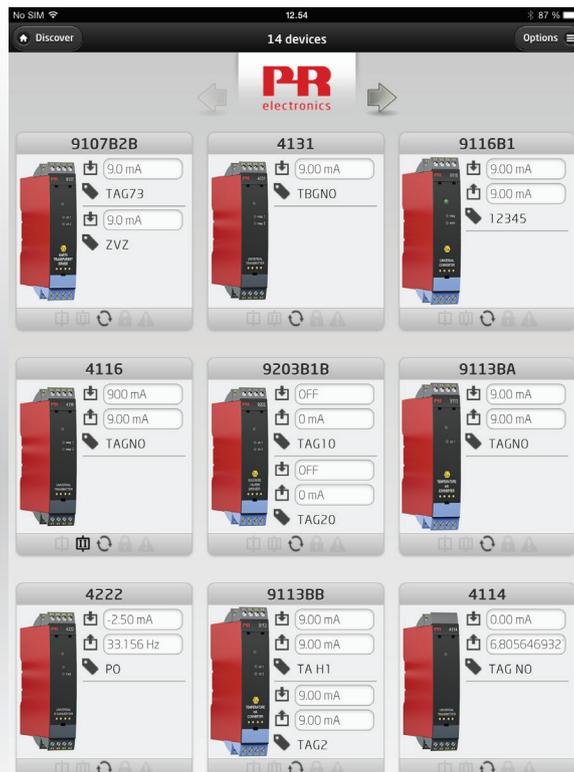


PERFORMANCE  
MADE  
SMARTER

# User manual

## 4511 PPS

### PR Process Supervisor



TEMPERATURE | I.S. INTERFACES | COMMUNICATION INTERFACES | MULTIFUNCTIONAL | ISOLATION | DISPLAY

No. PPSV102-UK

**PR**  
electronics

# 6 Product Pillars

## *to meet your every need*

### Individually outstanding, unrivalled in combination

With our innovative, patented technologies, we make signal conditioning smarter and simpler. Our portfolio is composed of six product areas, where we offer a wide range of analog and digital devices covering over a thousand applications in industrial and factory automation. All our products comply with or surpass the highest industry standards, ensuring reliability in even the harshest of environments and have a 5-year warranty for greater peace of mind.



Our range of temperature transmitters and sensors provides the highest level of signal integrity from the measurement point to your control system. You can convert industrial process temperature signals to analog, bus or digital communications using a highly reliable point-to-point solution with a fast response time, automatic self-calibration, sensor error detection, low drift, and top EMC performance in any environment.



We deliver the safest signals by validating our products against the toughest safety standards. Through our commitment to innovation, we have made pioneering achievements in developing I.S. interfaces with SIL 2 Full Assessment that are both efficient and cost-effective. Our comprehensive range of analog and digital intrinsically safe isolation barriers offers multifunctional inputs and outputs, making PR an easy-to-implement site standard. Our backplanes further simplify large installations and provide seamless integration to standard DCS systems.



We provide inexpensive, easy-to-use, future-ready communication interfaces that can access your PR installed base of products. All the interfaces are detachable, have a built-in display for readout of process values and diagnostics, and can be configured via push-buttons. Product specific functionality includes communication via Modbus and Bluetooth and remote access using our PR Process Supervisor (PPS) application, available for iOS and Android.



Our unique range of single devices covering multiple applications is easily deployable as your site standard. Having one variant that applies to a broad range of applications can reduce your installation time and training, and greatly simplify spare parts management at your facilities. Our devices are designed for long-term signal accuracy, low power consumption, immunity to electrical noise and simple programming.



Our compact, fast, high-quality 6 mm isolators are based on microprocessor technology to provide exceptional performance and EMC-immunity for dedicated applications at a very low total cost of ownership. They can be stacked both vertically and horizontally with no air gap separation between units required.



Our display range is characterized by its flexibility and stability. The devices meet nearly every demand for display readout of process signals, and have universal input and power supply capabilities. They provide a real-time measurement of your process value no matter the industry, and are engineered to provide a user-friendly and reliable relay of information, even in demanding environments.

# 4511 PPS getting started manual

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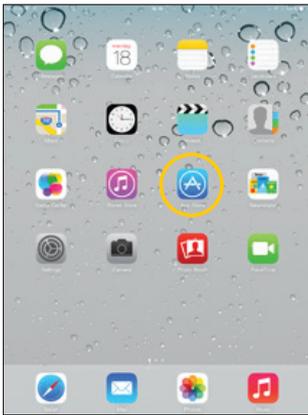
# PR Process Supervisor - PPS app

PR electronics 'PR Process Supervisor' - PPS - app enables remote unit monitoring, calibration and programming of PR electronics signal conditioning devices mounted with the 4511 communication enabler, i.e. devices in system 4000 and 9000 series.

The app shows live data - directly from your device - anywhere at any time. It is designed for technical and maintenance staff as well as plant operators. All you need is to download the app, manually or auto-connect to your device, and you have a user friendly, remote interface for monitoring and programming of your devices.

## App download

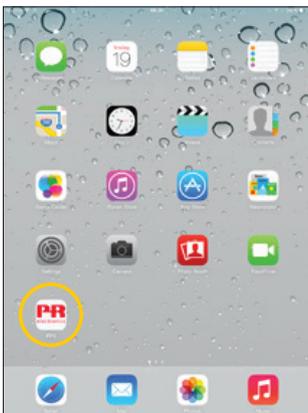
If you will be downloading the PR electronics PPS app for the first time, follow the instructions for IOS below. The Android download process will be similar.



