Kidde ECS 500 psi
with FK-5-1-12 Fire Protection Fluid

Cylinder and Valve Assemblies, 1100 lb. Capacity Cylinder Data Sheet

Effective: January 2018
K-45-0507

FEATURES

- Large Capacity Cylinder
- 3-inch Discharge Valve
- Liquid Level Indicator
- Optional Supervisory Low Pressure Switches
- UL Listed, ULC Listed, and FM Approved for use with Kidde ECS 500 psi Systems
- DOT and TC Approved

DESCRIPTION

Kidde Fire Systems ECS 500 psi Fire Suppression System
1100 lb. cylinders store FK-5-1-12 super-pressurized with dry nitrogen to 500 PSIG at 70°F (3.45 MPa at 21°C). The cylinders are painted red and are equipped with a 3-inch pressure differential valve, pressure gauge, liquid level indicator and optional low-pressure switch assembly. The safety burst disc is located on the cylinder head.

OPERATION

The agent storage container discharges when the actuation assembly operates, causing the pressure differential valve to open. All of the Kidde actuators may be used to actuate the 1100 lb. cylinder. The only exception is the P/N 82-486500-010, which is not compatible with the 3” cylinder valve.

INSTALLATION

The container is installed in a vertical position with the valve assembly pointing up. Interconnection to discharge piping is 3-inch NPT. Interconnection can be via a 3-inch flex hose (P/N 06-118225-001) or via a suitably pressure rated groove style fitting.

The container is secured in place by a mounting strap (P/N 30710193), which must be fixed to a solid wall or strut assembly. After the container is securely mounted, it is connected to discharge piping per the directions in the Design, Installation, Operation and Maintenance Manual (P/N 06-237585-001).

An optional cylinder supervisory pressure switch (P/N 45-118500-001 or 45-500537-001) can be installed on the cylinder valve in the field if required. This cylinder supervisory pressure switch has a 1/4 inch SAE flared connection.

ORDER INFORMATION

The part number for ordering the Kidde Fire Systems ECS 500 psi Fire Suppression System 1100 lb. cylinder with liquid level indicator is 45-551101-001.
MAINTENANCE
According to NFPA standards the following inspection and/or maintenance procedure must be scheduled as listed below and performed upon the occurrence of any event which might affect the reliability of the system.

QUARTERLY INSPECTION
1. Check the pressure gauges of each agent storage container. If the pressure gauge indicates a loss in pressure of 10% or more, then it shall be recharged or replaced. Pressure varies with temperature, and this must be taken into account when checking the pressure gauge.
2. Check all components, including supporting hardware, and tighten, repair or replace as required.
3. Replace any component if at all in doubt of its ability to perform properly.

SEMI-ANNUAL INSPECTION
Qualified personnel are to determine the amount of agent in all containers. The optional liquid level indicator may be used to measure agent supply and compare it to the original net weight which is marked on the container label. If the measured net weight is less than 95% of the original charged weight the container should be recharged or replaced.
Inspect all piping, fittings and nozzles for looseness, dirt or other damage. All outlet piping must be clean and free of dirt, chips, fillings and other foreign material that may cause the system to become inoperative or ineffective at the time of discharge.

SPECIFICATIONS

<table>
<thead>
<tr>
<th>Description</th>
<th>Part Number</th>
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<tbody>
<tr>
<td>Fill Range</td>
<td>550-1099 lb. (249.5-498.5 kg)</td>
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<tr>
<td>Height</td>
<td>59.5 in (1511 mm)</td>
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<tr>
<td>Diameter</td>
<td>30 in (762 mm)</td>
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<tr>
<td>Internal Volume</td>
<td>15.7 ft³ (0.444 m³)</td>
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<tr>
<td>Empty Weight</td>
<td>653 lb (296 kg)</td>
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<tr>
<td>Temperature Range</td>
<td>32 to 130°F (0 to 54°C)</td>
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<tr>
<td>Safety Relief Burst Range</td>
<td>800 to 975 psi (5.5 to 6.7 MPa)</td>
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<tr>
<td>Construction Specification</td>
<td>DOT 4BW-500</td>
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If you need more information on this product, or if you have a particular problem or question, contact:
KIDDE-FENWAL, INC., Ashland, MA 01721 USA, Telephone: (508) 881-2000.