

Industry Sector Building Technologies Division

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New KNXnet/IP devices enable maximum energy use

Because of the communication via the KNXnet/IP standard, the new KNXnet/IP devices IP interface N 148/22 and IP router N 146/02 from the Siemens Building Technologies division enable completely new areas of application for building technologies such as operating divided properties via existing data networks. Siemens will be presenting both devices to a wide audience for the first time at Light + Building, the leading world trade fair for architecture and technology in Frankfurt, Germany, from April 11th to the 16th 2010 .

N146/02 IP router and the N148/22 IP interface serve the communication between the usual KNX devices and PC in the building technology and can be used for remote access to a KNX installation, for example. The required network parameters can be firmly assigned by the installer. The devices can also draw them from a DHCP server in the network or even assign them on their own if there is no server (AutoIP function). Up to 4 tunneling connections (for ETS, visualization, OPC servers, and other applications) as well as an additional object server connection (for visualization via network connections with long signal delays) are available simultaneously for each device. The physical network addresses required for the tunneling and object server connection functions can also be assigned automatically.

The two KNXnet/IP devices draw their operating voltage from the network cable by means of "power over Ethernet" according to IEEE 802.3af and do not require any additional power supply. An external power supply is of course also available upon request. Both devices have five LEDs for displaying the operating status and communicating via KNX and IP. A bus coupler and an RJ45 port for Ethernet connection are also integrated.

The N146/02 IP router is also capable of carrying out the KNXnet/IP routing. Just as with a line coupler, the device forwards a KNX telegram to several other devices via the IP network. Fast communication between lines, areas, or entire installations can be achieved in this way.

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The connection of KNXnet/IP and central building management is especially advantageous for divided locations because the investment costs per location are kept to a minimum and the central building management contributes to the optimization of the operating and maintenance costs. The communication between the properties and the central building management takes place via the data network that is already available for the business operations of the properties. A KNXnet/IP interface simply has to be added to the existing KNX installation in the property. Depending on the requirements, this interface can also take over more extensive control functions like time switches which can be configured from the control center. This makes it possible for the control center to optimize the system operation without maintenance personnel having to drive to the property. Both the N 148/22 IP interface and N 146/02 IP router both offer these functions for remote maintenance, remote configuration, and remote diagnosis with four tunneling connections.

The integration of KNXnet/IP and building management contains the central recording of the energy consumption in the individual properties. This enables an optimization of the overall energy consumption both in the individual properties as well as across all of them through coordinated requirements from the central building management. This objective can be achieved very well with properties with similar specifications (e.g. retail stores, fast food chains, chain stores, etc.). Having similar specifications for the properties significantly reduces the costs for planning, installation, startup including integration into the central building management, maintenance and operation in comparison to individual building specifications.

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