

## Raman Rxn-45 probe

### The ultimate in compatibility for bioprocess manufacturing



More information and current pricing:

[www.ch.endress.com/KR45](http://www.ch.endress.com/KR45)

#### Benefits:

- Measures multiple components in real-time for automated 24/7 process feedback
- Provides long-term measurement stability
- Offers a suitable surface finish for cGMP manufacturing
- Provides compatibility with industry standard bioreactor side ports and sensor housings
- Offers the flexibility of being installed in development and production reactors
- Reduces sterilization and cleaning burdens with CIP/SIP standard compatibility

#### Specs at a glance

- **Laser wavelength** 785 nm, 1000 nm
- **Wetted materials** Body: 316L stainless steel Window: Proprietary material, optimized for bioprocesses Process connection: PG13.5 for industry standard sensor housings, welded port connectors available Surface finish: Ra 15 with electropolish Adhesive: USP Class VI and ISO993 compatible
- **Sterilization method** CIP/SIP

**Field of application:** The Raman Rxn-45 probe capitalizes on the power of Raman in bioprocess manufacturing by measuring multiple, specific components in real-time for continuous, around-the-clock process feedback. It also meets the daunting sampling requirements of compliance, sterilization, port compatibility, and convenience. The Raman Rxn-45 probe was designed for installation in development and cGMP stainless-steel reactors and is successfully used to provide an analytical “eye” into large-scale bioprocesses.

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## Features and specifications

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### Liquids

**Measuring principle**

Raman spectroscopy

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**Laser wavelength**

785 nm, 1000 nm

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**Spectral coverage**

Probe spectral coverage is limited by the coverage of the analyzer being used.

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**Maximum laser power into probehead (mW)**

<499

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**Sample interface**

Temperature: -30 to 150 °C

Temperature ramp: ≤30 °C/min

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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 for industry standard sensor housings, welded port connectors available

Surface finish: Ra 15 with electropolish

Adhesive: USP Class VI and ISO993 compatible

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**Fiber optic cable**

Cable sold separately

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**Length**

120 mm

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**Diameter (mm)**

12

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Liquids

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**Sterilization method**

CIP/SIP

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