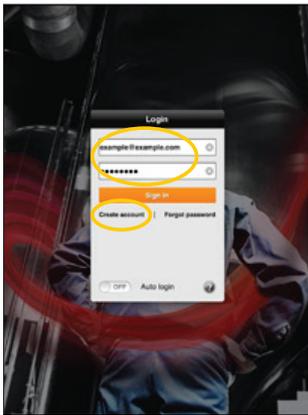
Go to the App store or scan the QR code (the code works for both IOS and Android).



Search for "PR electronics PPS", and install the free application.

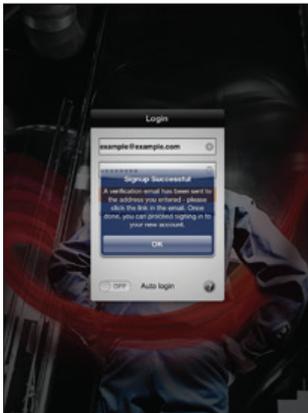


Tap the newly created PPS icon.



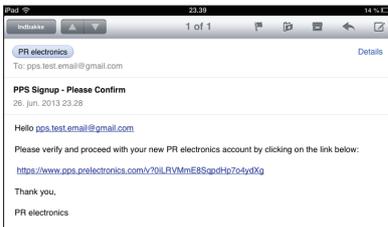
Create an account by typing in your e-mail address and a password.

Select "Create account".

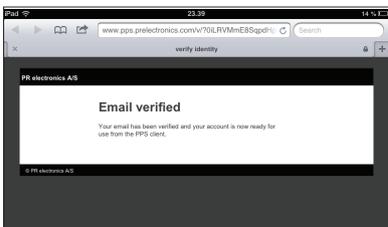


You will then see the following confirmation pop-up.

Open your email program and find the acknowledgement e-mail. Check your spam folder if you cannot find it.

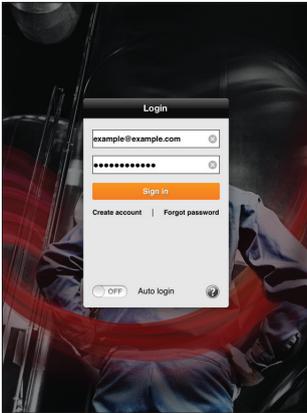


Tap the confirmation link.



You will see this verification message in your browser.

Now open the PPS app again.  
Type in your email and password.

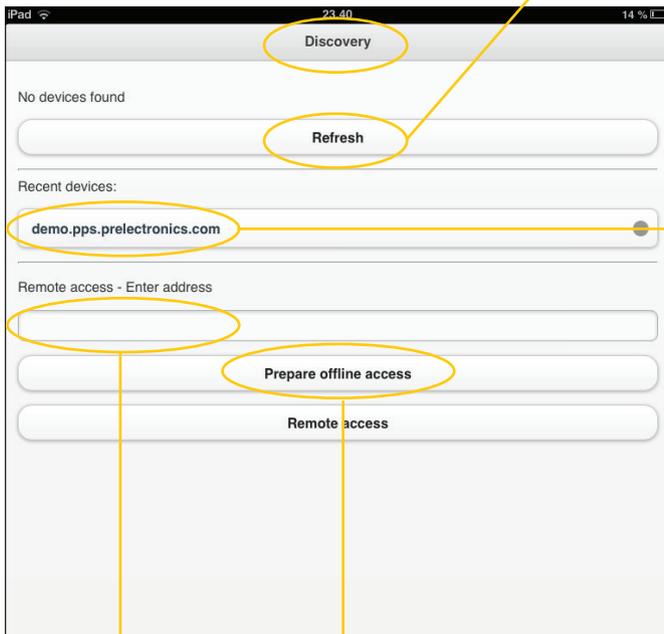


Tap the "Sign in" button.

Please note: the iOS device must be connected to the internet the first time you sign in because a certificate must be downloaded to the iOS device for each new PPS user.

## Discovery view

This is the **auto discovery function** - If your smart device and model 4801 gateway is on the same LAN (same network ID) the 4801 gateway will appear here after you click the "Refresh" button.



**This is the demo function -**

Here you can see some of the PPS functions without connecting to a real 4511 & 4801 gateway setup. The only requirement is an internet connection. Check page 13 for further info.

This is for accessing a remote 4801 gateway - that is connected to a network with a different address than the iOS device. Enter [serial number].pps.prelectronics.com - of the remote 4801 gateway here, then tap the "Remote access" button to access the 4801 gateway via PPS.

However if the 4801 gateway is connected to a network that does not have internet access (offline) - then enter [serial number].pps.prelectronics.com here, and then tap the "Prepare offline access" button. Check page 15 for connecting to a gateway in offline mode.

The 4801 gateway device drivers will be downloaded from the PR electronics server to your iOS device, allowing you to communicate with the 4801 gateway via Wi-Fi.

If you are having problems connecting, check your user rights.

