



Laser motion sensor

**Automatic
and cost-efficient
lighting switching**



Motion sensors
types and applications

Color variants of DRL-12 sensor fronts

Satin beech



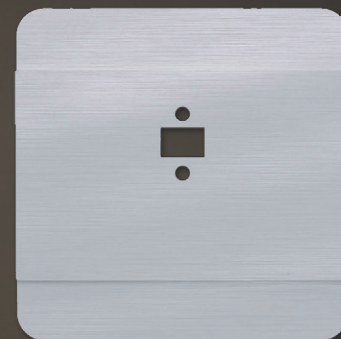
Black beech



Black



Aluminium



Afromosia satin



Afromosia black



Satin pine



Black pine



Satin walnut



Black walnut



Satin oak



Black oak



Merbau satin



Merbau black



Satin ash



Black ash



DRL-60 PROXIMITY SENSOR

(9-27 V DC / 230 V)

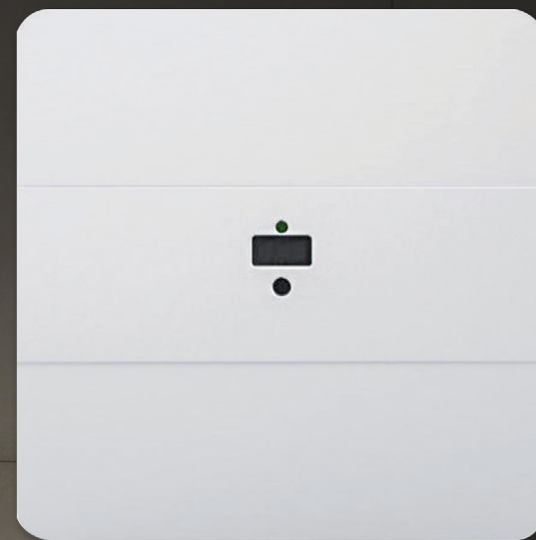


The DRL-60 is a laser sensor designed to control 9-27 V DC and 230 V lighting, especially in corridors and staircases.

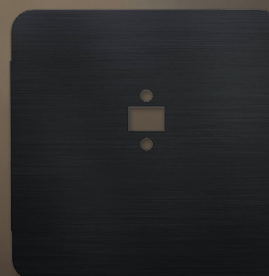
Features:

- Time of Flight (ToF) laser distance sensor
- detection range continuously adjustable from 0.1 to 2 m
- brightness sensor to prevent the light from switching on at high brightness levels
- adjustable holding time for light switching
- direct control of 12/24 V lighting circuits (load capacity up to 4 A, which can be increased by connecting LED-AMP amplifiers)
- soft start and soft shutdown feature for controlled lighting circuits
- integration with AS-225 and AS-225D staircase lighting timers
- compact size, can be mounted in a $\varnothing 60$ mm box
- LED indicating the operating status of the sensor
- thermal protection against exceeding the acceptable temperature inside the housing

White



Black



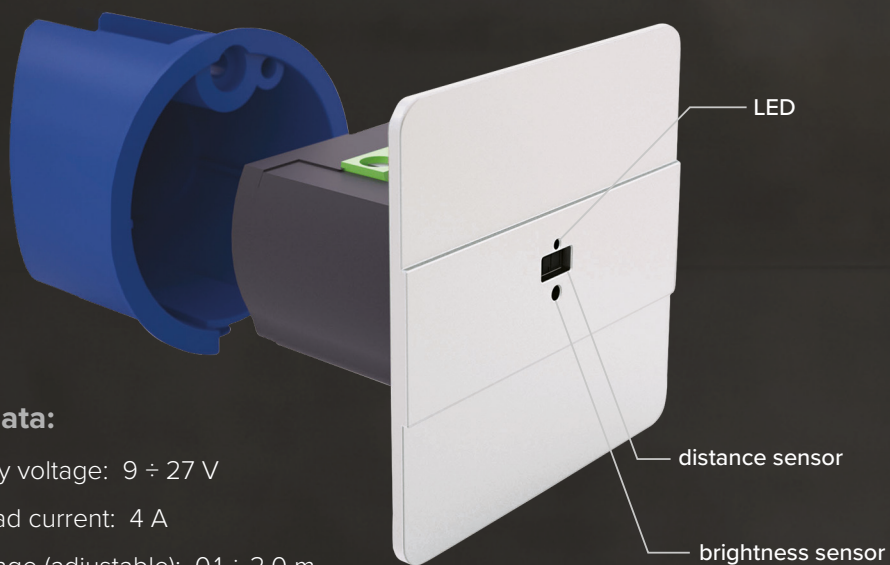
Aluminium anode



DRL-12 PROXIMITY SENSOR

(9-27 V DC)

