

PR[®]



4590

**ConfigMate
USB Communications
Interface**

No. 4590V100-IN

From ser. no. 110404001



SIGNALS THE BEST

- DK** ▶ PR electronics A/S tilbyder et bredt program af analoge og digitale signalbehandlingsmoduler til industriel automation. Programmet består af Isolatorer, Displays, Ex-barrierer, Temperaturtransmittere, Universaltransmittere mfl. Vi har modulerne, du kan stole på i selv barske miljøer med elektrisk støj, vibrationer og temperaturudsving, og alle produkter opfylder de strengeste internationale standarder. Vores motto »Signals the Best« er indbegrebet af denne filosofi – og din garanti for kvalitet.
- UK** ▶ PR electronics A/S offers a wide range of analogue and digital signal conditioning devices for industrial automation. The product range includes Isolators, Displays, Ex Interfaces, Temperature Transmitters, and Universal Devices. You can trust our products in the most extreme environments with electrical noise, vibrations and temperature fluctuations, and all products comply with the most exacting international standards. »Signals the Best« is the epitome of our philosophy – and your guarantee for quality.
- FR** ▶ PR electronics A/S offre une large gamme de produits pour le traitement des signaux analogiques et numériques dans tous les domaines industriels. La gamme de produits s'étend des transmetteurs de température aux afficheurs, des isolateurs aux interfaces SI, jusqu'aux modules universels. Vous pouvez compter sur nos produits même dans les conditions d'utilisation sévères, p.ex. bruit électrique, vibrations et fluctuations de température. Tous nos produits sont conformes aux normes internationales les plus strictes. Notre devise »SIGNALS the BEST« c'est notre ligne de conduite - et pour vous l'assurance de la meilleure qualité.
- DE** ▶ PR electronics A/S verfügt über ein breites Produktprogramm an analogen und digitalen Signalverarbeitungsmodulen für die industrielle Automatisierung. Dieses Programm umfasst Displays, Temperaturtransmitter, Ex- und galvanische Signaltrenner, und Universalgeräte. Sie können unsere Geräte auch unter extremen Einsatzbedingungen wie elektrisches Rauschen, Erschütterungen und Temperaturschwingungen vertrauen, und alle Produkte von PR electronics werden in Übereinstimmung mit den strengsten internationalen Normen produziert. »Signals the Best« ist Ihre Garantie für Qualität!

USB COMMUNICATIONS INTERFACE

CONFIGMATE 4590

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GENERAL

WARNING

This device is designed for connection to hazardous electric voltages. Ignoring this warning can result in severe personal injury or mechanical damage.

To avoid the risk of electric shock and fire, the safety instructions and warnings of this guide must be observed and the guidelines followed. The specifications must not be exceeded, and the device must only be applied as described in the following. Prior to the commissioning of the device, this guide must be examined carefully.

Only qualified personnel (technicians) should operate this device. If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

Repair of the device must be done by PR electronics A/S only.

Should there be any doubt as to the correct handling of the device, please contact your local distributor or, alternatively, PR electronics A/S.



**EXPLO-
SION**

WARNING RISK OF EXPLOSION HAZARD

To avoid risk of explosion and injury:

- Do not use this equipment when a flammable or combustible atmosphere is present
- Do not replace batteries unless area is known to be safe.
- Use 3 x 1.5V TYPE AAA Batteries only and insert correct as stipulated in battery compartment.



**ELEC-
TRICAL
SHOCK**

WARNING RISK OF ELECTRICAL SHOCK

To avoid risk of electrical shock and injury:

- Do not disconnect the cable from ConfigMate 4590 while cable is connected to a SYSTEM 3000 device.
- Do not remove 4501 while the cable is connected to a SYSTEM 3000 device.
- Do not replace batteries while the cable is connected to a SYSTEM 3000 device.

SYMBOL IDENTIFICATION



Triangle with an exclamation mark: Warning/demand. Potentially lethal situations.



The CE mark proves the compliance of the device with the requirements of the EU directives.



The double insulation symbol shows that the device is protected by double or reinforced insulation.

SAFETY INSTRUCTIONS

DEFINITIONS

Hazardous voltages have been defined as the ranges: 75...1500 Volt DC, and 50...1000 Volt AC.