# Internet Explorer / Firefox browser PPS application - downloading and installation

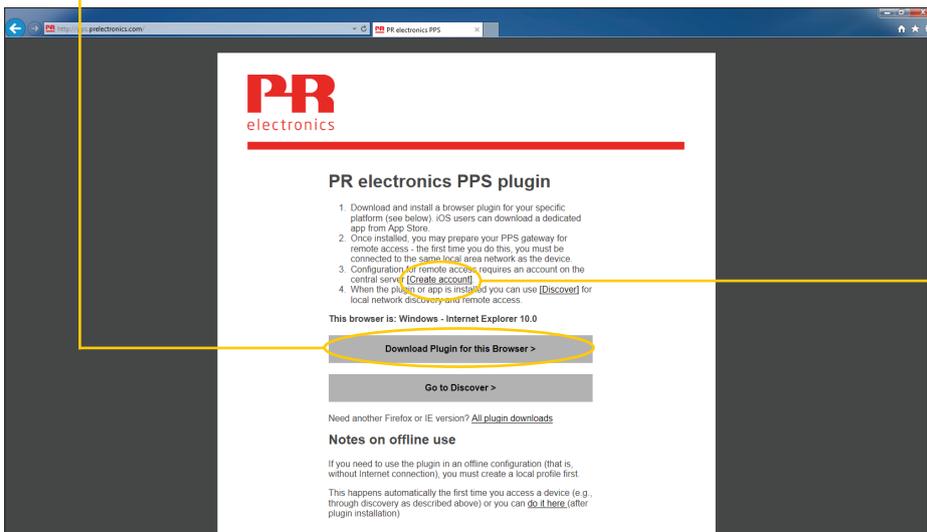
## Web browser requirements - for your PC or MAC computer:

Internet Explorer 9 or newer version

Firefox v52 ESR (Extended Support Release) 32-bit.

**Please note:** Firefox must be used as web browser if you are using a PC running Windows XP.

Connect your Computer to the internet.

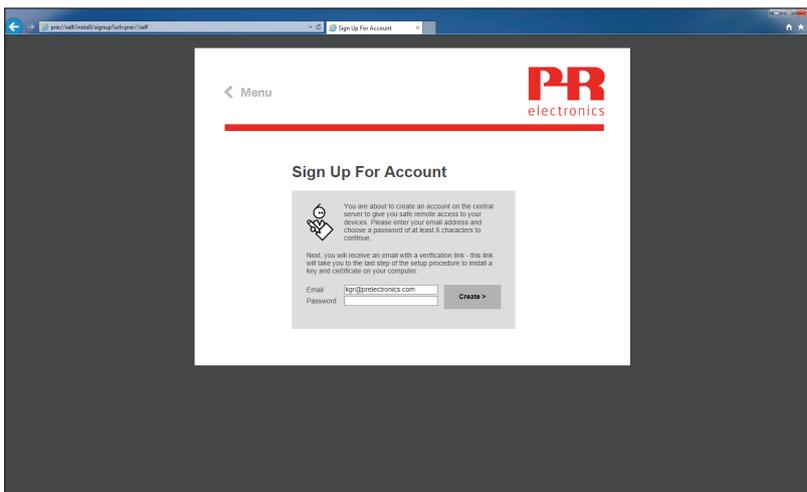


Enter [www.pps.prelectronics.com](http://www.pps.prelectronics.com).

Download and install a browser plugin for your specific platform.

Configuration for remote access requires an account on the PR central server - Click "Create Account".

Create an account by typing in your e-mail address and a password.

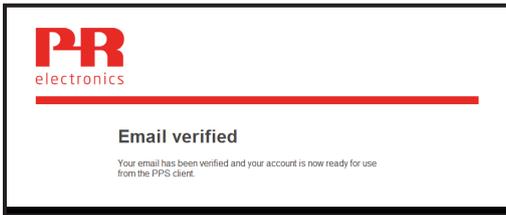


Open your email program and find the acknowledgement mail.  
Check your spam folder if you cannot find it.

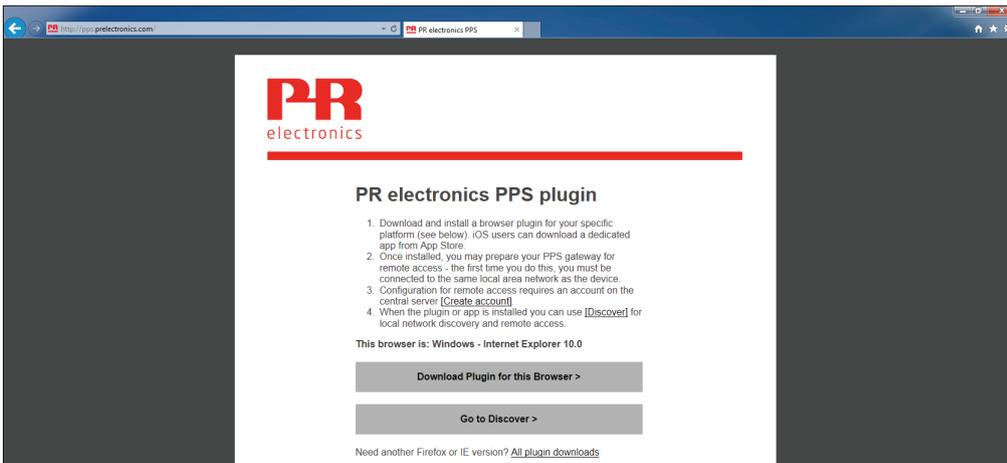


Click the confirmation link.

