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STEINEL®

PROFESSIONAL



Information
HF 3600

D Montageanleitung

Sehr geehrter Kunde,

vielen Dank für das Vertrauen, das Sie uns beim Kauf Ihres neuen STEINEL-Hochfrequenz-Sensors entgegengebracht haben. Sie haben sich für ein hochwertiges Qualitätsprodukt entschieden, dass mit

größter Sorgfalt produziert, getestet und verpackt wurde. Bitte machen Sie sich vor der Installation mit dieser Montageanleitung vertraut. Denn nur eine sachgerechte Installation und Inbetrieb-

nahme gewährleistet einen langen, zuverlässigen und störungsfreien Betrieb.

Wir wünschen Ihnen viel Freude an Ihrem neuen Sensor.

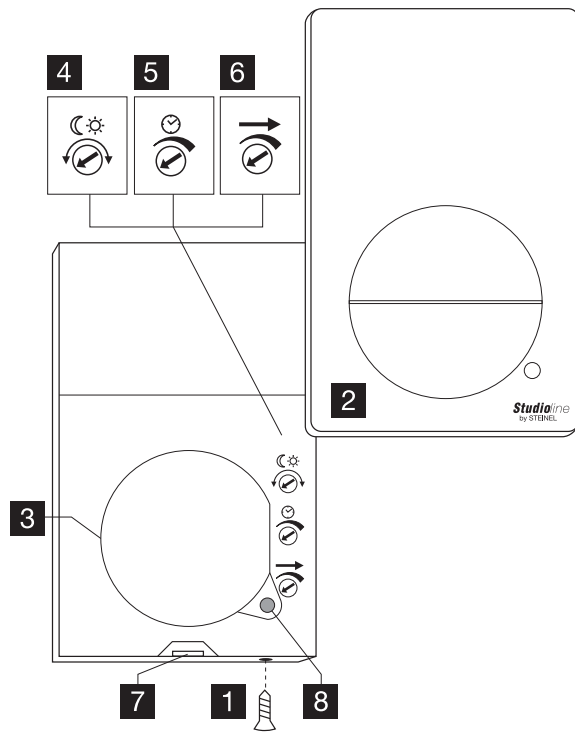
Gerätebeschreibung

- | | | |
|-----------------------------|--|--|
| 1 Sicherungsschraube | 4 Dämmerungseinstellung
2 – 2000 Lux | 7 Gehäuse zur Montage
und zum Netzanschluss
aufklappbar |
| 2 Designblende | 5 Zeiteinstellung
5 Sek. – 30 Min. | 8 Leuchtdiode (LED) |
| 3 HF-Sensor | 6 Reichweiteneinstellung
1 – 8 m | |

Technische Daten

Abmessungen (H x B x T):	120 x 77 x 42 mm
Leistung:	Glühlampen, max. 1000 W bei 230 V AC Leuchtstoffröhre, max. 500 W bei $\cos \phi = 0,5$, induktive Last bei 230 V AC 6 x max. $\dot{a}$ 58 W, $C \leq 132 \mu\text{F}$ bei 230 V AC ⁻¹⁾
Netzanschluss:	230 – 240 V/50 Hz
Einsatzort:	Im Innenbereich von Gebäuden
Sensorik:	5,8 Ghz Hochfrequenz
Sendeleistung:	ca. 1 mW
Erfassungswinkel:	360° mit 140° Öffnungswinkel ggf. durch Glas, Holz und Leichtbauwände
Reichweite:	1 – 8 m stufenlos einstellbar
Dämmerungseinstellung:	2 – 2000 Lux
Zeiteinstellung:	5 Sek. – 30 Min.
Dauerlicht:	schaltbar (4 Std.)
Schutzart:	IP 54

⁻¹⁾ Leuchtstofflampen, Energiesparlampen, LED-Leuchten mit elektronischem Vorschaltgerät (Gesamtkapazität aller angeschlossenen Vorschaltgeräte unter dem angegebenen Wert).



