(GB) Installation instructions

Dear Customer,

Congratulations on purchasing this STEINEL Infrared Sensor and thank you for the confidence you have shown in us. You have chosen a high-quality product that has been manufactured, tested and packed with the greatest care. Please familiarise yourself with these instructions before attempting to install the sensor since prolonged reliable and trouble-free operation will only be ensured if it is installed properly.

We hope your new Infrared Sensor will give you lasting satisfaction.

Principle (s. fig. page 2)

The integrated pyroelectric infrared detector senses the invisible heat radiated from moving objects (people, animals, etc.). The heat detected is electronically converted into a signal that switches on loads (e.g. a light) connected to it. Heat is not detected through obstacles, such as walls or panes of glass. Heat radiation of this type will, therefore, not trigger the sensor.

With a detection angle of 160° and a max. reach of 12 m the sensor watches over an area of approx. 165 m^2. If you only wish to cover a smaller area, reach may be reduced by tilting the sensor unit. Using the swivel mount supplied, the sensor unit can also be turned horizontally, making it possible to target the detection zone exactly as you choose. The detection angle can also be adjusted to suit individual requirements by fitting shrouds.

Important: the safest motion detection is obtained when the device is mounted and aligned laterally to the walking direction and no obstacles (such as trees and walls, for example) obstruct the view.

⚠ Safety warnings

- Disconnect the power before attempting any work on the motion detector.
- The electrical connection lead must be dead during installation. Therefore, switch off the power first and use a voltage tester to check that the power supply is disconnected.
- Installation of the sensor involves work on the mains power supply. This work must therefore be carried out professionally in accordance with the applicable wiring regulations and electrical operating conditions. ((D) - VDE 0100, (A) - ÖVE-EN 1, (CH) - SEV 1000).
- 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 diam-eter.

Installation (s. fig. page 3)

The site of installation should be at least 50 cm from a light because heat radiated from it may trigger the sensor unintentionally. To obtain the specified reach of 12 m, the sensor should be installed at a height of approx. 2 m. Please ob-serve the safety warnings on page 12.

Installation procedure:
1. Undo screws on housing [1] **2.** Do not detach wir-ing from terminal block, but gently pull entire terminal assembly, including sensor unit [2] (cylindrical section), to remove it.
3. Hold mounting plate [3] against wall/ceiling, mark drill holes, paying attention to wiring runs concealed in wall/ceiling. Drill holes, insert wall plugs (6 mm). **4.** Break open pre-punched cable entry holes as appropriate for concealed [4] or surface-mounted [5] installation, insert grommets, pierce and pass cable through.

Note: For surface-mounted wiring, it is recommended to install the swivel mount [6] (see below). Alternatively, the unit may be pierced at the thinner section to pass the cable through. **5.** Screw mounting plate [3] to wall.

6a) Connecting the mains lead
The mains lead consists of a 2-3 phase cable
L = phase conductor
N = neutral conductor
PE = protective-earth conductor (⏚)

If you are in any doubt, you must identify the cables using a voltage tester; then disconnect the power supply again.
The phase **(L)** and neutral conductor **(N)** are connected according to terminal assignment. The protective-earth conduct-or is connected to the earth terminal (⏚).
A mains switch for 'ON' and 'OFF' switching can of course be installed in the mains lead.

6b) Connecting the load supply lead
The load supply lead (e.g. light) is also a 2 to 3-core cable which is connected to terminals **N** and **L'**. The live conductor must be connected to the terminal marked **L'**.
Connect the neutral conductor to the terminal marked **N** together with the neutral conductor of the mains power supply lead. The protective-earth conductor is connected to the earth terminal (⏚).
7. Once wiring is completed, insert terminal block together with sensor unit [2] into mounting plate [3], fit housing cover [1] and secure in place with fastening screws.

Installation with swivel mount

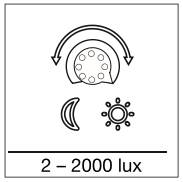
The swivel mount [6] allows you to turn the motion detector horizontally. This provides additional adjustment for the detection zone.
1. Press cupped pieces [7] out of swivel mount [6] provided with sensor unit.
2. Hold swivel mount [6] against wall and mark drill holes, drill the holes, insert wall plugs, pass cable through. Connect as described in „Installation".
3. Pass screws through cupped pieces [7] and secure swivel mount [6] in such a way that the screw head is positioned on the smooth side and the domed side rests against the mounting plate [3] (see diagram).

