CITY OF BALINGEN, GERMANY

The ECO-IR 360EIB-AC presence detector shows its sporty side

Sports hall exactly as required

There's a state of emergency in the Bundesliga game at the Sparkassen Arena Balingen. When several thousand fans in the stands cheer on their successful Handball Bundesliga club HBW, the players and crowd can reasonably expect the lighting in the sports hall to be up to competition standards. And the question of who turns off the lights after the big match is would be banal. But the sports facility built in 2006 also has another day-to-day function with school sport, keep fit classes and multipurpose use. During the planning phase, consideration was already being paid to how energy costs could be kept in check in the hall, which is used from early in the morning till late at night. A card system was considered with school classes or clubs being forced to turn lights on or off, or a time program set up according to an existing booking schedule. Both saving ideas were rejected as being too

FUNCTION

- Demand-oriented lighting control for different uses of the sports hall
- Use of daylight for saving energy
- Separate switching circuits for three sections of the hall
- Detection from a height of ten metres
- Managing reflective surfaces
- Presence detectors protected against balls
- Can be overridden for special events

SOLUTION

- ECO-IR 360EIB-AC presence detector with genuine daylight measurement
- Brightness threshold and self-learning time delay
- Certain planning via square detection area
- Master/master parallel switching mode
- High detection quality
- Safety cover as accessory
- Central functions via KNX bus system

Presence detectors mounted at a height of ten metres also take account of daylight coming through the windows at the front when controlling light.

complicated. In the end, the Balingen Council technicians responsible for the project decided to install ThebenHTS presence detectors to switch the lighting exactly as required and thereby save energy, for example closing blinds during a presentation or by calling up to two preset scenes.

Daylight reduces switch-on time

The 45 by 32 metre area of the sports hall is not just used one pitch but is divided up into three sections for school sports sessions taking place at the same time. So three lighting groups are required. And the ten metre height of the hall also had to be taken into account during the planning stage. In this situation, the chosen ECO-IR 360EIB-AC presence detector with a detection area of 22 by 22 metres reliably monitors moving bodies. That means two presence detectors are sufficient to cover one third of the hall. If only one or two sections of the hall are needed, then the light only comes on in those areas. Another energy-saving effect is achieved by the presence detectors making use of the natural daylight coming through the large area of windows. In addition, each section has presence detectors on the window side and the room side connected to each other in Master/Master mode. They react jointly to presence but determine independently of each other the switching off of the allocated lights if there is sufficient daylight. When the hall is being vacated or during a inactive phase, the self-taught time delay of 0 seconds to 60 minutes prevents the lights being turned off too early.

Override in emergencies

The lights in the changing rooms are also controlled as required. Here, compact office EIB presence detectors ensure efficient use of energy. Presence Light 360 detectors are installed in the showers in accordance with the required IP54 protection class. The presence detectors are networked as bus components. They are configured via the Engineering Tool Software ETS. Moreover, the brightness set point values can be amended from a central control point and the automation overridden. Just the same as in a Bundesliga game: The regulations demand that the lighting is on permanently and of suitable quality for competitive matches. The presence detectors then have nothing to report. Although – the ECO-IR360EIB-AC definitely won't miss any of the action. ■

CLIENT	City of Balingen ▪ Germany
PROJECT	Lighting control at the Sparkassen Arena Balingen
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