STEINEL® German Quality PROFESSIONAL

GB

Intelligent Lighting for Professionals.

Presence Detectors

Motion Detectors

Practical SensorLights

Product Overview

Motion Detectors
Indoors and Outdoors

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Presence Detectors
Control PRO System
Indoors

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SensorLights
Indoors *

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	HF-SensorLights RS PRO					Information	HF-SensorLights		
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Outdoors*

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IMPULSER
Indoors and Outdoors

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		Presence Control PRO IR Quattro Impulser	IS-FS 300	RC 400	XLed-FE 10	XLed-FE 25	HS-FE 150	HS-FE 500	FE 8100

54 IS 2180-5
56 IS 2180-2
58 HF 3600
60 IS 300
62 IS D360
64 IS 2160 ECO

Photoelectric Lighting Controller

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Presence detectors
LuxMaster
Indoors

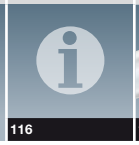
Infrared

110 BLS
110 BLS D
110 BLS DF
110 BLS T

STEINEL PROLog and RELUX

Page 16/18 PROLog, RELUX

Information



116

HF-SensorLights RS PRO

132 RS PRO 5000 Sensor
132 RS PRO 5000 Slave
132 RS PRO 5002 Sensor with LED
132 RS PRO 5002 Slave with LED
132 RS PRO 5200 Sensor
132 RS PRO 5200 Slave
132 RS PRO 5100 Sensor
132 RS PRO 5100 Slave

148 BRS 83
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148 BRS 80 P with power socket
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* You will find decorative indoor SensorLights in the separate "Style" catalogue

* You will find decorative outdoor SensorLights in the separate "Style" catalogue

Transceivers

183 FE 8200
183 MF 1
183 RS PRO 1000, 2000 + MF 1
183 sensIQ + MF 1

Remote control (optional)

Developed by Steinel – that was true of the first SensorLight back in 1987 as it is today of the widest range of sensor technologies and products.

STEINEL Professional
Whether the invention of the SensorLight back then or today's well-established high-frequency sensor systems – our profound expertise evolved over time and systematically moved forward is second to none. We are the full-line supplier of automated, efficient lighting control systems. Idea and expertise have been going hand in hand for over 50 years to make sensor and lighting technology from Steinel the No. 1 one choice for electrical fitters in all room situations.

Solutions for professional needs
STEINEL Professional is the roof under which we bring together the full range of sensor technologies for professional requirements. We develop products and technologies for specific lighting situations. Easy to follow, clearly structured operating concepts and straightforward assembly form the cornerstones of our product ranges.
These provide everyone working with our products on a daily basis with the equipment they need to meet any lighting task in the best possible way.

Intelligent flexibility
We combine energy efficiency with convenience and optimise the solution by perfecting the way consumption is matched to actual demand.
We call this "ecological intelligence".
And it pays in every respect: The user saves time and money – our products take care of the rest all by themselves.

STEINEL Professional.
Intelligent Lighting for Professionals.

PORTRAIT

Contents

You will find further decorative SensorLights for indoors and outdoors in our separate "Style" catalogue.

Philosophy

To be and remain technology leader, we set the benchmark in technology, design, planning, calculation and realisation in close dialogue with the electrical installation trade.

From the idea to service
Being the No. 1 technologically – that's what drives us. STEINEL Professional is, has always been and will remain the driving force in sensor technology. In addition to pure functionality, we push forward design, planning, calculation, technical implementation and quality of service. That's how we understand a professional partnership for intelligent lighting.

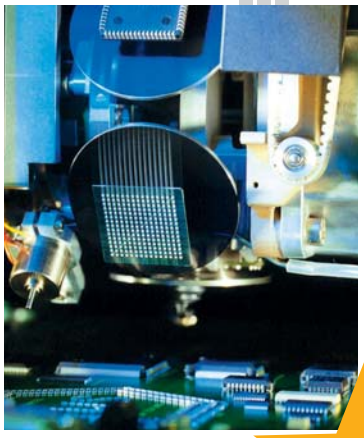
We work with the experts
We develop and optimise our products by communicating and co-operating with the electrical and specialist retail trade. With STEINEL Professional, this not only means continuous technical advances are put to the test every day but also our customer focus.