You will see this verification message in your browser.



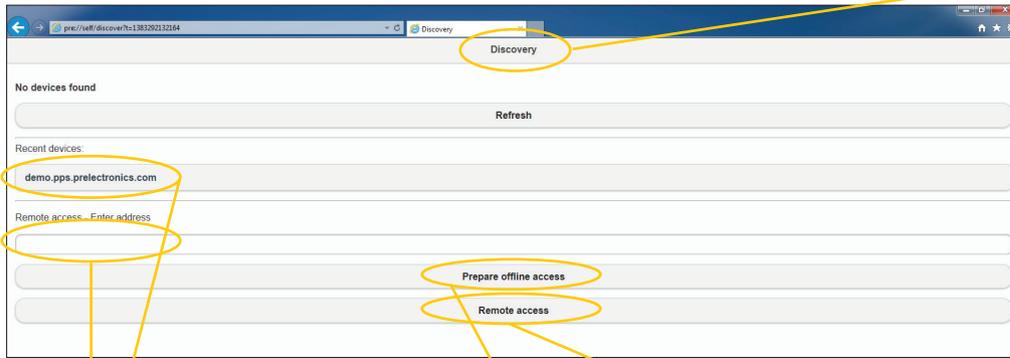
Now go to [www.pps.preelectronics.com](http://www.pps.preelectronics.com).  
Click the button "Go to Discover", to enter the plugin "pre://self/discover"



**Please note:** The computer must be connected to the internet the first time you sign in, because a certificate must be downloaded to the computer for each new PPS user.

The Discovery view page is now entered.

If your computer and 4801 gateway is on the same LAN (same network ID) - the 4801 gateway name will appear here.



This is the demo function. Here you can see some of the PPS functions without connecting to a real 4511 & 4801 gateway setup.

The only requirement is an internet connection.

This is for accessing a 4801 gateway that is connected to a network with a different ID than the computer.

Enter [serial number].pps.preelectronics.com - of the remote 4801 gateway here - then tap the Remote access button to access the 4801 gateway via PPS.

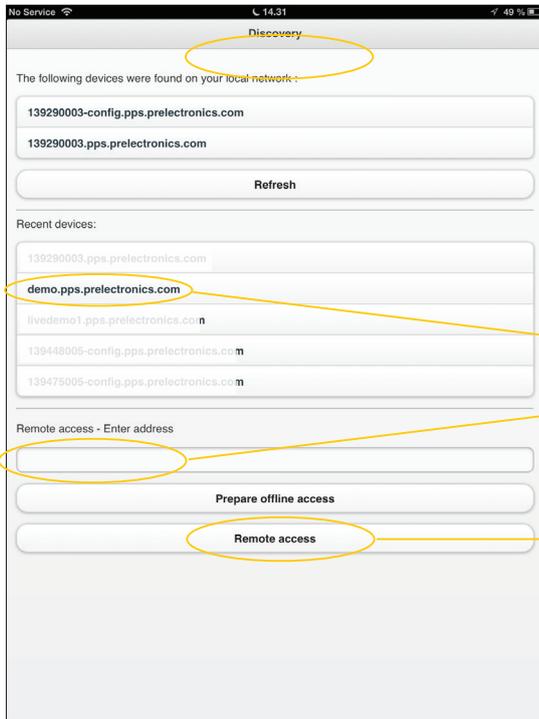
However if the 4801 gateway is connected to a network that does not have internet access (offline) - then please enter [serial number].pps.preelectronics.com and then tap the "Prepare offline access" button.

Check page 15 for connecting to a gateway in offline mode.

The 4801 gateway device drivers will be downloaded from the PR electronics server to your computer, allowing you to communicate with the 4801 gateway.

If you are having problems connecting, check your user rights.

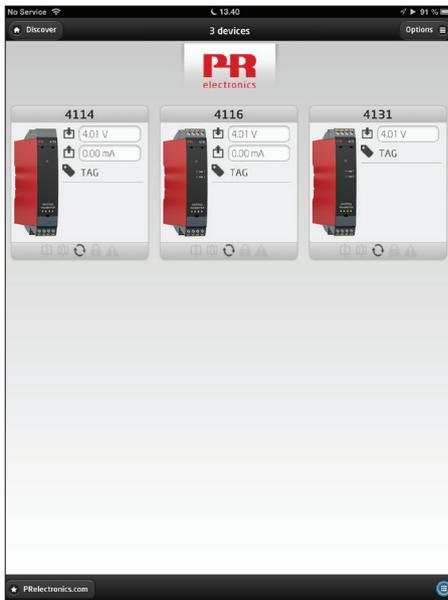
# Demo functionality for the PPS Application



Go to the Discovery view page.

Select or type in "demo.pps.preelectronics.com" (if it is not already in the recent device list) to enter the device demo function.

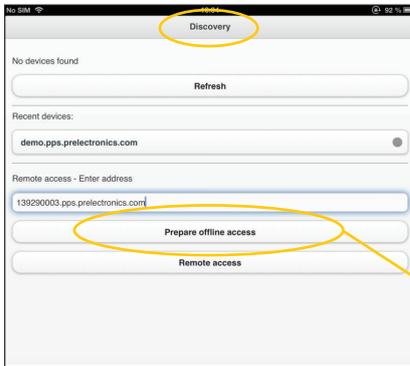
Press Remote access to enter demo devices view.



