

WEATHER STATION



PRODUCT INFORMATION



Berker the right way.

THE RIGHT SETTING FOR EVERY SITUATION

NOT ONLY CONTROL BUILDING FUNCTIONS; BUT ALSO TRIGGER THEM AUTOMATICALLY

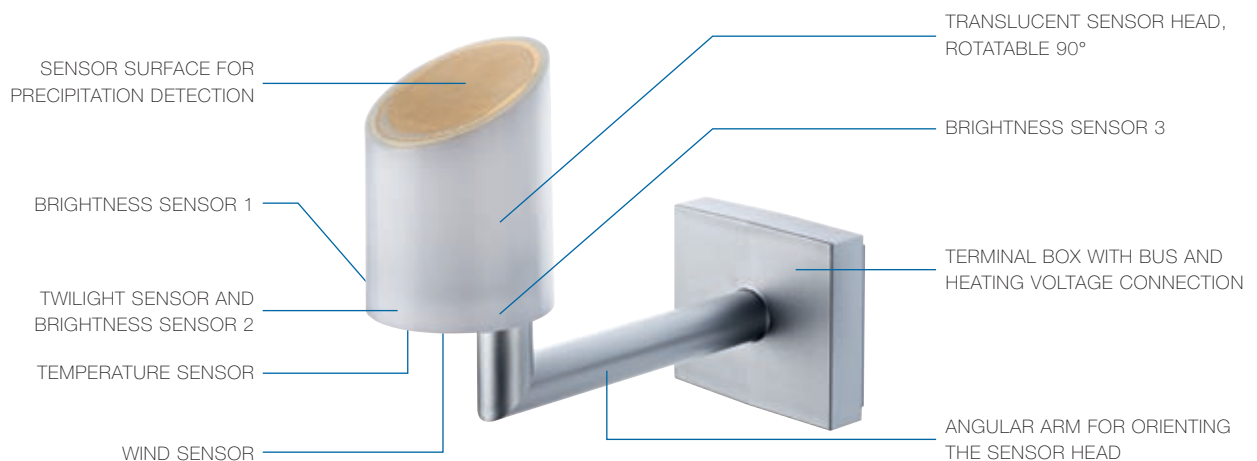
Anyone who has equipped his house with KNX/EIB management systems has become accustomed to arranging his private living spaces to be as pleasant as possible. But the private homeowner can only experience the highest level of comfort if the technology can adjust itself automatically to specific environmental conditions.

On the one hand, weather and brightness conditions can be used to improve living comfort without any additional energy requirements. On the other hand, measures have to be taken to protect outdoor installations against high winds and rain.

In both situations it is necessary to record and evaluate weather data in order to trigger the right reactions in the connected equipment.

The new weather station from Berker provides a complete set of sensors that can be used to control hangings and lighting systems both in and on "intelligent buildings" based on the weather – automatically, reliably and efficiently. The Berker weather station ...

- is connected to the KNX/EIB system via the integrated bus coupling unit, with no need for any additional interfaces
- is a compact unit that includes all of the necessary sensors:
 - three brightness sensors for arranged so that they are offset 90° from each other for directional measurement
 - a separate twilight sensor for precise measurement in the low light intensity range
 - precipitation sensor¹ for qualitative identification of rain and snow
 - outside temperature sensor
 - wind sensor for thermal (and thus low-maintenance and wear-free) wind speed measurement
- designed as an enclosed housing that gives the sensors maximum protection against damage.



¹ External power supply 24 V AC RMD required.

AUTOMATIC SHUTTER CONTROL

SUPERLATIVE COMFORT

The three brightness sensors allow automatic control of motor-driven hangings on three sides of a building. In summertime, shutters and awnings provide brightness-dependent sun shading on patios, in winter gardens and living spaces (see application situations **2, 3, 4**). In this manner they prevent overheating and protect plants and other items against UV radiation. Sun and shade can provide a pleasant indoor climate based on the outside temperature, as well. In the dark winter months shutters and blinds are generally opened during the day, in order to let the available daylight in through the windows. As soon as the light drops below or exceeds a certain twilight value, the sensor switches the assigned loads on or off. Thus the blinds are lowered in the evening to provide privacy, and are raised again in the morning to allow daylight in to brighten the rooms.

SECURITY EVEN WHEN NO-ONE IS HOME

The hangings are also lowered under twilight control when the residents are out shopping, in the office, or even on holiday. This protects the property against burglary during times of darkness. What is more, the changes in the states of the outdoor installations makes the house appear occupied at all times.

PROTECTING INSTALLATIONS

Extreme changes in the weather require immediate reactions on the part of the automatic control system in order to ensure that outdoor installations remain protected at all times. For example, awnings are retracted above a certain wind speed or in case of precipitation to protect them against storm damage and dirt.

