




**SIEMENS**  
*Ingenuity for life*



The worldwide  
standard for  
home and  
building control



**KNX**



# Building Control GAMMA instabus



[siemens.com/gamma](https://www.siemens.com/gamma)

The comprehensive GAMMA instabus product portfolio comprises intelligent devices and is your key to integrating applications in areas such as lighting, solar protection, heating, ventilation and air conditioning within the rooms and buildings of your choice. It can be operated via manual buttons, multifunctional room control units or web-based display and operation devices.

The GAMMA instabus is based on the worldwide KNX standard for room and building automation, which guarantees interoperability with all certified KNX devices on the market. KNX systems are interoperable and expandable as desired – a super-solid future investment.

# Lighting

Did you know, ...

... that in office buildings up to 13 percent of electrical energy can be saved through optimized presence-, brightness- and time-dependent lighting?



## Universal dimmer N 544D31

- Dimming of LEDs and conventional bulbs
- Channel bundling for high illumination up to 1,000 VA
- Optimal lighting for high comfort thanks to adjustable dimming behavior
- Easy installation check at the front panel



## KNX/DALI gateway N 141

- Flexibility: a triple-header of product options
- Increased efficiency due to two independent DALI outputs, each with 64 electronic ballasts
- Highly flexible installation thanks to DALI sensors
- Faster configuration because of the optimized ETS plug-in
- Replacement of faulty electronic ballasts with no software required



## Presence detector UP 258

- EN 15232-compliant lighting control
- Flexible ceiling installation
- Three independent output channels; each with four switching points
- Integrated constant light level controller for up to five lighting groups
- Programming button operable in mounted condition



## Dual sensor AP 254

- For detecting and transmitting brightness and temperature for controlling solar protection, lighting and room temperature
- For controlling switching, dimming and shutter actuators depending on surrounding brightness and/or temperature
- Up to four universal channels to control switching, dimming and shutter actuators depending on the surrounding brightness and/or temperature



# Solar protection



## Weather station AP 257

- Evaluation of weather data such as temperature, brightness, rain and wind speed
- Automated determination of location, date and time via GPS signal
- Optimally exploits daylight by adapting solar protection, such as blinds, shutters or awnings, according to the current sun position
- Six logic modules independent of the weather data, each with four input objects and two output objects



## Shading actuator N 521

- Two channels for independent control of single sun protection, door or window drives, each driven by an AC 230 V motor
- For mounting in an automation module box AP 118 or room automation box AP 641
- Communication objects for each actuator channel used to move the sun protection into end positions or top the process and adjust the blind slats gradually
- Manual operation prioritized over automatic position commands



Weather stations are used to control solar protection systems of all kinds (roller shutters, blinds, awnings, etc.) via appropriate solar protection actuators. Recording weather data such as temperature, brightness and wind and using an integrated blind controller allows safe, convenient and energy-efficient shading control building-wide.

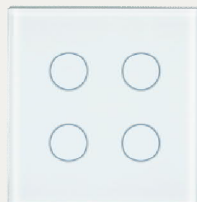
# Display and operation

The comprehensive portfolio of Siemens display and operator units meets all modern room and building usage requirements. The range includes various models available to showcase and operate lighting, shading, heating, ventilation and air conditioning – from simple pushbuttons and room thermostats to multifunctional room operator units as well as web-based systems.



## Touch sensors glass

- Stylish and frameless design covers made out of genuine glass
- Optical guidance with luminous rings around touch areas and a proximity sensor
- Efficient planning and commissioning via a standard application program
- Activate preset room scenes at the touch of a button



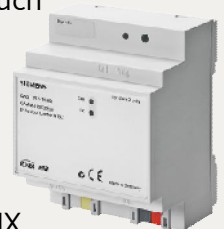
## Room control unit UP 227

- Standardized, easy-to-use room operator unit for all disciplines
- Fast and no-fuss installation, commissioning and integration into KNX systems
- Individual and flexible operation and control settings
- Lower energy costs thanks to energy saving functions



## IP control center N 152

- User-friendly thanks to full-graphic and individually configurable user interface
- Convenient remote control via web-compatible end devices such as tablets or smartphones
- Straightforward and intuitive engineering via web editor without additional software
- Cost benefit thanks to built-in commissioning interface to KNX plants
- Reduced effort owing to remote maintenance and commissioning



# HVAC



## Room temperature controller

- Energy-efficient operation thanks to protection mode when window is left open (including display of cause)
- Flexibility thanks to interchangeable setpoint setting knob (absolute/relative), parameter settings and integration into building automation and control systems
- Straightforward installation – matching DELTA frame program