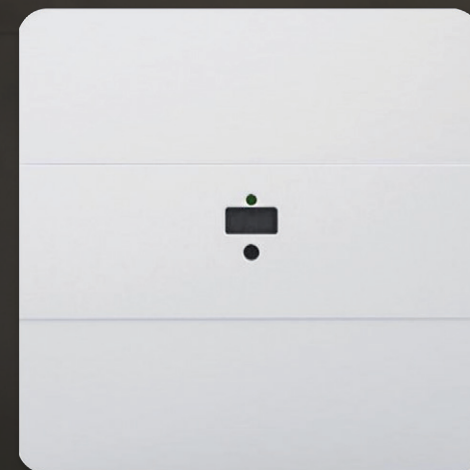
The DRL-12 is a laser distance sensor that detects obstacles in the range of 0.1÷ 2.0 meters. Thanks to the small angle of beam dispersion, along with the ability to precisely set the detection range, it is perfectly suitable for turning on lighting circuits, for example, on stairs with tread steps, where it is crucial for the sensor to only respond to movement on the stairs and ignore everything happening beyond them.



Technical data:

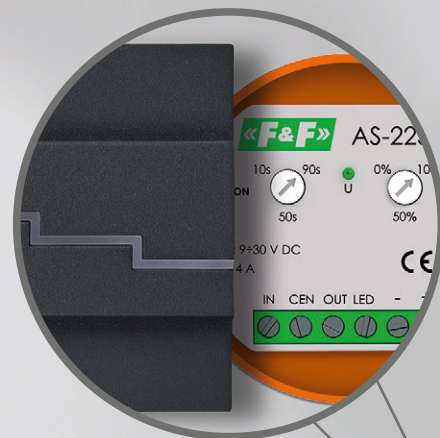
- power supply voltage: $9 \div 27 \text{ V}$
- maximum load current: 4 A
- detection range (adjustable): $0,1 \div 2,0 \text{ m}$
- brightness level (adjustable): $2 \div 500 \text{ lux}$
- switch-on time (adjustable): $0 \div 10 \text{ min}$
- detection type: TOF laser sensor

White



FEATURES:

- Time of Flight (ToF) laser distance sensor
- detection range continuously adjustable from 0.1 to 2 m
- adjustable switch-on time
- brightness sensor that prevents the light from being switched on during the day
- soft start and soft shutdown feature for controlled lighting circuits*
- ability to trigger AS-225 cascade controllers
- compact size, can be mounted in a Ø40 mm box supplied with the sensor



Easy 3-wire installation



* In combination with dimmable lamps or LED strips, such as F&F staircase light fittings.

