

# PN | R21

GNSS complete surveying  
system from proNIVO



## PN | R21 GNSS System

Centimeter-precise surveying with satellite technology  
A proprietary development of proNIVO

**proNIVO**   
proNIVO Messgeräte Handels GmbH



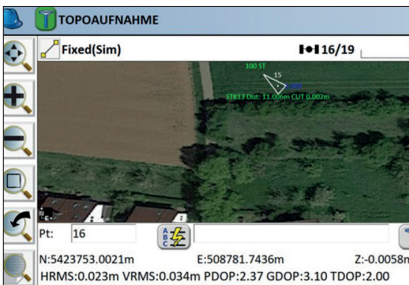
# PN | R21 GNSS System

The PNR21 is a multi-band RTK GNSS receiver with centimeter accuracy and meets the highest requirements for precision and handling! The PNR21 is perfectly adapted to the tough conditions of surveying and construction sites. Accuracy, user-friendliness and its extremely low weight make the PNR21 from proNIVO the GNSS receiver of your choice.



## The PNR21

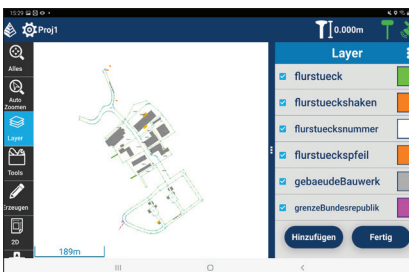
The PNR21 GNSS receiver combines leading-edge technology in a sleek and lightweight design. The network rover is perfectly suited for use in surveying, construction, landscaping, GIS, civil engineering and many other areas where measurements need to be done quickly and efficiently. The integrated battery ensures that the PNR21 can sustain even longer working days (up to 15 hours) without problems and always remains reliable and precise in its measurements. For this purpose, the PNR21 processes information of up to 800 channels (optional) from the satellite systems GPS, GLONASS, Galileo, BeiDou, QZSS and SBAS. In addition the PNR21 impresses with its light weight of 760 grams, which makes long days in the field almost a walk in the park.



## Applicable everywhere

Whether you are in construction, surveying, agriculture, or for municipalities or utility companies: The PNR21 ensures a workflow that suits your requirements perfectly.

On construction sites the PNR21 can be used for the following purposes: stakeout of points and axes from the CAD plan, control measurements, recording of moving terrain, excavation pits and stockpiles for volume calculations and updating of existing plans. The software "SurvPC" (for Windows) and "Carlson Layout" (for Android devices), which are easy and intuitive to use, you can transfer your plan to the construction site. Likewise, volumes of excavation pits and stockpiles can be calculated directly on the device and are ready for printing.



The PNR21 is ideally suited for all needs in the municipal GIS sector or in the utility industry. The PNR21 is an exciting option, especially for storing points, staking out and for the documentation of pipes and cables. With the "Carlson Layout" software, boundary stones can be found directly from the digital cadastral map with centimeter precision. GIS users can also document their pipeline cadastre with the widely used QGIS app QField. Any third party software can be connected without problems by NMEA output. For every application there is the right software for our PNR21.



With the aid of the GNSS receiver you can produce digital terrain models, carry out control measurements and determine control points.

The PNR21 can also be used in forestry and agriculture. For example you can determine and control your areas, document measures, etc. If you want to know how you can use the PNR21 in other ways, please contact us!

# PN | R21 GNSS Receiver

**Can be used anywhere where precision and flexibility are required**

All PNR21 variants ensure a workflow that is geared to your requirements whether you are surveying in the construction industry, in agriculture, survey business, municipalities or utility companies.



## Construction

The PNR21 is perfectly adapted to the tough conditions on construction sites and in landscaping. It enables you to easily stake out points and axes from the CAD plan, control measurements, recording of moving terrain, excavation pits and heaps for volume calculation and update existing plans. Height checks are also performed efficiently, intuitively and easily. In combination with the PN Field pro software, the PNR21 saves you time and money on your construction projects - and the precision of the measurements is amazing!



## Surveying

Due to its high precision, the PNR21 with IMU is a perfect choice for survey offices and survey companies. With the aid of the GNSS receiver they can produce digital terrain models, carry out control measurements and determine control points. Other possible applications: All kinds of stake out, cadastral measurements, road planning, urban planning, ecological measurements, continuation of existing plans and much more.



## GIS

The PNR21 is ideally suited for all needs in the municipal GIS sector or in the utility industry. The PNR21 is an exciting option, especially for storing points, stake out and documentation of pipes and cables. Other applications: Staking out of landmarks and parcel boundaries, collect data for all kind of GIS systems, recording of tree populations, streetlights, etc. The PNR21 is the ideal investment for municipalities and can also be connected to existing GIS software.



## Agriculture

In forestry and agriculture, the PNR21 has many uses: you can determine and control your areas, for example. The PNR21 can also be used in testings and probings, e.g. for stake out of testfields, testing soil cultivation and tillage methods. Furthermore, the PNR21 is used to measure boundary markers, hydrants, drains, manholes and other obstacles in the field. These are measured in the field and marked in the plans. Likewise, for example soil samples can be linked to the position and much more.

# PN | R21 Accessories

proNIVO also offers a wide range of accessories for the PNR21. Based on your needs you can create your individual system. We will be happy to assist you!



## Tablets and field computers

proNIVO offers a wide range of Android tablets and field PCs. Here our surveying software runs smoothly and the connection with the PNR21 receiver also works flawlessly. Our rugged tablets are tested for unconditional field suitability and can withstand heavy weather. They have a rain mode and are perfectly readable even in glaring sunshine. The tablets are designed for use with GNSS receivers and robotic stations. With our tablets you have efficient and mobile computing in the field or on the construction site and ensure perfect communication with the office.