TWILIGHT-CONTROLLED LIGHT MANAGEMENT

At the beginning of twilight, exterior lights on the building **8**, in the garden **5**, and at the pond can be switched on automatically, or floodlights **6** can be employed to provide dramatic lighting effects on parts of the building. More and more often, use is being made of window lighting, which can be switched on at twilight via socket outlets in the window reveal or in outdoor areas **7**.

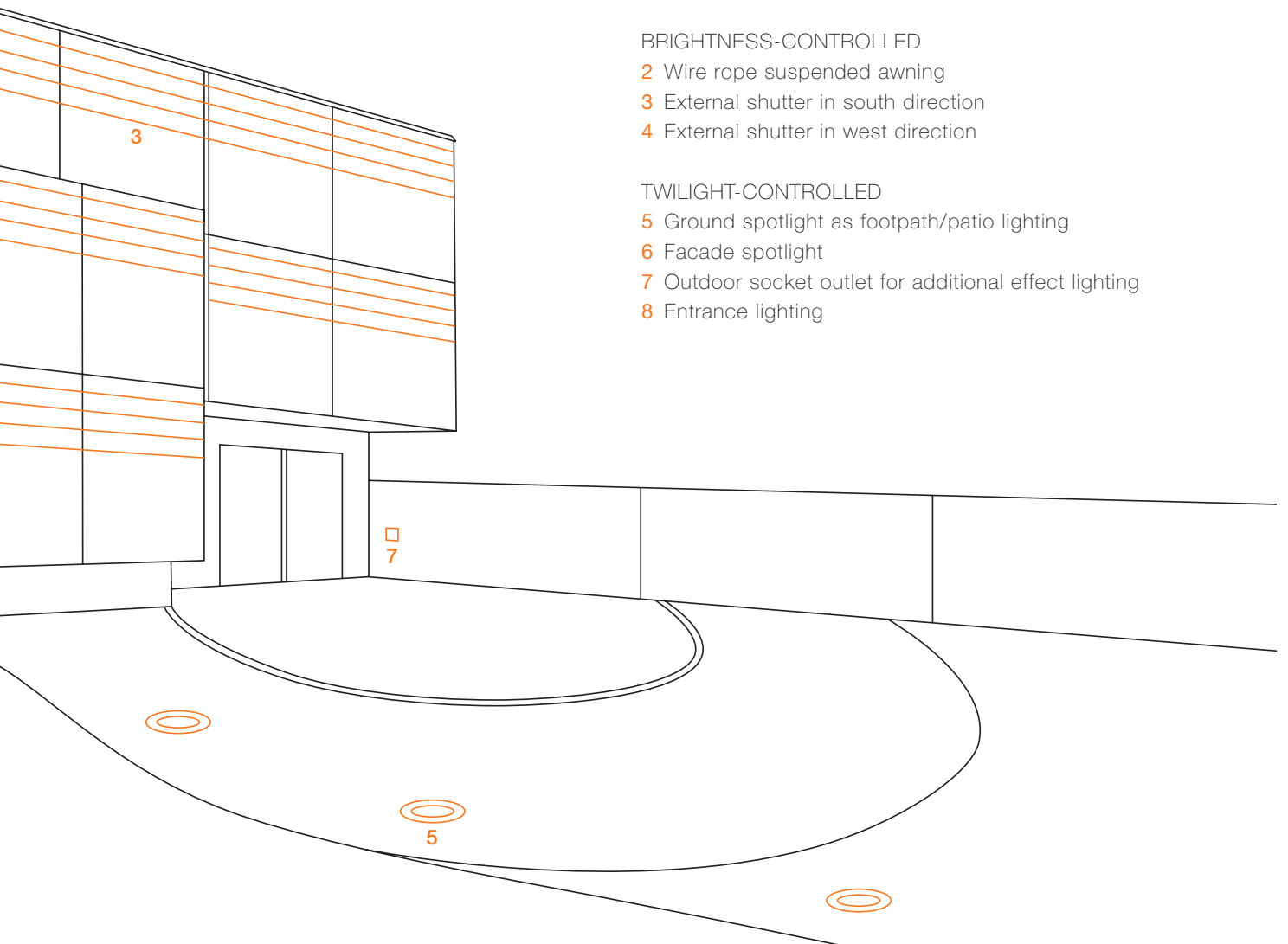
To illuminate footpaths and allow safe movement about the property even after dark, generally an additional motion detector activates the outdoor lanterns only after the light drops below the set limiting value and a motion is detected.