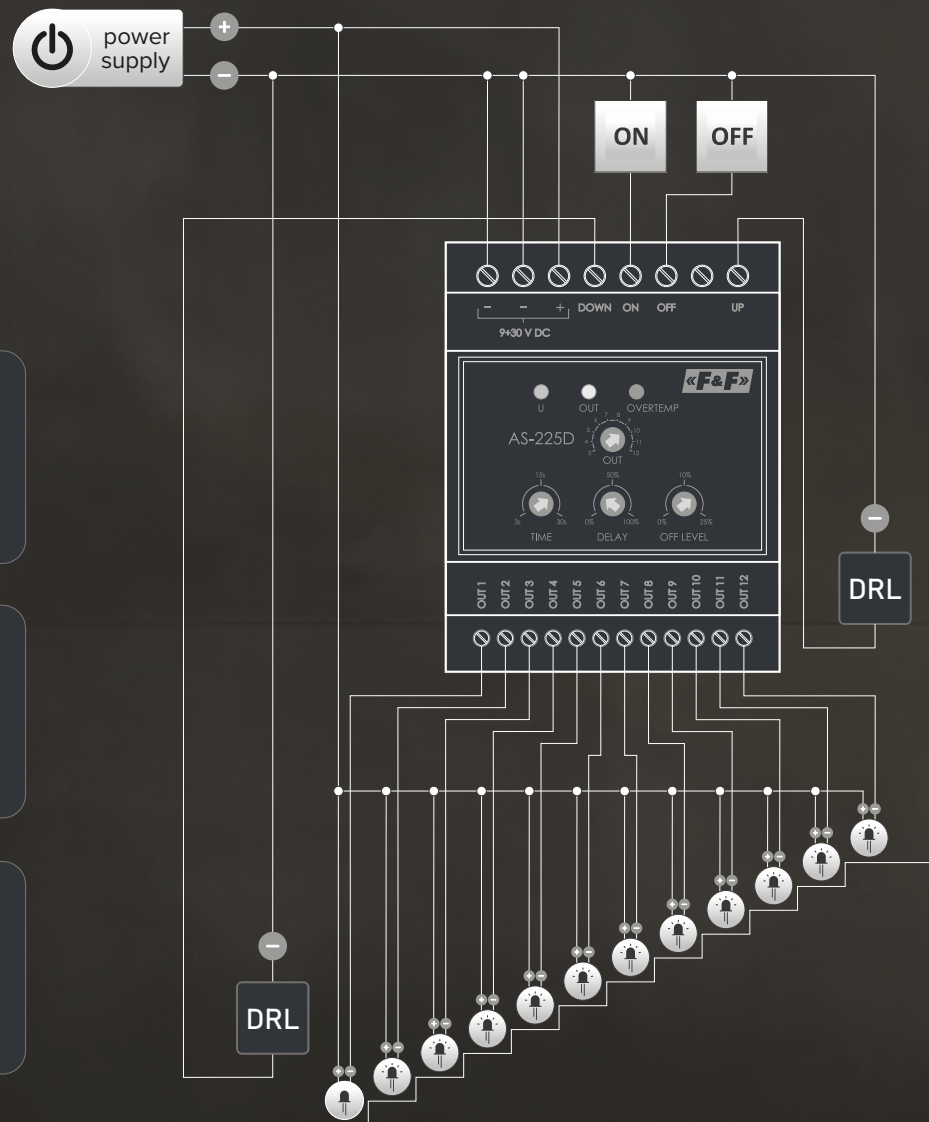
OPERATING PRINCIPLE:



The principle of operation is based on emitting a beam of light and measuring the delay of light returning due to reflection from an obstacle. On this basis, it is possible to precisely determine the distance to the obstacle, which is then compared with the set detection range.

The condition for switching on the light is the presence of an obstacle at a distance smaller than the set sensor tripping range. The second condition is an ambient brightness level below the value set on the sensor.

Such a solution is ideal for switching lighting circuits, for example, on an open staircase, where it is important that the sensor detects presence only on the stairs and ignores anything happening beyond them.