Technicians are qualified persons educated or trained to mount, operate, and also trouble-shoot technically correct and in accordance with safety regulations.

Operators, being familiar with the contents of this manual, adjust and operate the knobs or potentiometers during normal operation.

RECEIPT AND UNPACKING

Unpack the device without damaging it. Check on delivery of the device whether the type corresponds to the one ordered.

ENVIRONMENT

Avoid direct sunlight, dust, high temperatures, mechanical vibrations and shock, as well as rain and heavy moisture.

NORMAL OPERATION

Only technicians who are familiar with the technical terms, warnings, and instructions in the manual and who are able to follow these should connect the device.

Should there be any doubt as to the correct handling of the device, please contact your local distributor or, alternatively,

PR electronics A/S
www.prelectronics.com

CLEANING

When disconnected, the device may be cleaned with a cloth moistened with distilled water.

LIABILITY

To the extent that the instructions in this manual are not strictly observed, the customer cannot advance a demand against PR electronics A/S that would otherwise exist according to the concluded sales agreement.

BATTERY REPLACEMENT

Replace batteries with 3 x 1.5V TYPE AAA (Not included)

EC DECLARATION OF CONFORMITY

As manufacturer

PR electronics A/S
Lerbakken 10
DK-8410 Rønde

hereby declares that the following product:

Type: 4590
Name: ConfigMate

is in conformity with the following directives and standards:

The EMC Directive 2004/108//EC and later amendments

EN 61326-1 : 2006

For specification of the acceptable EMC performance level, refer to the electrical specifications for the device.

The Low Voltage Directive 2006/95/EC and later amendments

EN 61010-1 : 2001

Rønde, 18 May 2011



Kim Rasmussen
Manufacturer's signature

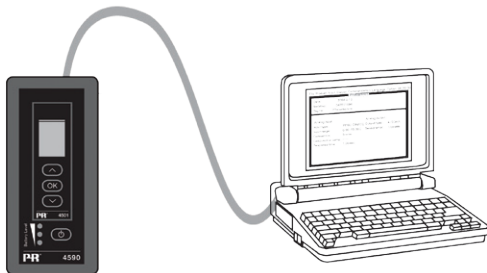
Application

The ConfigMate 4590 is a USB communications interface which is used along with the 4501 Programmable Display to configure or document and backup/restore configurations of selected PR electronics' programmable devices, either standalone in Adaptor Mode or with a PC in Docking Mode.

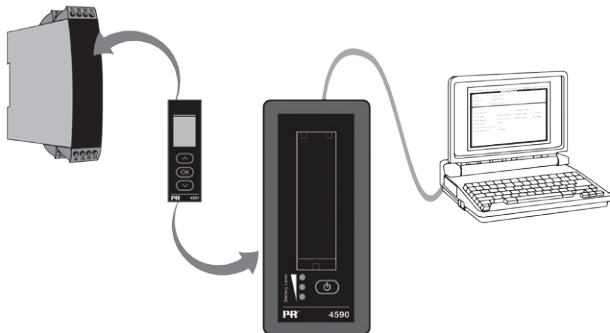
Docking Mode

- o The 4590 can operate as a docking station for the 4501 allowing the 4501 to be connected to a PC through a USB interface. The PReset software can be used to upload and download the configuration parameters from a 4501 for backup/restore and documentation purposes, on selected 3000, 4000 and 9000 series devices.
- o Note for connection to a PC the USB-B to USB-A cable must be used
- o In docking station mode the 4590 will be powered from the PC's USB power source; no batteries are required.
- o The 4501 display will indicate USB line/communication with a very short blink when uploading or downloading configurations from/to the 4501.

Connection of ConfigMate 4590 to a PC in Docking Mode



Connection of ConfigMate 4590 to a PR 4000/9000 Device



Note:

By default, the Programming Display 4501 will display the desired Process Value when connected to a device, either directly or via ConfigMate 4590.

