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7216900 Technische

# Infrarot-Sensor **Typ 300**



(GB) **Operating instructions** 

(F)Mode d'emploi

(NL) Gebruiksaanwijzing

(1)Instruzioni per l'uso

(E) Instrucciones de montaje

(s) Bruksanvisning

OK) Brugsanvisning

(FIN) Käyttöohje

(N)Bruksanvisning



# (Ankara)

# (B) Installation instructions

STEINEL infrared sensors form the basis for modern efficient crime deterrents. They switch light on automatically on sensing movement within their detection zone and therefore provide convenience and safety, while making economical use of energy. With a total of three integrated pyro sensors, the IS 300 motion detector records the heat and infrared radiation of moving bodies (people, animals, etc.) which is invisible to the human eye, within its detection zone. The recorded heat radiation is converted electronically and one or several connected consumers, e.g. linkts, are switched on or off again after a pre-programmed time on leaving the detection zone. No heat radiation is detected through obstacles, such as walls or glass and no switching therefore occurs. The IS 300 achieves an angle of coverage of 300° with an angle of aperture of 180°. It therefore covers a detection zone of approx. 300 m<sup>2</sup>.



# Reach

IS 300



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.

# Installation IS 300



# Wall mounting

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. The installation height should be approx. 2 m. Unscrew the fastening screw counterclockwise with a screwdriver, slide down the mounting plate and remove it. Insert the rubber plugs into the mounting plate. Hold the mounting plate against the wall and mark the drill holes (paying attention to the wiring arrangement in the wall), drill the holes and insert the dowels

In order to be able to perform a switching operation, a power supply lead with at least two phases must run to the unit and a second lead out to the consumer. The two rubber plugs can be pierced for this purpose with a screwdriver. Two lugs are provided on the bottom of the wall fastener for surface wiring. These can be snapped off easily. After passing the wiring through, the mounting plate can be screwed in place.

# Connection of the leads: The mains and consumer leads consist of a 2 to 3 con-

- ductor cable: L, L<sup>4</sup> = live conductor or switched phase to the consumer (usually black or brown)
  - neutral conductor (usually blue)
- PE = protective-earth conductor,

if present (⊕) If in doubt, the conductors must be identified with a voltage tester. Switch off the current again. Wring of the mains and consumer conductors must be performed in the wall holder using the enclosed connecting terminats: 1. The live conductor is inserted in the first terminal (L). 2. Both neutral conductors (M) of the mains and con-

sumer leads are inserted into the second terminal. 3. The switched phase to the

consumer (L') is inserted into the third terminal.

 Green/yellow protectiveearth conductors (⊕) must be inserted together into the fourth terminal. In order to identify the flexible leads, the enclosed sticker (⊕) must be applied to one of the leads (areen/yellow).

# Connection of the IS 300: The connecting leads of the IS 300 are to be inserted into the connecting terminals according to the marking on the leads (L = black, N = blue, L' = brown).

Important: Getting the cable connections crossed will produce a short circuit in the unit or in your fuse box. In this case, you must once again identify the individual wires and reconnect them. A mains switch for ON and OFF switching can of course be installed in the mains lead.

# Function

After the motion detector has been connected and fastened to its wall mount, the system can be switched on.

as Two setting options are available after removing the decorative ring.

# Reach setting/adjustment

Assuming an installation height of 2 m, the maximum reach of the sensor is 12 m. Optimum adjustment of the detection zone is possible according to needs. The shrouds provided serve to cover any desired number of lens segments and individually reduce the reach. Fine adjustment is also possible by turning the sensor housing by ± 80° (**3**). The shrouds can be divided vertically or horizontally along the grooved divisions, or cut with scissors **3**. After removing the decorative ring **6**, the shrouds are to be suspended on the upper part of the sensor lens. The decorative ring is subsequently to be reapplied and the shrouds are fixed firmly in place. False switching by cars and pedestrians, etc. is therefore ruled out, or risk areas deliberately monitored.