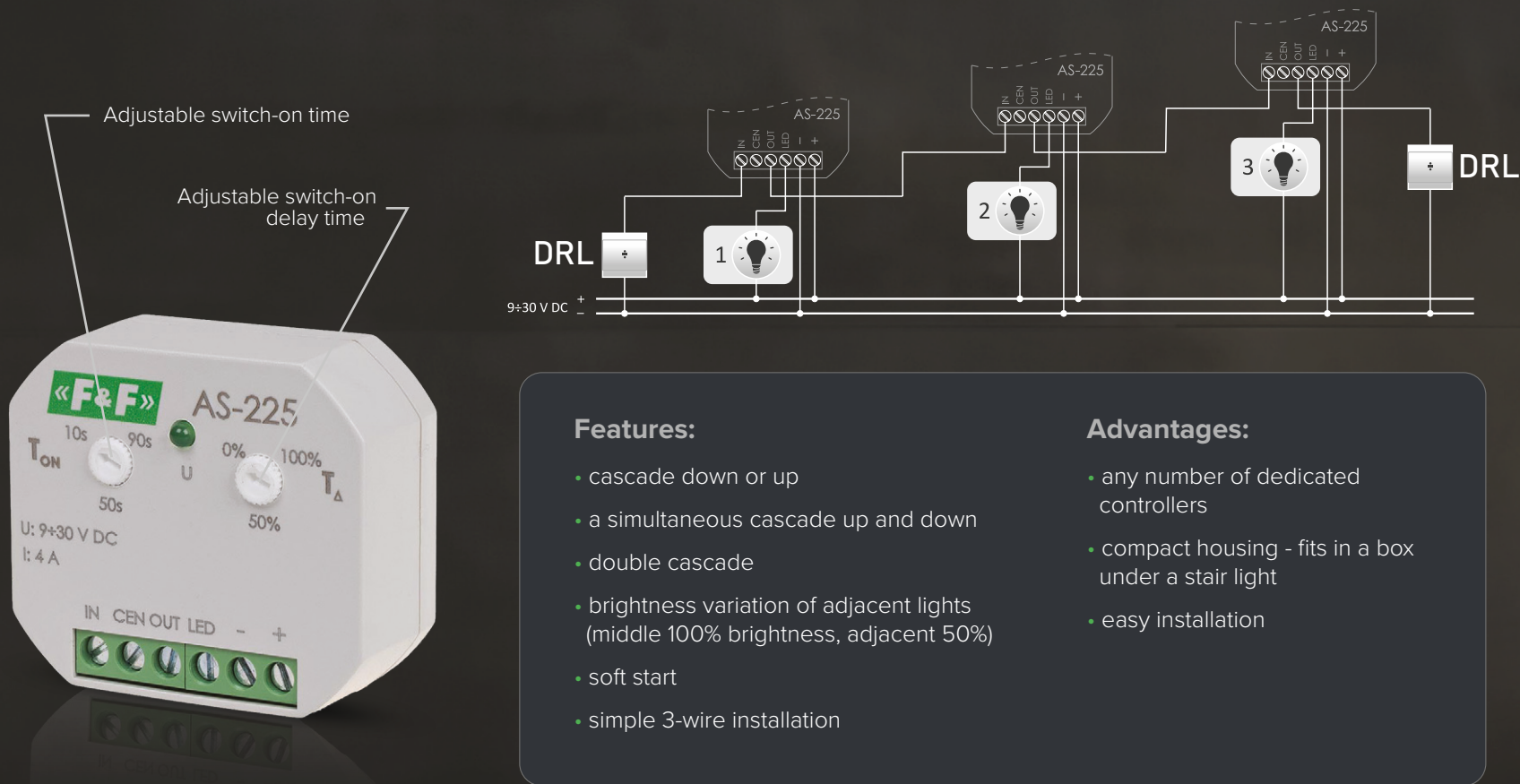




AS-225 CASCADE CONTROLLER

AS-225 is a controller designed for active control of lighting on stairs. Each relay controls one lighting point, and when combined into a group and connected to activators (such as bell button, DLR sensor, motion sensor, pressure sensor, optical barrier), it allows to achieve the effect of a cascade, i.e. successively illuminated steps of stairs.

The AS-225 design allows you to set the delay and lighting time of subsequent steps and to vary these times (longer, shorter) separately for each staircase.



AS-225D STAIRCASE LIGHTING CONTROLLER

Light wave effect. 12-channel staircase and cascade controller. With the AS-225D controller, we can control 12÷24 V cascade stair lighting. In this way, we will achieve the effect of light that follows us when we go up the stairs.

Features:

- control of cascading multi-point lighting system
- the ability to set the number of controllable light points (from 3 to 12)
- the ability to connect controllers in series to increase the number of controlled circuits
- additional control inputs:
 - permanent light switching (for example during houseworks)
 - light switching lock (for example with brightness sensor signal)
- control of lighting using a variety of setters including bell buttons, DRL sensors, motion sensors, optical barriers, pressure sensors, etc.
- adjustable "soft start" feature - soft brightening and dimming of lighting
- **night light function** – allows to set the brightness level in the off state (this way, the stairs will never be completely darkened)
- installation of the controller on a DIN rail
- built-in thermal protection



