

Service

**STEINEL®**

**Serie IS 180**

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**STEINEL®**

7216602 Technische Änderungen vorbehalten.

**GB Installation instructions**

Dear customer,

Thank you for the confidence that you have placed in us in purchasing your new STEINEL infrared sensor. You have decided on a high quality product, manufactured, tested and packed with the greatest care.

Please familiarise yourself with these instructions before installation, since only correct and commissioning guarantees long, reliable and trouble-free operation.

We hope you enjoy your new usage appliance.

**Appliance description**

- |   |  |   |
|---|--|---|
| <b>1</b> Safety screw   | <b>4</b> Twilight setting<br>2–2000 lux  | <b>6</b> Catch (housing can be swung open for installation and power supply connection) |
| <b>2</b> Decorative cover   | <b>5</b> Time setting<br>10 sec.–15 min. |   |
| <b>3</b> Lens (removable and rotatable to select the reach – basic setting of max. 5 m or 12 m) |  |   |

**Technical specifications**

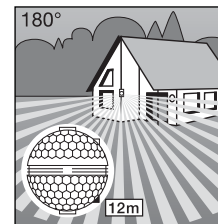
Dimensions:	(H x W x D) 120 x 76 x 56 mm
Output:	max. 1000 W (ohmic load, e.g. filament bulb) max. 500 W (uncorrected, inductive, $\cos \phi = 0.5$ , e.g. fluorescent lamps) max. 600 W (electronic ballasts, capacitive; e.g. energy-saving lights, max. 8)
Connection:	230–240 V, 50 Hz
Angle of coverage:	180° horizontal, 90° vertical
Sensor reach:	basic setting 1: max. 5 m basic setting 2: max. 12 m + fine adjustment with shrouds: 1–12 m
Time setting:	10 sec.–15 min.
Twilight setting:	2–2000 lux
Enclosure:	IP 54

**Principle**

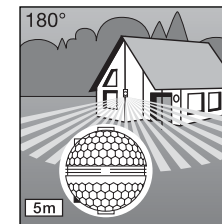
The detector is equipped with two 120° pyro sensors which detect the invisible infrared heat emitted by moving objects (pedestrians, animals, etc.). The heat thus detected is electronically converted and switches on connected consumers (e.g. a light).

No heat radiation is detected through obstacles, such as walls or glass and no switching therefore occurs. With the aid of the two pyro sensors, a detection angle of 180° (with an opening angle of 90°) is achieved. The lens is removable and can be rotated. This allows

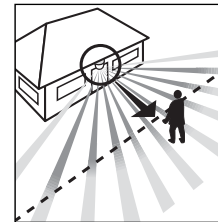
two basic reach settings of max. 5 m or 12 m. The infrared sensor can be installed without difficulty on inside and outside corners using the enclosed wall mounts.



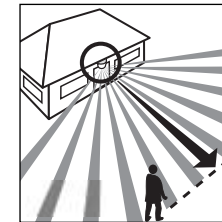
Max. reach 12 m



Max. reach 5 m



Walking direction: frontal



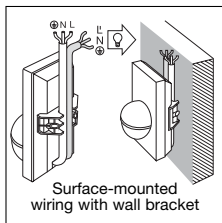
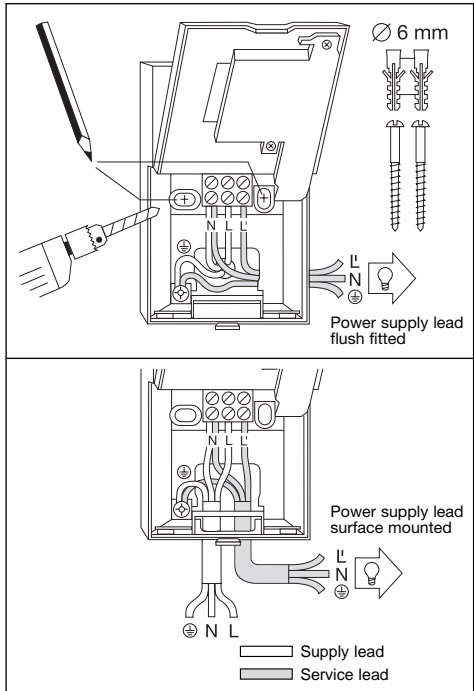
Walking direction: diagonal

**Important:** The most reliable motion detection is achieved by mounting the unit diagonally to the direction of movement and ensuring that no obstacles (such as trees or walls) obstruct the line of sight.

