



innovative  
Sensor  
Technology

# 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

**Gehäuse:** TO-8

**Strahlungselementbereich:** 40 mm<sup>2</sup>

**Strahlungsemission:** > 0.9

**Strahlungstemperatur:** 630 °C at 2.5 W

**Optische Ausgangsleistung:** up to 1 W

**Max. elektrische Leistung (DC):** 2.5 W

**Max. elektrische Spannung:** 3.8 V

**Max. elektrischer Strom:** 660 mA

**Elektrischer Widerstand:** 5...6 Ω

**Modulationsfrequenz:** 4 Hz

**Filter/Fenster:** None

**Wellenlängenbereich:** 2 to 20  $\mu\text{m}$

**Füllgas:** 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,  $\text{CaF}_2$  and  $\text{BaF}_2$  windows for use in a wide temperature range of  $-25\text{ }^{\circ}\text{C}$  up to  $+85\text{ }^{\circ}\text{C}$ .

#### 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**

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

Lager: **5**