Betrieb/Pflege

Der Sensor eignet sich zur automatischen Schaltung von Licht. Für spezielle Einbruchalarmanlagen ist

das Gerät nicht geeignet, da die hierfür vorgeschriebene Sabotagesicherheit fehlt. Die Oberfläche sollte

bei Verschmutzung mit einem feuchten Tuch (ohne Reinigungsmittel) gesäubert werden.

CE Konformitätserklärung

Dieses Produkt erfüllt die:

- Niederspannungsrichtlinie 2006/95/EG
- EMV-Richtlinie 2004/108/EG
- RoHS-Richtlinie 2011/65/EG
- R&TTE-Richtlinie 1999/05/EG
- WEEE-Richtlinie 2012/19/EG.

Garantieerklärung

Als Käufer stehen Ihnen die gesetzlich vorgeschriebenen Rechte gegen den Verkäufer zu. Soweit diese Rechte in Ihrem Land existieren, werden sie durch unsere Garantieerklärung weder verkürzt noch eingeschränkt. Wir geben Ihnen 5 Jahre Garantie auf die einwandfreie Beschaffenheit und ordnungsgemäße Funktion Ihres STEINEL Professional-Sensorproduktes. Wir garantieren, dass dieses Produkt frei von Material-, Herstellungs- und Konstruktionsfehlern ist. Wir garantieren die Funktionstüchtigkeit aller elektronischen Bauteile und Kabel, sowie die Mangelfreiheit aller eingesetzten Werkstoffe und deren Oberflächen.

Geltendmachung

Wenn Sie Ihr Produkt reklamieren wollen, senden Sie es bitte vollständig und frachtfrei mit dem Original-Kaufbeleg, der die Angabe des Kaufdatums und der Produktbezeichnung enthalten muss, an Ihren Händler oder direkt an uns, die **STEINEL Vertrieb GmbH - Reklamationsabteilung - Dieselstraße 80-84, 33442 Herzebrock-Clarholz**. Wir empfehlen Ihnen daher Ihren Kaufbeleg bis zum Ablauf der Garantiezeit sorgfältig aufzubewahren. Für Transportkosten und -risiken im Rahmen der Rücksendung übernimmt STEINEL keine Haftung.

Informationen zur Geltendmachung eines Garantiefalles erhalten Sie auf unserer Homepage www.steinel-professional.de/garantie

Wenn Sie einen Garantiefall haben oder eine Frage zu Ihrem Produkt besteht, können Sie uns jederzeit gerne unter der **Service-Hotline +49 (0) 52 45 / 448 - 188** anrufen.

FUNKTIONEN

5 Jahre

GARANTIE

GB Installation instructions

Dear customer,

Congratulations on purchasing your new STEINEL High Frequency Sensor and thank you for the confidence you have shown in us. You have decided on a high quality product, pro-

duced, tested and packed with great care. Please make yourself familiar with these installation instructions before installation. Since only proper installation and commissioning

guarantee long, reliable and trouble-free operation.

We hope your new Sensor will give you lasting satisfaction.

System components

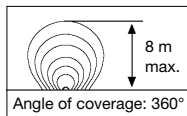
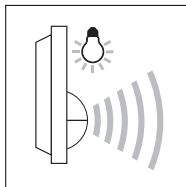
- | | | |
|-----------------------|---|---|
| 1 Safety screw | 4 Twilight setting
2 – 2000 lux | 7 Housing foldable for installation and mains connection |
| 2 Design cover | 5 Time setting
5 sec. – 30 min. | 8 Light-emitting diode (LED) |
| 3 HF sensor | 6 Reach adjustment
1 – 8 m | |

Technical specifications

Dimensions (H x W x D):	120 x 77 x 42 mm
Output:	
	Filament bulbs, 1000 W max., operating on 230 V AC
	Fluorescent lamp, 500 W max., at cos φ = 0.5, inductive load at 230 V AC
	6 x 58 W each max., C ≤ 132 μF operating on 230 V AC ¹⁾
Connection:	230-240V/50Hz
Installation site:	inside buildings
Sensor technology:	5.8 GHz high frequency
Transmission output:	approx. 1 mW
Angle of coverage:	360° with 140° angle of aperture through glass, wood and lightweight walls if required
Reach:	1 – 8 m continuously adjustable
Twilight setting:	2 – 2000 lux
Time setting:	5 sec. – 30 min.
Permanent light:	switchable (4 h)
Enclosure:	IP 54

¹⁾ Fluorescent lamps, low-energy bulbs, LED lights with electronic ballast (total capacity of all connected ballasts below the value specified).