**⚠ Safety notification**

- Disconnect the power supply before any work on the motion detector!
- During installation, the electric power cable to be connected must be voltage-free. Therefore, switch off the power first and check freedom from voltage with a voltage tester.
- Installation of the sensor involves work on the mains power supply; this work must therefore be carried out professionally in accordance with regulations.
- Please note that the sensor must be protected by a 10 A circuit breaker. The mains supply lead must be no greater than 10 mm in diameter.
- Perform time and twilight adjustment only with the lens installed.

### Installation/wall mounting



**Note:** for wall installation, the enclosed inside corner bracket can also be used. The cables can therefore be passed conveniently from above behind the fixture and through the opening for surface-mounted wiring.

The installation site should be at least 50 cm from a light, since the latter's heat radiation could result in false triggering of the sensor. In order to achieve the given reach of 5/12 m, the installation height should be approx. 2 m.

#### Installation steps:

1. Remove decorative cover [2].
2. Release catch [6] and fold up lower half of housing.
3. Mark drilling holes.
4. Drill the holes and insert plugs (6 mm dia.).
5. Prepare wall according to needs for flush or surface mounted wiring.
6. Wire up the supply and service leads and connect. Use sealing plugs for surface mounted wiring.

#### a) Connection of the supply lead

The supply lead consists of a 2-3 phase cable:  
**L** = phase conductor  
**N** = neutral conductor  
**PE** = protective-earth conductor (⊕)

If in doubt, the cable must be identified with a voltage tester. Switch off the current again. The phase (**L**) and neutral (**N**) conductors are to be connected according to the terminal assignment. The protective-earth conductor is to be clamped to the earth contact (⊕). A mains switch for ON and OFF switching can of course be installed in the mains lead.

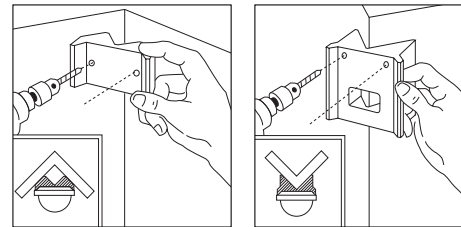
### Installation/corner wall mounting

**b) Connection of the service lead**  
 The service lead (e.g. light) likewise consists of a 2-3 phase cable. The phase conductor of the consumer is connected to the terminal marked **L'**. The neutral conductor is clamped to the terminal marked **N** together with the supply lead neutral conductor.

The earth conductor is to be connected to the earth contact. **7.** Screw on the housing and close. **8.** Apply lens (reach optionally max. 5 m or 12 m), refer to Reach setting chapter, **9.** Perform time [5] and twilight [4] settings (refer to Functions chapter), **10.** Apply decorative cover [2] and safeguard against

unauthorised removal with safety screw [1].

**Important:** reversing the connections can result in damage to the fixture.



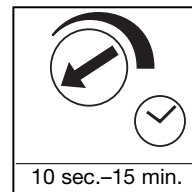
The sensor can be mounted conveniently on inside and outside corners using the enclosed corner wall mounts. Use the corner wall mount as a drilling template when drilling the holes. In this manner, the drill hole will be positioned at the correct angle and the corner wall mount can be installed easily.

### Functions

After the mains connection has been made, the housing has been closed and the lens has been applied, the unit can be switched

on. Two setting options are concealed behind the decorative cover [2].

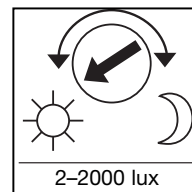
**Important:** perform time and twilight setting only with the lens installed.



