Customer case

The lighting of an industrial workshop is of prime importance to ensure the security of employees and good productivity at the workstations. To optimize consumption, the workshop owner wants to automate the lighting time of the luminaire according to working hours.

But for protection reasons, employees must not be able to turn off the lights. However, it is necessary to allow local override switch on/off for maintenance operations (e.g. changing lamps or working at night in the workshop).

The workshop owner wants to be able to choose between automated or manual mode for the control of each lighting circuit.

Our recommendation

The lighting loads are powered by an integrated-control Acti9 Reflex iC60 protective device.

The Building Management System (BMS) sends switch-on and switch-off orders to the Reflex, according to the building's operating requirements.

The Acti9 Reflex integrated-control circuit breaker is configured in mode 3 in order to prevent local control by the workers, but also to allow local override of the BMS, while authorized by the facility supervisor. Also the light switch-on/off data and electrical faults are transmitted to the facility supervision room.

Benefits

- Simplicity: no low voltage power interface between the Reflex and the Building Management System (BMS), lower cabling costs, up to 50% fewer connections, indications on the front of the product and remote indications, all in one product.
- Flexibility: possibility of manual override control.
- Padlocking possible without any additional accessory.
- Continuity of service: the Acti9 Reflex iC60 is a bistable actuator which does not change state in the event of a power outage.
Solution

Diagram

Note: to insure closing of neutral before phases the control of lightings must be realized by Reflex and not by switch.

Specifications

• The lighting loads must be powered via an integrated-control circuit breaker.
• ON/OFF control of lighting circuits must be supervised by a Power Logic Controller connected to a Building Management System.
• Manual override setting of the lighting to ON or OFF can be performed by a selector switch.
• The light switch-on/switch-off data and electrical faults are transmitted to the supervision system, without any additional low voltage power interfaces.

Products used

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<th>Product</th>
<th>Function</th>
<th>Quantity</th>
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More about Reflex iC60N

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