### 1.0 PRODUCT DESCRIPTION

<table>
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<th>ESFR PENDENT APPROVALS/LISTINGS</th>
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<tr>
<td>SIN</td>
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<tr>
<td>SPRINKLER RESPONSE</td>
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<tr>
<td>ORIENTATION</td>
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<tr>
<td>K-FACTOR¹</td>
</tr>
<tr>
<td>CONNECTION</td>
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<tr>
<td>MAX. WORKING PRESSURE</td>
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<table>
<thead>
<tr>
<th>AVAILABLE WRENCHES</th>
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<tbody>
<tr>
<td>SPRINKLER</td>
</tr>
<tr>
<td>Pendent</td>
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</table>

Factory Hydrostatic Test: 100% @ 500 psi/3447 kPa/34 bar
Min. Operating Pressure: UL/FM: 7 psi/48 kPa/.5 bar

¹ For K-Factor when pressure is measured in bar, multiply S.I. units by 10.0.
### 2.0 CERTIFICATION/LISTINGS

#### ESFR PENDENT APPROVALS/LISTINGS

<table>
<thead>
<tr>
<th>SIN</th>
<th>cULus (NFPA) V4902</th>
<th>FM</th>
<th>cULus (NFPA) V4996</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal K Factor Imperial</td>
<td>22.4</td>
<td>22.4</td>
<td></td>
</tr>
<tr>
<td>Nominal K Factor S.I.²</td>
<td>32.0</td>
<td>32.0</td>
<td></td>
</tr>
<tr>
<td>Sprinkler Type</td>
<td>ESFR</td>
<td>Quick Response Storage</td>
<td>ESFR</td>
</tr>
<tr>
<td>System Type</td>
<td>Wet</td>
<td>Wet</td>
<td></td>
</tr>
<tr>
<td>Approved Temperature Rating</td>
<td>165°F/74°C</td>
<td>165°F/74°C</td>
<td>165°F/74°C</td>
</tr>
<tr>
<td>Maximum Area of Coverage</td>
<td>100ft²/9.1m²</td>
<td>100ft²/9.1m²</td>
<td>100ft²/9.1m²</td>
</tr>
<tr>
<td>Minimum Area of Coverage</td>
<td>64ft²/6m²</td>
<td>64ft²/6m²</td>
<td>64ft²/6m²</td>
</tr>
<tr>
<td>Maximum Slope Ceiling</td>
<td>2 in 12/10.5&quot;</td>
<td>2 in 12/10.5&quot;</td>
<td>2 in 12/10.5&quot;</td>
</tr>
<tr>
<td>Maximum Spacing</td>
<td>12ft/3.6m for up to 30ft/9.1m ceiling 10ft/3m for over 30ft/9.1m ceiling</td>
<td>12ft/3.6m for up to 30ft/9.1m ceiling 10ft/3m for over 30ft/9.1m ceiling</td>
<td>12ft/3.6m for up to 30ft/9.1m ceiling 10ft/3m for over 30ft/9.1m ceiling</td>
</tr>
<tr>
<td>Minimum Spacing</td>
<td>8ft/2.4m</td>
<td>8ft/2.4m</td>
<td>8ft/2.4m</td>
</tr>
<tr>
<td>Deflector to Ceiling Distance³</td>
<td>6'-18&quot;/150mm-457mm</td>
<td>6'-17&quot;/100mm-432mm</td>
<td>4'-17&quot;/100mm-432mm</td>
</tr>
<tr>
<td>Minimum Deflector Distance from Walls</td>
<td>3ft/0.9m</td>
<td>3ft/0.9m</td>
<td>3ft/0.9m</td>
</tr>
<tr>
<td>Sprinkler System Design</td>
<td>12 A.S @ Approved Pressures</td>
<td>12 A.S @ Approved Pressures</td>
<td>12 A.S @ Approved Pressures</td>
</tr>
</tbody>
</table>

#### Storage Type

- **Open Frame (that is, no solid shelves) Single, Double, Multiple-Row, or Portable Rack Storage of Class I-IV and Group A or B Plastics**
  - NFPA 13
  - Datasheet 8-9
  - NFPA 13
  - Datasheet 8-9

- **Solid Pile or Palletized Storage of Class I-IV and Group A or B Plastics**
  - NFPA 13
  - Datasheet 8-9
  - NFPA 13
  - Datasheet 8-9

- **Idle Pallet Storage**
  - NFPA 13
  - Datasheet 8-24
  - NFPA 13
  - Datasheet 8-24

- **Rubber Tire Storage**
  - NFPA 13
  - Datasheet 8-3
  - NFPA 13
  - Datasheet 8-3

- **Rolled Paper Storage (Refer to the standard.)**
  - NFPA 13
  - Datasheet 8-21
  - NFPA 13
  - Datasheet 8-21

- **Flammable Liquid Storage (Refer to the standard.)**
  - NFPA 30
  - Datasheet 7-29
  - NFPA 30
  - Datasheet 7-29

- **Aerosol Storage (Refer to the standard.)**
  - NFPA 308
  - Datasheet 7-31
  - NFPA 308
  - Datasheet 7-31

- **Automotive Components in Portable Racks (Control mode only, refer to the standard.)**
  - Refer to NFPA 13
  - N/A
  - Refer to NFPA 13
  - N/A

² For K-Factor when pressure is measured in Bar, multiply S.I. units by 10.
³ Distance is taken from the center of the thermal element for FM.

### NOTES
- Listings and approval as of printing.

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3.0 SPECIFICATIONS – MATERIAL

Deflector: Brass  
Load Screw: Stainless Steel  
Pip Cap: Brass  
Spring Seal: PTFE coated Beryllium nickel alloy  
Frame: Cast Brass  
Link: Nickel  
Lever: Monel  
Strut: Monel  
Installation Wrench: Ductile iron  
Sprinkler Frame Finishes: Plain brass

NOTE
• For cabinets and other accessories refer to separate sheet.

4.0 DIMENSIONS

5.0 PERFORMANCE

Sprinkler is to be installed and designed as per NFPA, FM Datasheets, or any local standards.
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.
- 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 13, 13D, 13R, etc.) 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

Ratings: All glass bulbs are rated for temperatures from -67°F/-55°C.

1-40: Victaulic FireLock™ Automatic Sprinklers Installation and Maintenance Instructions
I-V9: Style V9 Victaulic FireLock™ IGS™ Installation-Ready™ Sprinkler Coupling Installation Instructions