLON® | | | | TEFLON® | |
| Lower Stem Bushing | | NOT APPLICABLE FOR LOW-LEAD BROZE SEAT RINGS / TEFLON FOR FOR STN. STL. SEAT RINGS | | | | | |
| ELASTOMER PARTS (Rubber) | | | | | | | |
| Diaphragm/Seat Disc/O-Rings | | EPDM | | | | | |
| Operating Temperature* | | 32°F to 230°F | | | | | |
| *Consult factory when temperatures approach low or high temperature allowance. | | | | | | | |
| COATINGS NSF-61 EPOXY COATING | | | | | | | |
| ELECTRICAL SOLENOIDS | | | | | | | |
| Bodies | | BRASS / OPTIONAL - STAINLESS STEEL | | | | | |
| Enclosures | | WATER TIGHT, NEMA 1, 3, 4, & 4X | | | | | |
| Power | | AC, 60HZ - 24, 120, 240, 480 VOLTS | | AC, 50HZ - In 110 VOLT MULTIPLES | | DC, 6 12, 24, 240 VOLTS | |
| Operation | | ENERGIZE TO OPEN (NORMALLY CLOSED) | | | | DE-ENERGIZE TO OPEN (NORMALLY OPEN) | |
| CONTROL PILOTS | | | | | | | |
| Bodies | LOW-LEAD BRONZE | STN. STL. | | | | | |
| Internal | STAINLESS STEEL | STAINLESS STEEL | | | | | |
| Tubing | COPPER | STAINLESS STEEL | | | | | |
| Fittings | LOW-LEAD BRASS | STAINLESS STEEL | | | | | |

TEFLON® is a registered trademark of DuPont.



Globe Flanged Sizes

| | | | | | | | | | | | | | | |
|-------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|------------------|------------------|-------|
| 1.25" | 1.5" | 2" | 2.5" | 3" | 4" | 6" | 8" | 10" | 12" | 14" | 16" | 18 ^{**} | 20 ^{**} | 24" |
| 32mm | 40mm | 50mm | 65mm | 80mm | 100mm | 150mm | 200mm | 250mm | 300mm | 350mm | 400mm | 450mm | 500mm | 600mm |

*CONSULT FACTORY



Angle Flanged Sizes

| | | | | | | | | | | |
|-------|------|------|------|------|-------|-------|-------|-------|-------|-------|
| 1.25" | 1.5" | 2" | 2.5" | 3" | 4" | 6" | 8" | 10" | 12" | 16" |
| 32mm | 40mm | 50mm | 65mm | 80mm | 100mm | 150mm | 200mm | 250mm | 300mm | 400mm |



Globe/Angle Screwed Sizes

| | | | | |
|-------|------|------|------|------|
| 1.25" | 1.5" | 2" | 2.5" | 3" |
| 32mm | 40mm | 50mm | 65mm | 80mm |



Globe/Angle Grooved Sizes

| | | | | | |
|------|------|------|------|-------|-----------------|
| 1.5" | 2" | 2.5" | 3" | 4" | 6 ^{**} |
| 32mm | 50mm | 65mm | 80mm | 100mm | 150mm |

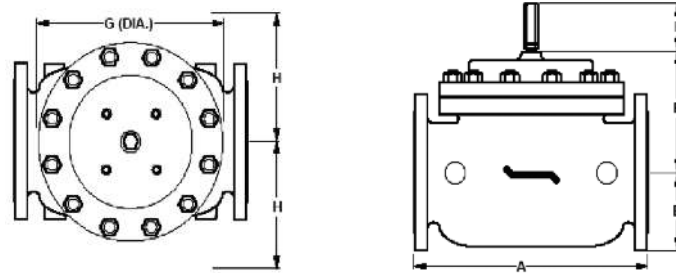
*GLOBE ONLY

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DIMENSIONS

| DIM | ANSI CLASS | VALVE SIZE | | | | | | | | | |
|---------------|------------|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | 3 | 4 | 6 | 8 | 10* | 12* | 16* | 18 | 20 | 24 |
| A | 150 | 10.50 | 13.50 | 15.50 | 21.62 | 26.00 | 30.00 | 34.50 | 48.00 | 48.00 | 48.00 |
| | 300 | 10.88 | 14.12 | 16.38 | 22.62 | 27.38 | 31.50 | 36.62 | 49.62 | 49.62 | 49.75 |
| B | 150 | 3.75 | 4.50 | 5.50 | 6.75 | 8.00 | 9.50 | 11.75 | 12.50 | 13.75 | 16.00 |
| | 300 | 4.12 | 5.00 | 6.25 | 7.50 | 8.75 | 10.25 | 12.75 | 14.00 | 15.25 | 18.00 |
| E | ALL | 6.00 | 6.50 | 7.92 | 10.00 | 11.88 | 15.38 | 17.00 | 19.00 | 19.00 | 19.00 |
| F | ALL | 3.88 | 3.88 | 3.88 | 3.88 | 6.38 | 6.38 | 6.38 | 6.38 | 6.38 | 6.38 |
| G | ALL | 6.75 | 8.75 | 11.75 | 14.00 | 21.00 | 24.50 | 28.00 | 34.50 | 34.50 | 34.50 |
| H | ALL | 11.00 | 11.00 | 12.00 | 13.00 | 14.00 | 17.00 | 18.00 | 20.00 | 20.00 | 20.00 |
| INTERIOR PORT | | 2" | 3" | 4" | 6" | 8" | 10" | 12" | 16" | 16" | 16" |
| Cv | | 70 | 135 | 215 | 480 | -- | -- | -- | 3000 | 3300 | 3600 |

*Consult factory



For maximum efficiency, the OCV control valve should be mounted in a piping system so that the valve bonnet (cover) is in the top position. Other positions are acceptable but may not allow the valve to function to its fullest and safest potential. In particular, please consult the factory before installing 10" and larger flanged valves, or any valves with a limit switch, in positions other than described. Space should be taken into consideration when mounting valves and their pilot systems.

A routine inspection & maintenance program should be established and conducted yearly by a qualified technician. Consult our factory @ **1-888-628-8258** for parts and service.

How to order your valve

When Ordering please provide:

Series Number - Valve Size - Class - Flanged Trim Material - Pilot Options - Special needs / or Installation Requirements.

Refer to model sheet for specific options.

Represented by:

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