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Differences between PCD7.L79xN and PCD7.L79x controllers

PCD7.L79x

PCD7.L79xN

Introduction
In December 2011 the room controllers PCD7.L79x have been replaced by the PCD7.L79x**N**. The controller hardware of these new devices has been revised and responses to wishes and feedbacks we collected from various customers.

PCD7.L79x**N** compact room controllers include the following improvements compared with their predecessor types PCD7.L79x:

- New housing design
- New printed circuit board design with a new arrangement of components, e.g. circuit board cut-out at temperature sensor
- Encapsulation of temperature sensor
- Removable terminals for easier cable connection
- Different mounting possibilities for back panel

Compatibility of the new firmware
All features from the previous versions PCD7.L79x are still working on the new controllers PCD7.L79xN and it is possible to run the room controllers with different software versions on the same network (e.g. PCD7.L79x and PCD7.L79xN).
Due to the fact that the new PCD7.L79xN has no need for a “Dynamic temperature correction” such as the PCD7.L79x with firmware 1.14 (from the year 2011), this parameter needs to be adapted if a room controller is replaced (see next section).

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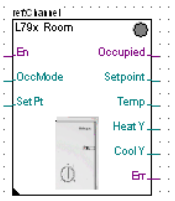
Replacement of PCD7.L79x with PCD7.L79xN in existing projects

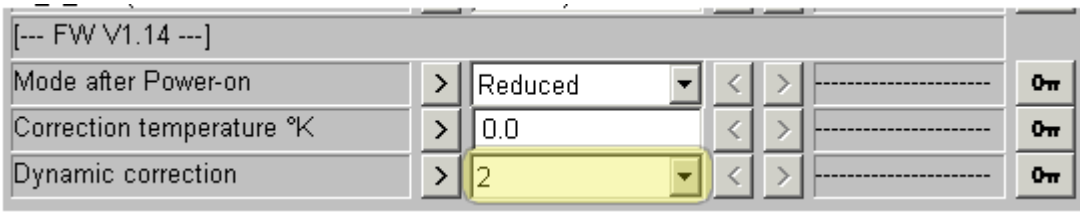


The PCD7.L79x devices can be replaced 1:1 with the new PCD7.L79xN because they are functionally compatible. If the FBoxes are not replaced in the user program it is only necessary to make sure the “Dynamic Correction” for the temperature is set to “None” (while it was set to “2” for the PCD7.L79x with firmware 1.14, see below).

In general we recommend replacing the FBoxes with the new ones for the L79xN in order to take advantage of the new features.

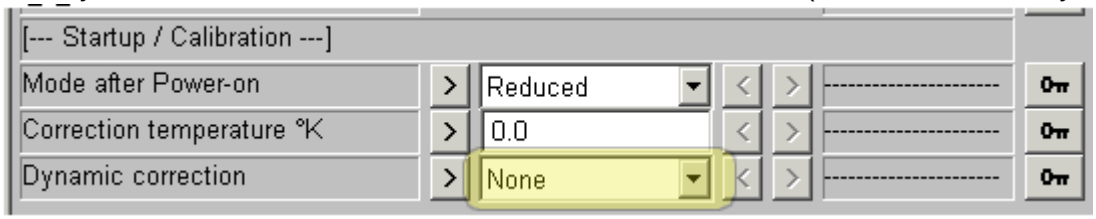
Configuration for the “old” L79x

With the FBox library 2.6.121 for PCD7.L79x with firmware 1.14 as it was necessary for the PCD7.L79x with firmware 1.14 (January to December 2011):



Configuration for the L79xN

The “Dynamic correction” is to be set to “None” for the PCD7.L79xN (here with FBox library 2.6.130)



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Description of the new Controller

The following compact room controllers are concerned:

- PCD7.L790N
- PCD7.L791N
- PCD7.L792N
- PCD7.L793N

- Firmware Version: SV2.00
- Hardware Version: V1.1

A variety of possibilities for use

Application programs for different types of installation are ready-defined in the controller and can be enabled by setting parameters.

Delivery in preconfigured state

On delivery, the PCD7.L79xN has stored in its EEPROM memory a ready application program for a type of system that can be used ‘out of the box’, without programming.

Application programs with settable parameters

If the application stored in the delivery state does not match the requirements of the project, integral function blocks (FBoxes) in the PG5 can be used to enable the application programs for various types of installation by setting parameters.
The application software already includes 7 integral user programs for such installations as radiator/cooling ceiling combinations. The integrator can enable them by setting parameters.

Once the application programs have been parameterized in the controller, operation is guaranteed, even without connection to a PCD system (stand-alone).
All set parameters will remain in force for years, even in the absence of any operating voltage.
This means that even with S-Bus communication malfunctions, control will continue without interruption.

PCD control or RIO mode

If the predefined application ever becomes insufficient, it is possible to control the free outputs directly via the PCD program, in addition to the stand-alone function. It is even possible to switch off stand-alone operation entirely. The room controller then becomes a simple RIO unit (remote input

output), with the program running completely in the PCD.

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Flexible master/slave system
Room controllers support a flexible master/slave system, for applications, in which one controller is configured as the master and others as slaves. In this case the slave will follow the master's set point. Switching between operating modes can take place during runtime via the connected Saia® automation system. This is used particularly often when automating variable conference rooms.

FBoxes for efficiency
Practical FBoxes cut engineering time and simplify commissioning by allowing configuration data to be sent across the communications port in just one step to up to 250 controllers.

Flexibility
The different types of compact room controllers in the PCD7.L79x family give the user great flexibility to satisfy specific demands at the best price/performance ratio. This begins with good support for commissioning through the automatic recognition of communications speed and intelligent bus addressing.
The closed housing and compact design make it space-saving and flexible to use, which also saves installation costs.

Overview controller types and functions

	L790 / L790N	**L791 / L791N**	**L792 / L792N**	**L793 / L793N**
HW				
Internal NTC temperature sensor	**x**	**x**	**x**	**x**
Set-point setting			**x**	**x**
Presence key with LED-Fedback			**x**	**x**
Inputs				
Window contact	**x**	**x**	**x**	**x**
Multifunctional digital	**x**	**x**	**x**	**x**
analogue (0…10V)				**x**
Outputs				
TRIAC (PWM)	**1**	**2**	**2**	**2**
0-10V				**2**
Ansteuerbare Ventiltypen				
Thermal valve	**x**	**x**	**x**	**x**
0-10V valve				**x**
3-point valve		**x**	**x**	**x**
6-way valve				**x**
VAV-actuator				**x**
Functions				
S-Bus Slave mode	**x**	**x**	**x**	**x**
Change-Over	**x**	**x**	**x**	**x**

For further informations please consult the manual.