## Carbon rod for GNSS receiver with 5/8" adapter

This carbon rod for GNSS receivers ensures that the PNR21 is mounted at a fixed height of 2.0 m. This makes exact height measurements possible. The two-piece rod is made of very robust carbon and can be easily stowed and transported even in small vehicles. The reinforced middle piece prevents the carbon from breaking when holders of heavy tablets are screwed very tightly. Of course, we also offer attachments for our rods.



## More accessories

proNIVO supplies all accessories that surveyors need for their GNSS surveys in the field: GNSS poles, GNSS telescope antenna poles, mounts and clamps for field computers, car roof mounts for RTK, various adapters and much more.

## Packages and support

We will be happy to help you put together an individual package for your customers. Working with you, we will put together a package tailored to their requirements. We also have instruction, troubleshooting, and support videos for the PNR21 and the surveying software on our Youtube channel. We will be happy to help you with questions personally.



# PN | R21 Specifications

<b>Measurements</b>	Channels GPS GLONASS BeiDou Galileo QZSS SBAS Data format Differential format positioning rates Re-acquisition time Cold Start	800 channels optional L1, L2, L5 L1, L2 B1, B2, B3 E1, E5a, E5b L1, L2, L5 L1 NMEA-0183 RTCM 2.X, RTCM 3.X 1 - 5 Hz <1 s <40 s
<b>Positioning*</b>	RTK  Static  DGPS	Horizontal: 8 mm + 1 ppm Vertical: 15 mm + 1 ppm Horizontal: 2,5 mm + 1 ppm Vertical: 5 mm + 1 ppm Horizontal: 0.4 m Vertical: 0.8 m
<b>Data storage</b>	Storage Differential	32 GB RTCM2.3, RTCM3.X, RTCM3.2, CMR, CMR+
<b>Communication</b>	Bluetooth GSM WIFI	V4.0 dual mode (BT/BLE) LTE-TDD/FDD/TD-SCDMA/UMTS/EVDO/CDMA1x/GSM 802.11 b/g/n
<b>Battery</b>	Capacity Battery life Charching time	7,4 V, 9600 mAh, internal battery Up to 15 h 4 h for full charging
<b>Environmental</b>	Operating temp Storage temp Humidity Shockproof Protection class	-20 °C bis +70 °C -40 °C bis +85 °C 100% Survives a 1.5 m pole drop onto concrete IP67
<b>Physical</b>	Material Dimension Weight Interface	Magnesium alloy housing + ABS/PC top cover Ø 133*75 mm 760 gramm with battery 4 LED indicators, 1 button
<b>Accessories</b>	GNSS receiver 7pin cable	1x 1x

\* Die Messgenauigkeit und Zuverlässigkeit hängen von verschiedenen Faktoren ab, einschließlich Satelliten, Geometrie, Hindernisse, Beobachtungszeit, ionosphärische Bedingungen, Multipath usw.

# PN | Distribution & OEM

In addition to the PNR21 GNSS receiver system we deliver a wide range of products for the needs of surveying and the needs of many other areas. This applies both to products with proNivo branding and in individualized form as an OEM brand. All of our products can of course be customized and can be branded upon request. We work closely with you and help with personalization and distribution. proNIVO is your professional and reliable partner!



## Surveying Accessories

**With our accessories you expand the application possibilities not only of products we offer!**

proNIVO offers a wide range of products for the fields of surveying, construction, location technology and building planning: proNIVO has robust measuring rods and tripods, levels and theodolites, prisms and marking points and extensive accessories in its range. Every single product can be personalized and branded according to your wishes.



## Moisture meter

**The moisture that cannot be seen is the most important!**

Our professional range of moisture meters offers a graduated program and a wide range of moisture measurement instruments that are innovative, extremely powerful and durable. Our programs are the products of choice for performing moisture analysis and deliver results that are quick, correct, and traceable, from building inspections to road construction and agriculture.



## Underground Location

**Not only avoid damage, first of all protect people!**

In addition to the original purpose of our cable detection and tracking devices, this is the purpose that is most important to us. With our cable detectors you can not only determine the exact route and depth of cables and lines, but also generate valuable information as to whether a certain point can be dug or dredged without that people endangered or property is damaged - a must for every construction site. In addition, our magnetic detectors are the industry standard for all aspects of magnetic location in construction and at utility companies.



# PN | Distribution & OEM



## Construction lasers

**Show your competence in the laser business  
and make yourself an unique partner for your customers!**

The new proNIVO PN-L OEM system family provides many options for you to find the right product for a multitude of requirements in a wide variety of industries. If you also want personalization, you have the option of creating your own individual product mix from different features in order to create a laser program that suits your customers' needs in various branches.



## Full service and support

**The best teacher is your last mistake - we want to save you  
and your customers from this happening to you again and again!**

We advise you via hotline, organize training courses, support you online with virtual showrooms, training rooms, videos, tutorials, webinars, train your customers and your sales team and much more. And if comes to troubles, our experienced repair shop will be at your side!



proNIVO Messgeräte Handels GmbH

Wasserburger Straße 7  
84427 Sankt Wolfgang  
Deutschland

Tel: +49 (0) 8085 - 930 530  
Fax: +49 (0) 8085 - 930 550

E-Mail: [info@pronivo.de](mailto:info@pronivo.de)

Web: [www.pronivo.de](http://www.pronivo.de)

[https://www.instagram.com/pronivo\\_bauvermessung/](https://www.instagram.com/pronivo_bauvermessung/)

***Your professional OEM-Partner***

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