Raman bio multi optic and bio sleeve

Maintain sterility and spectral quality while reducing maintenance and cleaning burdens

Benefits:
- Patented self-focusing lens with automatic alignment for optimal spectral quality and reproducibility
- Improved ease of use with less probe service and maintenance
- Simplified workflow for greater process efficiency – swap out probes mid-batch, use multiple sleeves in the same reactor for simplified redundancy, and calibrate / verify probes at any time
- Autoclavable, gamma sterilizable, and compatible with standard cleaning protocols (bio sleeve), with reduced risk of cross-contamination (via non-contact multi optic)
- 120 mm version is compatible with Endress+Hauser flow assembly CYA680

Specs at a glance
- **Wetted materials** Bio sleeve: Body: 316L stainless steel Window: Proprietary material, optimized for bioprocesses Surface finish: Ra 15 with Electropolish to ASME BPE SF4 finish Adhesive: USP Class VI and ISO 10993 compatible
- **Sterilization method** Bio sleeve: Autoclave, gamma irradiation

Field of application: The bio multi optic and bio sleeve duo delivers reliable, real-time bioprocess measurements with maximum sterility and efficiency. The non-contact multi optic features a patented self-aligning lens for top spectra quality and reproducibility. It pairs with the **Rxn-10 probe** and connects to an autoclavable (or gamma sterilizable), disposable sleeve via an easy snap-in-place design. The system reduces maintenance and cross-contamination risk for reusable or single-use benchtop bioreactor setups.

Features and specifications

More information and current pricing: [www.endress.com/KRBSL](http://www.endress.com/KRBSL)
### Measuring principle

Raman spectroscopy

### Temperature

-30 to 150 °C / -22 to 302 °F

### Sampling probe compatibility

Raman Rxn-10

### Pressure

**Bio Sleeve:**
Max pressure: 13.8 barg / 200 psig

### Wetted materials

**Bio sleeve:**
- Body: 316L stainless steel
- Window: Proprietary material, optimized for bioprocesses
- Surface finish: Ra 15 with Electropolish to ASME BPE SF4 finish
- Adhesive: USP Class VI and ISO 10993 compatible

### Length

120 or 220 mm

### Diameter

**Bio sleeve:**
12 mm

### Sterilization method

**Bio sleeve:**
- Autoclave, gamma irradiation

### Process connection

**Bio Sleeve:**
PG13.5
More information [www.endress.com/KRBSL](http://www.endress.com/KRBSL)