

# Victaulic® Series 728 FireLock™ Ball Valve



Threaded x Threaded



Grooved x Grooved

## 1.0 PRODUCT DESCRIPTION

### Available Sizes

- 1 – 2"/DN25 – DN50: Female Threaded NPT or ISO 7-Rc (BSPT)
- 1¼ – 2"/DN32 – DN50: Grooved

### Maximum Working Pressure

- 365 psi/2500 kPa/25 bar (UL and FM)
- 20 bar/2000 kPa/290 psi (LPCB, VdS, and CNBOP)

### Application

- Full-port ball valve designed for use in fire protection services.
- Designed for open/closed services only and shall not be used for throttling services
- Features a weatherproof actuator housing approved for indoor and outdoor use
- Exclusively for use with pipe and *Victaulic* products which feature ends formed with the *Victaulic* Original Groove System (OGS) groove profile (See [Section 7.0](#) for Reference Materials).

## 2.0 CERTIFICATIONS/LISTINGS



## 3.0 SPECIFICATIONS – MATERIAL

**Valve Body:** Brass Coated with Electroless Nickel Phosphorus

**Ball:** Chrome-Plated Brass

**Ball Valve Stem:** 17-4 Stainless Steel

**Seat:** Carbon Filled PTFE

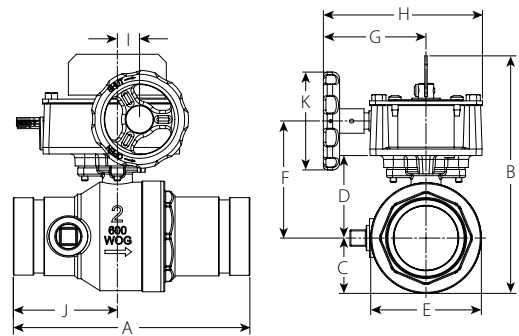
**Stem Nut:** Brass Coated with Electroless Nickel Phosphorus

**Actuator:** Brass or Bronze Traveling Nut on a Steel Lead Screw, in a Ductile Iron Housing

ALWAYS REFER TO ANY NOTIFICATIONS AT THE END OF THIS DOCUMENT REGARDING PRODUCT INSTALLATION, MAINTENANCE OR SUPPORT.

4.0 DIMENSIONS

Series 728 FireLock™ Ball Valve (Grooved x Grooved)

