

# Easy and efficient *asset management* *for your business*

PERFORMANCE  
MADE  
SMARTER



## Featuring

- Monitoring of process values
- Diagnostics
- Device programming
- Simulation of process values

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



## 4511

**Communication enabler for PR 4000/9000 devices**  
Enable digital access and diagnostics of process values while preserving the analog signal

**PR**  
electronics

# Welcome to a flexible *system of connectivity*

## 4511 Communication Enabler

Easily snaps on/  
off without tools  
from the front of  
PR 4000/9000  
devices

Detects the  
PR 4000 or 9000  
device settings  
automatically



180° rotation  
for upside down  
installation  
(switching up/  
down buttons)

Program onsite  
or remotely using  
the PPS Software,  
available for iOS,  
Android, Windows  
and Mac

## A smarter connection to your devices

For new installations and customers that already use various PR 4000/9000 devices in existing panels, the 4511 represents an easy way to go digital. Not only is it cost-efficient and safe, but it is also easy to implement and use.

Simply snap on without tools, connect a RJ45 plug and you're ready to go. The 4511 instantly detects the device

settings and process values, while the intuitive, fully programmable front display with scrolling help text makes signal conditioning simple. Then, depending upon your desired mode of communication, you can program onsite or remotely, simulate inputs and monitor your devices in seconds, while still maintaining the analog signal.

The cross platform software makes it possible to access PR 4000 and 9000 devices via PC/Mac, handheld devices or a PLC/DCS system. However you connect, the 4511 helps your processes simply perform smarter.

# Fast, accurate communication *with your devices*

## Wired or wireless - the choice is yours

At PR electronics, we are always innovating new ways to ensure better performance and management of your installations. The 4511 communication enabler is no exception.

Wired or wireless, locally or remotely, analog and digital, this advanced device enables easy and cost-effective access to your process values from your existing 4000 and 9000 devices.

You can manage processes onsite, connect to Modbus RTU devices, connect to any major communication protocols via gateway or remotely using the PR Process Supervisor (PPS) app.

In addition to more flexibility for your processes, you will benefit from accurate and fast communication backed by the stability of redundant data availability.

### Easy and safe

- Easy and intuitive connectivity
- Snaps on/off to your devices
- Autodiscovery finds your 4000 or 9000 devices once paired
- AES (SHA252) encrypted to secure your data using secure certificate exchange technology

### Analog and digital

- Simultaneously obtains both analog and digital signals
- Provides redundancy or additional measurements to ensure stable and secure data availability

### Wired or wireless

- Local or remote access
- Monitoring and control of devices onsite or from a remote location

The 4511 is equipped with many approvals for applications worldwide.





# Remote asset *management*

## Anytime, anywhere

For hazardous processes, geographically remote regions or hard-to-reach areas, remote asset management increases safety, saves time and is more cost-efficient. This is true for many industries and applications, including: wind or hydroelectric power, water and wastewater, petrochemical, waste site remediation, remote generators or pumping stations.

So, whether you have to monitor process values, simulate, configure, stop or start a system, change alarm

set-points, re-scale, activate or deactivate, you can do so seamlessly - remotely. Using the PPS app with a tablet or PC, you can access your devices without the need to deploy a technician.



## Improved control of *water levels in lift stations*

### Case: Lyonnaise des Eaux

Water distribution and wastewater treatment company Lyonnaise des Eaux in Montgeron, France decided to renovate its lift station cabinets to get a much simpler, more cost-efficient setup with remote access. The main problem was that the lift station probes were reacting to contact with litter and rainwater, triggering the pumps to stop.

By replacing the existing probes with piezo probes and installing new 4116 universal transmitters with mounted 4511 communication enablers, they achieved a set up with less wiring and



far fewer problems. The team can now program the pumps and monitor water levels remotely which leads to better process and asset management all around.

"Now - without wiring - we have remote access to the data transmitted by the 4116 and we can program the modules as well."