After a few moments you should see this device screen shot.

Tap any of the available demo devices and go to the summary view for that device.

## Connecting to the PPS application in offline mode



If the 4801 gateway is connected to an offline network - meaning a wireless network with no internet access - you have to prepare the PPS and the 4801 gateway for offline access first.

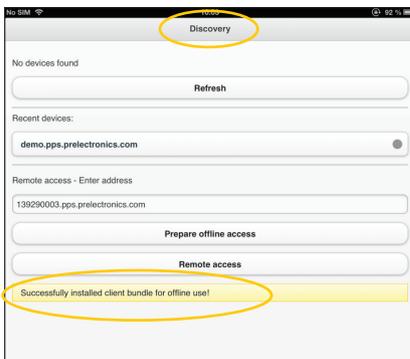
Before preparing for offline access make sure the computer or tablet device is connected to the internet.

Open the PPS application and type in "[serialNo].pps.prelectronics.com" of the used 4801 gateway in the "Remote access" field.

Tap "Prepare offline access".

PPS will now receive the needed data and drivers from a PR electronics server to allow offline access.

Now go to "Settings - Wi-Fi" on your computer or tablet device and select and connect to the same wireless network that the 4801 gateway is connected to.



Go back to the discovery view page in the PPS application and tap the refresh button. You should now find your 4801 gateway listed. Select the found 4801 gateway to monitor and configure your system 4000 / 9000 devices via Wi-Fi.

If the PPS hasn't been prepared for offline access, you will get error message: 2000049 - "No Internet Access". d Support Release) 32-bit.

# Connecting to the PPS application in offline mode



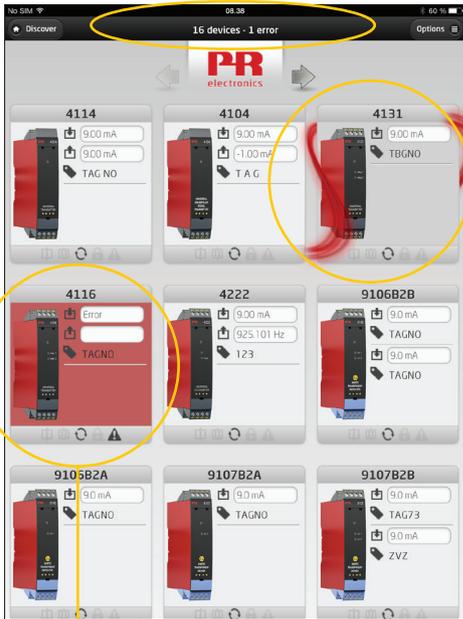
# PPS application - user functions

By tapping the 4801 gateway found in the Discovery view list, you will now see a view of all system 4000 and/or 9000 devices connected on this gateway segment.

### Please note:

If no devices appear the first time you access the discover view list, check the communication settings of your gateway and all 4511 devices. PR recommends a baud rate of at least 57.6 k for running the PPS application.

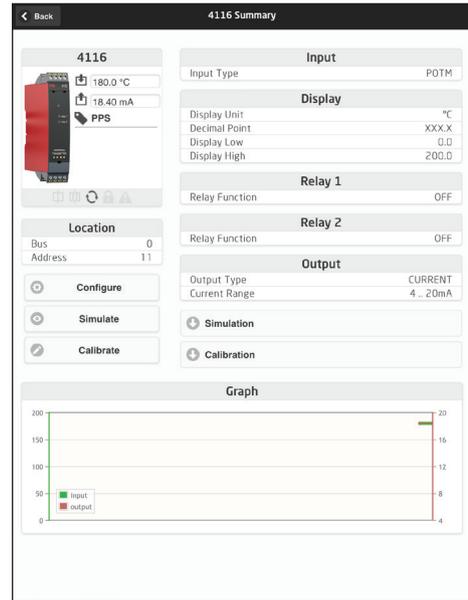
At the top of the PPS application the number of devices connected to the segment is indicated.



The red "PR flow" symbol appears when you tap a specific device. The 4511 backlight on that device will begin flashing to provide a local indication that the device has been selected.

By tapping the same device again, the screen will display the summary view for that device.

Any devices with an error have a flashing red background.



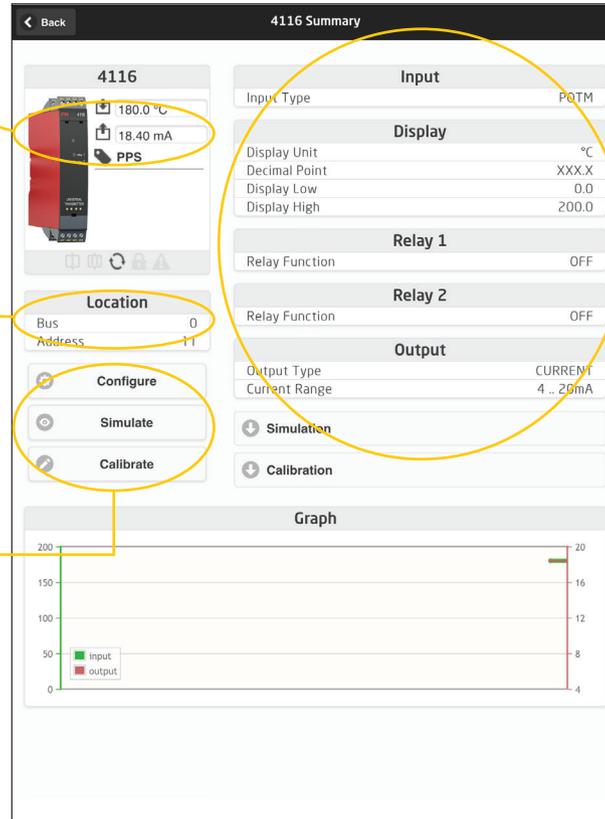
## Device view and programming

In the summary view you can view and change most configuration parameters, monitor the process values, and manually control the device I/O.

