

Flameproof and Explosion Proof Solenoid (Electric Control Head)

P/N: 81-100000-001

FEATURES

- **Explosion Proof :**
 - *UL Listed as Suitable for Hazardous Locations Class I Div 1 Groups C and D Class II Div 1 Groups E, F and G*
- **Flameproof:**
 - *DEMKO Certified to CENELEC Requirements*
- **FM Approved**
- **Compatible with UL Listed and FM Approved Suppression Systems:**
 - *Carbon Dioxide Systems*
 - *FM-200® Systems, Including the ADS*
 - *FE-13™ Systems*
- **Operated By:**
 - *Control Panel*
 - *Mechanical Manual Actuator*
- **Nominal 24 Vdc Operation**
- **Low Current Consumption**
- **Operates:**
 - *Cylinder Valves*
 - *Stop Valves*
 - *Directional Valves*
- **Wide Operating Temperature Range**
- **Rugged Brass Body**

DESCRIPTION

The Flameproof and Explosion Proof Control Head is designed to operate Carbon Dioxide, FM-200®, ADS and FE-13™ cylinder valves, stop valves and directional valves. The Flameproof and Explosion Proof Control Head can be operated electronically from the Detection and Control system, or by local manual operation via an affixed manual control head. The Flameproof and Explosion Proof Control Head has a continuous current draw, which must be accommodated for 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 Flameproof and Explosion Proof Control Head, shall be provided for supervision of the releasing circuit per NFPA requirements.

The Flameproof and Explosion Proof Control Head is designed and rated for use in the following hazardous areas: Class I Division 1 Group C and D and Class II Division 1 Group E, F and G.

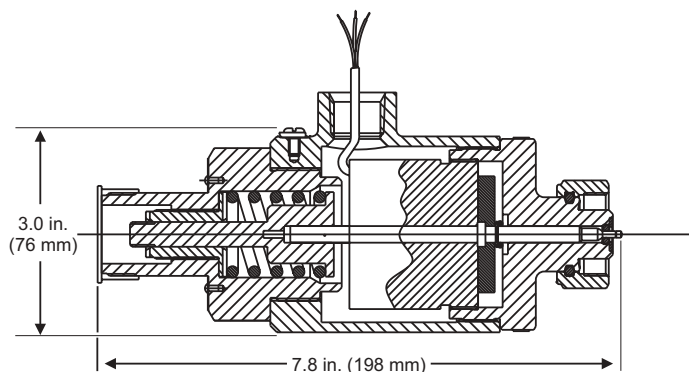


Figure 1. Assembly Drawing

INSTALLATION

The Flameproof and Explosion Proof Control Head can be mounted directly on either the cylinder valve, stop/directional valve.

WARNING

Care should be taken to ensure that the actuating pin is in the set position when attaching the control head to the cylinder or the stop/directional valve. Accidental system discharge could occur, which could cause property damage, personal injury and/or death.

Tighten the swivel nut securely in place.

When installing the Flameproof and Explosion Proof 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.

MAINTENANCE

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

MONTHLY

The Flameproof and 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 Flameproof and Explosion Proof Control Head should be tested for proper operation.

WARNING

All Flameproof and Explosion Proof Control Heads should be removed from agent cylinders (Carbon Dioxide, FM-200 or FE-13) to avoid accidental system discharge, which could cause property damage, personal injury and/or death.

Remove control heads from all master cylinders within the hazard area being tested. Let the Flameproof and Explosion Proof Control Head hang freely from the flexible electrical conduit connections. Operate the Flameproof and 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.

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FE-13 is a trademark of DuPont.

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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. Telephone: (508) 881-2000

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SPECIFICATIONS

Part Number:	81-100000-001
Applications:	Carbon Dioxide, FM-200, ADS and FE-13 Suppression Systems
Approval/Listing:	
Releasing Device-	UL, FM
HazLoc-	UL, FM, DEMKO
HazLoc Ratings:	Class I Division 1 Group C and D Class II Division 1 Group E, F and G
Flameproof Solenoid:	EEx dIIC T6 0539II2G DEMKO 02ATEX 0135367
Operating Voltage:	18 Vdc @ 0.20 A to 30 Vdc @ 0.50 A
Current Draw:	
At 24 Vdc-	270 mA continuous
At 30 Vdc-	500 mA continuous
Wiring Connections:	
Wire Size-	18 AWG
Lead Length-	36 in. (914 mm)
Ambient Temperature:	-40°F to 130°F (-40°C to 55°C)
Construction:	
Material-	Brass body
Weight-	8.1 lb. (3.7 kg)
Dimensions:	3 in. D x 7.8 in. L (76 mm D x 198 mm L)

ORDERING INFORMATION

Part Number	Description
81-100000-001	Flameproof and Explosion Proof Solenoid (Electric Control Head)
870652	Mechanical Manual Actuator



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