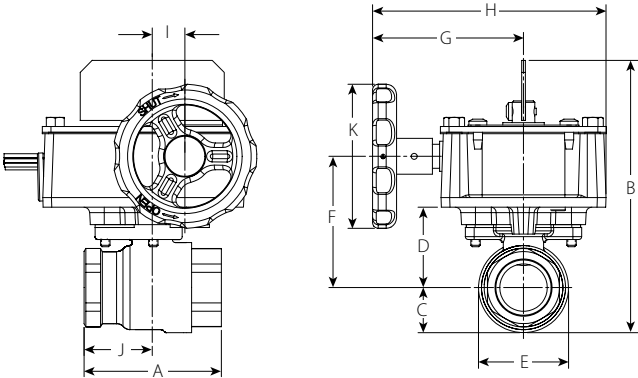


| Size    |                         | Dimensions |        |        |        |        |        |        |        |        |        |        | Weight         |
|---------|-------------------------|------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------------|
| Nominal | Actual Outside Diameter | A          | B      | C      | D      | E      | F      | G      | H      | I      | J      | K      | Approx. (Each) |
| inches  | inches                  | inches     | inches | inches | inches | inches | inches | inches | inches | inches | inches | inches | lb             |
| DN      | mm                      | mm         | mm     | mm     | mm     | mm     | mm     | mm     | mm     | mm     | mm     | mm     | kg             |
| 1 ¼     | 1.660                   | 7.25       | 4.95   | 1.10   | 1.87   | 2.20   | 2.61   | 3.15   | 4.86   | 0.68   | 3.19   | 3.00   | 7.5            |
| DN32    | 42.4                    | 184        | 126    | 28     | 48     | 56     | 66     | 80     | 123    | 17     | 81     | 76     | 3.4            |
| 1 ½     | 1.900 <sup>1</sup>      | 7.25       | 5.17   | 1.29   | 2.10   | 2.58   | 2.83   | 3.15   | 4.86   | 0.68   | 3.19   | 3.00   | 8.5            |
| DN40    | 48.3                    | 184        | 131    | 33     | 53     | 66     | 72     | 80     | 123    | 17     | 81     | 76     | 3.9            |
| 2       | 2.375 <sup>1</sup>      | 7.25       | 5.47   | 1.69   | 2.40   | 3.38   | 3.13   | 3.15   | 4.86   | 0.68   | 3.19   | 3.00   | 10.5           |
| DN50    | 60.3                    | 184        | 139    | 43     | 61     | 86     | 80     | 80     | 123    | 17     | 81     | 76     | 4.8            |

<sup>1</sup> The 1 ½"/DN40 and 2"/DN50 sizes feature a ½"/12-mm tap (grooved x grooved body only).

4.0 DIMENSIONS (CONTINUED)

Series 728 FireLock™ Ball Valve (Threaded × Threaded)



| Size         |                         | Dimensions   |              |              |              |              |              |              |              |              |              |              | Weight         |
|--------------|-------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|
| Nominal      | Actual Outside Diameter | A            | B            | C            | D            | E            | F            | G            | H            | I            | J            | K            | Approx. (Each) |
| inches<br>DN | inches<br>mm            | inches<br>mm | inches<br>mm | inches<br>mm | inches<br>mm | inches<br>mm | inches<br>mm | inches<br>mm | inches<br>mm | inches<br>mm | inches<br>mm | inches<br>mm | lb<br>kg       |
| 1            | 1.315                   | 2.84         | 4.74         | 0.91         | 1.67         | 1.82         | 2.40         | 3.15         | 4.86         | 0.68         | 1.42         | 3.00         | 5.1            |
| DN25         | 33.7                    | 72           | 120          | 23           | 42           | 46           | 61           | 80           | 123          | 17           | 36           | 76           | 23             |
| 1 ¼          | 1.660                   | 3.30         | 4.95         | 1.10         | 1.88         | 2.20         | 2.61         | 3.15         | 4.86         | 0.68         | 1.65         | 3.00         | 5.8            |
| DN32         | 42.4                    | 84           | 126          | 28           | 48           | 56           | 66           | 80           | 123          | 17           | 42           | 76           | 2.6            |
| 1 ½          | 1.900                   | 3.66         | 5.13         | 1.29         | 2.06         | 2.58         | 2.79         | 3.15         | 4.86         | 0.68         | 1.83         | 3.00         | 6.6            |
| DN40         | 48.3                    | 93           | 130          | 33           | 52           | 66           | 71           | 80           | 123          | 17           | 47           | 76           | 3.0            |
| 2            | 2.375                   | 4.32         | 5.49         | 1.69         | 2.42         | 3.38         | 3.15         | 3.15         | 4.86         | 0.68         | 2.16         | 3.00         | 8.5            |
| DN50         | 60.3                    | 110          | 140          | 43           | 62           | 86           | 80           | 80           | 123          | 17           | 55           | 76           | 3.9            |

