

PRODUCT RELIABILITY REPORT PRESSURE TRANSDUCERS AND FLOWMETERS

Introduction

Utilizing proven measurement techniques and cleanroom product assembly with Class 100 cleanroom conditions, Entegris products are specified for a number of semiconductor applications. Entegris has tested its pressure and flow measurement products to quantify long term product reliability, and field data has been collected to demonstrate product reliability under operating conditions in actual applications.

Cycle Testing

Entegris has performed cycle testing to over ten million cycles without product failure. The testing involved continuous pressure cycling from 0 to 100 PSIG (0 to 690 kPa) at 73°F (23°C). Extended cycle testing has minimal impact upon product performance since these products feature no moving parts or fill fluids.

Two-Year Survival Rate

Two-Year Survival Rate is a prediction of the percentage of units that will perform within specification after two years of service.

Entegris calculates a two-year survival rate on a quarterly and annual basis. The data below has been collected from products installed in field applications exposed to the aggressive chemicals used in the semiconductor industry.

	Two-Year Survival Rate
Pressure	>99.0%
Flow	>98.5%
All Products	>98.5%

The Survivability statistics continue to improve with both product groups. The above data is based upon data collected through June 2003. It is important to note the pressure products are typically used in more extreme environments, which accounts for the lower statistics indicated above.

Entegris® is a registered trademark of Entegris, Inc.

Production Testing

Entegris tests 100% of its measurement products prior to shipment. All units are assembled and tested under Class 100 cleanroom conditions and calibrated using ultrapure DI water and nitrogen gas. Prior to shipping, the products are wiped down, purged with nitrogen and double bagged.

Chemical Compatibility

Entegris has designed its pressure and flow measurement products with high purity and inert materials of construction to withstand the harshest chemical environments. Wetted materials are typically PTFE, CTFE and/or PFA. All internal electronic components are potted for protection from corrosive liquids and gases.

CE Compliance

Entegris products are designed and tested to meet the most current CE requirements. Please consult the product's User Guide or visit *www.entegrisfluidhandling.com* for the most current information.

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 measurement 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* or contact Entegris Customer Service.

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