Device realtime input and output values.

Specific BUS segment & node address.  
BUS 0 = P1 port  
BUS 1 = P2 port

Access to device configuration, simulation & calibration functions.  
(Calibration function only for products 4104, 4114, 4116 & 4131).

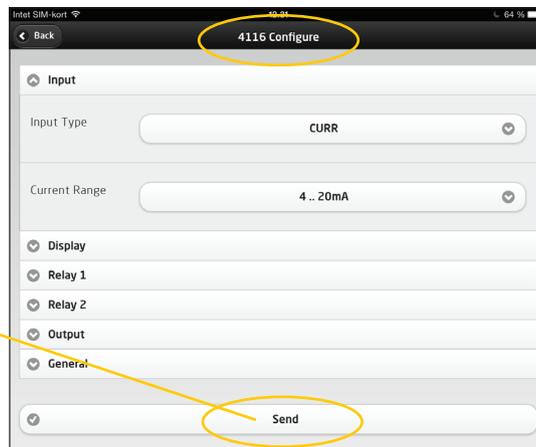


Configuration overview.

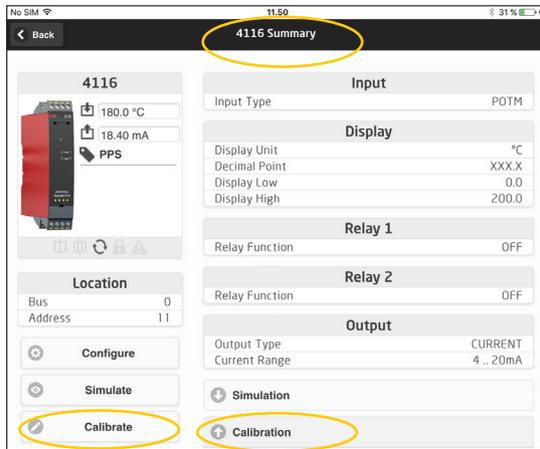
Graph input/output.

## Configuration function page

Press the SEND configuration button to send the new setup to the specific device.

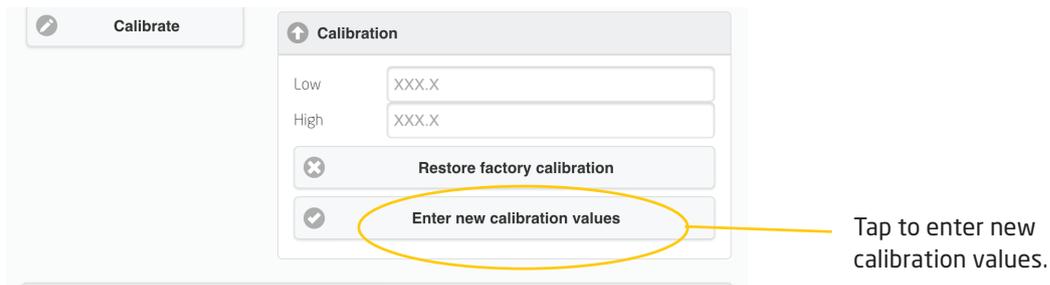


## Calibration function page (only products 4104, 4114, 4116 & 4131)

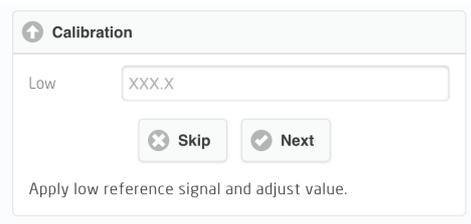


Access to calibration menu.

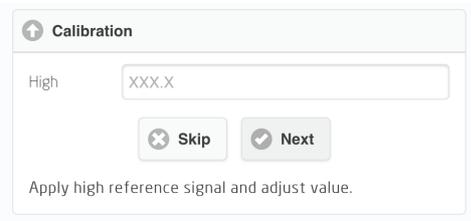
Two-point process calibration: The unit can be process-calibrated in 2 points to fit a given input signal.



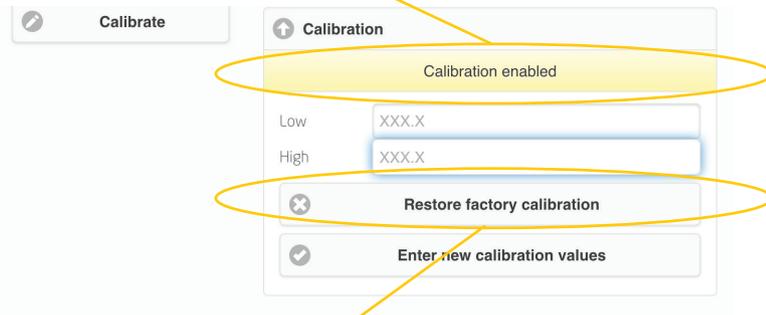
A low input signal (not necessarily 0%) is applied and the actual value is entered via the PPS app.



