



IR Sphinx Transmission product portfolio and technical specification



**IR Sphinx
Transmission Lab**



**IR Sphinx
Transmission Industrial**

| Spectrometer | IR Sphinx Transmission Lab | | IR Sphinx Transmission Portable | | IR Sphinx Transmission Industrial | |
|------------------------------------|--|--|--|--|--|--|
| Article Number | 909100-00 | 909200-00 | 907100-00 | 907200-00 | 908100-00 | 908200-00 |
| Spectral range | 2.5–5.0 μm 4000–2000 cm ⁻¹ | 5.5–11.0 μm 1800–900 cm ⁻¹ | 2.5–5.0 μm 4000–2000 cm ⁻¹ | 5.5–11.0 μm 1800–900 cm ⁻¹ | 2.5–5.0 μm 4000–2000 cm ⁻¹ | 5.5–11.0 μm 1800–900 cm ⁻¹ |
| Cuvette | Aluminium 90901-00 | | Aluminium 90901-00 | | Stainless steel + fluid channels 90902-00 | |
| Spectrometer Housing Material | Anodized aluminium | | | | | |
| Illumination Source | Electrically modulated MEMS emitter | | | | | |
| Source Lifetime | ~5000 Hrs of continuous measurement | | | | | |
| Dispersing Element | Linear variable filter (LVF) | | | | | |
| Detector | 128-pixel uncooled pyroelectric array + 2 custom bandpassfilters | | | | | |
| Pixel Size/Pitch | 60 x 500 μm / 100 μm | | | | | |
| Pixel to pixel wavelength interval | 43.3 nm | | | | | |
| Spectral Bandwidth (FWHM) | ~2% of centre wavelength | | | | | |
| Analogue to Digital Converter | 16-bit | | | | | |
| Signal | Detector voltage > 1V @ 8 Hz and 1600 cm ⁻¹ | | | | | |
| Measurement time (typical) | ~30 seconds (N=200) | | | | | |
| Operating Environment | 0–50° C non-condensing | | | | | |
| Storage environment | 0–60° C non-condensing | | | | | |
| Dimensions (L x W x H) | 85 x 99 x 97 mm | | 165 x 74 x 97 mm | | 85 x 99 x 97 mm | |
| Protection Class | IP44 | | IP64 | | IP44 | |
| Battery | - | | Lithium polymer (LiPo) 1300 mAh | | - | |
| Power Requirement | 12 Volt DC, 5 W | | 5 Volt DC, 5 W | | 12 Volt DC, 10 W | |
| Standalone operation | - | | - | | yes | |
| Thermal Stabilisation | - | | - | | yes | |
| Interface | USB, Ethernet | | USB, Ethernet, Bluetooth | | USB, Ethernet, CANopen | |
| Weight | ~430 g | | ~720 g | | ~460 g | |