Principle



The HF 3600 is an active motion detector and reacts – depending on temperature – to the slightest movements. The integrated

HF sensor emits high-frequency electromagnetic waves (5.8 GHz) and receives their echo. In response to the slightest movement in the detection zone, the change in echo is perceived by the sensor. A microprocessor subsequently triggers almost without delay the switching command "light on". Detection is possible through doors, panes of glass or thin walls.

⚠ Safety instructions

- Disconnect the power supply before any work on the sensor!
- 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; it must therefore be performed correctly according to the conventional installation regulations and connection conditions.
- 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.

Installation/wall installation

Installation procedure:

1. Remove design cover ②.
2. Fold up installation housing ⑦.
3. Mark drilling holes.
4. Drill holes and insert dowels (6 mm).
5. Pierce wall for cable runs as required for surface-mounted or flush cabling and screw on housing.

6. Feed through cable of the mains and consumer lead and connect. Use sealing plugs for surface-mounted cabling.

a) Connection of the mains lead

The mains lead consists of a 2 to 3-lead cable:

L = phase
N = neutral conductor
PE = protective-earth conductor

If in doubt, the cables must be identified with a voltage tester; subsequently switch off the current again.

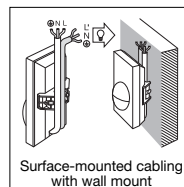
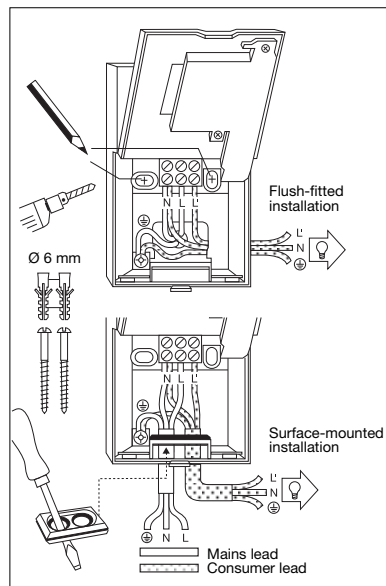
The phase (**L**) and neutral conductor (**N**) are connected according to terminal assignment. The protective-earth conductor is connected to the earth terminal (⊕). A mains switch for on and off switching can of course be installed in the mains lead. This is a prerequisite for the permanent light function (refer to Functions section).

b) Connection of the consumer lead

The consumer lead to the light also consists of a 2 to 3-lead cable. The phase conductor of the light is installed in the terminal marked **L'**. The neutral conductor is connected with the neutral lead of the mains lead to the terminal marked **N**. The protective-earth conductor is connected to the earth terminal.

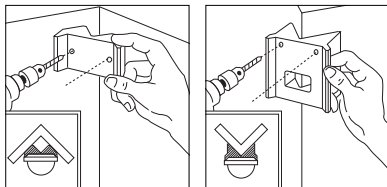
Important: Reversing the connections may result in damage to the unit.

7. Close the housing again.
8. Perform twilight setting ④, time ⑤ and reach ⑥ setting (refer to Functions section).
9. Apply design cover ② and secure with the safety screw ① against unauthorised removal.



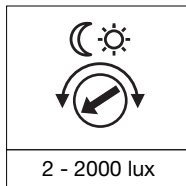
Note: The inside wall mount can also be used for wall installation. The cables can therefore be fed conveniently from above behind the device and through the opening of the surface-mounted cabling.

Installation of corner wall mount



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

Functions



Twilight setting (Response threshold)

The desired response threshold of the sensor can be continuously adjusted from approx. 2 lux to 2000 lux. Adjusting screw right stop position means: daylight operation approx. 2000 lux (factory setting). Adjusting

screw left stop position means: nighttime operation approx. 2 lux. When adjusting the detection zone and for the performance test in daylight, the adjusting screw must be set to the right stop position.

