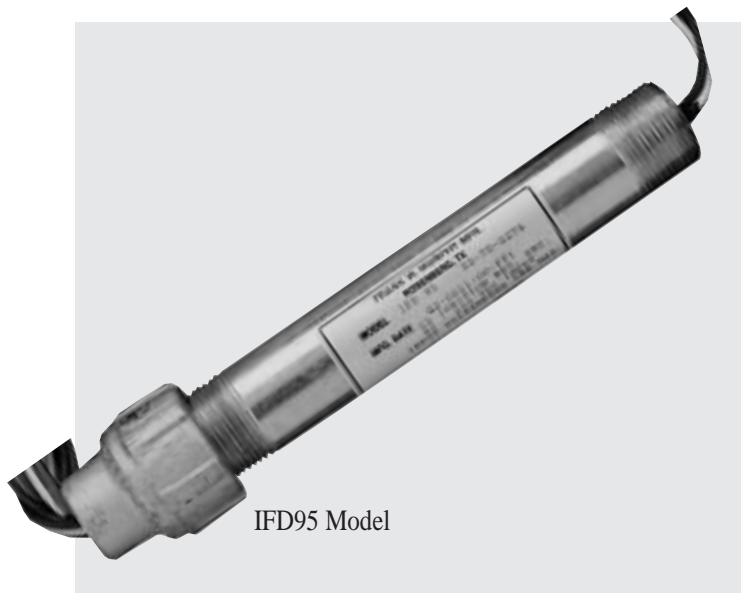


# Ignition Failure Device



IFD95 Model

## IFD95 Model

- Positive Fuel Valve Closing on Loss of Ignition
- Can Retrofit to Existing Panels
- For Electro-Mechanical or Solid State TATTLETALE®
- Designed for Use with M5081C or M5381C Murphy Fuel Shutoff Valves
- Operates with 80 - 250 VDC Negative Ground CD Ignitions
- Suitable for Class I, Div. 1 or Div. 2 Areas

### Description

The IFD95 ignition failure device operates in conjunction with Murphy's M5081C or M5381C fuel shutoff valves. The IFD95 trips the fuel valve on loss of ignition primary voltage or on loss of continuity in the control leads between the ignition and the fuel valve. Energy from the CD ignition charges a capacitor in the IFD95 when the engine starts. While the engine is in normal operation the IFD95 monitors the ignition voltage and in the event voltage drops below 75 VDC, due to ignition failure, or open wire leads between the ignition and the IFD95, it discharges the capacitor through the valve trip coil and causes the fuel valve to trip.

The IFD95 operates with 80 to 250 VDC negative ground CD ignition systems.

Valve trip is delayed up to 5 seconds on loss of ignition primary voltage or whenever the ignition voltage drops below the IFD95 threshold.

Trip is instantaneous in the event of an open wire lead between the ignition and the IFD95 ignition failure device. The IFD95 circuits are connected in parallel with the fuel valve trip coil and will not affect the fuel valve trip signal from the shutdown panel.

The IFD95 ignition failure device consists of an electronic voltage monitor enclosed in a galvanized rigid conduit nipple and union with a reducer on one end. The IFD95 can be used in Class I, Division 1 or Class I, Division 2 hazardous locations when installed with the required explosion-proof seals in accordance with the National Electrical Code (NEC).

### Applications

The IFD95 is designed for engines with negative ground CD ignitions using Murphy's M5081C or M5381C fuel shutoff valves.

### Specifications

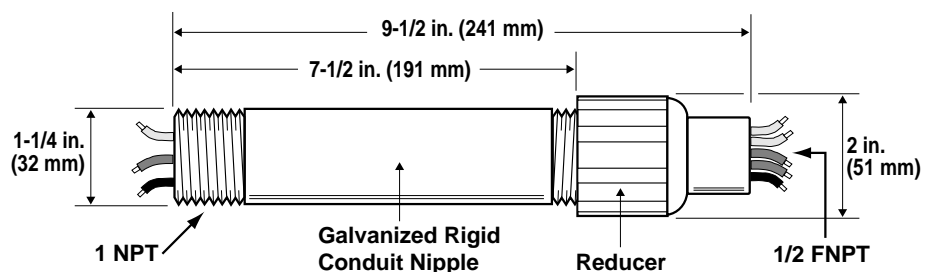
- Voltage Requirements:** 80 - 250 VDC negative ground CD ignitions.
- Current Draw:** 100  $\mu$ A @ 250 VDC.
- Operating Temperature:** -4 to 167°F (-20 to 75°C).
- Relative Humidity:** 100%.
- Unit Weight:** 3 Lb. (1.22 kg).
- Unit Dimensions:** 10 x 9-1/2 x 5-1/2 in. (254 x 241 x 140 mm).

