

Fenwal Engineered Fire Suppression System

Designed for use with 3M™ Novec™ 1230 Fire Protection Fluid

Pressure Switch Assembly Data Sheet

F-44-3119-0



A UTC Fire & Security Company

P/N: 31-194133-0X

FEATURES

- Easy Installation
- Available Normally Open or Normally Closed
- Explosion Resistant Cable Option

DESCRIPTION

This pressure switch assembly mounts directly to a check valve on Fenwal Engineered Fire Suppression System spherical 3M™ Novec™ 1230 Fire Protection Fluid storage containers to trigger a TROUBLE condition when container pressure drops below 200 PSIG \pm 15 PSI. Assemblies are available with normally open or normally closed contacts, and with standard or explosion resistant cable assemblies.

OPERATION

Normally Open: The pressure switch contacts are closed when the container is pressurized in accordance with specifications. The contacts open when pressure drops below 200 PSIG.

Normally Closed: The pressure switch contacts are open when the container is pressurized in accordance with specifications. The contacts close when pressure drops below 200 PSIG.



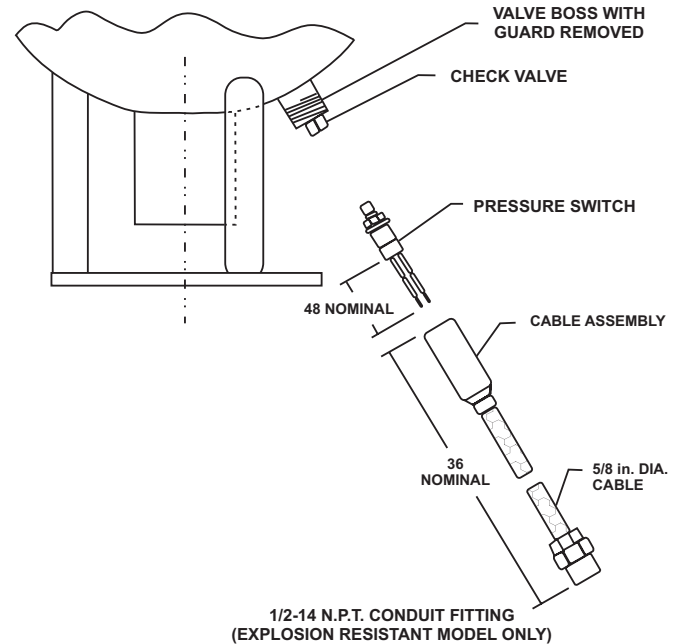
Pressure in a normally filled container will drop below 200 psig at or below a temperature of 10°F (-12°C). Accordingly, this modification is not recommended for low temperature applications.

INSTALLATION

To install the pressure switch assembly, first unscrew the guard around the unused boss on the container and remove the safety plug from the check valve. Secure the check valve hex with a wrench to guard against loosening the check valve. Screw the pressure switch into the check valve beyond hand tight, and then attach the cable assembly by screwing the housing over the threaded boss. Connect the cable assembly to the control unit in accordance with the system schematic.



Use wrench on check valve to avoid over tightening and when loosening components for removal.



ORDERING INFORMATION

Standard Pressure Switch Assembly

Normally Open: P/N 31-194133-001
w/Explosion Resistant Cable Assembly*: P/N 31-194133-002

Standard Pressure Switch Assembly

Normally Closed: P/N 31-194133-003
w/Explosion Resistant Cable Assembly*: P/N 31-194133-004

***Note:** Explosion resistant cable assemblies for Class 1, Groups C and D; Class 2, Groups E, F, and G locations.

SPECIFICATIONS

Current Rating: 1 Amp @ 120/240 Vac,
Resistive 2 Amps @ 24 Vdc

Contacts Open: 200 \pm 15 PSIG

ARCHITECT/ENGINEER SPECIFICATIONS

The Pressure Switch Assembly shall be used with Fenwal spherical Novec 1230 fluid storage containers to provide supervision of loss of pressure and/or extinguishing agent by indication of a Trouble signal at the Fenwal control unit. It shall consist of a cable assembly and a pressure switch. It shall be mounted directly on the container by means of a boss-mounted check valve to facilitate removal of the pressure switch without losing Novec 1230 fluid.

Normally Open: The contacts of the switch shall be closed when the container is pressurized in accordance with specifications. The contacts will open when container pressure drops below 200 ± 15 PSIG. This switch shall not be used for applications where ambient temperatures could drop to 10°F (12°C) or lower as this temperature will cause normal vessel pressure to drop below 200 PSIG.

Normally Closed: The contacts of the switch shall be open when the container is pressurized in accordance with specifications. The contacts will close when container pressure drops below 200 ± 15 PSIG. This switch shall not be used for applications where ambient temperatures could drop to 10°F (12°C) or lower as this temperature will cause normal vessel pressure to drop below 200 PSIG.

The explosion resistant cable assembly shall be designed for hazardous locations, Class 1, Groups C and D, Class 2, Groups E, F and G. Its contacts shall be rated at 1 Amp at 120/240 Vac and 2 Amps at 24 Vdc.

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