

2.6.4 EnOcean

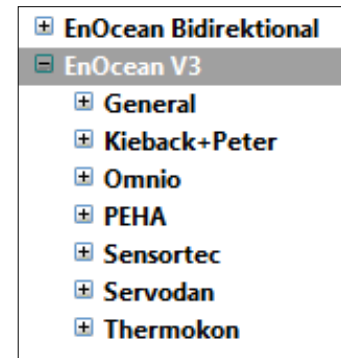
Communication driver for wireless sensors and actuators



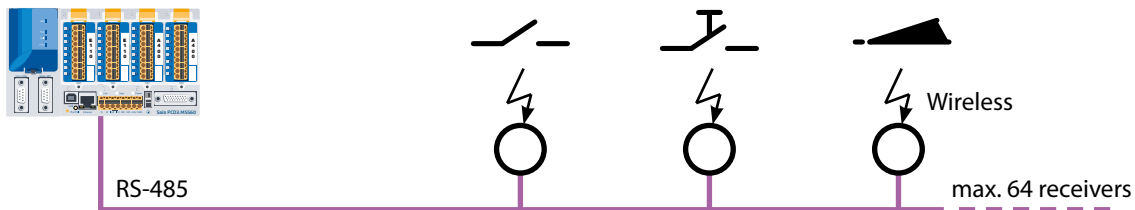
EnOcean is the inventor and manufacturer of the patented basic “self-powered wireless sensor technology”. EnOcean was recognised as the first ISO/IEC wireless standard (ISO/IEC 14543-3-10) for optimised solutions with low energy consumption. The “EnOcean alliance” is a manufacturers’ interest group which, over time, has developed a wide range of self-powered components for building automation systems based on EnOcean technology, such as switches, sensors, actuators and gateways.

Communication drivers

The EnOcean components are connected to the Saia PCD controllers via external wireless gateways via serial RS-485 or IP interfaces. The FBox library provides communication modules for transmitting and receiving EnOcean telegrams. Generic FBoxes are available for standard EnOcean devices. Device-specific FBoxes are available for a selection of manufacturer-specific devices such as room control units (PEHA Sensortec, Thermokon, etc.). Universal communication FBoxes also offer the option of processing any EnOcean telegram in the PLC program.



Connection diagram for the RS-485 wireless receiver



The number of transmitters per receiver is limited only by the distance and the reception quality.

Order details

Type	Description
PG5 – EnOcean V3	PG5 – EnOcean communication library for Saia PCD® controllers for serial (EVC mode) and IP-based communication.

Components from PEHA recommended (www.peha.de)

D450ANT	EnOcean wireless receiver with RS-485 interface (bidirectional), IP 20 casing with internal aerial
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Other EnOcean components such as switches, hotel card switches, window contacts, radiator actuators... are recommended by PEHA.

Components from Thermokon (www.thermokon.ch)

SRC65-RS-485E	EnOcean wireless receiver with RS-485 interface (unidirectional), IP65 casing with external antenna
STC65-RS-485E	EnOcean wireless receiver/transmitter with RS-485 interface (bidirectional), IP65 casing with external antenna

Sensortec components (www.sensortec.ch)

EOR700EVC	EnOcean wireless receiver with RS-485 interface (unidirectional), IP20 casing with internal antenna
EOR710EVC	EnOcean wireless receiver/transmitter with RS-485 interface (bidirectional), IP 20 casing with internal antenna



The number of required wireless gateways depends heavily on the structural conditions. Pillars and furniture can create “dead spots” and walls can dampen the wireless signal depending on their design. Additional information and a brief planning guide are contained in the EnOcean manual (see www.sbc-support.com) EnOcean V3 is the latest version. The FBox library “EnOcean bidirectional” is only to be used for existing projects.