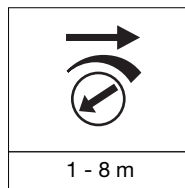


Time setting (Switch-off delay)

The desired illumination time of the connected light can be continuously adjusted from approx. 5 sec. to max. 30 min. Adjusting screw left stop position means: shortest time approx. 5 sec. (factory setting). Adjusting screw right stop position means: longest time approx. 30 min. The timer is started again by any motion detected before this time elapses.

During adjustment of the detection zone and for the performance test, it is recommended to set the shortest time.

Note: After every off switching, further motion detection is interrupted for approx. 2 seconds. Only after this time elapses can the SensorSwitch switch on light again in response to motion.



Reach adjustment (Sensitivity)

The desired reach of the sensor can be continuously adjusted from approx. 1 m to the maximum reach of approx. 8 m. Adjusting screw left stop position

means: minimum reach (approx. 1 m / factory setting). Adjusting screw right stop position means: maximum reach (approx. 8 m).

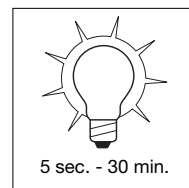
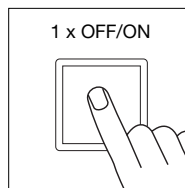
Additional functions by a mains switch

If a mains switch is installed in the supply lead, the following functions are possible in addition to merely

switching ON and OFF of the connected light.

Important: The switch should be operated in rapid succession (in the range 0.5 - 1 sec.).

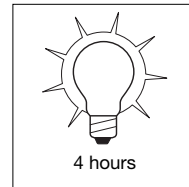
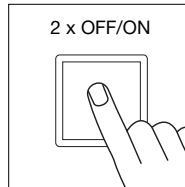
Sensor operation



1) Switch on the light: Switch 1 x OFF/ON. The light remains on for the set time.

2) Switch off the light: Switch 1 x OFF and ON. The connected light goes out, or after 15 sec. transfers to sensor mode.

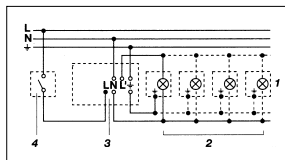
Permanent light



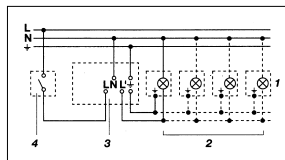
1) Switch on the light: Switch 2 x OFF and ON. The light is set to permanent light for 4 hours (red LED illuminates behind the lens). It subsequently returns automatically to sensor mode (red LED off).

2) Switch off light: Switch 1 x OFF and ON. The light goes out, or after 15 sec. transfers to sensor mode.

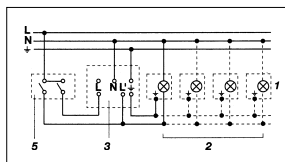
Wiring examples



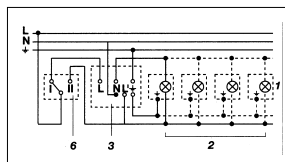
1. Light without neutral lead



2. Light with neutral lead



3. Connection via series switch for manual and automatic operation



4. Connection by a double-throw switch for permanent light and automatic mode

Setting I: automatic operation
Setting II: manual operation for permanent light
Important: the unit cannot be switched off, only optional operation between settings I and II.

- 1) e.g. 1-4 x 100-W incandescent lamps
- 2) consumer, lighting max. 1000 W (refer to Technical specifications)
- 3) sensor connection terminals
- 4) indoor switch
- 5) indoor series switch, manual, automatic
- 6) indoor double-throw switch, automatic, permanent light