- **Arnaud Chambon, Automaticien**

See more cases at [prelectronics.com/casestories](http://prelectronics.com/casestories)







# Connect locally *or remotely*

## Local Operator Interface (Onsite)

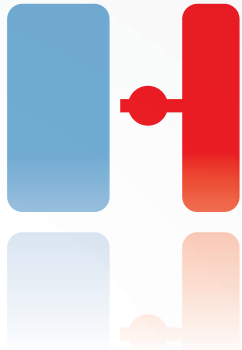


The 4511 works as a local operator interface to simulate, monitor and configure values onsite. Following a series of simple steps, you can save an existing configuration onto the 4511 programming interface and then load that configuration onto a similar 4000 or 9000 device. This makes programming multiple devices easy and saves a lot of time.

You can also simulate inputs to test proper operation of the attached PLC/DCS control functions. And with alarm monitoring that indicates errors and system failures, you can proactively correct problems and reduce downtime tremendously.

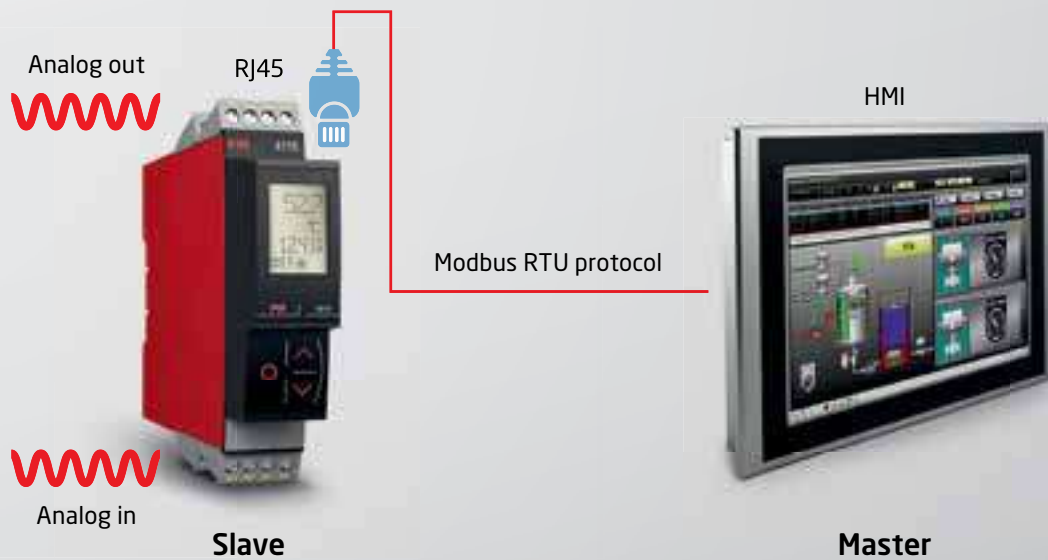


## Master-Slave connection via Modbus RTU



Combine the reliability of the measurement point's analog signal path with an easy connection to any Modbus Master. An HMI, for instance, then allows for easy monitoring, diagnostics and preventative maintenance of process values.

So for machine builders and the like, this represents a perfect solution that greatly reduces cabling and wiring time.



## Cross-platform remote access



Manage process and diagnostics data locally or remotely using the DCS system, while maintaining the analog signal path. You can also take advantage of our free PPS Software available on all standard software platforms. Simply connect the 4801 Gateway to an access point to monitor any paired Modbus segments onsite or over the Internet. Our unique PR auto-discovery function ensures that paired segments can be retrieved online anytime, anywhere. This is a fast, economical and safe solution for accessing field junction boxes or devices installed in remote locations.