Functions

The system can be put into operation once the sensor has been connected and installed. Two setting controls are provided on the bottom of the unit.

Switch-off delay (time setting)

The chosen light 'ON' time can be varied continuously from approx. 8 sec. to a maximum of 35 min. The shortest period, approx. 8 sec., is selected by turning the control fully clockwise. The longest period, approx. 35 mins. is selected by turning the control fully anticlockwise. It is recommended to select the shortest time for adjusting the detection zone and for performing the walk test. Any movement in the detection zone will re-activate the time setting.



Twilight setting (response threshold)

The chosen detector response threshold can be adjusted continuously from approx. 2 lux to 2000 lux. Turning the control fully clockwise will select daytime operation at approx. 2000 lux. Turned fully anti-clockwise, the control is set to dusk-to-dawn operation at approx. 2 lux. When adjusting the detection zone and for the performance test in daylight, the adjusting screw must be turned fully clockwise.

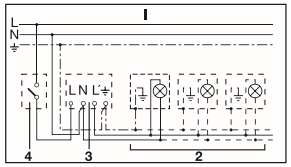
Reach adjustment (s. fig. page 4)

Reach can be reduced by tilting (70°) the sensor. The sensor can be turned horizontally through 40° (only with swivel mount) to align the detection zone in exactly the way you require.

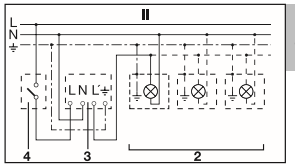
Precision adjustment using shrouds (s. fig. page 4)

The adhesive shrouds provided may be used to adjust the sensor's detection angle to suit individual requirements. This makes it possible, for example, to blank out neighbouring premises from detection or specifically target paths.

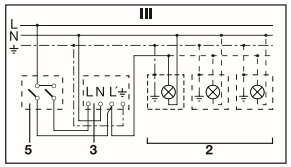
Wiring examples



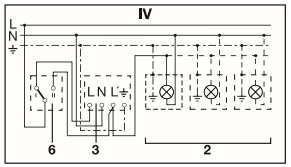
1. Light without neutral conductor



2. Light with neutral conductor



3. Connection using series switch for manual and automatic operation



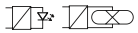
4. Connection to double-throw switch for permanent light 'ON' and automatic operation
Setting I: automatic operation
Setting II: manual operation for permanent light 'ON'
Important: the unit cannot be switched off, but operated only at settings I and II.

1) e.g. 1-4 x 100 W filament bulbs
2) Service load, light of 600 W max. (see Technical specifications)
3) IS 2160 connection terminals
4) Indoor switch
5) Indoor series switch, manual, automatic
6) Indoor double-throw switch, automatic, permanent light 'ON'

Operation/Maintenance

The Infrared Sensor is suitable for switching light 'on' and 'off' automatically. The unit is not suitable for special burglary alarm systems since it lacks the tampering protection prescribed for this purpose. Weather conditions may affect the way the motion detector works. Strong gusts of wind, snow, rain or hail may cause the light to come 'on' when it is not wanted because the sensor is unable to distinguish sudden changes of temperature from sources of heat. The detector lens may be cleaned with a damp cloth if it gets dirty (do not use cleaning agents).

Technical specifications

Dimensions:	(H x W x D) 113 x 78 x 73 mm
Output:	
	Incandescent lamps, 600 W max. at 230 V AC
	Fluorescent tube, 500 W max. at cos φ = 0.5, inductive load at 230 V AC
	4 x 58 W max., C ≤ 88 µF at 230 V AC *1)
Connection:	230 – 240 V, 50 Hz terminal block suitable for following supply leads: 3-core Ø 1.5 or 2.5 mm² or 5-core Ø 1.5 mm²
Angle of coverage:	160° with sneak-by guard
Pivoting range:	40° horizontal, 70° vertical
Reach:	12 m max.
Light threshold:	2 – 2000 lux
Time setting:	8 sec. – 35 min. (factory setting: 10 sec.)
Light threshold:	2 – 2000 lux (factory setting: 2000 lux)
Enclosure:	IP 54
Temperature range:	-20 °C to +50 °C

*1) Fluorescent lamps, low-energy lamps, LED lights with electronic ballast (total capacity of all ballasts connected below the level stated).