## 5.0 PERFORMANCE

### Flow Characteristics

| Size                    |                                            |                      | Flow Data<br>Frictional<br>Resistance                               |
|-------------------------|--------------------------------------------|----------------------|---------------------------------------------------------------------|
| Nominal<br>inches<br>DN | Actual Outside<br>Diameter<br>inches<br>mm | End<br>Configuration | Equivalent<br>feet/meters<br>of pipe <sup>1</sup><br>feet<br>meters |
| 1<br>DN25               | 1.315<br>33.7                              | Threaded             | 0.50<br>0.2                                                         |
| 1 ¼<br>DN32             | 1.660<br>42.4                              | Threaded             | 1.00<br>0.3                                                         |
| 1 ½<br>DN40             | 1.900<br>48.3                              | Threaded             | 1.00<br>0.3                                                         |
| 2<br>DN50               | 2.375<br>60.3                              | Threaded             | 1.00<br>0.3                                                         |
| 1 ¼<br>DN32             | 1.660<br>42.4                              | Grooved              | 0.75<br>0.2                                                         |
| 1 ½<br>DN40             | 1.900<br>48.3                              | Grooved              | 0.75<br>0.2                                                         |
| 2<br>DN50               | 2.375<br>60.3                              | Grooved              | 0.75<br>0.2                                                         |

<sup>1</sup> The flow data listed is based upon the pressure drop of Schedule 40 pipe.

## 6.0 NOTIFICATIONS

### WARNING



- Read and understand all instructions before attempting to install any Victaulic products.
- Always verify that the piping system has been completely depressurized and drained immediately prior to installation, removal, adjustment, or maintenance of any Victaulic products.
- Confirm that any equipment, branch lines, or sections of piping that may have been isolated for/during testing or due to valve closures/positioning are identified, depressurized, and drained immediately prior to installation, removal, adjustment, or maintenance of any Victaulic products.
- Wear safety glasses, hardhat, and foot protection.

Failure to follow these instructions could result in death or serious personal injury and property damage.

- These products shall be used only in fire protection systems that are designed and installed in accordance with current, applicable National Fire Protection Association (NFPA) standards, or equivalent standards, and in accordance with applicable building and fire codes. These standards and codes contain important information regarding protection of systems from freezing temperatures, corrosion, mechanical damage, etc.
- The installer shall understand the use of this product and why it was specified for the particular application.
- The installer shall understand common industry safety standards and potential consequences of improper product installation.
- It is the system designer's responsibility to verify suitability of materials for use with the intended fluid media within the piping system and external environment.
- The material specifier shall evaluate the effect of chemical composition, pH level, operating temperature, chloride level, oxygen level, and flow rate on materials to confirm system life will be acceptable for the intended service.

Failure to follow installation requirements and local and national codes and standards could compromise system integrity or cause system failure, resulting in death or serious personal injury and property damage.

