

Raman Rxn4 analyzer

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



More information and current pricing:

www.us.endress.com/KRXN4B

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

- **Laser wavelength** Base model: 532 nm, 785 nm, 1000 nm
Hybrid: 785 nm
- **Spectral coverage** Base Model: 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

Liquid**Measuring principle**Raman spectroscopy

Laser wavelength

Base model: 532 nm, 785 nm, 1000 nm

Hybrid: 785 nm

Spectral coverage

Base Model:

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 (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:

Up to four channels

Hybrid:

Up to two channels

Temperature

Base model:

Operating: 5 to 35 °C (532 nm, 785 nm); 5 to 30 °C (1000 nm)

Storage: -15 to 50 °C

Hybrid:

Operating: 5 to 35 °C

Storage: -15 to 50 °C

Enclosure configuration:

Operating: 5 to 50 °C (all wavelengths)

Storage: -15 to 50 °C

Liquid

Relative humidity

20-80% RH, non-condensing

Input voltage

Base model and Hybrid:
100-240 V, 50-60 Hz, $\pm 10\%$
Enclosure configuration:
115 V $\pm 10\%$, 60 Hz -OR-
230 V $\pm 10\%$, 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 in mm)

Base model and Hybrid:
483 x 267 x 556
Enclosure configuration:
1175 x 1480 x 826 (with optional trolley)

Weight (kg)

Base model and Hybrid:
28.5
Enclosure configuration:
185.5 (with optional trolley)

Liquid

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

Laser wavelength

Base model: 532 nm, 785 nm, 1000 nm

Enclosure configuration: 532 nm, 785 nm, 1000 nm

Hybrid: 785 nm

Solids

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 (532 nm, 785 nm); 5 to 30 °C (1000 nm)

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Hybrid:

Operating: 5 to 35 °C

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Enclosure configuration:

Operating: 5 to 50 °C (all wavelengths)

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Solids

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Enclosure configuration:
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Unit dimensions (width x height x depth in mm)

Base model and Hybrid:
483 x 267 x 556
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Weight (kg)

Base model and Hybrid:
28.5
Enclosure configuration:
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Solids

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:

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

Gases

Measuring principle

Raman spectroscopy

Laser wavelength

Base model: 532 nm

Enclosure configuration: 532 nm

Spectral coverage

Base Model and Enclosure configuration:

150-4350 cm⁻¹ (532 nm)

Gases

Spectral resolution

Base model and Enclosure configuration (average):
5 cm⁻¹ (532 nm)

Channels

Base model and Enclosure configuration:
Up to four channels

Temperature

Base model:
Operating: 5 to 35 °C
Storage: -15 to 50 °C
Enclosure configuration:
Operating: 5 to 50 °C (all wavelengths)
Storage: -15 to 50 °C

Relative humidity

20-80% RH, non-condensing

Input voltage

Base model:
100-240 V, 50-60 Hz, ±10%
Enclosure configuration:
115 V ±10%, 60 Hz -OR-
230 V ±10%, 50/60 Hz

Power consumption (W)

Base model:
400 (max)
250 (typical start-up)
120 (typical running)
Enclosure configuration:
1560 (max)
1560 (typical start-up)
750 (typical running)

Gases

Warm up time (minutes)

Base model:

120

Enclosure configuration:

240

Unit dimensions (width x height x depth in mm)

Base model:

483 x 267 x 556

Enclosure configuration:

1175 x 1480 x 826 (with optional trolley)

Weight (kg)

Base model:

28.5

Enclosure configuration:

185.5 (with optional trolley)

Sampling probe compatibility

Raman Rxn-30

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

Gases

Hazardous area certifications

Base model and Hybrid:

ATEX, CSA, IECEX

Enclosure configuration:

Call support for options

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