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Eltako ELECTRONICS

Wireless actuator CE

Constant light controller FKR70/1-10V for electronic ballast units 1-10V

Dimming actuator 1 channel, 1 NO contact not potential free 600VA and 1-10V control output 40mA. 1.7 watts standby loss.
Motion-dependent and brightness-dependent light control with the wireless motion/brightness sensor FBH.

Mounting in the 230V power supply cord, e.g. in false ceilings.
100mm long, 50mm wide and 25mm deep.

State-of-the-art hybrid technology combines advantages of nonwearing electronic control.

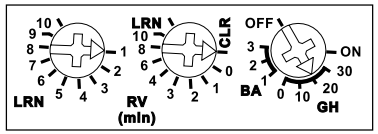
Zero passage switching to protect contacts.

In case of a power failure the switch position and the brightness level are stored and may be switched on when the power supply is restored.

By using a bistable relay coil power loss and heating is avoided even in the on mode.

After installation, wait for short automatic synchronisation before the switched consumer is connected to the mains.

Function rotary switches



Function of FKR70
The wireless constant light controller FKR70 receives its signals from one or several wireless motion/brightness sensors FBH and then controls the 1-10V output or switches the light on or off.

3 operation modes **BA** can be selected:
1 = fully automatic (switch-on and switch-off is brightness and motion controlled),
2 = semi-automatic (only switch-off is brightness and motion controlled) and
3 = switch-off is brightness controlled (motion sensor is not active).

With one wireless pushbutton or wireless hand-held transmitter the automatic system can be overloaded to a preset value in order to dim the light for a beamer presentation, for example.

Several FBHs can be taught-in in a FKR70. As long as one of the motion detection sensors detects activity, the necessary lighting remains on and only after all FBHs report no activity for 1 minute does the adjustable time delay RV commence.

Only 1 FBH (Master) is used for the constant light control.

The FBHs can also be taught-in in several FKR70s. This not only allows an increase in the total switching capacity but also the set-up of zones with different brightness settings by setting different basic brightness values GH. Several independent FKR70 systems can be installed in one room simultaneously.

To teach-in wireless pushbuttons and wireless hand-held transmitters, one rocker is taught-in as direction switches.

Tap the bottom part to switch the light off. Press the top or bottom to dim up or down. This shifts the control automatic towards brighter or darker. A double tap on the bottom part dims down to the taught-in value 'Beamer Presentation'.
When the light is switched off and the top part is held down, the light is dimmed up from the lowest brightness level until the rocker is released.

Resetting to automatic control is effected either by automatic light switch-off or by double-tapping the top direction switch.

The beamer value can additionally be taught-in in a further universal switch.

In addition to the beamer value the minimum brightness can be set and stored.

The left rotary switch LRN is required for teach-in and for setting the base brightness.

The middle rotary switch RV is set after teach-in to the required delay time from 0 to 10 minutes. There is also an additional 1 minute of FBH.

The base brightness GH dependent on use of the room **is set with the right rotary switch plus the left rotary switch** adding the adjusted values.

The smallest settable value is 1 (0+1), the largest value is 40 (30+10).
The normal setting is approx. at 21.

The LED on the side behind the LRN rotary switch performs during the teach-in process according to the operation manual. It shows control commands by short flickering during operation.

Technical data

Rated switching capacity each contact	600VA [1)]
Standby loss (active power)	1.7W

[1)] Fluorescent lamp or low voltage halogen lamp with electronic ballast units.

Teaching-in wireless sensors in wireless actuators

All sensors such as wireless pushbuttons, wireless hand-held transmitters, wireless transmitter modules, wireless window/door contacts, wireless timers, wireless motion/brightness sensors and hotel key card switches must be taught-in in the actuators (receivers with dimmers, switches and relays) so that they can detect and execute commands.

Teaching-in actuator FKR70/1-10V

The teach-in memory is empty on delivery from the factory. If you are unsure whether the teach-in memory contains something or not, **you must first clear the memory contents completely:**

Set the middle rotary switch to CLR.
The LED flashes at a high rate. Within the next 10 seconds, turn the left rotary switch three times to the right stop (turn clockwise) and then turn back away from the stop.
The LED stops flashing and goes out after 2 seconds. All taught-in sensors or sensors of a channel are cleared.

Clear individual taught-in sensors in the same way as in the teach-in procedure, except that you set the middle rotary switch to CLR instead of LRN, and operate the sensor. The LED previously flashing at a high rate goes out.

Teaching-in sensors, operation modes and brightness values

In the constant light controller not only sensors are taught-in, but also operation modes and brightness values. Therefore, please keep to the order A to D.

A: Teaching-in sensors

1. Set the left rotary switch to the required teach-in function:
   1 = teach-in universal switch to call the brightness for a beamer presentation if required
   2 = teach-in 'central OFF', if required
   4 = 'teach-in 'central ON', if required
   5 = Teach-in direction switch. Top 'switch on and dim up' and bottom 'switch off and dim down'
   6 = teach-in master FBH or FAH
   7 = teach-in slave FBHs
2. Set the middle rotary switch to LRN. The LED flashes at a low rate.
3. Operate the sensor to be taught-in. The LED goes out. Operate the direction switch only above or below.

To teach-in further sensors, turn the middle rotary switch briefly away from position LRN. Continue the procedure from pos 1.

B: Storage of the operation mode

1. Set LRN to 9.
2. Set the right rotary switch to 1, 2 or 3:
   1 = **fully automatic** (switch-on and switch-off is brightness and motion controlled)
   2 = **semi-automatic** (only switch-off is brightness and motion controlled)
   3 = **brightness controlled switch off**
3. Turn the middle rotary switch to LRN. The LED flashes 1 second, then it goes out.

C: Storage of the definitely adjustable brightness values

1. Set LRN to 10.
2. Turn the middle rotary switch away from position LRN and set the right rotary switch to 1 or 2:
   1 = **Brightness for the beamer presentation**
   2 = **Minimum brightness.** The lamps are dimmed down depending on the brightness to the adjusted minimum brightness. Below is completely switched off.
3. Press and hold down the upper part of the direction switch that is already taught-in for some time to switch on and adjust the required brightness.
4. Turn the middle rotary switch to LRN. The LED flashes 1 second, then it goes out.

To store further brightness values, turn the middle rotary switch away from position LRN. Continue the procedure from pos 2.

D: Saving the hysteresis between switch ON and OFF

1. Set LRN to 8.
2. Set the right rotary switch to 0, 1, 2, 3, 10, 20 or 30:
   0 = smallest hysteresis
   30 = largest hysteresis
3. Turn the middle rotary switch to LRN. The LED flashes 1 second, then it goes out.

After teach-in A, B C and D, set the middle rotary switch to the required off delay RV. Adjust the required basic brightness GH with the other rotary switches. Both settings can be changed at any time.

⚠ When an actuator is ready for teach-in (the LED flashes at a low rate), the very next incoming signal is taught-in. Therefore, make absolutely sure that you do not activate any other sensors during the teach-in phase.

Important reminder!

This electrical equipment may only be installed by skilled electricians otherwise fire hazard or danger of electric shock exists!

06/2010 Subject to change without notice.