

Global Leading Company

Sensor Package

# Glass to Metal Hermetic

SEALTECH Technology



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## CEO Greetings

Sealtech is a professional hermetic sealing company of developing and manufacturing component materials to be used in the area of Opto-telecommunication and defense industry. Especially, it provides the total solution that meets the needs of customers from design step of product to package assembly in the sensors and optical information communication components.

It has been advancing to be global leading company of profession in the 21C that is hopeful and to develop new technology.

Sealtech will try for satisfaction of customers to be realized as the spirit of craftsman, which has soul to products, based on the core technology.

Sealtech will do its best for the aim of being a strong Enterprise, even though it is small, which creates the future value with a pleasant operation of thought and makes the vision of the company together with the mind for benefit of many people.

(주)실텍은 광·정보통신분야, 국방산업분야, 센서산업분야에 적용되는 전자용 기밀 패키지를 개발하고 제조하는 부품소재 전문기업입니다.

특히 광·정보통신부품 / 센서부품에 있어서는 제품의 디자인 단계에서부터 패키지 어셈블리 서비스 단계까지 고객의 요구에 부응하는 Total Solution을 제공하고 있습니다.

희망찬 21세기 전문성을 지닌 Global Leading Company가 되고자 끝없이 노력하고 있는 당사는 신기술개발에 부단히 정진하고 있으며, 단순한 제품개발기술이 아니라

제품에 혼을 심는 장인정신으로 핵심기술에 기반을 두고 고객감동을 실현하고자 합니다.

(주)실텍은 흥익인간의 이념으로 임직원이 일체되어 회사의 비전을 함께 만드는 기업,

가치경영으로 미래가치를 창출하는 작지만 강한 초우량 기업을 목표로 최선을 다하고 있습니다.

## Company History | Develop Technology History

Jun . 1997 Entered the new technology center of Hoseo University, inaugurating Business  
 Nov . 1999 Selected as a promising advanced technology business by SMB  
 Mar . 2000 Changed Incorporation (company name : Sealtech Korea Sealtech)  
 Jul . 2000 Wins ISO 9001 Certification  
 Nov . 2001 Increases the capital  
 Apr . 2003 Selected as venture business by SMBA  
 Sep . 2003 Established Research Institute  
 Oct . 2006 ISO 9001, 2000, 2001 Certification  
 Sep . 2007 Selected as materials & components company by MKE  
 Dec . 2008 Selected as a INNO-BIZ Enterprise by SMBA  
 Feb . 2009 Selected as venture business.

Aug . 1998 Developed Hermetic Sealing product and optical TX, RX module  
 Dec . 1998 Developed vacuum feed through(Hermetic connector)  
 Jan . 1999 Developed Ignition and Battery feed through  
 May . 2000 Developed IR Sensor Package  
 Feb . 2001 Developed Humidity Sensor package  
 Jan . 2007 Developed MEMS Humidity Sensor for commercial use  
 Apr . 2008 Developed Packaging & Process technology of E-Paper display cell  
 Mar . 2009 Developed Integrated Package for Microwave module

## 주요연혁 | 기술개발연혁

1997 . 06 호서대학교 TBI 입주 사업개시  
 1999 . 11 유망신기술기업선정 (중소기업청)  
 2000 . 03 법인전환, 상호변경 - (주)실텍  
 2001 . 07 ISO 9001인증  
 2001 . 02 벤처기업선정 (신기술개발기업)  
 2001 . 03 병역특례업체 지정  
 2001 . 11 자본금 증자 (현재 : 485백만원)  
 2002 . 10 공장증축 및 제조설비 증설  
 2003 . 04 벤처기업선정 (신기술개발기업)  
 2003 . 09 기업부설연구소 설립  
 2006 . 10 품질경영시스템 인증 (ISO9001, 2000, 2001)  
 2008 . 02 부품소재전문기업선정 (지식경제부장관)  
 2008 . 12 이노비즈(INNO-BIZ) 기업선정(중소기업청)  
 2009 . 02 벤처기업선정