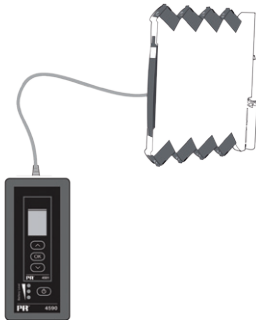
- o To upload a configuration from a 3000/4000/9000 device to the Programming Display 4501, you must manually go into the Memory Menu of the 4501 and SAVE from the target device into the 4501.
- o To download a configuration to a 3000/4000/9000 device from the Programming Display 4501, you must manually go into the Memory Menu of the 4501 and LOAD to the target device from the 4501.

For further details, please refer to the relevant manual for the target device.

Adaptor Mode

- o The 4590 is a handheld device that can operate as an adapter between the 4501 programming front and a selected modules in the 3000 series. This allows for configuration and monitoring of process parameters of the installed modules.
- o Note for connection to a 3000 series product, the PR USB-B to a 2.5 mm jack cable must be used.
- o By pressing the power button, the 4590 will power on, and show the status of the attached 3000 module on the 4501.
 - o If the 3000 device is powered, the 4501 display will indicate the Process Variable or can be manually set to go into program mode.
 - o If the 3000 device is not powered the 4501 display will be in program mode only.
- o Indication of battery level is displayed via the LEDs. This can be activated by using the Power/Wake-up button. If while pressing the Power/Wake-up button the LEDs are off, or only one LED is lit, the batteries should be exchanged. To extend battery life the 4590 will automatically detect if it is not in use, and will consequently shut itself down to conserve battery power.
 - o Battery life in Adaptor Mode is approximately 1 year of daily use, depending upon battery type.

Connection of ConfigMate 4590 to a PR 3000 Device



USB and PReset installation (Docking Mode Only)

The USB communication is supported by Windows® 2000, XP, Vista and Windows® 7. PR devices that can either be programmed or have their configurations saved, backedup/restored via ConfigMate 4590 are available in the configuration program PReset ver. 6.0 or higher.

Technical characteristics

The PC program PReset ver. 6.0 or higher supports ConfigMate 4590. To conserve power on a laptop, the USB connector of the 4590 can be connected to an externally supplied hub. The communications connector on the PR device is galvanically isolated from the USB connection on the PC.

System requirements

Access to internet is needed for installation of USB drivers

Installation rights

Windows® 2000, XP, Vista and Windows® 7 with the following recommendations:

Hard disk space:	25 MB
USB:	Version 2.0 or higher

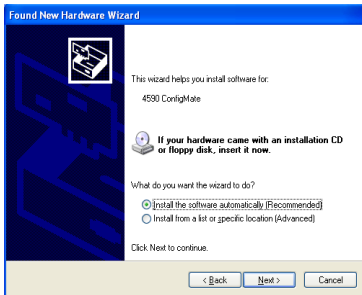
Installation of USB driver for Windows® XP

To install the USB driver:

1. **Connect ConfigMate 4590 to the USB port of the PC.**
2. **After a short while, the "Found New hardware wizard" will appear. Allow Windows Update to search for software by selecting "Yes, this time only" followed by "Next"**



3. **Allow the Hardware Wizard to automatically install the appropriate software drivers by selecting "Install the software automatically (Recommended)" followed by "Next"**



4. The Hardware Wizard will then search for the appropriate drivers

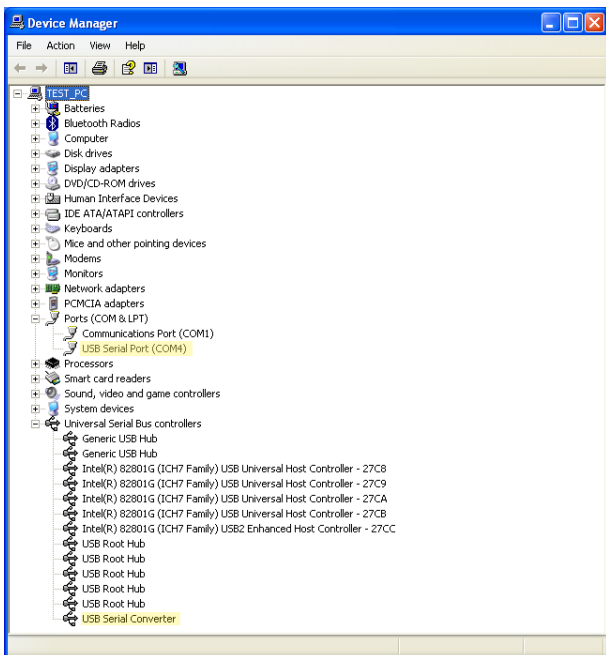


5. Once the Hardware Wizard finds the USB driver it will be installed automatically

6. After successful installation, the Hardware Wizard will indicate that it has completed the installation with the following dialogue box.



