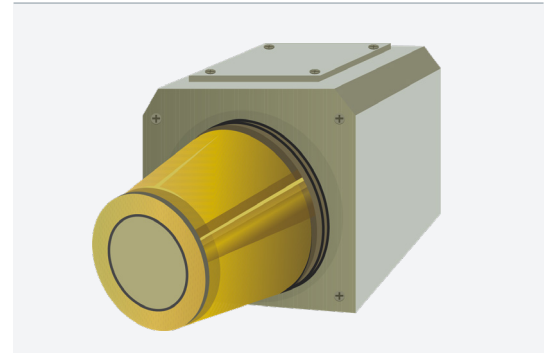




# Hermetic Window Housing Assemblies

## Window Housing Assemblies for Cooled Infrared Detectors

Materion Balzers Optics can supply infrared windows hermetically soldered into metal housings. These window housing assemblies are suitable for soldering or welding onto the customer's cooled infrared detector. Materion can manufacture the infrared window with AR or filter coatings, metallize the window for solder assembly, and then solder the window into metal housing. The integrity of the solder joint is rigorously measured by X-ray, helium leak checking and environmental testing.



### Benefits

- Low void solder joint
- Highly reliable hermetic seal
- X-ray and helium leak testing
- High transmittance window in SWIR, MWIR or LWIR

### Applications

Hermetic window housing assemblies are required for cooled infrared detectors in the SWIR, MWIR and LWIR. The window can be specified with a variety of coatings, including AR, longpass filter, or narrow band filter. Cooled IR detectors are used for high precision, high sensitivity measurements and imaging, such as temperature measurement, gas sensing and measurement, night vision and multispectral imaging.

### Technical Data

<b>Available Solders</b>	Pb-containing or Pb-free Liquidus from 118 °C to 361 °C
<b>Housing Metal</b>	Alloy 42, Kovar, Invar depending on the window
<b>Housing plating</b>	Available upon request
<b>Window</b>	Sapphire, Si or Ge
<b>Available Coatings</b>	Antireflection, Long Pass, Narrow Band Filters
<b>Window Dimensions</b>	Ø 6 mm to Ø 75 mm
<b>Helium leak rate</b>	< 1E-9 std atm-cc/sec
<b>Temperature cycle compatibility</b>	-50 °C to + 90 °C

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