#### Switch-off delay (time setting)

The desired period of operation of the light fixture can be adjusted continuously from approx. 10 sec. to a max. of 15 min. When the adjustment screw is at the left stop position, this means the shortest time of

approx. 10 sec. When the adjustment screw is at the right stop position, this means the longest time of approx. 15 min. It is recommended to select the shortest time when setting the detection zone and for the functional test.

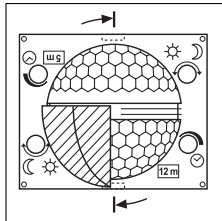


#### Twilight setting (response threshold)

The desired sensor response threshold can be adjusted continuously from approx. 2 lux to 2000 lux. When the adjustment screw is at the left stop position, this means twilight operation of approx. 2000 lux.

When the adjustment screw is at the right stop position, this means twilight operation of approx. 2 lux. The adjustment screw must be at the left stop position when setting the detection zone and for the functional test in daylight.

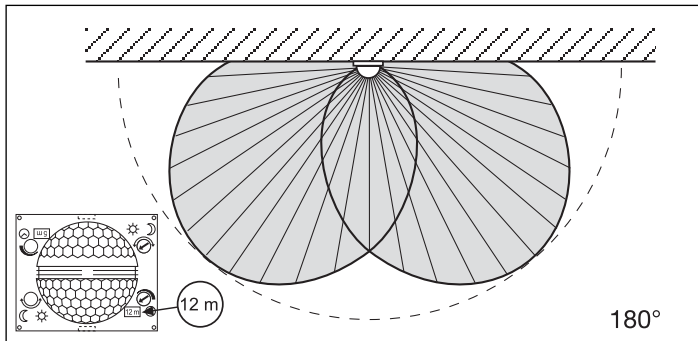
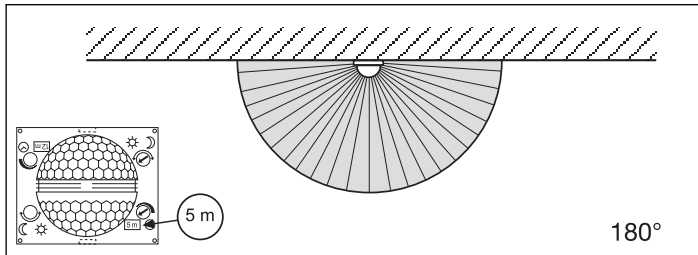
### Reach – basic settings



The sensor lens is divided into two detection zones. With one half, a max. reach of 5 m is achieved and with the other a max. reach of 12 m (for an installation height of approx. 2 m). After fitting the lens (press lens firmly into the channel provided) you will see the max. reach setting (12 m or 5 m) at the bottom right.

The lens can be released laterally from the catch with a screwdriver and reinserted according to the desired reach.

### Examples

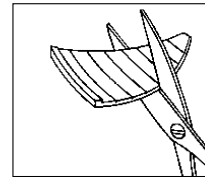


### Individual fine adjustment with shrouds

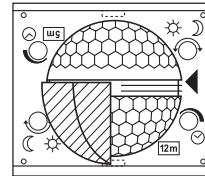
In order to exclude additional areas such as paths or neighbouring property or

to monitor these specifically, the detection zone can be adjusted precisely

by means of shrouds.



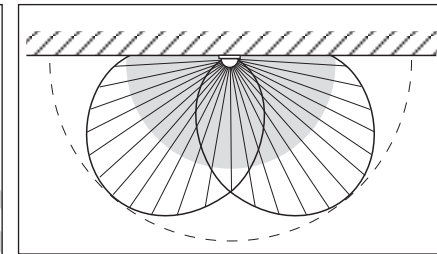
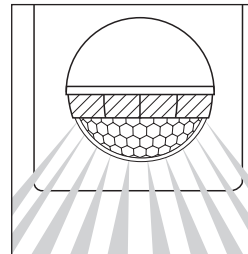
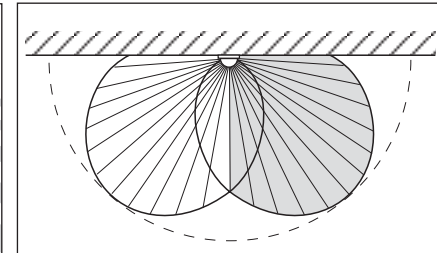
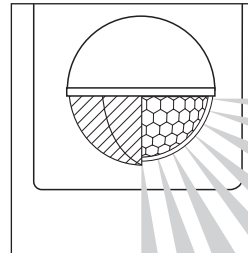
The shrouds can be separated along the pre-grooved divisions in the vertical or horizontal direction or cut with scissors.



