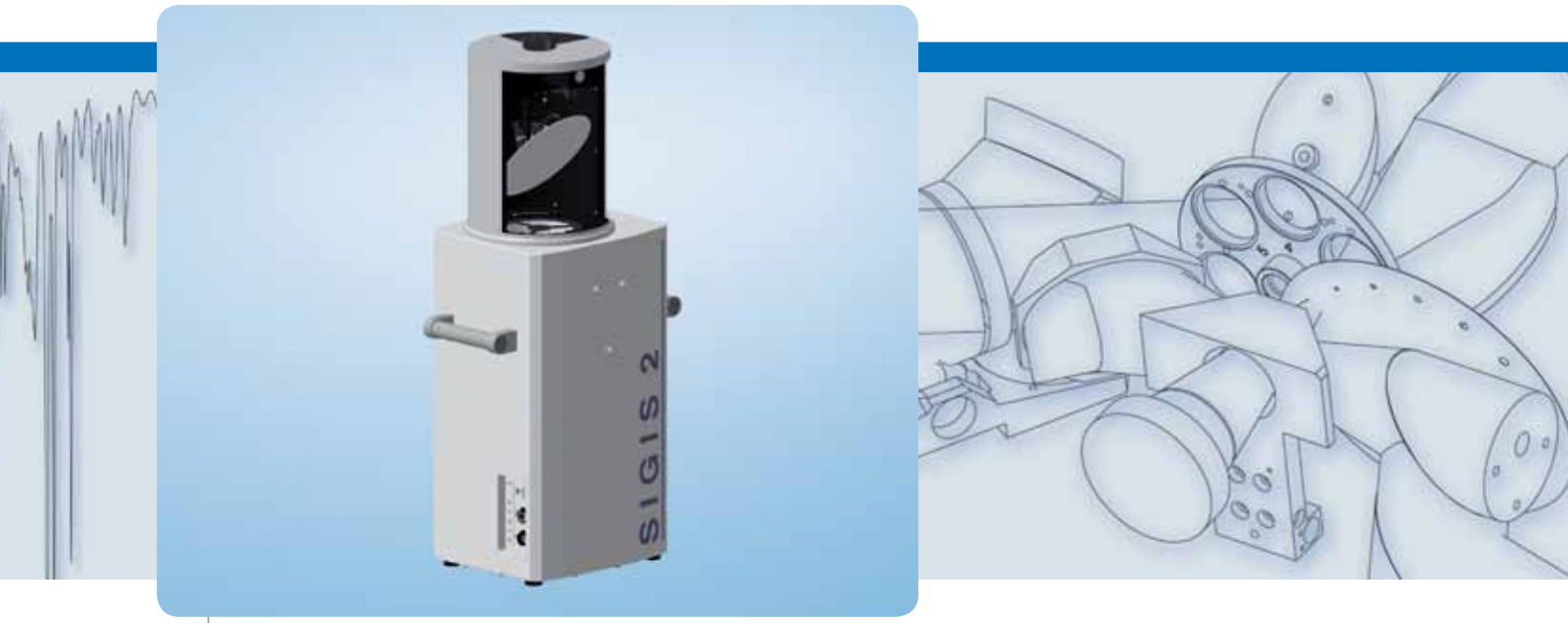

SIGIS 2 Scanning Infrared Gas Imaging System

Specifications

SIGIS 2 (Scanning Infrared Gas Imaging System) is a scanning imaging remote sensing system based on the combination of an infrared spectrometer with a single detector element and a scanner system. SIGIS 2 combines the performance of an FT-IR spectrometer with a single detector element and imaging.

System

Interferometer	Modified Michelson with cube corner mirrors (Bruker EM 27)
Scanner	Azimuth-elevation scanning mirror
Radiometric calibration	Two reference sources, automatic
Display	Overlay of scene image and results of spectral analysis

Performance

Area of surveillance (Field of regard)	360° x 30° (360° x 60° max.)
Field of view (telescope)	10 mrad
Spectral range	680 - 1500 cm^{-1} (600 - 6000 cm^{-1} max.)
Maximum spectral resolution (max. optical path difference *OPD*)	0.5 cm^{-1} (*OPD* = 1.8 cm)

- Spectral rate: 16 spectra/s ($\Delta\sigma$ = 4 cm^{-1}, two-sided interferograms)
- NEΔT (single scan, DS = 4 cm^{-1}, t = 44 ms, typical): 20 mK
- Cameras for scene image: Video camera and infrared camera for night vision
- Infrared camera resolution: 640 x 512 px

IT

- PC: Ruggedized notebook computer
- Software: Real-time identification and imaging software
- Display: Daylight readable display with touch screen

Portability

- Transportation case (road case)

Vehicle integration

- Shock mount

Power

- Voltage: 110/230 V AC or battery operation
- Power consumption (measurement): <100 W typical
- Calibration: 20 Wh typical
- Battery supply runtime: 6 h typical

Physical Characteristics

- Mass: 65 kg
- Size (in mm): 1190 x 580 x 365 (approx.)

Environmental

- Operating temperature: 0 to + 55°C (-20°C to + 55°C optional)
- Storage temperature: -30°C to + 70°C

Feature Highlights

- Long-range detection (telescope)
- Ultra-low noise
  - high optical throughput
  - low detection limits
- Unique system that combines performance of single detector FT-IR with imaging
- Automatic real-time identification
  - compensation of atmospheric gases and interferents
- Large spectral library (TICs and CWA)
- Image overlay allows simple interpretation
- Robust
- Automatic 360°-surveillance and user-defined operation
- Video- and infrared cameras for day and night use
- Complete documentation of measurement
  - scene image, spectra, compounds, position, time etc.
- Automatic transmission of data to server
  - transmission to command center of external experts

Technologies used are protected by one or more of the following patents:
US 5309217; DE 4212143; US 5923422; DE 19704598

Bruker Optics is ISO 9001 certified.

Laser class 1 product

Türkiye Distribütörü

UTILIS

Kızılırmak Mahallesi Ufuk Üniversitesi Caddesi
1445. Sokak No 2 The Paragon Tower Kat17 - D87
Çukurambar 06510 Ankara - Türkiye
T. +90 312 440 68 26 F. +90 312 440 67 23
utilis.com.tr | info@utilis.com.tr

Bruker Optics Inc.
Billerica, MA · USA
Phone +1 (978) 439-9899
Fax +1 (978) 663-9177
info@brukeroptics.com

Bruker Optik GmbH
Ettlingen · Germany
Phone +49 (7243) 504-2000
Fax +49 (7243) 504-2050
info@brukeroptics.de

Bruker Optik Asia Pacific Ltd.
Hong Kong
Phone +852 2796-6100
Fax +852 2796-6109
asiapacific@brukeroptics.com.hk

www.brukeroptics.com