

## Introduction

Special considerations are necessary when choosing an electrical connector for instrumentation exposed to corrosive fluid and/or gas environments. Materials of construction and the basic connector design must be correctly chosen for compatibility and reliable performance.

## Materials of Construction

The connector and mounting receptacle of the D Series connector are constructed of polypropylene. The connector is over-molded with a flexible strain relief molded onto an electrically shielded, PVC jacketed cable. The strain relief is constructed with a flexible thermoplastic. The mounting receptacle uses a viton gasket seal at the mounting panel. The mounting receptacle is permanently sealed from behind the mounting panel with inert potting material. The pin contacts for the electrical connection are gold plated for performance and corrosion resistance.

## Performance and Certification

The connector and components have been evaluated for use in outdoor locations. The tests conducted include the following:

Test Conducted	Test Standard
Connector secureness	UL 817
Insulation resistance	UL 817
Crush	UL 498
Dielectric voltage withstand	UL 1703
Leakage current	UL 1703
Strain relief	UL 817
Impact	UL 498
Humidity cycling	UL 1703
Temperature cycling	UL 1703
UV conditioning	UL 746C
Exposure to water spray	UL 1703
Gasket aging	UL 1703
Water immersion	UL 746C
Abnormal overload (HWI)	UL 746C

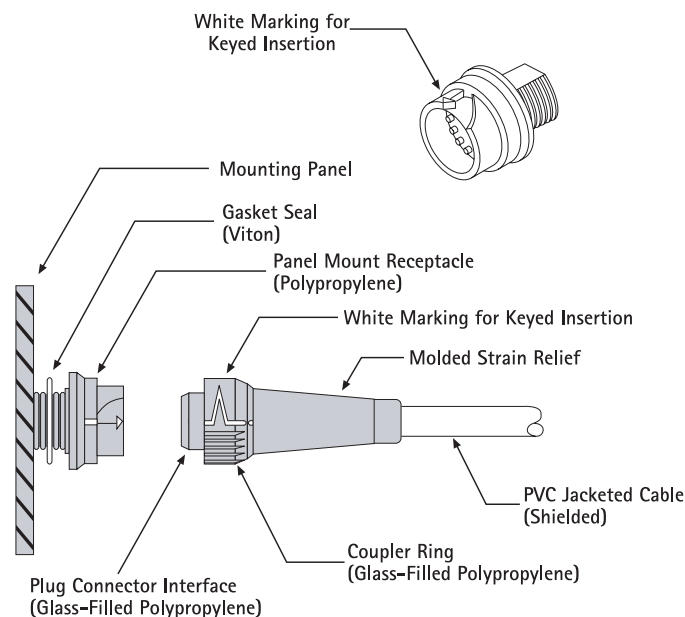


Figure 1: Diagram of the "D Series" electrical connector used for Entegris measurement instruments.

## Ease of Installation

The connector is physically “keyed” in two locations, making it impossible to insert the connector improperly. White markings are also printed onto the connector to visually align the connector into the correct position. Pressing it into the mounting receptacle locks the connector in place. To remove the connector, rotate the coupling ring in the direction of the printed white arrow.

Entegris designs and manufactures measurement instruments for the high purity and corrosive chemical environments of the semiconductor industry. Our products measure flow, pressure and level for the various acids, caustics, solvents and slurries used in the industry.

## For More Information

For more information on electrical connectors for instrumentation systems or our complete line of fluoropolymer fluid handling solutions, contact your local Entegris distributor or Entegris, Inc.

To review our complete line of sensing and control product solutions visit Entegris' Web site at [www.entegrisfluidhandling.com](http://www.entegrisfluidhandling.com) or contact Entegris Customer Service.

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