

Your checklist for quicker, easier wireless installations



What should I be aware of?

CONTROL

Think about your control system and how you have planned to set up your building automation.

Are there several BACnet/ Modbus units close to one another? Yes No

i If so, W-BACnet PRO/ W-Modbus PRO can be used as they can connect up to 4 units per wireless node.

How large is your BACnet/ Modbus daisy-chain? < 30 units > 30 units

i W-BACnet supports up to 100 wireless nodes and, can manage up to 128 addresses. W-Modbus supports up to 100 wireless nodes and, can manage up to 255 addresses. We recommend keeping each control loop below 32 units if it is an actively regulated control loop. If data is only being received, it is fine to have a larger BACnet/ Modbus network.

ENVIRONMENT

Is the installation inside or outside? Inside Outside

Outside

In which type of electrical cabinet? Metal Plastic

i If installed in an electrical cabinet made of metal, a separate external antenna is required (e.g. LumenRadio art.nr. 104-1033).

How far apart are the wireless nodes? < 490 feet >490 feet

i A separate external antenna provides a range of up to 0.6 miles (line of sight). In reality there is rarely an unbroken line of sight so it is more realistic to expect an outdoor range of 490-820 feet. The accompanying antenna typically covers 490 feet in normal conditions with a free line of sight from a plastic electrical cabinet.

Inside

If nodes are being installed on a wall, what material is the wall made out of?

Plaster Reinforced Concrete

i Normal plaster walls do not provide many obstacles for the signal so you can expect a range of 80-160 feet. If your walls (or windows) are partly or entirely made of metal (e.g. reinforced), then the wireless nodes should be placed 50 feet apart. Remember that people are also natural blockers of a wireless signal so it is a good idea to place the nodes as high up the wall as possible.

In which type of electrical cabinet? Metal Plastic

i As above, remember to use a separate external antenna if the electrical cabinet is made of metal.