Realising visions
Energy efficiency, i.e. easing the burden on ecological resources, is the aim of everything we develop. It is on this basis that products of world renown are manufactured at five locations in Europe. They prove that research and development in tune with the world create trendsetting solutions. STEINEL Professional optimises techniques and technologies to achieve and ensure energy efficiency, precision, reliability and long service life.

PROFESSION

German Quality made in Europe

Herzebrock-Clarholz/D
Leipzig-Mölkau/D
Liberec/CZ
Einsiedeln/CH
Curtea de Arges/RO



AL

Quality: Professionality from A – Z

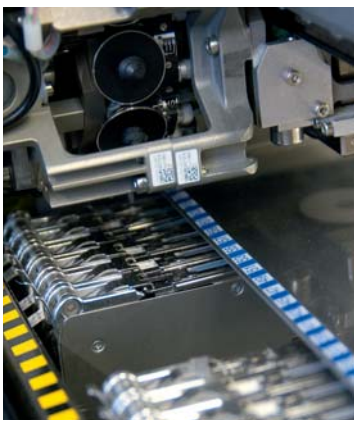
Development, manufacturing, testing and training is all done by us: "German Quality made in Europe" – that's what the STEINEL Professional name stands for.

Germany quality – made in Europe
From A to Z, STEINEL Professional does everything itself: with 1,200 members of staff, its own team of over 70 physicists, engineers and electronics experts, its own development laboratories in Switzerland and in Germany. The result is a uniquely broad range of technologies for controlling and automating lighting in line with demand.

This brand quality is ensured by
- our own precision manufacturing facilities at five locations in Europe
- doing our own research and development
- making our own tools and prototypes
- producing our own electronics, plastics and injection mouldings
- providing our own warehousing logistics from picking to worldwide shipment
- operating our own training centre
- providing support from our own sales representatives and service hot line

Consistent in technology and design
As a full-line supplier operating across the globe, we work with a certified quality management system and quality standard that covers all relevant – national and international – guidelines: our products comply with the latest safety regulations and constantly receive all the important marks of approval. Every product must prove its suitability for everyday use in endurance trials and test series. Once it does, it goes into mass production. We also meet this high quality standard in terms of design. All STEINEL Professional products speak a design language that has attracted numerous international awards.

QUALITY



DESIGNPREIS 2007
NOMINIERT

product design award 2006

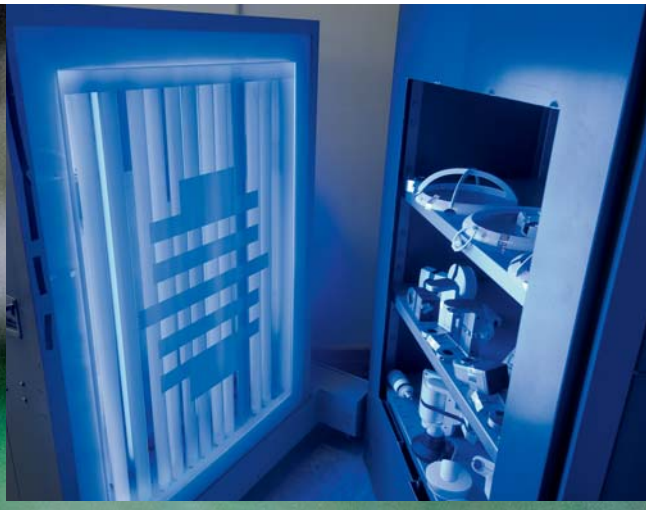
PLUS X AWARD®
achieved for:
Innovation
Design
Ease of use
Ecology