Then a high signal (not necessarily 100%) is applied and the actual value is entered via the PPS app.



The unit will now work according to this new adjustment.

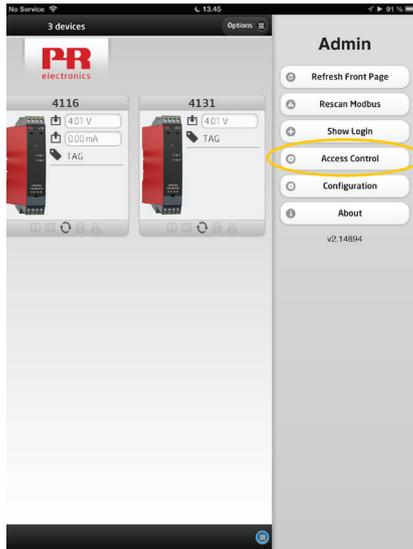


If you later tap "Restore factory calibration" or choose another type of input signal the unit will return to factory calibration.

### Admin control access



Press Options to enter the Admin menu.

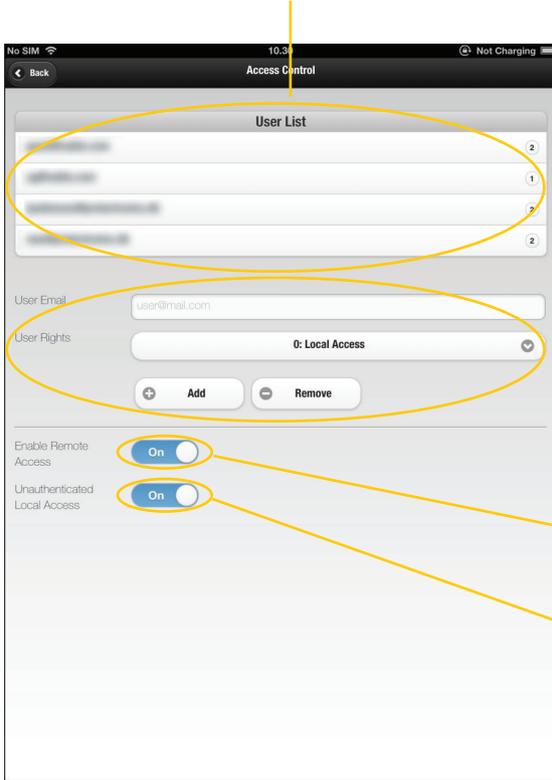


Press "Access Control".

User list shows you the users that have access to your 4801 gateway, and what level of access they have.

- 0 = Only local access
- 1 = Local and remote access
- 2 = Administrator access

Only administrators have the right to change user access level.



This section allows the administrator(s) to add new users to the user list by typing in their email address.

An administrator can select level of access for new users.

A user can also be removed from the user list here.

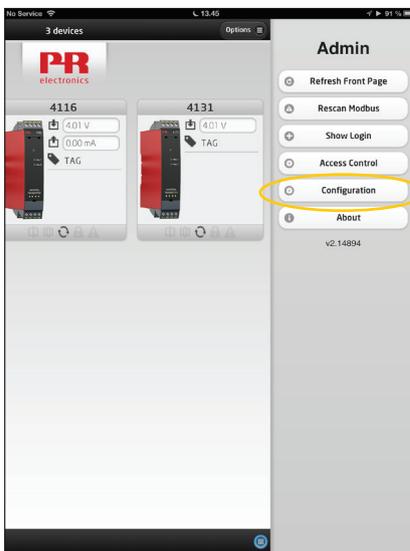
This button selector tells the 4801 gateway whether or not remote access is allowed.

This button selector allows **anyone** connected to the same network to access the 4801 gateway, even if they are not on the user list.

The first user will automatically be assigned as administrator.

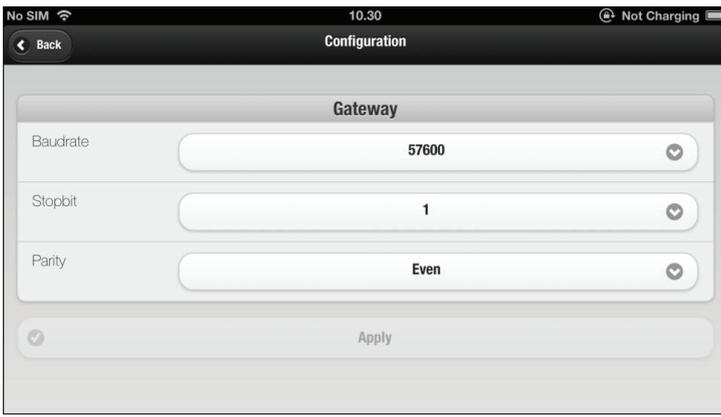
## Admin control menu

### 4801 gateway Modbus parameter configuration



Tapping the "Configuration" button opens the Configuration screen.

