Infrared-Emitter HIS2000R-0



Thermal infrared emitter with broadband emission

HIS2000R-0 is a NiCr filament based thermal infrared emitter in an open TO-8 package. A gold-plated reflector directs the radiation emitted from the rear filament side to the front. This almost doubles the optical output power. The open emitter offers high performance for a wide spectral measuring range.

Product Name: HIS2000R-0
Package: TO-8
Radiating element area: 40 mm²
Radiating element emissivity: > 0.9
Radiating element temperature: 630 °C at 2.5 W
Optical output power: up to 1 W
Max. electrical power (DC): 2.5 W
Max. electrical voltage: 3.8 V
Max. electrical current: 660 mA
Electrical resistance: 5…6 Ω
Modulation frequency: 4 Hz

Filter/Window: None
Wavelength range: 2 to 20 µm
Filling gas: None
Product code: 154102

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.

The online shop

Quantity (pieces)	Price (per piece)
1-4	CHF 110.88
5-9	CHF 99.68
10-24	CHF 94.08

Stock: **5**