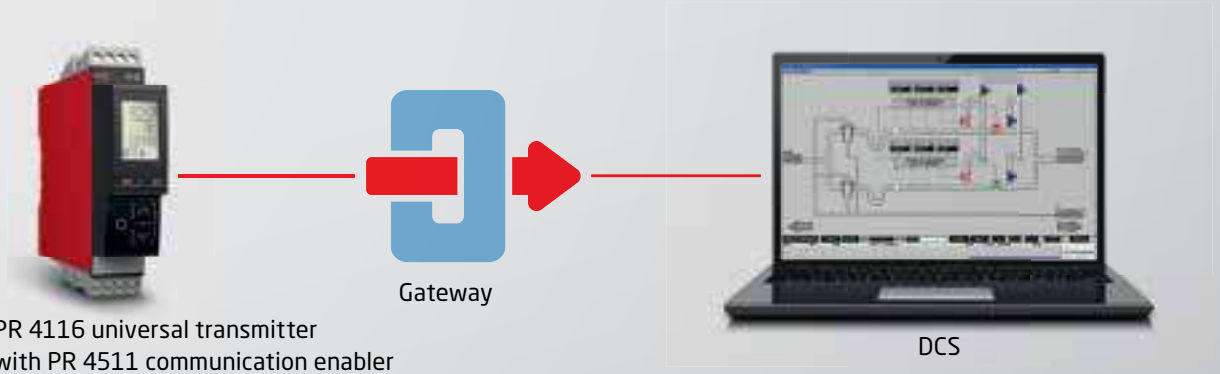
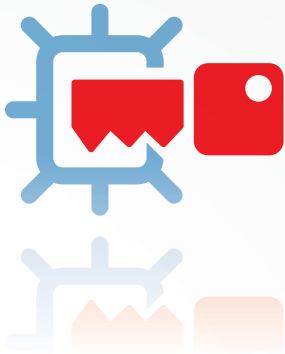
Backplane with  
8 x PR 9116 universal transmitters and  
8 x PR 4511 communication enabler  
The backplane is connected to a PR  
gateway and a wireless router

PC/tablet



## Access with standard industrial protocols

For other protocols, simply connect your own gateway/protocol converter, which will convert Modbus RTU signals into other required protocols, as necessary.



# Significant cost savings *from improved diagnostics*

## Case: SHP Automation Ltd

SHP Automation Ltd, located in the North West of England, specializes in all aspects of instrumentation and electrical control systems. On a recent project, the company used data provided by the 4511 to develop software modules in the DCS that provide full diagnostics and status information on the operator's control screen. The data is now used for preventive maintenance and has already resulted in significant cost savings.

"Using the diagnostic information that we have been able to visualize on the screen, our client company has been able to reduce maintenance, as 4511 diagnostics and our software have accounted for 80% of the fault finding process."

- Stephen Hoxworth Pucill, Director

See more cases at [prelectronics.com/casestories](http://prelectronics.com/casestories)

## Diagnostics data for *preventive maintenance*

With the 4511 mounted on PR 4000/9000 devices, you can get digital access to process values and benefit from extensive diagnostics

capabilities. Regular monitoring of data throughout the process can help you identify problems in advance and even plan for preventative maintenance.

The PR 4114 universal transmitter, for example, provides the following diagnostics:

### Process diagnostics

OUTPUT UNDERRANGE  
OUTPUT OVERRANGE  
OUTPUT LOW LIMITED  
INPUT UNDERRANGE  
INPUT OVERRANGE  
SENSOR SHORTED  
SENSOR BROKEN

### Device diagnostics

AD COMM. ERROR  
CJC ERROR  
RAM ERROR  
EEP ERROR  
FLASH ERROR  
NOT CALIBRATED  
BAD OUTPUT  
NO OUTPUT  
OUTPUT SUPPLY ERROR  
INPUT SUPPLY ERROR  
EXT. FLASH ERROR





**Benefit today from  
PERFORMANCE MADE SMARTER**

PR electronics is the leading technology company that specializes 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 that communicate, monitor and connect our customers' process measurement points to their process control systems.

Our innovative, patented technologies are derived from our extensive R&D facilities and our thorough 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.