## Thermal actuator RS 510K23

- 2 switching outputs to control electro-thermal actuators for radiator and cooling ceiling valves
- Up to 4 thermo-electric actuators per output, with a total of up to 1.5A in switched-on mode and up to 58W power consumption when switching on
- Rated contact operating voltage AC 24-230 V or DC 24V



## Valve actuator AP 562

- Electric motorized, proportional (continuous) valve actuator with LED travel indicator and integrated bus coupling unit for direct KNX connection
- Supplied with valve adapter rings suitable for Siemens and other manufacturers
- Maximum actuating force of 120 N
- Line permanently connected to the housing for bus connection and two additional alarm contacts (e.g. window contacts); connectable as binary inputs



## Electromotive rotary actuator GLB/GDB

- Electric motor rotary drive based on KNX S-mode and without a spring return
- Use of two operating modes, i.e.
  - 1: Use of two separate setpoint objects for heating/cooling in the actuator for compatibility with KNX room controllers and
  - 2: Position setpoint 0...100% for displaying the control loop in the higher-level controller



# System products

Building management extendible to multiple buildings by integrating with existing data networks (LAN and internet) or building control technology. Whether a building complex, a city or even further afield. Even distributed properties can be managed optimally and energy efficiently thanks to the latest information.



## Power supply system N 125

- Flexible exchange plus fast and easy upgrading – thanks to identical housings
- Straightforward installation – thanks to parallel connection, eliminating the need for minimum clearances between the different power supplies
- Versatile due to wide-ranging input voltage AC 176...270 V and suitable for emergency power supply DC 220 V
- Compact supply permits additional infeed of KNX loads



## IP router

- Up to four KNXnet/IP tunneling connections
- Fast communication between KNX channels, areas and systems (KNXnet/IP routing)
- Direct access from any location in the IP network to the KNX installation (KNXnet/IP tunneling) for remote maintenance, configuration and diagnosis
- Straightforward integration of visualization and facility management systems



# Monitoring

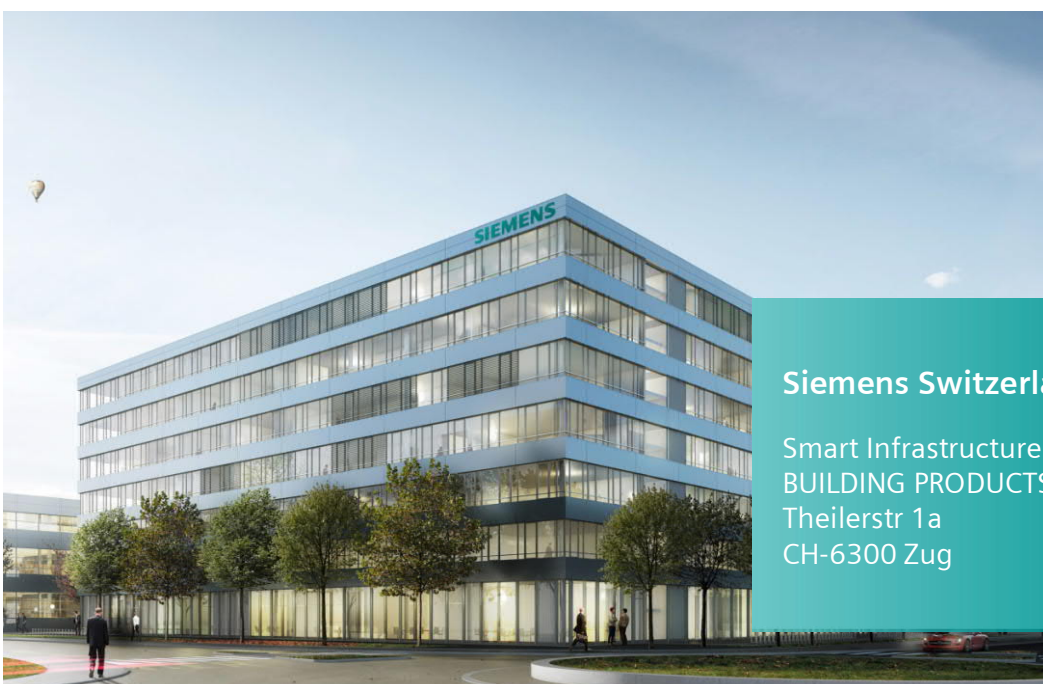


## Highlights

- Simple and intuitive configuration via the pre-installed web editor; no additional software required
- Irregularities and errors swiftly detected
- Unrivalled security by sending error messages

## Visualization system

- Electrical energies and outputs, heat volumes and gas, water and oil consumption can all be recorded, compared and evaluated
- A trend display for recording and displaying up to 10 data points over a range of different graphs or bar charts
- Room conditions, such as temperature, room humidity and CO<sub>2</sub> content are monitored
- Weather data, such as outdoor temperature, outdoor brightness or wind speed, can be visualized



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