



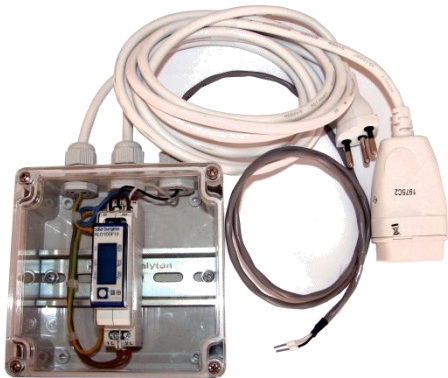
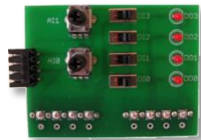
# PG5 Starter Training *Hardware*

Daniel Ernst | EN02 | 2013-02-25

## Lesson 2 - Hardware Introduction

### Saia Starter Kit hardware:

- Saia® E-Controller (PCD1.M0160E0)
- Training board
- S-Bus energy meter box
- USB cable
- Ethernet cable
- 24V DC power supply

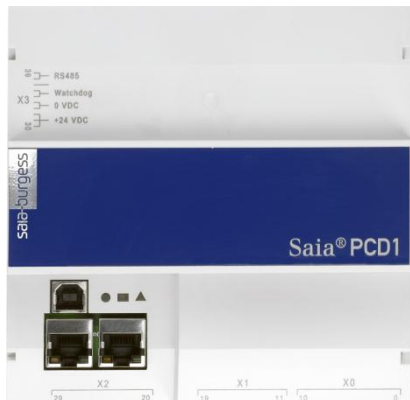


# Lesson 2 - Hardware

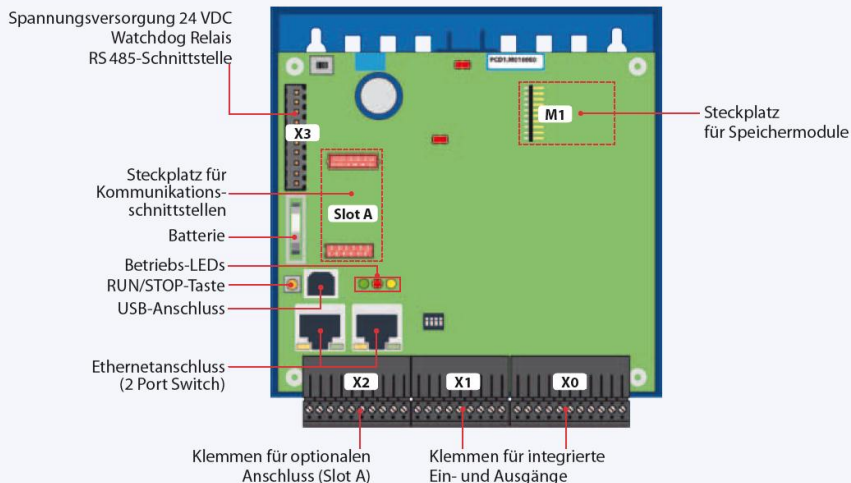
## Saia® E-Controller

### Hardware features

- USB and Ethernet Switch
- LEDs indicate the different operating states
- X0: 4 digital outputs, 4 configurable digital I/Os, 1PWM
- X1: 6 digital inputs, 2 analog inputs
- X2: for communications ports on slot A



### Geräteaufbau



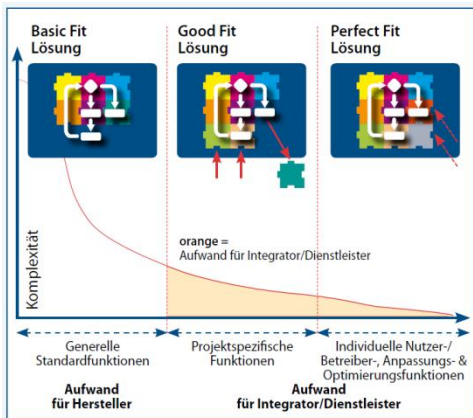
▲ Saia® Funktions-PCD

▼ Weiterführende Informationen in der ControlsNews 13



# Lesson 2 - Hardware

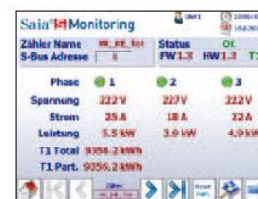
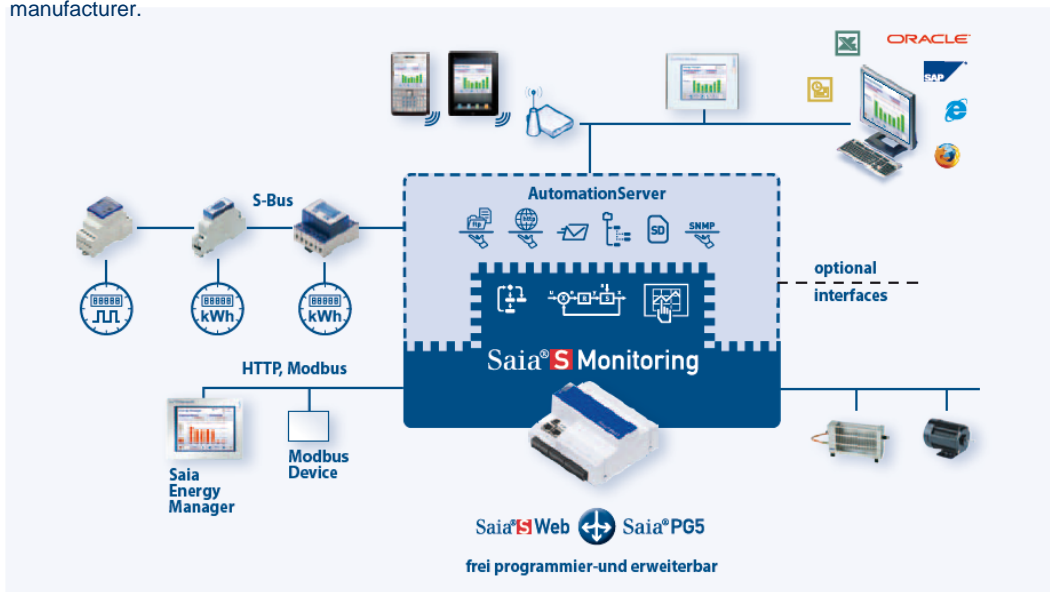
## Saia® Function PCD