Troubleshooting

Malfunction	Cause	Remedy
Sensor without power	■ Fuse blown, not switched ON ■ Short circuit ■ Additional double-throw switch OFF ■ Fuse blown	■ Replace fuse, switch ON mains switch, check lead with voltage tester ■ Check connections ■ Switch ON ■ Replace fuse, check connection if required
Sensor does not switch ON	■ Bulb blown ■ Twilight setting in night-time mode during day-time operation ■ Additional double-throw switch OFF ■ Fuse blown	■ Replace bulb ■ Readjust ■ Switch ON ■ Replace fuse, check connection if required
Sensor does not switch OFF	■ Continued movement in detection zone ■ Permanent light ON (red LED illuminates) ■ Further sensor switched in parallel and still active	■ Check area ■ Switch off permanent light ■ Wait for expiry of time setting of the other sensor
Sensor Switch keeps switching ON/OFF	■ Curtains, flowers, etc. moving in the detection zone of the sensor and switches again by motion	■ Check area

Operation/Maintenance

The Sensor is suitable for switching on a light automatically. The unit is not suitable for special burglary

alarm systems, since it lacks the sabotage protection prescribed for this purpose. The surface can

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

CE Declaration of conformity

This product complies with

- Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- RoHS Directive 2011/65/EC
- R&TTE Directive 1999/05/EC
- WEEE Directive 2012/19/EC.

Declaration of Guarantee

All rights are based on our guarantee period. We guarantee that your STEINEL Professional sensor product will remain in perfect condition and proper working order for a period of 5 years. We guarantee that this product is free from material, manufacturing and design flaws. In addition, we guarantee that all electronic components and cables function in the proper manner and that all materials used and their surfaces are without defects.

Making Claims

If you wish to make a claim, please send your product complete and carriage paid with the original receipt of purchase, which must show the date of purchase and the product designation, either to your retailer or directly to us at **STEINEL (UK) Limited, 25 Manasty Road, Axis Park, Orton Southgate, Peterborough, PE2 6UP**. For this reason, we recommend that you keep your receipt of purchase in a safe place until the guarantee period expires. STEINEL shall assume no liability for the costs or risks involved in returning a product.

For information on making claims under the terms of the guarantee, please go to www.steinel-professional.de/garantie

If you have a guarantee claim or would like to ask any question regarding your product, you are welcome to call us at any time on our service hotline 0173 366700.

FUNCTIONAL

5 Year

WARRANTY

CZ Montážní návod

Vážení zákazníci,

děkujeme vám za důvěru, kterou jste nám projevili zakoupením svého nového vysokofrekvenčního senzoru značky STEINEL. Rozhodli jste se pro vysoce kvalitní produkt, který

byl vyroben, testován a zabalen s největší možnou pečlivostí. Před instalací se, prosím, seznámte s tímto montážním návodem. Pouze odborně provedená instalace a zprovoznění

ní totiž zaručí dlouhý, spolehlivý a bezporuchový provoz.

Přejeme vám, abyste byl s novým senzorem naprosto spokojen.

Popis přístroje

- | | | |
|-------------------------|--|---|
| 1 Pojistný šroub | 4 Soumrakové nastavení
2 – 2000 lx | 7 Těleso k montáži
a síťovému připojení
lze odklopit |
| 2 Tvarová clona | 5 Časové nastavení
5 s – 30 min. | 8 Svítící dioda (LED) |
| 3 VF senzor | 6 Nastavení dosahu
1 – 8 m | |

Technické parametry

Rozměry (vxšxh):	120 x 77 x 42 mm
Výkon:	žárovky, max. 1000 W při 230 V AC osvětlovací trubice, max. 500 W příp. $\cos \varphi = 0,5$, induktivní zatížení při 230 V AC
	6 x max. po 58 W, C ≤132 µF při 230 V AC ^{*)}
Připojení k elektrické síti:	230 – 240 V/50 Hz
Místo instalace:	v interiéru budov
Senzorika:	5,8 Ghz vysoký kmitočet
Vysílací výkon:	asi 1 mW
Úhel záhytu:	360° s úhlem otevření 140° eventuálně přes sklo, dřevo a stěny lehkých staveb
Dosah:	1 – 8 m plynule nastavitelný
Soumrakové nastavení:	2 – 2000 lx
Časové nastavení:	5 s – 30 min.
Trvalé osvětlení:	spinatelné (4 hod.)
Krytí:	IP 54

^{*)} Žárovky, úsporné žárovky, LED lampy s elektronickým předřadným zařízením (celková kapacita všech připojených předřadných zařízení pod uvedenou hodnotou).