APPLICATION SITUATION OUTDOORS



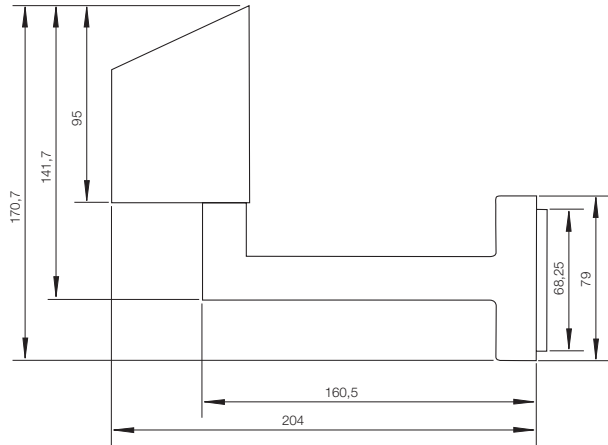
TEMPERATURE-GUIDED CLIMATE CONTROL

The outdoor conditions can also influence the operation of climate control systems inside the house. Then on colder days the temperature sensor of the weather station controls the inlet temperature of a KNX/EIB-capable boiler to ensure optimal heating of your home. At higher outside temperatures the air conditioning system connected to the KNX/EIB system is switched on to remove the excess heat.

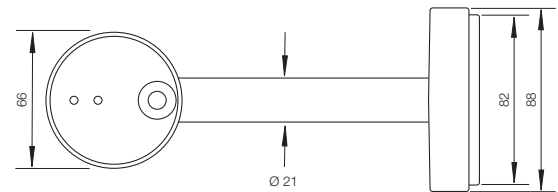


IN DETAIL

SCALE DRAWINGS



Side view



View from below

TECHNICAL DATA

KNX/EIB supply

Rated voltage

21 V to 32 V DC SELV

Power consumption

450 mW

Connection

Bus connection terminal

External supply

Rated voltage

24 V AC/DC SELV

Power consumption

7.5 W

Ambient conditions

Ambient temperature

-20 to +55 °C (free of ice and dirt)

Storage temperature

-40 to +70 °C

Protection class

IP 44 (in position of normal use)

Measurement ranges of the sensors

Wind

0 to 40 m/s, ± 2 m/s

Precipitation

binary (Yes/No), starting with fine drizzle

Brightness (3 x, each offset 90°)

1 to 110 klx, ± 10 %

Twilight

0 to 694 lx, ± 10 %

Temperature

-20 to +55 °C, ± 1 °C

WEATHER STATION

Order no. 7549 00 01

ACCESSORIES

Mast fixing for controllers/sensors

Order no. 0154

Power supply 24 V AC RMD

Order no. 7591 00 01

INTELLIGENT CONFIGURATION SOLUTION

Concentration on the essential functions and on clearly-structured programming provide optimal conditions for smooth commissioning of the weather station.

Up to two limiting values (with hysteresis), which can be parameterised separately from each other, can be set for each sensor. In order to coordinate the facilities even more precisely to suit the outdoor conditions, limiting values can be linked using logic operations.

Appropriate control sections must be provided to allow control of the pre-configured settings at any time. Besides push-buttons, operation control centres like the Berker Master Control are particularly suitable here; the latter's display also shows the measurement data for the weather station (wind speed, temperature). Alternatively, if the devices are connected with an IP control, the measurement data can be visualised using a PC or touch screen, and the automatic functions can be deactivated.

To change the limiting values for the sensors subsequently, they can even be adjusted by the user via the above-mentioned external control sections, or specified using the "teach-in function", which adopts the current measured value as the new limiting value.

ADDITIONAL FEATURES

- Precipitation sensor with 1-bit value output
- All other sensors with 16-bit value output
- Switch-on/switch-off delay for limiting value objects adjustable
- 6 logic gates with the logic operation options AND, AND with feedback, OR, Exclusive OR
- Up to 4 inputs per logic gate, inversion of inputs and output possible
- 4 blocking modules
- Value output in case of changes and/or cyclically
- Cascading of weather stations via logic functions provides redundancy and thus functional reliability
- Max. 89 communication objects
- Max. 200 addresses
- Max. 200 assignments

BERKER – THE RIGHT WAY.

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Berker switches and systems are in use all over the world, making life more beautiful, easier and more comfortable. We place the utmost emphasis on quality, design and innovation. This is confirmed by the numerous awards we have received both at home and abroad.

Berker is a leading supplier of high-quality electrical installations – from timelessly classic switch design through to intelligent building management systems. All new developments are created with just one thing in mind: the satisfaction of our customers. After all, we want you to feel at home with our products for decades to come.

Don't just let your life be guided by taste, but also by state-of-the-art technology, with Berker – the right way.



Berker Switches and Systems

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