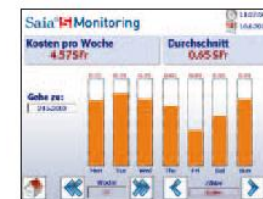
The E-Controller comes with a ready-made monitoring function included

- Ready to run
- Existing program can be adapted in PG5
- Engineering time is significantly reduced
- Saia®S-Bus energy meters are automatically detected and read
- Pulse counters can be connected via gateway module

With a Saia® Function PCD, the main costs of development have already been assumed by the manufacturer.



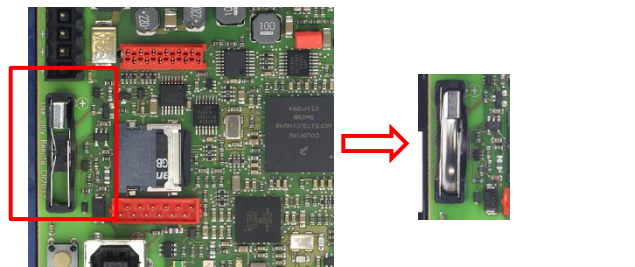
Aktuelle Zählerwerte



Kostenübersicht

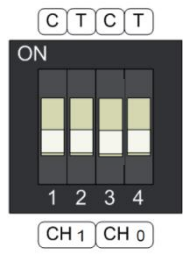
# Lesson 2 - Hardware

## Hardware preparation



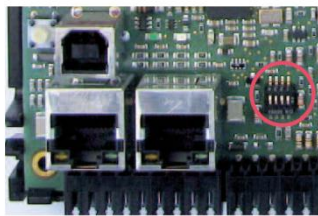
With a new controller, the battery must be inserted before use

- Pull off white cover
- Insert battery. Be careful to observe correct polarity
- The battery is used for data backup and the real-time clock



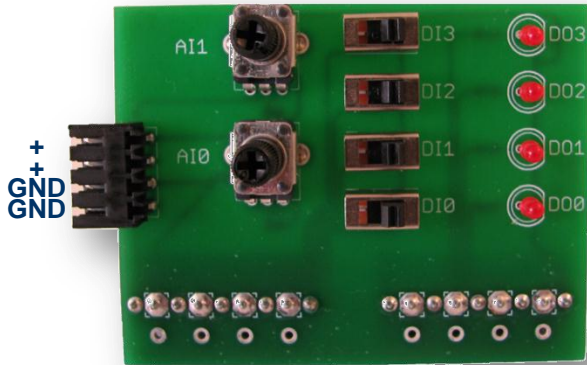
Using DIP switches, analog inputs must be configured as voltage inputs

- Set all DIP switches to OFF position





# Lesson 2 - Hardware Training adapter



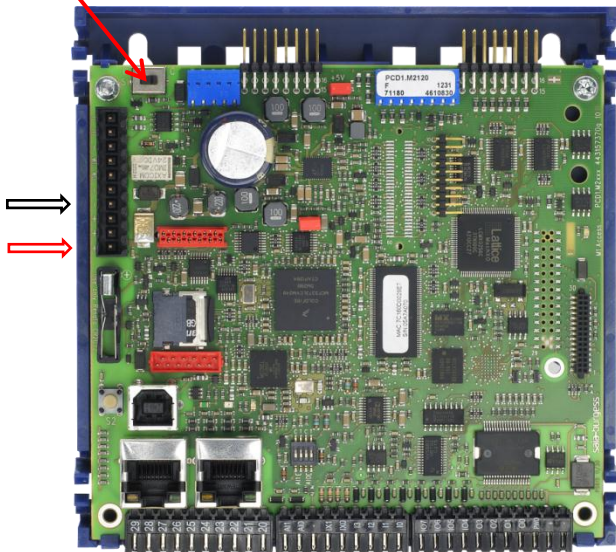
## Function

- Activation of E-Controller inputs/outputs
- Two analog inputs (AI1, AI2)
- Four digital inputs (DI0 – DI3)
- Four digital outputs (DO0-DO3)

## Assembly

- The training adapter is plugged onto terminal block X1 and X0
- The 24V power supply is connected to the training board (used to supply the digital outputs)
- The PCD power supply is connected to the two free pins at terminal X3 (pin 30: +24V, pin33: GND)

Line termination resistor Closed



## Line termination resistor

- The line termination resistor at the end of the bus must be set to Closed (switch set to C)