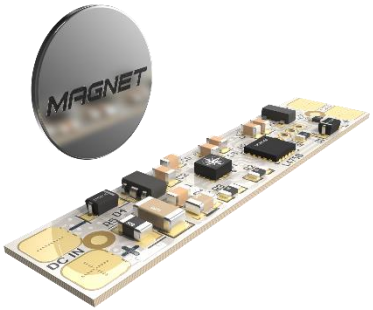
MagnetSwitch is a specialized controller designed control the light inside cabinets, drawers, or wardrobes. Thanks to 3-axes MEMs magnetometer sensor (e-compass), it can detect a very slight change in the magnetic field with extremely high precision. Because of this, the distance from the magnet can be many times longer than traditional sensors (mechanical, reed, optical). The mounting direction is not essential because the calibration algorithm detects the best axis during the first door opening. The controller has a smooth light increase and decreases function for eyes protection and 15 minutes eco timer. If you forget to close the door, the light will turn off after this time.



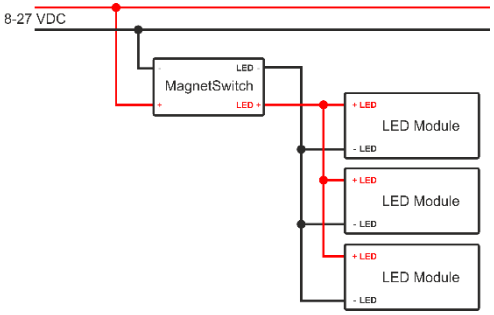
- Sensitive magnetometer IC
- May be installed in a profile
- Easy calibration of sensor
- Soft dimming
- Long range of detection
- Easy to use

Description	MagnetSwitch
Article number	118916
Size LxWxH	35x8x2 mm
Maximum output current	3 A
Maximum output power	81 W
Power consumption	< 0,4 W
Power supply type	Constant Voltage (CV)
Power supply voltage	8 - 27 V DC
Eco-timer	15 minutes
Calibration method	Automatic
Detection range	up to 600mm (Depends on magnet size)
Connection type	Solder pads
Ambient temperature	0 - 40°C

Connection

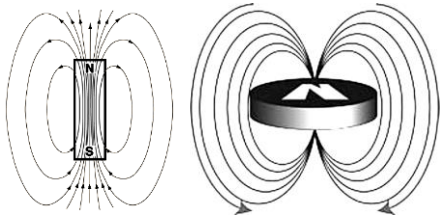
Before connecting the controller with LED light sources make sure that the power supply has the appropriate parameters to supply all connected devices. When connecting to the controller the LED light source and the power supply, remember to connect the devices in accordance with their polarity. Improper connection can damage or destroy connected devices.

Connection with constant voltage LED light sources



The diagram above is an example of the connection and may be different from the actual layout. Wires between the power supply, controller and LED modules should be as short as possible. Connecting more than one controller to the same power supply is not recommended. It may cause interference, visible on LED light sources. Controllers adapted to such work are available on special request.

Mounting information



The detection range depends on the strength of the magnet, so its physical size. It is also important to consider the magnet placement to obtain the strongest magnetic field. For short distance, use a smaller magnet to avoid sensor overdrive.

Calibration process

1) Open the door
2) Connect the controller to a LED light and to power supply
3) Switch on the power supply
4) The light will blink ten times.
5) After light stop close the door
6) Open the door
7) The light should turn on. If not, change the magnet place and repeat the calibration process
8) The calibration process is finished

Recalibration process - open and close the door fifteen times, one after another or alternatively, bring a strong magnet closer to the controller. Follow the rest of the instructions from point 4.

Troubleshooting

The light turns off after door opening and opposite

- Repeat the calibration process

Nothing happens during door opening

- Change the magnet position or its angle
- Replace the magnet with a stronger one
- Check the power supply and polarisation

The light start blinking during closing door

- Place the magnet further from the controller or use weaker magnet.

Cooling

The controller generates heat according to the load, therefore it is necessary to provide cooling if the temperature exceeds 70°C. The temperature should be measured in the center of the plate. Improper use of the controller may lead to damage or overheat.
We are not responsible for any loss, or damage resulting from improper use of drives. Guarantee becomes void in such cases.

Safety rules

Controllers can change the intensity of the generated light, but even a dimmed LED light source can emit light that can adversely affect the retina when looking directly at the LEDs.
Switching the LED light source on and off quickly can cause discomfort, disturbances of perception and epilepsy attacks in people sensitive to light.
It is forbidden to touch the device under operation. Damaged or incorrectly operating drivers must be immediately disconnected from the power supply.
You must not use damaged drivers or operating incorrectly, such devices should be immediately disconnected from the power supply.

Protection measures against damage

Controllers are prone to damage, so even minor interference can result in the destruction of these devices. Drivers should be used in accordance with their intended use.
One of the most serious threats are electrostatic discharge and short circuiting of electrical circuits. In order to avoid damaging the controller, do not touch its electronic components without using a suitable protection against antistatic discharge.
The controllers are not equipped with overvoltage and short-circuit protection.
Connections as well as all luminaire elements must meet all current and important national standards.
Do not use electronic devices that work improperly, in which case you must turn off the power of the devices immediately. Damaged devices can cause electric shock or short circuit.
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