# Switch-off delay (time setting)

The desired period of operation of the light 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. (Factory setting is at min.).

The shortest time setting is at min.). The shortest time setting is recommended when adjusting the detection zone and performing a functional test. 80°

Α



# 2 - 2000 lux

# Twilight setting

The desired motion detector 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 daytime operation of approx. 2000 lux.

When the adjustment screw is at the right stop position, this means twilight operation of approx. 2 lux.

This motion detector is equipped with integrated anti-dazzle protection and account should be taken of the following:

If the performance test is conducted in daylight, the twilight setting screw can be set to night operation. There must be no motion in the detection zone within the set illumination time and 60 seconds thereafter, otherwise the light will remain illuminated.

The same procedure should be followed for any modification of the set twilight threshold.

(Factory setting is daytime operation.)

The adjustment screw must be at the left stop position when setting the detection zone and for the functional test in daylight.

# Reach setting/examples





# **Reach setting/examples**





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1. Fixture without neutral conductor



3. Connection via series switch for manual and automatic operation

# 2. Fixture with neutral conductor



4. Connection to double-throw switch for permanent light and automatic operation 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 filament bulbs

- 2) consumer, lighting max. 2000 W (refer to Technical specifications) 3) IS 300 connection terminals

4) indoor 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 or alarms. The unit is not suitable for special burglarv 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

changes cannot be distinguished from heat sources. The detection lens can be cleaned with a damp cloth (without detergents) if dirty.

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# Troubleshooting

Malfunction	Cause	Remedy
IS 300 without power	Fuse has blown; not switched ON	Replace fuse, switch on mains switch, check wiring with voltage tester
	Short circuit	Check connections
IS 300 does not switch ON	Twilight setting in nighttime mode during davtime operation	Readjust
	Bulb burnt out Mains switch OFF Fuse blown	<ul> <li>Replace light bulb</li> <li>Switch power on</li> <li>Replace fuse, check</li> <li>Replace fuse, if paperson</li> </ul>
	<ul> <li>Detection zone not correctly adjusted</li> </ul>	<ul> <li>Readjust</li> </ul>
IS 300 does not switch OFF	Continued movement within the detection zone Switched on light is within detection zone and switches on again as a result of temperature change	<ul> <li>Check zone and readjust if necessary or apply shroud</li> <li>Readjust zone or apply shroud</li> </ul>
	Set to continuous operation by indoor series switch	Series switch to automatic
IS 300 keeps switching ON/OFF	Switched on light is within detection zone	Adjust detection zone or apply shrouds, increase distance
	Animals moving in detection zone	Adjust detection zone or apply shrouds
IS 300 switches on when it should not	Wind is moving trees and bushes in the detection zone	Adjust detection zone or apply shrouds
	Cars in the street are detected Sudden temperature changes due to weather (wind, rain, snow) or exhaust air from fans or open windows	<ul> <li>Adjust detection zone or apply shrouds</li> <li>Adjust detection zone or install in a different place</li> </ul>

# **Technical specifications**

Dimensions (H x W x D):	90 x 60 x 100 mm
Output:	<ul> <li>max. 2000 W (ohmic load, e.g. filament bulb)</li> <li>max. 1000 W (uncorrected, inductive, cos φ = 0.5, e.g. fluorescent lamps)</li> <li>max. 1800 W (series corrected)</li> <li>max. 500 W (parallel corrected with C = 45.6 μF)</li> <li>max. 1000 W (electronic ballast, capacitive, e.g. energy-saving lamps, max. 12 (tems)</li> </ul>
Connection:	230 – 240 V, 50 Hz
Angle of coverage:	300° with 180° angle of aperture
Pivoting range of the sensor:	Fine adjustment ± 80°
Reach:	max. 12 m (electronically stabilised)
Time setting:	10 sec. – 15 min.
Twilight setting:	2–2000 lux
Type of enclosure:	IP 54

# C€ 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.



STEINEL undertakes the guarantee for perfect condition and function. 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 wearing 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.

Repair Service: 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.