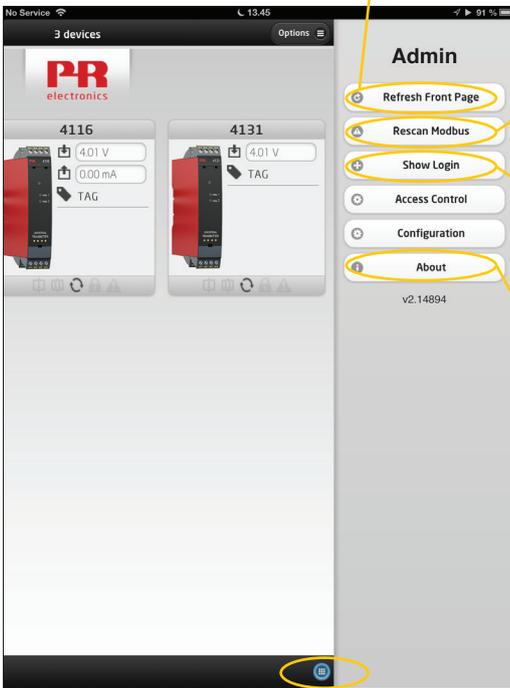
This allows you to configure the 4801 gateways serial connection, which needs to match the 4511 configuration.



**Please note:** By default, the 4801 gateway is configured to a 57.6 k baud rate, even parity and 1 stop bit. PR recommends a baud rate of at least 57.6 k.

The 4511 units need to be configured to the same baud rate as the 4801 gateway. By default the 4511 is configured to a 19.2 k baud rate, even parity and 1 stop bit.

Refresh Front Page - data are updated from all devices.



Rescan Modbus forces the 4801 gateway to make a new search for devices on the Modbus network.

Show login opens the login screen.

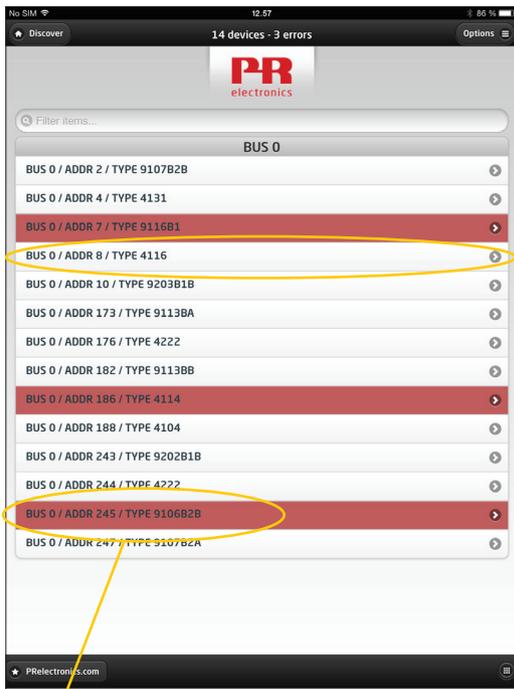
About - Opens a new page which shows the "change log" explaining the latest updates for the PPS.

List view option button



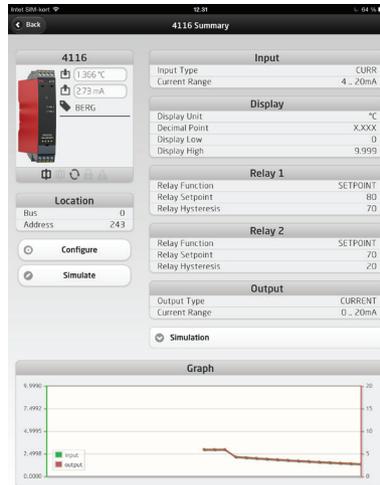
Tapping the "List view" button opens a list of devices connected to the specific 4801 gateway bus segment.

This allows you to get an easy-to-read overview of all the connected devices on the segment. The individual Modbus node address of each device is also shown on this list.



If a device line is shown in red, this indicates a device or signal error.

Tapping a specific item line takes you directly to the device programming view, and allows you to easily configure and simulate a device.



## Document history

The following list provides notes concerning revisions of this document.

<b>Rev. ID</b>	<b>Date</b>	<b>Notes</b>
100	1349	initial release of the product
101	1642	Calibration functionality for 4101, 4114, 4116 & 4131 added
102	1910	Firefox version updated

# We are near you, *all over the world*

**Our trusted red boxes are supported wherever you are**

All our devices are backed by expert service and a 5-year warranty. With each product you purchase, you receive personal technical support and guidance, day-to-day delivery, repair without charge within the warranty period and easily accessible documentation.

We are headquartered in Denmark, and have offices and authorized partners the world over. We are a local business

with a global reach. This means that we are always nearby and know your local markets well.

We are committed to your satisfaction and provide PERFORMANCE MADE SMARTER all around the world.

For more information on our warranty program, or to meet with a sales representative in your region, visit [prelectronics.com](http://prelectronics.com).

# Benefit today from *PERFORMANCE MADE SMARTER*

PR electronics is the leading technology company specialized in making industrial process control safer, more reliable and more efficient. Since 1974, we have been dedicated to perfecting our core competence of innovating high precision technology with low power consumption. This dedication continues to set new standards for products communicating, monitoring and connecting our customers' process measurement points to their process control systems.

Our innovative, patented technologies are derived from our extensive R&D facilities and from having a great understanding of our customers' needs and processes. We are guided by principles of simplicity, focus, courage and excellence, enabling some of the world's greatest companies to achieve PERFORMANCE MADE SMARTER.