

**IR Sphinx ATR Flow Through  
product portfolio and  
technical specification**



IRSphinx ATR  
Flow Through Lab



IRSphinx ATR  
Flow Through Industrial

| Article Number                     | 919 111-00   | 919 110-00 | 919 211-00  | 919 210-00 | 918 111-00  | 918 110-00 | 918 211-00  | 918 210-00 |
|------------------------------------|--|------------|---|------------|---|------------|---|------------|
| Spectral range                     | 2.5–5.0 $\mu\text{m}$<br>4000–2000 $\text{cm}^{-1}$    |            | 5.5–11.0 $\mu\text{m}$<br>1800–900 $\text{cm}^{-1}$ |            | 2.5–5.0 $\mu\text{m}$<br>4000–2000 $\text{cm}^{-1}$ |            | 5.5–11.0 $\mu\text{m}$<br>1800–900 $\text{cm}^{-1}$ |            |
| ATR Crystal Material               | ZnS  | ZnSe       | ZnS   | ZnSe       | ZnS   | ZnSe       | ZnS   | ZnSe       |
| ATR Frame Material                 | Stainless steel  |            |   |            |   |            |   |            |
| Spectrometer Housing Material      | Anodized aluminium                                     |            |   |            |   |            |   |            |
| ATR Surface area                   | 17 x 27 mm   |            |   |            |   |            |   |            |
| Number of Sample Reflections       | 9  |            |   |            |   |            |   |            |
| 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                  |            |   |            |   |            |   |            |
| Pixel Size/Pitch                   | 60 x 500 $\mu\text{m}$ / 100 $\mu\text{m}$             |            |   |            |   |            |   |            |
| 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 $\text{cm}^{-1}$ |            |   |            |   |            |   |            |
| 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)             | 165 x 74 x 60 mm                                       |            |   |            |   |            |   |            |
| Protection Class                   | IP64   |            |   |            |   |            |   |            |
| Battery                            | –  |            |   |            |   |            |   |            |
| Power Requirement                  | 5 Volt DC, 5 W   |            |   |            | 5 Volt DC, 10 W                                     |            |   |            |
| Standalone Operation               | –  |            |   |            | yes   |            |   |            |
| Thermal Stabilisation              | –  |            |   |            | yes   |            |   |            |
| Interface                          | USB, Ethernet  |            |   |            | USB, Ethernet, CANopen                              |            |   |            |
| Weight                             | ~700 g   |            |   |            | ~750 g  |            |   |            |