

## Raman bIO-Optics

### Continuous, inline, multi-component bioprocess measurement



More information and current pricing:

[www.us.endress.com/KLBIO1](http://www.us.endress.com/KLBIO1)

#### Benefits:

- Immersion optics for multi-component bioprocess measurement
- Compatible with standard bioreactor ports
- Fixed-focus design
- Available in 12 mm diameter with Pg 13.5 threaded connector
- 120, 220, 320, or 420 mm lengths
- Autoclavable

#### Specs at a glance

- **Sampling probe compatibility** Raman Rxn-10 probe
- **Wetted materials** Body: 316L stainless steel Window: Proprietary material, optimized for bioprocesses Process connection: PG13.5 Surface finish: Ra 15 with Electropolish to ASME BPE SF4 finish Adhesive: USP Class VI and ISO 10993 compatible
- **Sterilization method** Autoclave

**Field of application:** Raman bIO-Optics are versatile immersion optics used in conjunction with the Rxn-10 probehead and compatible with standard bioreactor ports. The fixed focus design provides long-term measurement stability along with superior signal performance, essential for transferable, high performance Raman-based bioprocess analysis. Available in industry standard lengths, Raman bIO-Optics are ideally suited for both glass and plastic benchtop bioreactor/fermenter applications requiring headplate entry.

#### Features and specifications

Liquids

#### Measuring principle

Raman spectroscopy

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## Liquids

**Laser wavelength**785 nm, 1000 nm

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**Sampling probe compatibility**Raman Rxn-10 probe

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**Sample interface**Temperature: -30 to 150 °C

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**Pressure**Max pressure (psig): 200

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**Wetted materials**

Body: 316L stainless steel

Window: Proprietary material, optimized for bioprocesses

Process connection: PG13.5

Surface finish: Ra 15 with Electropolish to ASME BPE SF4 finish

Adhesive: USP Class VI and ISO 10993 compatible

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**Length**120, 220, 320, or 420 mm

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**Diameter (mm)**12

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**Sterilization method**Autoclave

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**Process connection**PG13.5

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