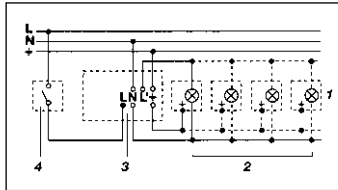
The shrouds can then be suspended in the upper notch in the middle of the lens and finally fixed in place by applying the decorative cover.

(Refer below: examples concerning reduction of angle of coverage and reduction of reach.)

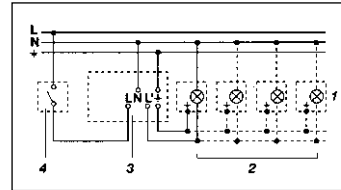
### Examples



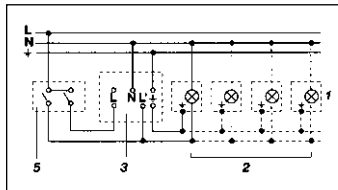
### Wiring examples



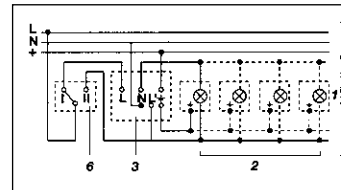
1. Fixture without neutral conductor



2. Fixture with neutral conductor



3. Connection via series switch for manual and automatic operation



4. Connection to double-throw switch for permanent light and automatic operation  
 Setting I: automatic operation  
 Setting II: manual operation for permanent light  
 Note: the unit cannot be switched off, only optional operation between settings I and II.

- 1) e.g. 1-4 x 100 W filament bulbs
- 2) Consumer, lighting max. 1000 W (refer to Technical specifications)
- 3) Sensor connection terminals
- 4) Indoor standard switch
- 5) Indoor series switch, manual, automatic
- 6) Indoor double-throw switch, automatic, permanent light

### Operation/Maintenance

The motion sensor is suitable for automatic switching of lights. The unit is not suitable for special burglary alarm systems, since it lacks the sabotage protection prescribed for this purpose. Weather can affect

operation of the sensor. Strong gusts of wind, snow, rain and hail can cause switching errors, since the sudden temperature fluctuations cannot be distinguished from heat sources. The detection lens can be

cleaned with a damp cloth (without detergents) if dirty.

### Troubleshooting

Malfunction	Cause	Remedy
Sensor without power	<ul style="list-style-type: none"> <li>■ Fuse has blown, not switched on</li> <li>■ Short circuit</li> </ul>	<ul style="list-style-type: none"> <li>■ Replace fuse, switch on mains switch, check wiring with voltage tester</li> <li>■ Check connections</li> </ul>
Sensor does not switch ON	<ul style="list-style-type: none"> <li>■ Light threshold in nighttime mode during daytime operation</li> <li>■ Bulb burnt out</li> <li>■ Mains switch OFF</li> <li>■ Fuse blown</li> <li>■ Detection zone not properly targeted</li> </ul>	<ul style="list-style-type: none"> <li>■ Adjust setting</li> <li>■ Replace light bulb</li> <li>■ Switch power on</li> <li>■ Replace fuse, check connection if necessary</li> <li>■ Recalibrate</li> </ul>
Sensor does not switch OFF	<ul style="list-style-type: none"> <li>■ Continued movement within the detection zone</li> <li>■ Switched on light is within detection zone and switches on again as a result of temperature change</li> <li>■ Set to continuous operation by indoor series switch</li> </ul>	<ul style="list-style-type: none"> <li>■ Check zone and readjust if necessary or apply shroud</li> <li>■ Readjust zone or apply shrouds</li> <li>■ Series switch to automatic</li> </ul>
Sensor keeps switching ON/OFF	<ul style="list-style-type: none"> <li>■ Switched on light is within detection zone</li> <li>■ Animals moving in detection zone</li> </ul>	<ul style="list-style-type: none"> <li>■ Adjust detection zone or apply shrouds, increase distance</li> <li>■ Adjust zone or apply shrouds</li> </ul>
Sensor switches on when it should not	<ul style="list-style-type: none"> <li>■ Wind is moving trees and bushes in the detection zone</li> <li>■ Cars in street are detected</li> <li>■ Sudden temperature changes due to weather (wind, rain, snow) or exhaust air from fans or open windows</li> </ul>	<ul style="list-style-type: none"> <li>■ Blank out areas with shrouds</li> <li>■ Blank out areas with shrouds</li> <li>■ Adjust detection zone or install in a different place</li> </ul>