DVE

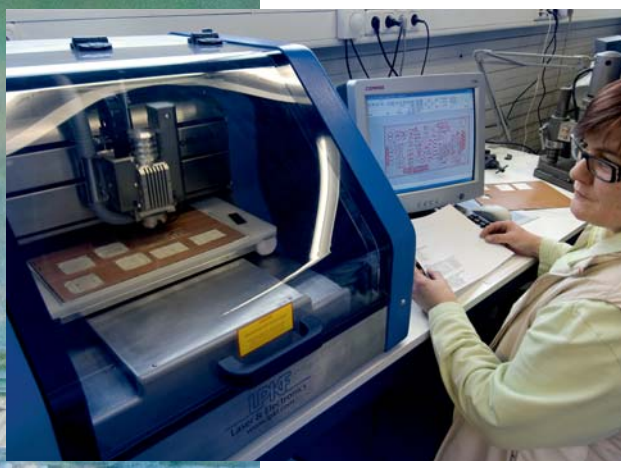
EN 10

Quality: Professionality from A – Z

PRECISION

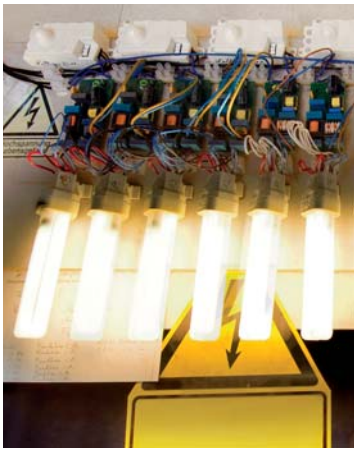


Designing, planning, manufacturing, testing: Our plants are hives of intense activity during the various phases of product development.



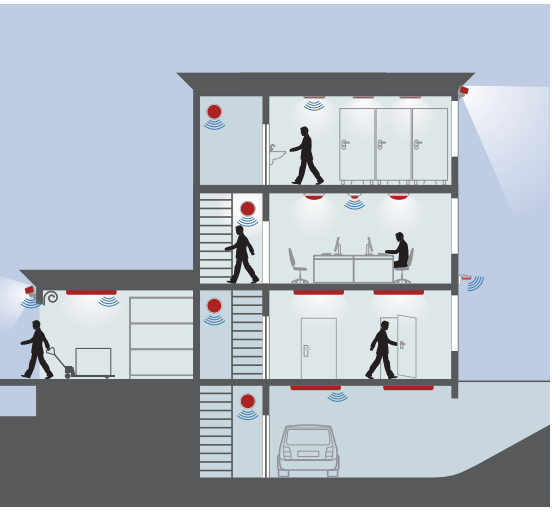
Quality: Professionality from A – Z

PRODUCTION



Whether planning and designing, manufacturing our products or training our staff and customers – we do the producing, developing, researching and training from A to Z all by ourselves.

Our Mission: Energy Efficiency



Light that comes 'ON' automatically, reliably recognising with precision in any room situation when it's needed and when it's not – that's what we understand our job to be.

Being there is enough
Just imagine you can match energy consumption solely and exactly to the lighting that's actually demanded. This means maximum energy efficiency in providing light.

"Consumption equals demand", for example, is the optimising formula for

- office rooms and complexes
- hotels
- public buildings
- classrooms and conference rooms
- stairwells and corridors
- WCs and bathrooms
- factory sites and outdoor facilities

… and everything else takes care of itself
Minimising the use of energy, CO_2 emission and costs is founded on the logical principle or avoiding wastage. The idea behind this is as simple as it is ingenious: Light that automatically recognises in any situation when it's needed and when it isn't. Lighting geared exactly to requirements provides safety, security and a good measure of convenience even on a small scale. On a large scale, it gives you systematic lighting control, minimising energy costs.

A range for every situation – compromising on nothing:
Fit new buildings and refurbishment projects with sensitive motion or presence detectors from STEINEL Professional. And benefit from first-class sensors and lights for every situation – as an individual solution or an all-inclusive one. Saving energy and adding convenience is the fruit of our work.

Light only when it's needed - all automatically.
Because light that's not needed is energy wasted

ENERGY EFF

ICIENCY

STEINEL PROLog – for a sound prediction of potential savings

PROLog

With STEINEL Professional, you don't have to estimate the savings sensor technology can provide in a building any more. We simply measure the energy that's wasted and calculate the saving for the case in hand. You are provided with a true and objective basis for optimising the way lighting is controlled.