1998 . 08 Hermetic Sealing품 개발 및 광송수신 모듈 Package 개발  
 1998 . 12 Vacuum Feed Through(고진고공 Connector) 개발  
 1999 . 01 방위산업용 Ignition 및 배터리 feed through개발  
 2000 . 05 IR 센서 Package 개발  
 2001 . 02 습도센서 Package 기술개발  
 2002 . 03 온도센서 Package개발  
 2007 . 01 MEMS 습도센서 개발 및 상용화  
 2008 . 04 디스플레이 소자 및 패키지 공정 기술개발(E-Paper)  
 2009 . 03 Microwave 모듈용 Intergrated Package 개발

## History

Electronic Package  
Global Leading Company

SEALTECH Technology





# General Specifications

All hermetic seals manufactured by SEAL TECH meet or exceed the following general specification requirements.

- **Temperature Range** : -85℃ ~ 450℃
- **Insulation resistance** : 10,000MΩ @500VDC
- **Hermeticity(Leak rate)** : Less than  $1 \times 10^{-9}$ cc/sec
- **Pressure Range** : 1 PSI ~ 20,000PSI
- **Corrosion Resistance** : Compression seal can be made with stainless steel or other corrosion resistant metal body.
- **Materials**
  - Shell** : mild steel, stainless steel, inconel, monel, titanium, Kovar and others
  - Pin** : mild steel, 52alloys, stainless steel, inconel, Platinum, constantan, chromel and others
- **Pin Configurations** : Straight, Bent, Radiused, Headed, Tubes and Customized

실텍에서 생산되어지는 모든 Hermetic Seal들은 다음의 일반적인 사양 요구들을 만족시키거나 초과한다.

- 온도범위 : -85℃ ~ 450℃
- 절연저항 : 10,000MΩ @500VDC
- 기밀성 : Less than  $1 \times 10^{-9}$ cc/sec
- 압력범위 : 1 PSI ~ 20,000PSI
- 내식성 : Hermetic Seal의 재료들은 부식에 견딜 수 있도록 스테인레스 또는 내식강을 사용한다.
- 소재들
  - 메탈** : mild steel, stainless steel, inconel, monel, titanium, Kovar and others
  - 핀** : mild steel, 52alloys, stainless steel, inconel, Platinum, constantan, chromel and others
- **Pin 형상** : 직선 핀, 곡선 핀, 반원 핀, 못 핀, Tube등

# Quality Assurance



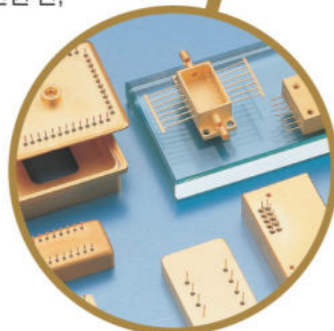
Electronic Package (To-Header)

**Application**  
IR, Temperature, Humidity, Pressure Sensor / Transistor-IC / Photo Diode / Ceramic Photo Diode / VCSEL



Vacuum Feed Through

**Application**  
Power Feed Through / Multi Terminal / Detonator / Vacuum equipment



Optical Electronic Package

**Application**  
Fiber-optic device / RX TX Module / Laser Diode



SAW Packages

**Application**  
SAW Filter / SAW Resonator / Oscillator / VCXO



Connector & Battery Header

**Application**  
Lithium Battery / Vacuum Feed Through Connector / Single & Multi Connector

Customer Order Made

**Application**  
Thermopile, Pressure, IR, Gas Sensor etc / Special Sensors



Metal Components

Sealtech is providing the high quality, quick delivery, in order to meet the requirements of the customers. We maintain integrated quality assurance program that meets ISO standards. We also meet the requirements of industry codes and standards applicable to the whole process of glass-to-metal seal production. These include the military standards(MIL), ASTM requirements including domestic codes and standards.

(주)실텍은 고객의 요구를 만족시키기 위하여 고품질, 빠른 납기, 뛰어난 특성의 제품을 제공하고 있다. 당사는 ISO기준에 준하여 통합 품질보증 프로그램을 운영하고 있으며, Glass-To-Metal Sealing생산의 전 공정에 적용되는 산업표준과 규격의 요구에 대응하고 있다. 이것은 국내표준규격과 국방규격 ASTM등의 요건 및 규정에 준한 것이다.