## 7.0 REFERENCE MATERIALS

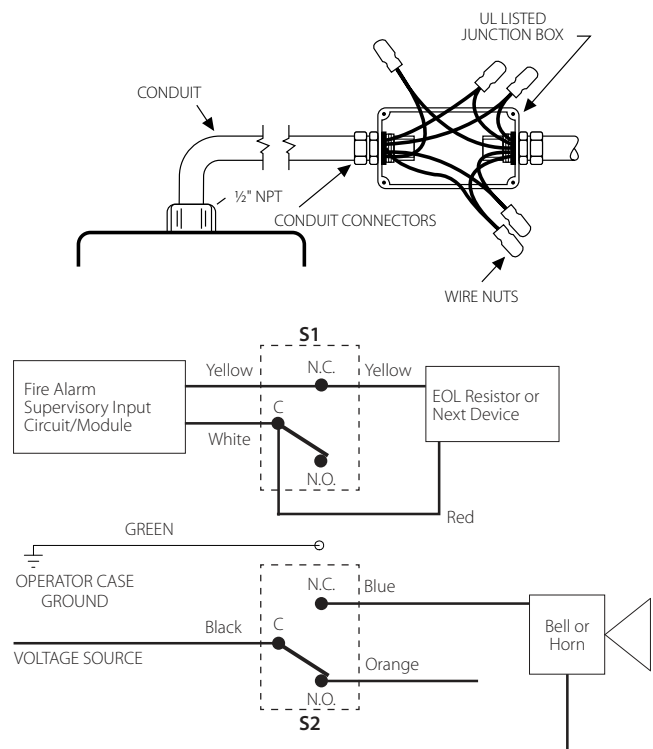
### Switch and Wiring

- The supervisory switch contains two single-pole, double-throw, pre-wired switches.
- Switches are rated:
  - 10 amps @ 125 or 250 VAC/60 Hz
  - 0.50 amps @ 125 VDC
  - 0.25 amps @ 250 VDC
- **Switches only supervise the valve in the "fully opened" position. The valve cannot be supervised in the "closed" position.**
- One switch has two #18 insulated wires per terminal, which permit complete supervision of leads (refer to diagrams and notes on this page). The second switch has one #18 insulated wire per terminal. This double circuit provides flexibility to operate two electrical devices at separate locations, such as an indicating light and an audible alarm, in the area that the valve is installed.
- A #14 insulated ground lead (green with yellow stripe) is provided. **NOTE:** The ground lead for older valve configurations may be solid green.

Switch #1 = S1 For connection to the supervisory circuit of a UL Listed alarm control panel – The switch is open when the valve is in the "fully opened" position

Switch #2 = S2 Auxiliary switch that may be connected to auxiliary devices, per the authority having jurisdiction

- |    |   |                                                  |
|----|---|--------------------------------------------------|
| S1 | { | Normally Closed Contact: (2) Blue                |
|    |   | Common Contact: (2) Yellow                       |
| S2 | { | Normally Closed Contact: Blue with Orange Stripe |
|    |   | Normally Open Contact: Brown with Orange Stripe  |
|    |   | Common Contact: Yellow with Orange Stripe        |



Switch contacts shown with the valve in the "FULLY OPENED" position

Only S1 (two leads per terminal) may be connected to the fire alarm control panel.

Connection of supervisory and auxiliary switches shall be in accordance with applicable sections of NFPA 72 and NFPA 70 (NEC).

## 7.1 REFERENCE MATERIALS

- [25.01: Original Groove System \(OGS\) Groove Specifications](#)
- [29.01: Terms and Conditions/Warranty](#)
- [I-100: Field Installation Handbook](#)
- [I-728: Victaulic® Series 728 FireLock™ Ball Valve Installation, Wiring, and Gear Operator Instructions](#)

**User Responsibility for Product Selection and Suitability**

Each user bears final responsibility for determining the suitability of Victaulic products for their end-use application, in accordance with industry standards, project specifications, and Victaulic's published performance, maintenance, and safety data, as well as all warnings and installation instructions. Nothing in this or any other document, nor any verbal recommendation, advice, or opinion from any Victaulic employee, shall be deemed to alter, vary, supersede, or waive any provision of Victaulic Company's standard conditions of sale, warranty, installation instructions, or this disclaimer.

**Installation**

Always refer to and follow the [Victaulic Installation Handbook](#) or installation instructions for the product you are installing. Handbooks are included with each shipment of Victaulic products, providing complete installation and assembly data, and are available in PDF format on our website at [victaulic.com](http://victaulic.com).

**Warranty**

Refer to the Warranty section of the current Price List or contact Victaulic for details.

**Intellectual Property Rights**

No statement concerning the use of any material, product, service, or design is intended, or should be construed, to grant any license under any patent or other intellectual property right of Victaulic or any of its affiliates, or as a recommendation for the use of such material, product, service, or design in the infringement of any patent or other intellectual property right. The terms "Patented" or "Patent Pending" refer to design or utility patents or patent applications for articles and/or methods of use in the United States and/or other countries. Victaulic and all other Victaulic marks are the trademarks or registered trademarks of Victaulic Company, and/or its affiliated entities, in the U.S. and/or other countries.

**Note**

All products bearing a Victaulic trademark are manufactured by Victaulic or to Victaulic specifications. All products are to be installed only in accordance with the applicable Victaulic installation instructions. Victaulic reserves the right to change product specifications, designs and standard equipment without notice and without incurring obligations.