Be sceptical about dubious blanket statements on huge saving percentages in connection with lighting automation – or about jaw-dropping example calculations. With our PROLog and PROLog software, we can provide you with an instrument that is capable of working out definite and actual potential savings quickly, easily and accurately. Together with us, you can significantly bring down energy consumption, energy costs and CO_2 emissions. Saying to what extent is only possible on a case-to-case basis.

Our technology avoids wastage: To begin with, usage profiles typical for a room can provide the basis for a rough estimate. To obtain a definite prediction of the energy, lighting and service costs that can be saved in a specific building, it is necessary to record room usage and light conditions there over a period of approximately 2–4 weeks. We can also produce a cost and CO_2 emission forecast for your building based on the use of STEINEL Professional sensor products. May sound complicated, but it isn't.

Operating independently of the mains power supply, STEINEL PROLog is a measuring instrument that is positioned extremely easily and unobtrusively below the ceiling at various important points in a building. It records approximately 400,000 measurement readings of actual usage and lighting over a period of 4 weeks. The data measured are then entered in coded form into our PROLog software. Now we know for a fact:

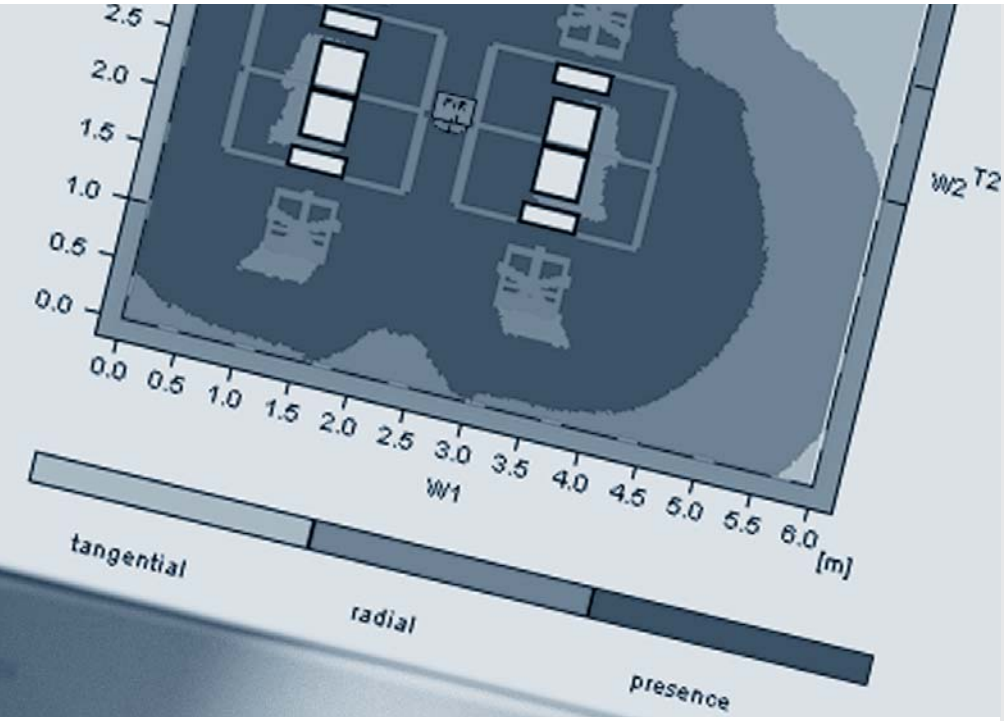
ANALYSIS

- How long daylight was sufficient for the required light level.
- How people actually used the area.
- How long artificial light was switched on for.
- How long artificial light was switched on for when it needn't have been.

You now see the ACTUAL and IDEAL value in black and white.
All measured rooms, storeys, corridors, stairwells, offices etc. can be stored and planned in the software. Using further data, such as the wattage of lights, energy tariffs, service tariffs, lamp life etc., it is possible to provide a projection of total savings over one, three or ten years. Together with RELUX, lighting can be planned from start to finish for your specific situation!

This expertise is the mark of professionals. You and us!