Troubleshooting

Malfunction	Cause	Remedy
Without power	■ Fuse blown, not switched 'ON'	■ Renew fuse, switch 'ON' mains power switch, check wiring with voltage tester
	■ Short circuit	■ Check connections
Does not switch 'ON'	■ Twilight setting in nighttime mode during daytime operation	■ Readjust
	■ Bulb blown	■ Replace bulb
	■ Mains switch 'OFF'	■ Switch 'ON'
	■ Fuse blown	■ Renew fuse, check connection if necessary
	■ Detection zone not properly targeted	■ Re-adjust

Malfunction	Cause	Remedy
Does not switch 'OFF'	■ Continued movement in detection zone	■ Check detection zone and re-adjust if necessary or fit shrouds
	■ Light is in detection zone and keeps switching on as a result of temperature change	■ Readjust zone
	■ Set to continuous operation by indoor series switch	■ Set series switch to automatic mode
Keeps switching 'ON'/'OFF'	■ Light is in detection zone	■ Change zone, increase distance, reduce output
	■ Animals moving in detection zone	■ Tilt sensor higher or apply specific shrouds, adjust detection zone or fit shrouds
Switches 'ON' when it should not	■ Wind is moving trees and bushes in the detection zone	■ Adjust detection zone or fit shrouds
	■ Cars in the street are being detected	■ Change detection zone, tilt sensor down
	■ Sudden temperature changes due to weather (wind, rain, snow) or air expelled from fans or open windows	■ Adjust detection zone or change site of installation
Reach modification	■ Change in ambient temperatures	■ When it is cold, shorten reach by tilting sensor down
		■ When it is hot, tilt sensor up

CE Declaration of conformity

This product complies with
- Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC

Functional Warranty

This STEINEL product has been manufactured with utmost care, tested for proper operation and safety and then subjected to random sample inspection. STEINEL guarantees that it is in perfect condition and proper working order.
The warranty period is 36 months commencing on the date of sale to the consumer. We shall remedy defects caused by material flaws or manufacturing faults. The warranty shall be met by repair or replacement of defective parts at our own discretion.

The warranty shall not cover damage to wear parts, damage or defects caused by improper treatment or maintenance.

Further consequential damage to other objects shall be 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.

Repair Service:
Please ask your nearest service centre how to proceed for repairing faults not covered by the warranty or occurring after the warranty expires.

FUNCTIONAL
36 month
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 optimal et fiable.

Nous souhaitons que votre nouveau détecteur à infrarouge vous apporte entière satisfaction.

Le principe (v. ill. page 2)

Le détecteur pyroélectrique intégré détecte le rayonnement de chaleur invisible émis par les corps en mouvement (personnes, animaux, etc.). Ce rayonnement de chaleur capté est ensuite traité par un système électronique qui met en marche l'appareil raccordé (p.ex. une lampe). Les obstacles comme les murs ou les vitres s'opposent à la détection du rayonnement de chaleur et empêchent toute commutation. Avec un angle de détection de 160° et une portée maximale de 12 mètre, le détecteur peut couvrir une surface d'environ 165 m². Pour ajuster la zone de détection, il est possible d'orienter le détecteur horizontalement et verticalement. Des caches enfichables permettent également de réduire l'angle de détection.
Important : la détection des mouvements est la plus fiable quand l'appareil est monté perpendiculairement au sens de passage et qu'aucun obstacle (arbre, mur, etc.) n'obstrue son champ visuel.

⚠ Consignes de sécurité

- Avant toute intervention sur le détecteur de mouvement, couper l'alimentation électrique !
- Pendant le montage, les conducteurs à raccorder doivent être hors tension. Il faut donc d'abord couper le courant et s'assurer de l'absence de courant à l'aide d'un testeur de tension.
- L'installation du détec-teur implique une intervention sur le réseau électrique et doit donc être effectuée correctement et conformément à la norme NF C-15100.
- Nota ou Remarque : le détecteur doit être protégé par un disjoncteur de protection de ligne 10 A. Le diamètre de la conduite secteur ne doit pas dépasser 10 mm.