### How to Order

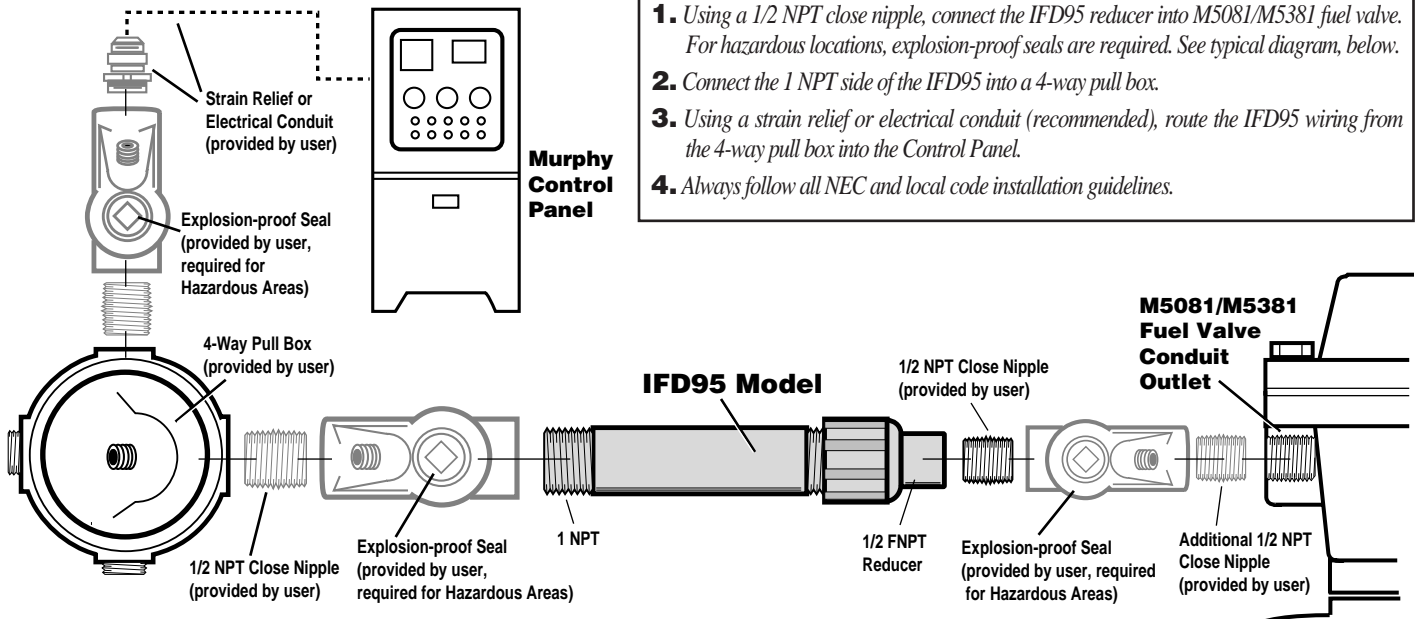
To order, just specify the model number:

## IFD95

### Dimensions



## Typical Installation Diagram



## Installation Instructions

1. Using a 1/2 NPT close nipple, connect the IFD95 reducer into M5081/M5381 fuel valve. For hazardous locations, explosion-proof seals are required. See typical diagram, below.
2. Connect the 1 NPT side of the IFD95 into a 4-way pull box.
3. Using a strain relief or electrical conduit (recommended), route the IFD95 wiring from the 4-way pull box into the Control Panel.
4. Always follow all NEC and local code installation guidelines.

## Wiring Instructions



Before beginning installation of this Murphy product:

- ✓ Disconnect ALL electrical power to the machine.
- ✓ Make sure the machine CANNOT operate during installation.
- ✓ Follow all safety warnings of the machine manufacturer.
- ✓ Read and follow all installation instructions.

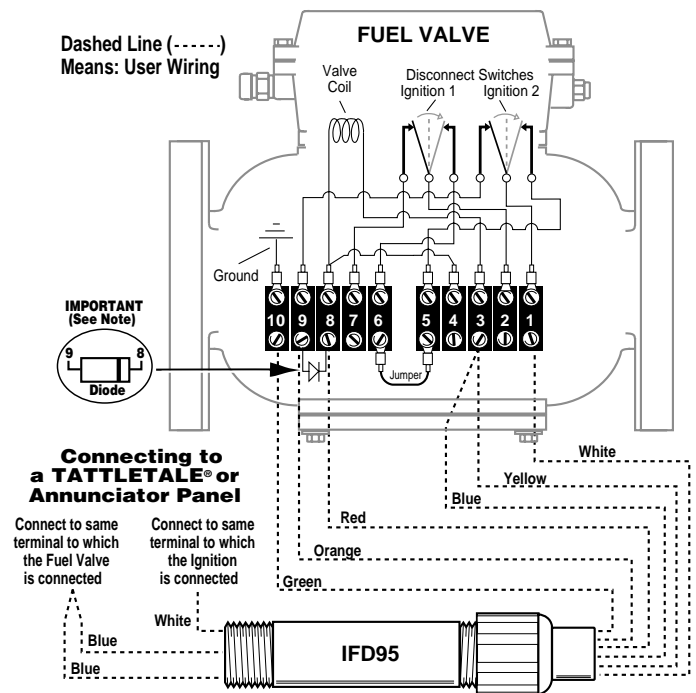
1. Wire the IFD95 to the M5081/M5381 fuel valve, following the typical wiring diagram shown at right.
- NOTE:** Remove factory-installed jumper between Fuel Valve terminals 9 and 8, and install a 1N4005 diode (supplied with the IFD95) in its place.
2. Connect both IFD95 blue wire leads to the TATTLETALE® or Annunciator. Hook up to the same terminal to which the Fuel Valve is connected\*.
3. Connect the IFD95 white wire lead to the TATTLETALE® or Annunciator. Hook up to the same terminal to which the Ignition is connected\*.
4. All of the IFD95 wire leads are 18 AWG x 10 in (254 mm). If longer length is required, 18 AWG Stranded wire, type MTW is recommended.

\* See wiring for specific device to which the IFD95 is to be connected.

## Warranty

A two-year limited warranty on materials and workmanship is given with this Murphy product. Details are available on request and are packed with each unit.

## Typical Wiring Diagram



In order to consistently bring you the highest quality, full featured products, we reserve the right to change our specifications and designs at any time.



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