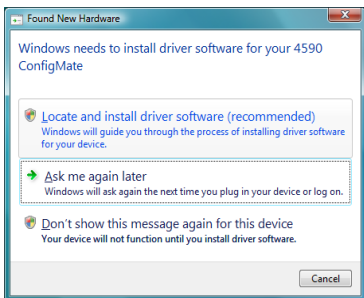
7. To check installation and allocation of the COM port, open up “Device Manager” and expand the “Ports” and “Universal Serial Bus controller” sections. “USB Serial Port” and “USB Seial Converter” should appear in the sections as highlighted below. The COM port assigned is also highlighted in the “Ports” section. In the example highlighted this was assigned COM4, however this may change from installation to installation. Take a note of which COM port is assigned as this is used later in the PReset software.



Installation of USB driver for Windows® Vista

To install the USB driver:

1. Connect ConfigMate 4590 to the USB port of the PC.
2. After a short while, the "Found New Hardware" wizard will be shown. Select "Locate and install driver software (recommended)"



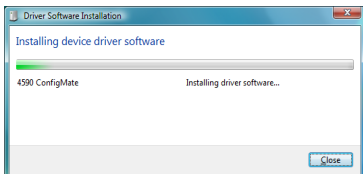
3. The Found New Hardware dialogue box will appear. Select "I don't have a disc. Show me other options"



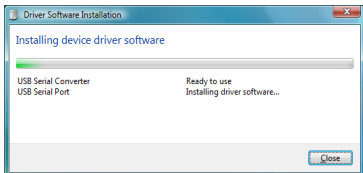
4. If Windows does not find a preconfigured driver select “Check for Solution”



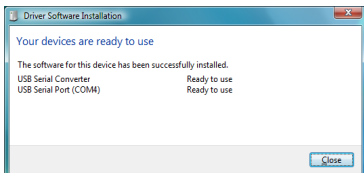
5. Windows will then automatically search for, download and install the appropriate driver



6. Windows will then install the USB Serial Converter driver followed by the USB Serial Port driver.



- 7. After successful installation, Windows will indicate that the device is “Ready to use”**

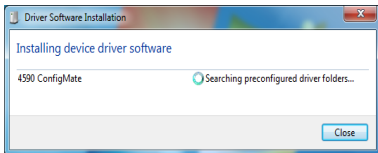


- 8. Check installation and allocation of the COM port in the “Device Manager” as described in the installation for XP**

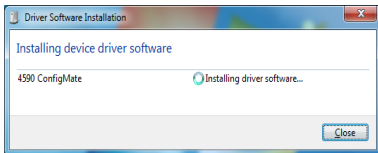
Installation of USB driver for Windows® 7

To install the USB driver:

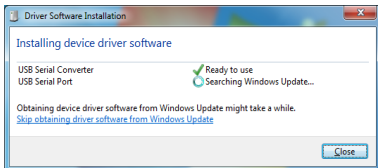
1. **Connect ConfigMate 4590 to the USB port of the PC.**
2. **After a short while, the "Driver Software Installation" dialogue box can be viewed. Windows will first automatically search the computer for preconfigured drivers**



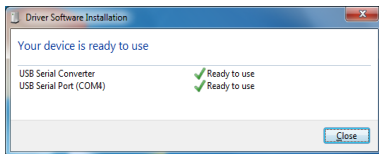
3. **Windows will then automatically search the internet for appropriate drivers**
4. **Windows will then install the drivers for ConfigMate**



5. **Windows will then install the USB Serial Converter followed by USB Serial Port driver.**



6. After successful installation, Windows will indicate that the device is "Ready to use"



7. Check installation and allocation of the COM port in "Device Manager" as described in the installation for XP

Installation of PReset

Before installing PReset, previous versions must first be uninstalled. During the uninstall process there will be an option to save existing configuration files. If this option is not accepted, then these files will be deleted during the uninstall process.