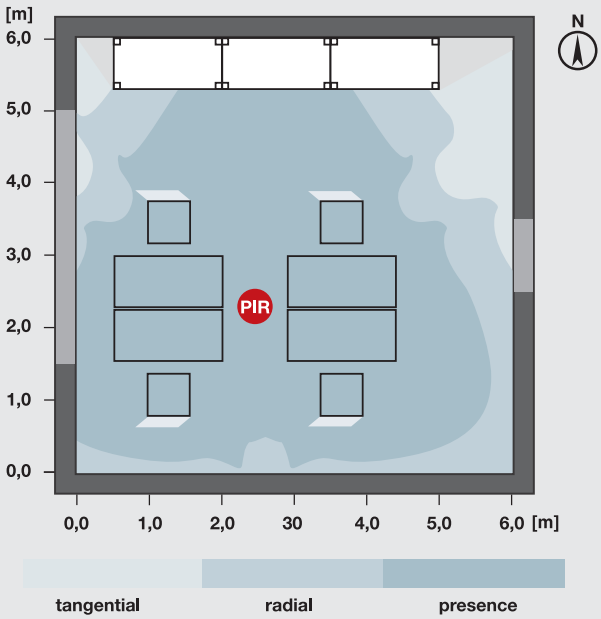
Planning Intelligence

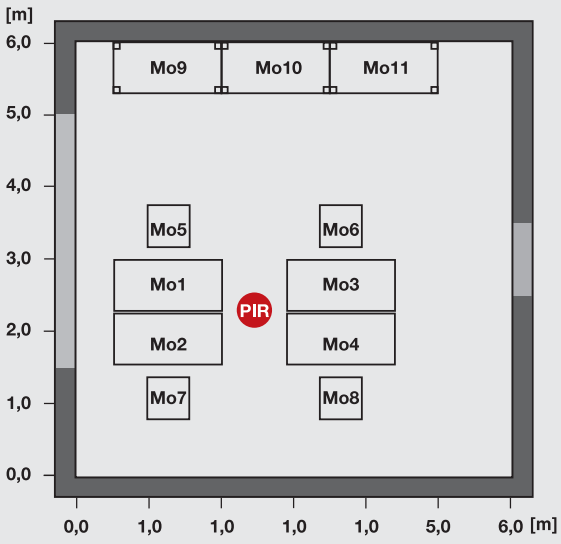


To ensure that motion and detection sensors are planned and operate to meet the requirements in rooms of all types, RELUX Professional gives you a module for integrating detectors in a planning software tool.

Software-assisted planning
RELUX Informatik AG and STEINEL Professional have worked closely together to develop a software tool that allows you to plan complex lighting tasks with motion and presence detectors operating in line with demand. RELUX Professional is a major development step forward in particular for common spaces, work rooms and offices. Assisted by software, every room situation can be fed in and equipped exactly as required. All motion and presence detectors as well as sensor-controlled lights from STEINEL Professional are available with exact detection characteristics. You can download the software free of charge from www.relux.ch.

