

Kidde ECS Fire Suppression System Component Description



Effective: June 2014

K-90-9050

Explosion Proof Electric Control Head, Stackable P/N: 82-486500-010

FEATURES

- **Explosion Proof:**
 - **Suitable for Hazardous Locations:**
Class I Div 1 Groups C and D
Class II Div 1 Groups E, F and G
- **Approvals and Listings:**
 - **FM Approved**
 - **UL Listed**
 - **ULC Listed**
- **Operated by:**
 - **Control Panel**
 - **Mechanical Manual Actuator**
- **Compatible with agent Cylinder Valves 1-1/2 in., 2 in., & 2-1/2 in.**
- **Nominal 24 Vdc Operation**
- **Low Current Consumption**
- **Wide Operating Temperature Range**
- **Rugged Brass Body**

DESCRIPTION

The Kidde ECS System Stackable Explosion Proof Electric Control Head is designed to operate agent cylinder valves only. The control head can be operated electrically from the Detection and Control system, or by local manual operation via an affixed manual control head. The Stackable Explosion Proof Control Head requires a continuous current draw, which must be accommodated at the Control Panel. The actuating pin latches in the released position and must be mechanically reset prior to re-arming the system.

A suitable Control Panel, listed and/or approved for use with the Stackable Explosion Proof Control Head, shall be provided for supervision of the releasing circuit per NFPA requirements.

The Stackable Explosion Proof Control Head is designed and rated for use in the following hazardous areas: Class I Division I Group C & D and Class II Division I Group E, F & G.

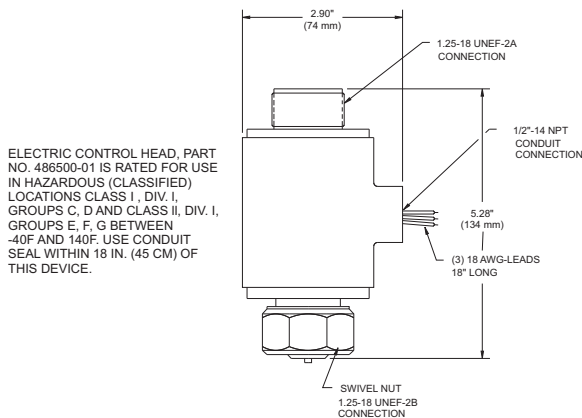


Figure 1. Assembly Drawing

INSTALLATION

The Stackable Explosion Proof Electric Control Head is designed to install directly to the cylinder valve. Care should be taken to ensure that the actuating pin is in the set position when attaching the control head to the cylinder valve to avoid accidental system discharge. Tighten the swivel nut securely in place.

When installing the Stackable Explosion Proof Electric Control Head in hazardous locations, wiring connections must be terminated in explosion proof junction boxes.

The lead wires must be connected using the indicated polarity (red to positive, black to negative) in order to obtain correct operation.

RESET

Once the Stackable Explosion Proof Control Head has operated, it should be removed from the Cylinder Valve and reset.

MAINTENANCE

Regular scheduled maintenance should be performed on the Stackable Explosion Proof Control Head to ensure that the unit operates correctly if and when required.

MONTHLY

The Stackable Explosion Proof Control Head should be inspected for any signs of physical damage, deterioration, corrosion, distortion, cracks, dirt ingress and loose couplings. Tighten any loose couplings. Replace damaged or missing caps. Replace control head if damage is found. Ensure that all explosion proof control heads are in the "set" position.

SEMI-ANNUALLY

The Stackable Explosion Proof Control Head should be tested for proper operation. All explosion proof control heads should be removed from cylinder valves to ensure that accidental discharge of agent cylinder does not occur.

Remove control heads from all master cylinders within the hazard area being tested. Let the Stackable Explosion Proof Control Head hang freely from the flexible electrical conduit connections. Operate the Stackable Explosion Proof Control Head, either by actuation at the system control panel or via manual operation of an electric pull station. Ensure that the control head has operated. Observe that the actuating pin has moved to the fully released position. If any control heads have not operated, check circuit for electric continuity. Replace all damaged control heads. Repeat operation test if any control heads have been replaced. Replace any damaged control head, which fails to reset properly. Make certain that electric control heads are in the set position before reconnecting to agent cylinders. Reattach all control heads to threaded ports on cylinder valves and tighten swivel nuts securely.

The Stackable Explosion Proof Control Head (P/N 82-486500-010) cannot be used with the 3 inch valve cylinders (P/Ns 90-100600-100, 90-100601-100, 90-100900-001 and 90-100901-001). The Stackable Explosion Proof Control Head DOES NOT have sufficient force to activate the 3 inch valve and may result in system failure.



CAUTION

SPECIFICATIONS

Part Number:	82-486500-010
Applications:	FM-200, HFC-227ea, 487 Series Cylinder Valves
Approval/Listing:	
Releasing Device:	UL, ULC, FM
HazLoc-	UL, FM, DEMKO
HazLoc Ratings:	Class I Division I Group C & D Class II Division I Group E, F & G
Operating Voltage:	18 Vdc @ 0.20 A to 30 Vdc @ 0.50 A
Current Draw:	
At 24 Vdc:	0.2 A continuous
Wiring Connections:	
Wire Size:	18 AWG
Lead length:	18 in. (457 mm)
Operating Temperature:	-40°F to 140°F (-40°C to 54°C)
Construction:	
Material:	Brass body
Weight:	5.1 lb. (2.3 kg)
Dimensions:	2.9 in. diameter x 5.3 in. long (74 mm diameter x 134 mm long)

ORDERING INFORMATION

Part No.	Description
82-486500-010	Explosion Proof Electric Control Head, Stackable

COMPATIBILITY

Series	For Use With
Kidde ECS HFC-227ea	X
Kidde ECS Advanced Delivery FM-200®	X

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