OVERVIEW OF PRODUCT SYMBOL DESIGNATIONS

Name of the product	INGA						LINA						MAYA						VIKA					
Color of the housing	satin		white		anthracite		satin		white		anthracite		satin		white		anthracite		satin		white		anthracite	
Color temperature	cool	warm	cool	warm	cool	warm	cool	warm	cool	warm	cool	warm	cool	warm	cool	warm	cool	warm	cool	warm	cool	warm	cool	warm
LS-ISC																								
LS-ISW																								
LS-IWC																								
LS-IWW																								
LS-IAC																								
LS-IAW																								
LS-LSC																								
LS-LSW																								
LS-LWC																								
LS-LWW																								
LS-LAC																								
LS-LAW																								
LS-MSC																								
LS-MSW																								
LS-MWC																								
LS-MWW																								
LS-MAC																								
LS-MAW																								
LS-VSC																								
LS-VSW																								
LS-VWC																								
LS-VWW																								
LS-VAC																								
LS-VAW																								

POWER

1,2 W



100 Lm



IP20

U

12 V DC



100%

< 0,5 s



9 SMD 3014



> 40 000



3000 K



6000 K



dimmin feature

STAIRCASE FITTINGS

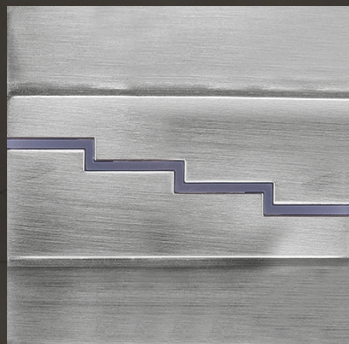
Discreet, modern design and high-quality materials used in the production are the main advantages of F&F staircase fittings.

Application:

staircases, corridors, public facilities, offices.

Advantages:

- dimmable
- high efficiency LED 1.2 W – 100 LM
- standard power supply voltage 12 V DC
- warm (3000 K) and cool (6000 K) light color



Maya

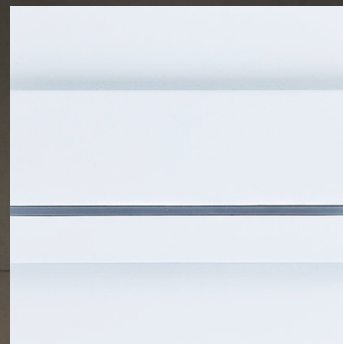
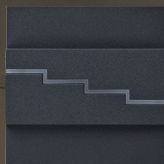
Satin

Dimensions:
73×73 mm

White



Anthracite



Lina

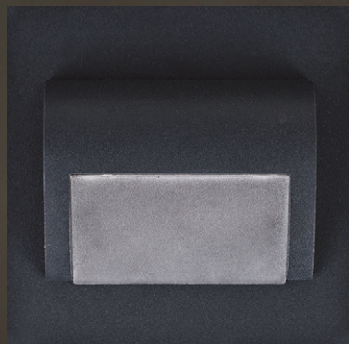
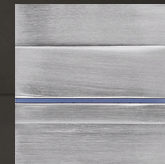
White

Dimensions:
85×75 mm

Anthracite



Satin



Inga

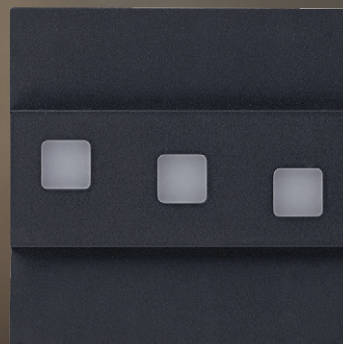
Anthracite

Dimensions:
85×75 mm

Satin



White



Vika

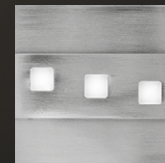
Anthracite

Dimensions:
85×75 mm

White



Satin





F&F is a Polish family company with established traditions. Currently, we are one of the largest Polish manufacturers of high-quality electronic devices in the field of relay technology, designed for home and industrial applications and modern smart building control system.

Our offer includes time relays, timers, phase control relays, dusk switches, energy meters, building automation systems, telemetry solutions, and measuring transducers.

We have been with you since 1992.

More about
motion sensors
can be found at:



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