

## trinamiX Mobile NIR Spectroscopy Solutions

### trinamiX PAL One



#### Spectroscopic specifications

|                              |   |
|------------------------------|---|
| <b>Spectral range</b>        | 1,450 nm – 2,450 nm                       |
| <b>Spectral resolution</b>   | 1 % of wavelength, e.g. 15 nm at 1,500 nm |
| <b>Signal to noise ratio</b> | > 5,000 per spectral resolution element   |

#### Optical components

|                         |   |
|-------------------------|---|
| <b>Detector</b>         | 256-pixel PbS line array detector   |
| <b>Lamp module</b>      | 6 Tungsten halogen lamps<br>Lifetime > 100,000 scans (typically)<br>Replaceable by user |
| <b>Sample interface</b> | Scratch resistant sapphire window   |

#### Physical specifications

|                   |  |
|-------------------|--|
| <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) |

## trinamiX Mobile NIR Spectroscopy Solutions

### trinamiX PAL One

#### Environmental conditions

|                               |   |
|-------------------------------|---|
| Operating temperature         | 0 °C – 40 °C / 0 °C – 30 °C for charging          |
| Storage temperature           | – 20 °C – 60 °C                                   |
| Air humidity (non-condensing) | 20 % – 80 % (operation) / 20 % – 90 % (storage)   |
| Height above sea level        | ≤ 2,000 m   |
| Type of use                   | Indoor and outdoor (operation), indoor (charging) |

#### Electrical specifications

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

#### Battery

|                                    |   |
|------------------------------------|---|
| Type                               | Rechargeable lithium-ion battery  |
| Number of scans per battery charge | > 6,000   |
| Nominal voltage                    | 11.1 V  |
| Nominal capacity                   | 2,600 mAh   |
| Charging current                   | 1,300 mA  |
| Transport classification           | UN class: 9<br>UN number: 3,400, Lithium-ion battery<br>Energy of battery: < 100 Wh |

#### Radio frequency module

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

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

This document, or any answers or information provided herein by trinamiX GmbH does not constitute a legally binding obligation of trinamiX GmbH. While the descriptions, designs, data and information contained herein are presented in good faith and believed to be accurate, it is provided for your guidance only. Because many factors may affect processing or application/use, we recommend that you make tests to determine the suitability of a product for your particular purpose prior to use. It does not relieve our customers from the obligation to perform a full inspection of the products upon delivery or any other obligation. No warranties of any kind, either express or implied, including warranties of merchantability or fitness for a particular purpose, are made regarding products described or designs, data or information set forth, or that the products, designs, data or information may be used without infringing the intellectual property rights of others. In no case shall the descriptions, information, data or designs provided be considered a part of our terms and conditions of sale.