

# trinamiX NIR Spectroscopy Solution

## Model SYS-IR-R-P

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### Spectroscopic specifications

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<b>Spectral range</b>	1450 – 2450 nm
<b>Spectral resolution</b>	1 % of wavelength, e.g. 15 nm at 1500 nm
<b>Wavelength reproducibility<sup>1</sup>:</b>	+/- 0.20 nm
<b>Wavelength repeatability<sup>2</sup>:</b>	< 0.05 nm
<b>Signal to Noise Ratio</b>	>5.000 per spectral resolution element

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### Optical Components

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<b>Detector</b>	256 pixel PbS line array detector
<b>Lamp Module</b>	6 Tungsten halogen lamps Lifetime > 100.000 scans (typically) Replaceable by user
<b>Sample interface</b>	Scratch resistant sapphire window

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### Physical specifications

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<b>Dimensions</b>	152 mm x 84 mm x 42mm
<b>Weight</b>	570 g
<b>IP class</b>	IP65 dust- and waterproof (splash and jet water)

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### Environmental conditions

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<b>Operating temperature</b>	0 °C – 40 °C 0 °C – 30°C for charging
<b>Storage temperature</b>	-20 °C – 60 °C

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<sup>1</sup> Determined with 50 devices. Value is standard deviation of distribution, determined at 1760 nm wavelength.

<sup>2</sup> Determined with 50 devices. Value is standard deviation for all individual devices. Valid for covered spectral range.

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<b>Air humidity (non-condensing)</b>	20 % – 80 % (operation) / 20 % – 90 % (storage).
<b>Height above sea level</b>	≤2000 m
<b>Type of use</b>	Indoor and outdoor (operation), indoor (charging)

### Electrical specifications

<b>Power Input (for charging)</b>	USB PD with 15 VDC, max. 2.75 A via USB type C connector
<b>USB-Connection (for stationary use)</b>	USB 2.0 communication via USB Type C connector
<b>Wireless connection (for handheld use)</b>	Wireless low energy via integrated antenna

### Battery

<b>Type</b>	Rechargeable lithium-ion battery
<b>Number of scans per battery charge</b>	> 6.000
<b>Nominal voltage</b>	11.1 V
<b>Nominal capacity</b>	2600 mAh
<b>Charging current</b>	1300 mA
<b>Transport classification</b>	UN class: 9 UN number: 3480, Lithium-Ion Battery Energy of battery: <100 Wh

### Radio Frequency Module

The device contains the following radio frequency (RF) module:

<b>Type</b>	Würth Proteus-I AMB2621 / 2608011024000
<b>Frequency range</b>	2.44 GHz
<b>Max. output power</b>	Typ. -2 dBm, max. 0 dBm



trinamiX  
 W. Spackmayer  
 Model: SYS\_3.0.0.F

trinamiX GmbH  
 Industriest. 35  
 67063 Ludwigshafen, Germany  
 www.trinamiX.com  
 Made in Germany

10V 2.5A  
 Type 3 Exposure (UL505)  
 contains FCC ID:  
 RTTAM2621

CE, FCC, RoHS, REACH, WEEE