# Application of Products

Sealtech has been supplying hermetic packages for Vacuum Feed Throughs by Glass-To-Metal and Ceramic-To-Metal as well as for electrical and components. Especially, Sealtech lead sensor and optical package market because of constantly invested on R and D and produce and distribute to world market at there electrical, electronic and optical characteristic sensors and packages.

Sealtech은 전기전자 반도체부품과 Glass-To-Metal and Ceramic-To-Metal hermetic sealing에 의한 Vacuum Feed Throughs 기밀성 Packages를 공급하고 있으며, 특히 센서 / Optical package 분야에 있어서는 전기 전자적, 광학적 특성에 부합되는 제품을 개발하고 생산하여 세계시장에 공급하고 있다.

## Standard Products

TO-Header	Optical Device	Vacuum Feed Through
TO-39 TO-46 TO-5 TO-8	Butterfly type, Dip type, Laser Diode Header, Ceramic Header, VCSEL Header	Battery Header, Ignition, Connector, Terminal

## Overseas Application

Different kinds of Sensors

Telecommunications

Opto-electronics

Automotive Electrical,  
electronic Components

High-Safety Space and Submarine  
Engineering

Medical Area

## Application Area

Sensor Packages (Temperature, Humidity,  
Gas, Pressure and IR Sensor)

Transistor Packages

Housings for Photodiodes

Diode Housings

Hybrid Packages

Quartz Crystal Packages

Battery Feed Through

Airbag Ignition Feed Through

Vacuum Feed Through

Sensor for Medical Equipments

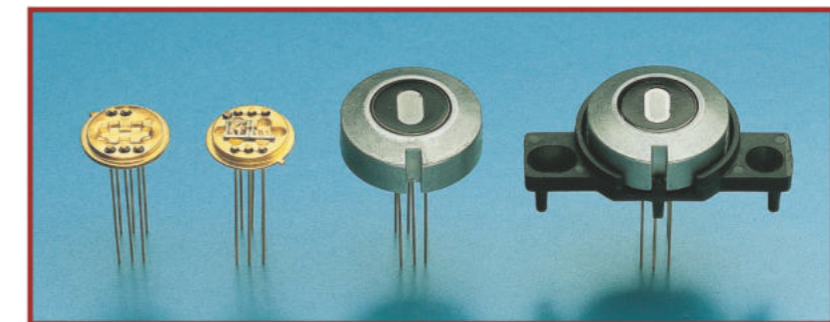
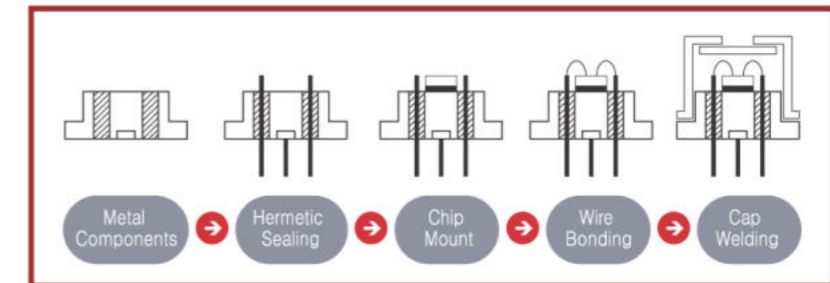


# Sensor Packaging Service

Sealtech has been producing hermetic products and providing the technology From design step to package assembly in the package technology of MEMS semiconductor and can offer special sensor packages suitable to standard according to the needs of customers.

(주)실텍은 MEMS반도체센서 패키지 기술에 있어서 제품 Design단계에서 Package Assembly까지를 기술개발, 생산하고 있으며 Customer요구에 의해서 규격, 사양에 준한 특수한 Sensor패키지의 Total Solution을 제공할 수 있다.

## Process of Package Assembly



Temperature Sensor / Humidity Sensor / Gas Sensor / IR Sensor / Pressure Sensor / Customer made etc.