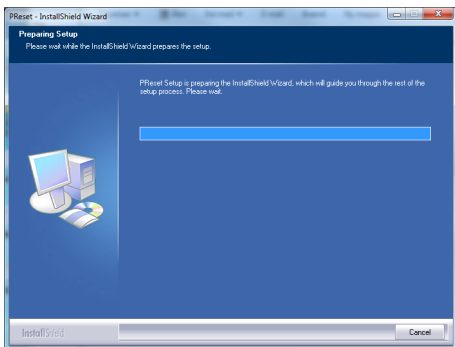
PRreset will be installed on your hard disk and the registry will be updated with all necessary information on the program. A PReset icon will automatically be placed on the desk top.

1. Download PReset version 6.0 or later from www.prelectronics.com.
Note that this is in the form of a zip file.
2. Unzip the file to the desired location.
3. To start the installation, double click the setup.exe file. When the installation program has been started, on-screen guidelines will guide you through the rest of the installation.

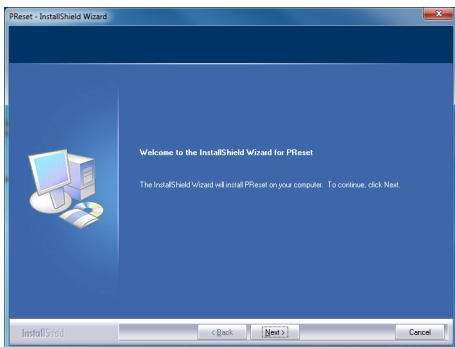
The following is an example of PReset installation on Windows® 7

Note: To install PReset on Windows 7 it is necessary to be a local administrator on the PC.

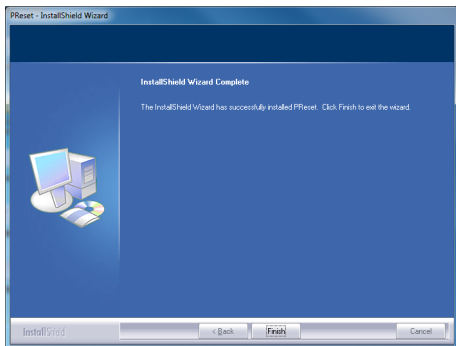
1. PReset Setup will prepare the Installation Wizard on double clicking setup.exe



2. Installation Wizard will appear, click "Next" to start the installation
3. InstallShield Wizard for PReset will appear, press "Next " to continue



4. Read and accept the License Agreement and press “Next “ to continue
5. Chose the destination for the installation and press “Next “ to continue
6. Installation will then be ready to proceed, select “Install” to continue.
7. The installation of PReset will then continue
8. When installation is complete click “Finish” to exit.





Displays Programmable displays with a wide selection of inputs and outputs for display of temperature, volume and weight, etc. Feature linearisation, scaling, and difference measurement functions for programming via PReset software.



Ex interfaces Interfaces for analogue and digital signals as well as HART® signals between sensors / I/P converters / frequency signals and control systems in Ex zone 0, 1 & 2 and for some modules in zone 20, 21 & 22.



Isolation Galvanic isolators for analogue and digital signals as well as HART® signals. A wide product range with both loop-powered and universal isolators featuring linearisation, inversion, and scaling of output signals.



Temperature A wide selection of transmitters for DIN form B mounting and DIN rail modules with analogue and digital bus communication ranging from application-specific to universal transmitters.



Universal PC or front programmable modules with universal options for input, output and supply. This range offers a number of advanced features such as process calibration, linearisation and auto-diagnosis.



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 www.preelectronics.fr
 sales@preelectronics.fr
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- 
 www.preelectronics.org.cn
 sales@preelectronics.org.cn

Head office

Denmark
 PR electronics A/S
 Lerbakken 10
 DK-8410 Rønde

www.preelectronics.com
sales@preelectronics.dk
 tel. +45 86 37 26 77
 fax +45 86 37 30 85



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