Infrared-Emitter HIS2000R-BWC300



Thermal infrared emitter with Winston cone and soldered BaF_2 window, hermetically sealed

HIS2000R-BWC300 is a NiCr filament based thermal infrared emitter in a hermetically sealed TO-8 package with a soldered BaF_2 window and a Winston cone cap. This guarantees best long-term stability. The Winston cone cap bundles and focuses the beam for maximum optical performance.

Product Name: HIS2000R-BWC300
Package: TO-8
Radiating element area: 40 mm^2
Radiating element emissivity: > 0.9
Optical output power: up to 740 mW
Max. electrical power (DC): 2.5 W
Max. electrical current: 660 mA
Electrical resistance: 5…6 Ω
Modulation frequency: 4 Hz
Filter/Window: BaF_2 (soldered)

Wavelength range: 2 to 14 µm
Filling gas: Nitrogen
Product code: 154370

Product details

HISpower series

High-power infrared sources in TO-8 housing

HIS*power* series emitters have an integrated gold-plated reflector that directs the radiation emitted from the rear filament side to the front through the housing window in order to achieve maximum efficiency and optical output power. All our emitters offer minimum drift at a constant electrical resistance. Infrasolid's infrared emitters are characterized by a very low temperature coefficient of electrical resistance. Therefore, the hot resistance and the cold resistance are almost identical which eases the electrical control of the IR sources. Infrasolid's advanced packaging technology SOLIDSEAL® allows soldered sapphire, CaF_2 and BaF_2 windows for use in a wide temperature range of -25 °C up to +85 °C.

Key features HISpower series

- Pulsable thermal infrared source mounted in an industry standard TO-8 package
- Patented nanostructured radiating element generates black-body spectrum
- Wide wavelength range enables a broad range of applications
- Highest optical output power of up to 1 W
- Soldered, high-quality filter windows guarantee long-term stable operation and high lifetime

INFRASOLID® nanostructure technology

Infrasolid's patented nanostructure technology allows the fabrication of extremely thin and very heat-resistant black optical coatings. They are already used in our thermal infrared light sources but also in optical detector technologies and for stray light absorption in optical measurement systems. The broad spectral range of high absorption extends from UV up to far infrared wavelengths. A structuring of the black coatings can be done by photolithography to realize very small structures or local

areas of blackening. The deposition is done on flat substrates. Temperature-sensitive materials, such as plastics, can be coated using our low temperature black coating process.

SOLIDSEAL® hermetic housing technology

Infrasolid's hermetic housing technology enables the soldering of different IR window materials, like CaF2, BaF2 and sapphire. It is used in our high-performance infrared radiation sources to ensure best long-term stability and highest lifetime. The hermetic packages do not show any permeation of water vapor or gases in contrast to glued windows. It opens up new fields of application, especially in harsh industrial environments such as explosion-endangered applications, corrosive gas mixtures, high temperature, high partial gas pressure, and high humidity.

The online shop

Quantity (pieces)	Price (per piece)
1-4	CHF 222.88
5-9	CHF 211.68
10-24	CHF 206.08

Stock: **5**