

Kidde ECS Advanced Delivery Fire Suppression System Component Description



Effective: October 2014

K-85-110

Actuation Arrangement Kit for Dual Nitrogen Driver

FEATURES

- Reduces the Number of Control Heads
- Allows Cylinders to Actuate Simultaneously
- Safe and Easy to Install
- Pressure Relief Device Included for Safe Disassembly
- UL Listed, File Number 4674
- FM Approved
- RoHS Compliant

DESCRIPTION

Each Kidde ECS Advance Delivery Fire Suppression System must be equipped with the actuation assembly in order for the nitrogen drivers to pneumatically actuate the agent cylinder. The nitrogen drivers are set up to act as the master cylinder. Actuation of the nitrogen drivers is initiated by use of a control head. The control head initiates the nitrogen system discharge by opening the pilot check on the cylinder valves. This allows the nitrogen to pressurize the discharge head piston, which, in turn, opens the main check in the valve and discharges the contents of nitrogen through the transfer hose. From the transfer hose, the nitrogen splits in two directions. The first path the nitrogen takes is through the orifice fitting where the nitrogen pressure is regulated into the agent cylinder. At the same time, the nitrogen travels through the actuation assembly to the pressure operated control head. The pressure operated control head actuates the agent cylinder valve by releasing the pressure off the top of the piston, thereby allowing the agent to be driven out by the nitrogen.

The dual driver actuation assembly kit (P/N 06-129985-001) consists of eight parts (see the Ordering Information Table): the 3/4-in. HEX Nipple (P/N 06-118330-001) threads into the "Y" transfer fitting (P/N 06-236260-001); the nitrogen fitting threads into the orifice fitting; and the 1/8-in flare allows for the connection of the actuation hose, which is then fitted into the 1/8-in. branch tee for operation of the pressure operated control head. A Schrader valve and cap is then added to the 1/8-in. tee as a safety for venting off residual pressure after discharge and before decommissioning of the system.

INSTALLATION

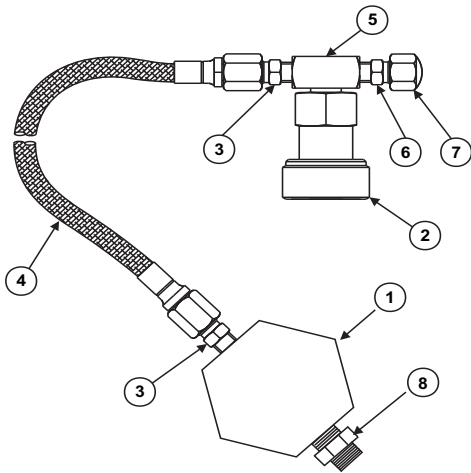
Once the nitrogen driver cylinder and the agent storage cylinder are safely secured and attached to system piping, the actuation assembly can be connected using the following procedure. Inspect and assemble the kit components separately, prior to attaching to the agent storage cylinder.



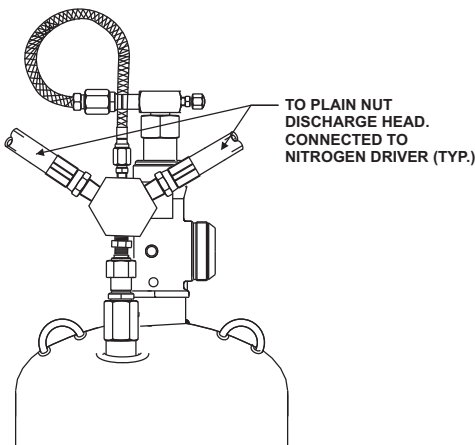
ASSEMBLY:

Assembly of Kit Components

1. Apply thread tape to the 3/4-in. HEX nipple and thread into the "Y" transfer fitting.
2. Apply thread tape to the NPT male thread of the first 1/8-in. x 1/4-in. flared fitting, thread NPT male into the nitrogen transfer fitting and tighten.
3. Take the two assembled components and thread into orifice fitting already attached to the nitrogen diffuser assembly, then tighten.
4. Apply thread tape to the male end of 1/8-in. branch tee and thread into the pressure operated control head (P/N 82-878737-000). Tighten the branch tee.
5. Apply thread tape to the NPT male thread of the second 1/8-in. x 1/4-in. flared fitting and thread into one side of the 1/8-in. branch tee. Tighten the flared fitting.
6. Apply thread tape to the male end of the Schrader valve. Securely threading the male end into the open end of the 1/8-in. branch tee. Apply Schrader cap to Schrader fitting.
7. Connect 1/4-in. actuation hose to flare fitting that was applied to the 1/8-in. branch tee.
8. Connect the other end of the 1/4-in. actuation hose into the flare fitting that was connected in the busing in Step 3.
9. Remove the protection cap from the cylinder valve.
10. Using a suitable wrench, assemble control head to cylinder valve and tighten swivel nut securely.



Actuation Kit Assembly



Cylinder and Valve Assembly with Assembled Actuation Components



The agent storage cylinder must be permanently connected into the system piping. Never attach the control head to the cylinder valve until the cylinders are secured in brackets or racking and the hose is attached to the agent cylinder. Under no circumstances is the control head to remain attached to the cylinder valve after removal from service or during shipment, handling, storage or filling. Failure to follow these instructions could result in death, serious bodily injury and/or property damage.

COMPATIBILITY

Series	For Use With	DIOM
Kidde ECS Advanced Delivery with FM-200® Agent	X	06-236068-001
Kidde ECS Advanced Delivery with 3M™ Novec™ 1230 Fire Protection Fluid	X	06-237256-001

MAINTENANCE

MONTHLY:

Inspect components for cracks, corrosion, grime, etc. Ensure that the assembled fittings are tightly secured at each of their respective connections and to the agent cylinder. If any defects are found during the monthly inspection, immediately contact a Kidde Distributor to service

the systems. Please refer to the Agent specific Design, Installation, Operation and Maintenance (DIOM) Manual for more details.

ORDERING INFORMATION 06-129985-001 CONTAINS:

Item No.	Qty.	Part Number	Description	Material
1	1	06-236260-001	Nitrogen Transfer "Y" Fitting	Brass
2	1	82-878737-000	Pressure Operated Control Head	Brass
3	2	06-118191-001	Fitting Flared 1/8" x 1/4"	Brass
4	1	06-118193-001	3/16" Flexible Actuation Hose	Stainless Steel Braiding, Brass Fittings
5	1	06-118192-001	1/8" Branch Tee	Brass
6	1	WK-263303-000	1/8" Schrader Valve	Brass
7	1	WK-263304-000	1/8" Schrader Valve Cap	Brass

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