**CE Declaration of conformity**

This product complies with the European Directive on Low-Voltage Appliances,

73/23/EEC and the EMC Directive 89/336/EEC.

**Functional Warranty**

This STEINEL product has been manufactured with great care, and its operation and safety have been tested in conformity with the current regulations. Production is also submitted to final random-sample testing.

The warranty period is 36 months, starting on the date of sale to the user. We undertake to remedy faults caused by material or manufacturing defects. This warranty undertaking shall be performed by the repair or replacement of the defective parts, at our own discretion.

This warranty shall not cover damage to wear parts or damage and faults caused by incorrect operation or maintenance. Breakage due to a fall is also not covered. Further consequential damage to external items is excluded.

Claims under warranty shall only be accepted if the product is sent fully assembled and well packed complete with sales slip or invoice (date of purchase and dealer's stamp) to the appropriate Service Centre or handed in to the dealer within the first 6 months.

Our Customer Service Department will repair faults not covered by warranty or after the warranty period. Please send the product well packed to your nearest Service Centre.

Repair Service:

**36 month**  
FUNCTIONAL  
WARRANTY

**F Instructions de montage**

Cher client,

Nous vous remercions de la confiance que vous avez témoignée à STEINEL en achetant ce détecteur à infrarouge. Vous avez choisi un article de très grande qualité, fabriqué, testé et conditionné avec le plus grand soin.

Avant de l'installer, veuillez lire attentivement ces instructions de montage. En effet, seules une installation et une mise en service correctement effectuées garantissent durablement un fonctionnement impeccable et fiable.

Nous souhaitons que votre nouvel appareil vous apporte entière satisfaction.

**Description de l'appareil**

- |   |   |  |
|---|---|--|
| <b>1</b> Vis de fixation  | <b>4</b> Réglage de crépuscularité 2–2000 lux | <b>6</b> Cran (le boîtier se relève pour permettre l'installation et le raccordement au secteur) |
| <b>2</b> Cache design   | <b>5</b> Temporisation 10 s–15 min            |  |
| <b>3</b> Lentille (amovible et pivotante pour choisir le réglage de base de portée de 5 m ou 12 m max.) |   |  |

**Caractéristiques techniques**

Dimensions:	(H x L x P) 120 x 76 x 55 mm
Puissance:	1000 W max. (charge ohmique, p. ex. lampe à incandescence) 500 W max. (non compensée, inductive, $\cos \varphi = 0,5$ , p. ex. lampes fluorescentes) 600 W max. (ballasts électroniques, capacitive, p. ex. lampes fluocompactes, 8 lampes max.)
Alimentation:	230–240 V, 50 Hz
Angle de détection:	180° à l'horizontale / 90° à la verticale
Portée du détecteur:	réglage de base 1: 5 m max. réglage de base 2: 12 m max. + réglage de précision par caches, de 1 à 12 m
Temporisation:	10 s–15 min
Réglage de crépuscularité:	2–2000 lux
Classe:	IP 54