

# Newsteo KES receiver

*Modbus radio receiver for PLC*

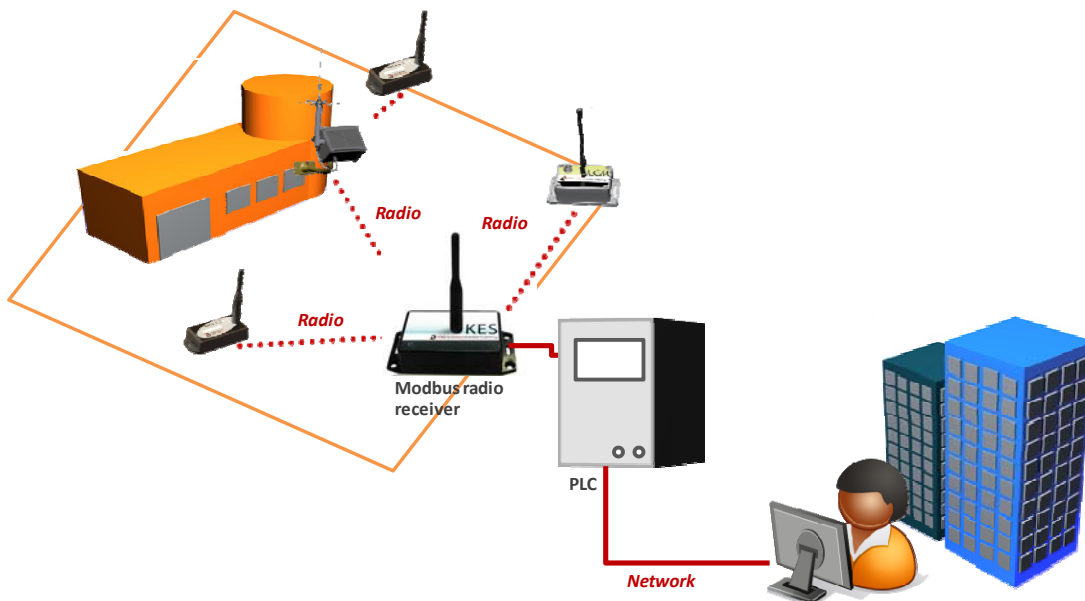


Thanks to this radio receiver, it is possible to create a wireless sensor network communicating with a PLC.

## Description

A Newsteo wireless sensor network communicates with the RF-TO-MODBUS receiver plugged into the serial slot of a programmable logic controller (PLC). This RF-TO-MODBUS smart Key gathers measurements from wireless distant loggers and takes care of the low level radio Newsteo protocol.

Wireless loggers standard features are: periodical wake up and measurements sending, immediate alerts if sensor output values are beyond thresholds, and regular status information transmission. These data are placed in the RF-TO-MODBUS internal registers and can be queried at any time by the PLC from the Modbus exchange tables.



## Installation

Settings of the loggers (measurement frequency, alert thresholds ...) and the RF-to-MODBUS key are done by radio, during the installation (using a portable PC, RF Monitor software and RF-to-USB Key). Once that phase is complete, the Modbus protocol between PLC and Modbus Key is sufficient for the monitoring activities.

## Product references

- PFPN-KES63-001: RF-to Modbus receiver, Physical layer : RS232, IP30
- PFPN-KES65-001: RF-to Modbus receiver, Physical layer : RS485 2 wires, IP30

## Technical characteristics

	KES63	KES65
<b>Communication protocol radio receiver - PLC</b>		ModBus
<b>Physical layer</b>	RS232	RS485 (two-wire)
<b>Power Supply</b>		3.6V-40V DC / 20/50mA
<b>Max baudrate</b>	235 kbps	250 kbps
	Through a hole screw terminal on the receiver	Through a hole screw terminal on the receiver
<b>Connection to the PLC</b>		
<b>Operating temperature</b>		-40°C to +85°C
<b>IP level</b>	IP30	IP30
<b>Size</b>	Width : 110 mm Depth: 56 mm Height : 26 mm	Width : 110 mm Depth: 56 mm Height : 26 mm
<b>Radio transmission</b>	868 MHz on the ISM band	
<b>Antenna</b>	Antenna not supplied.  The receiver includes a SMA connector, allowing to screw any antenna in the Newsteo antenna range, depending on the wished radio range.	
<b>Radio signal range (between Newsteo Logger and receiver)</b>	Up to 1 kilometer in free land	

## Integration kit

The kit consists of:

- A RF-to-Modbus key (radio receiver) for PLC, RS232 or RS485 depending on your needs
- Documentation for Key software integration, according to the Modbus protocol
- A RF-to-USB Key medium range (¼ wave antenna integrated)
- A CD-ROM containing the RF Monitor software installation with the USB drivers for PC