Raman Rxn4 analyzer

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

More information and current pricing:
www.casc.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, ±10%
Enclosure configuration:
115 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 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, moblile 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)
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Channels

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Up to four channels
Hybrid:
Up to two channels

Temperature

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

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Enclosure configuration:
1560 (max)
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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)

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, moblile 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, moblile trolley, or fixed stand

Gases

Hazardous area certifications

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

More information **www.casc.endress.com/KRXN4B**

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