Raman Rxn4 analyzer

Rugged, reliable Raman analyzer ensuring 24/7 process and quality monitoring

Benefits:
- Robust, reliable, and highly accurate
- Easy installation and minimal maintenance/downtime
- 24/7 inline, online, or at-line process measurement and monitoring
- Unified internal construction enables straightforward model transfer to support redundant analyzer systems
- Intuitive, fully embedded Raman RunTime control software via touchscreen or remote interface
- Scale-up, scale-out, and cGMP/pilot-plant compatible
- Suitable for outputs into hazardous area/classified environments

Specs at a glance
- **Spectral coverage** Base Model and Enclosure configuration:
  - 150-4350 cm⁻¹ (532 nm)
  - 150-3425 cm⁻¹ (785 nm)
  - 200-2400 cm⁻¹ (1000 nm)
  - Hybrid: 175-1890 cm⁻¹ (785 nm)

Field of application: The Raman Rxn4 analyzer powered by Kaiser Raman technology is the optimal choice for manufacturing or process environments. Raman Rxn4 provides high-resolution performance for in situ, real-time measurement and control. It features unique self-monitoring, diagnostics, and self-calibration to ensure the validity of each measurement. Stackable in a standard 19" rack, the Raman Rxn4 saves valuable space on the production floor. It is also offered with an optional stainless steel NEMA 4X enclosure.

Features and specifications

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**Liquid**

**Spectral coverage**
Base Model and Enclosure configuration:
- 150-4350 cm⁻¹ (532 nm)
- 150-3425 cm⁻¹ (785 nm)
- 200-2400 cm⁻¹ (1000 nm)
Hybrid: 175-1890 cm⁻¹ (785 nm)

**Spectral resolution**
Base model and Enclosure configuration (average):
- 5 cm⁻¹ (532 nm)
- 4 cm⁻¹ (785 nm)
- 5 cm⁻¹ (1000 nm)
Hybrid:
- 4 cm⁻¹ (785 nm) average

**Channels**
Base model and Enclosure configuration:
- Up to four channels
Hybrid:
- Up to two channels

**Temperature**
Base model:
Operating:
- 5 to 35 °C / 41 to 95 °F (532 nm, 785 nm)
- 5 to 30 °C / 41 to 86 °F (1000 nm)
Storage:
- -15 to 50 °C / 5 to 122 °F
Hybrid:
Operating: 5 to 35 °C / 41 to 95 °F
Storage: -15 to 50 °C / 5 to 122 °F
Enclosure configuration:
Operating: (all wavelengths)
- 5 to 50 °C / 41 to 122 °F
Storage:
- -15 to 50 °C / 5 to 122 °F
**Relative humidity**
20 to 80 %, non-condensing

**Input voltage**
Base model and Hybrid:
100-240 V, 50-60 Hz, ±10%
Enclosure configuration:
120 V ±10%, 60 Hz -OR-
230 V ±10%, 50/60 Hz

**Power consumption (W)**
Base model and Hybrid:
400 (max)
250 (typical start-up)
120 (typical running)
Enclosure configuration:
1560 (max)
1560 (typical start-up)
750 (typical running)

**Warm up time (minutes)**
Base model and Hybrid:
120
Enclosure configuration:
240

**Unit dimensions (width x height x depth)**
Base model and Hybrid:
483 x 267 x 556 mm
19.02 x 10.52 x 21.89 inch
Enclosure configuration: (with optional trolley)
1175 x 1480 x 826 mm
46.26 x 58.27 x 32.52 inch
Liquid

Weight
Base model:
28.5 kg / 63 lbs
Enclosure configuration:
185.5 kg / 409 lbs (with optional trolley)

Sampling probe compatibility
Base model and enclosure configuration:
Raman Rxn-10 (with accessory optics), Rxn-40, Rxn-41, Rxn-45, Rxn-46
Hybrid:
Channel 1 - Raman Rxn-20 (with accessory optics)
Channel 2 - Raman Rxn-10 (with accessory optics), Rxn-40, Rxn-41, Rxn-45, Rxn-46

Automation interface
OPC
Modbus
HTTPS
(contact us for other options)

Installation options
Base model and Hybrid:
19-inch rack package
Enclosure configuration:
NEMA 4X enclosure; wall-mountable, mobile trolley, or fixed stand

Hazardous area certifications
Base model and Hybrid:
ATEX, CSA, IECEx
Enclosure configuration:
Call support for options

Solids

Measuring principle
Raman spectroscopy
Solids

**Spectral coverage**
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### Solids

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Solids

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185.5 kg / 409 lbs (with optional trolley)

**Sampling probe compatibility**
Base model and enclosure configuration:  
Raman Rxn-10 (with accessory optics)  
Hybrid:  
Channel 1 - Raman Rxn-20 (with accessory optics)  
Channel 2 - Raman Rxn-10 (with accessory optics)

**Automation interface**
OPC  
Modbus  
HTTPS  
(contact us for other options)

**Installation options**
Base model and Hybrid:  
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Enclosure configuration:  
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**Hazardous area certifications**
Base model and Hybrid:  
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Enclosure configuration:  
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Gases

**Measuring principle**
Raman spectroscopy
Gases

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Gases

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**Sampling probe compatibility**
Raman Rxn-10 with accessory optics
Raman Rxn-40
Raman Rxn-41
Gases

**Automation interface**
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More information [www.endress.com/KRXN4B](http://www.endress.com/KRXN4B)