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|  | <h1 style="margin: 0;">TECHNICAL DATA</h1> | <p><b>3" - 8" (DN80 - DN200)</b><br/> <b>HORIZONTAL SOLENOID</b><br/> <b>OPERATED DELUGE VALVE</b><br/>                 Maximum 250 PSI WWP</p> |
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**1. DESCRIPTION**

The Viking Horizontal Pilot Deluge System is a simple pilot control system that utilizes a straight through Model F-1 Deluge Valve, operated with a solenoid valve. The deluge valve is a quick opening, differential diaphragm flood valve with one moving mechanism. It is held closed by water pressure trapped in the priming chamber; keeping the outlet chamber and downstream piping dry. The solenoid valve is a normally closed control valve that energizes open upon receiving power applied to the solenoid coil. When the pilot control system operates, pressure is released from the priming chamber of the deluge valve. This opens the clapper to allow water to flow into the piping. The solenoid operated deluge valve can be remotely operated.

**Features:**

1. Simple design with easy installation and maintenance
2. Designed for remote resetting and activation
3. Deluge valve-field replaceable diaphragm and seat rubbers

**2. LISTINGS AND APPROVALS:**

 **cULus Listed:** Guide No. VLFT

**3. TECHNICAL DATA**

**Deluge Valve Specifications:**

Maximum Working Water Pressure: 250 PSI (17.4 bar)  
 Factory tested: to 500 psi (34.5 bar)  
 Valve differential: 2:1 (priming chamber to inlet chamber)  
 Color of valve: Red

Friction loss and C<sub>v</sub> Factor: Refer to Table 1.

**Deluge Valve Material Standards:**

Main Valve Body and Cover: Ductile Iron, Grade 65-45-12, Brass UNS-C84400 or UNS-C83600

**Main Trim Material Standards:**

Nipples and fittings: Galvanized steel  
 Drain Tube: 7" (177.8 mm) copper tube

**Flexible Hose Specifications and Material Standards:**

3/8" ID Stainless Steel braided corrugated tube  
 Lengths: 18" (457 mm) for the 3" and 4" (DN80 and DN100) valves, 24" (610 mm) for the 6" (DN150) valve, and 31" (787 mm) for the 8" (DN200) valve +/- 1/2" (12.7 mm).

**NOTE: 1-1/2" (38.1 mm) minimum bend radius**

**Solenoid Valve Specifications:**

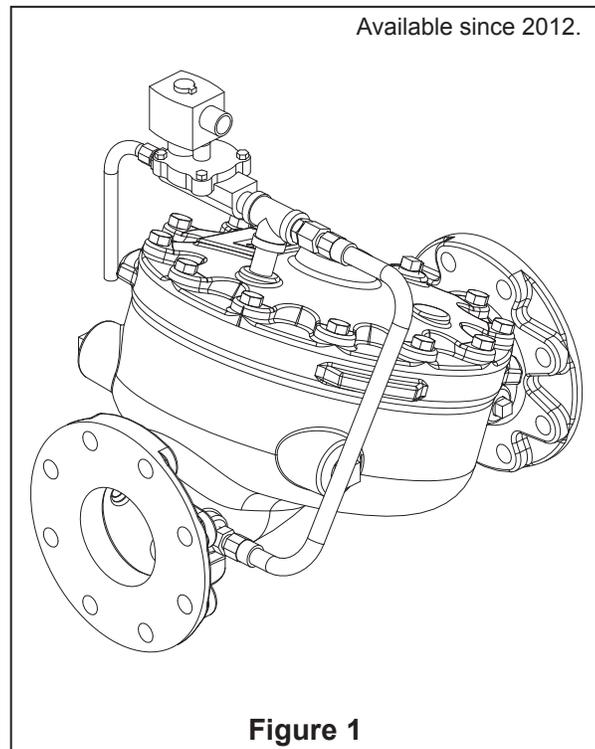
NEMA 1,2,3,3S,4,4X general purpose, watertight  
 24 VDC, Wattage: 9.0 DC, DC Current: 338mA  
 Operating Pressure: Max. 250 psi (17.2 bar), Min. 5 psi (0.35 bar)  
 Coil: Class H, Continuous Duty  
 Maximum ambient temperature: 130 °F (54 °C)  
 C<sub>v</sub> Factor: 4.0

**Solenoid Valve Material Standards:**

Body: Brass  
 Seals and Discs: Buna N  
 Core Tube: 305 Stainless Steel  
 Core and Plugnut: 430F Stainless Steel  
 Springs: 302 Stainless Steel

**Ordering Information:**

Part Numbers: Refer to Table 1  
 Replacement Solenoid Valve Part Number: 11601



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| $Q = C_v \sqrt{\frac{\Delta P}{S}}$ | <p>Q = Flow<br/>                 C<sub>v</sub> = Flow Factor (GPM/1 PSI ΔP)<br/>                 ΔP = Pressure Loss through Valve<br/>                 S = Specific Gravity of Fluid</p> |
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