PLANNING

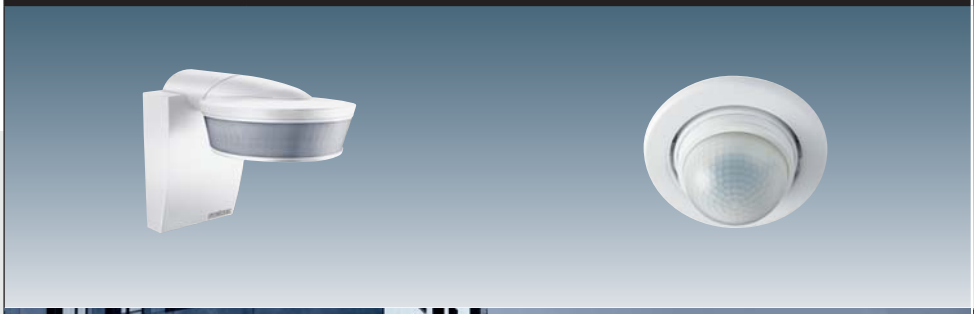




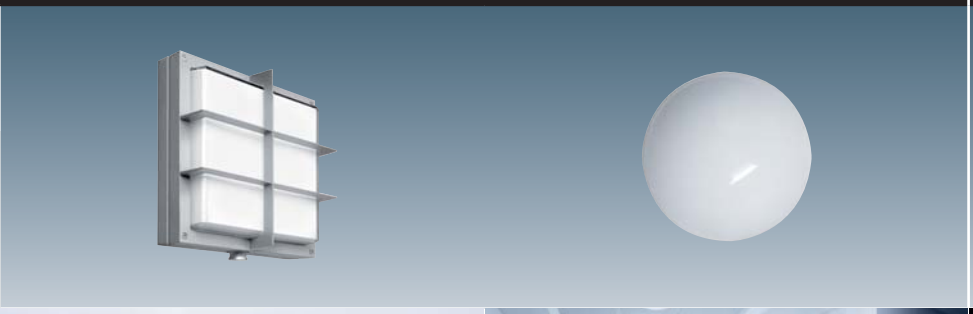
RELUX®

Further details on software assistance for planning motion-detector installations are available from Steinel info@steinel.de or info@relux.ch

Product Segments for Lighting Automation an Overview

Motion Detectors		Presence Detectors
		
		
Outdoors	**Indoors**	**Indoors**
Watching over outdoor areas and buildings, for controlling lights efficiently. Wall, ceiling and corner mounting possible.	Watching over thoroughfares in buildings, for controlling existing lights efficiently. Wall, ceiling and recessed versions possible.	Ultra-precision surveillance for common and highly frequented areas in buildings. Light only 'ON' when someone is present, automatic constant lighting control and dimming function.
IR-Technology	HF and IR-Technology	HF and IR-Technology
Page 34	Page 62	Page 84

SOLUTIONS

Practical SensorLights		Sensor-Switched Floodlights
		
		
Outdoors	**Indoors**	**Outdoors**
Combined systems of light plus integrated sensor.	Combined systems of light plus sensor for use in buildings, for passageways and corridors, for WCs, cloakrooms, stairwells etc.	Instantaneous bright light as soon as movement is detected. LED or halogen, all areas around buildings.
IR-Technology	HF-Technology	IR-Technology
	Page 122	Page 158

You will find further decorative SensorLights for indoors and outdoors in our separate "Style" catalogue.

Passive Infrared (PIR): Detecting Heat Radiated from the Body

Detection zones for infrared sensors

Tangential coverage – movement across the sensor detection zone (nominal reach)

Radial detection – movement directly towards sensor (detection reach less than normal reach)

There isn't a right or a wrong technology, there's just the option that suits a specific lighting situation. The solution you choose all depends on what you want it to do.

PIR sensors in theory
Infrared sensors receive heat radiated from the human body. Segment lenses divide the detection zone into passive and active zones. This way, the highly sensitive sensors can detect persons or warm objects moving between the zones as a change in voltage. Even the smallest of movements are registered. The quality is governed by resolution (number of detection zones), design and the software.

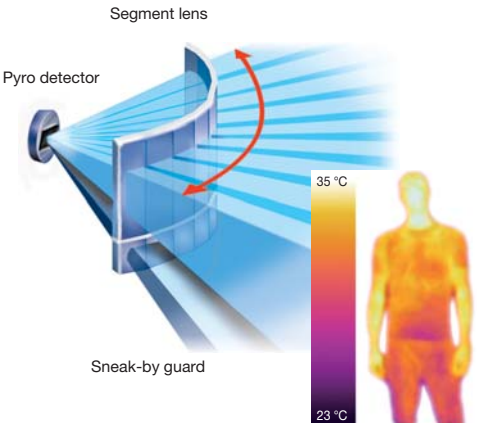
PIR sensors in practice
Movements at right angles to the sensor (tangential movement) can be detected particularly well by passive infrared sensors. With radial movements, reach is usually shortened because detecting a change in temperature in this walking direction is more difficult. The point at which sensors are positioned should ensure they are not disturbed or distracted by obstacles or objects.

PIR sensors from STEINEL Professional
Developing our sensors, we pay attention to precision and reliability. Technological advances, such as multi-lens and multi-sensor technology, permit tremendous accuracy in reach settings and detection spectrum. Working with an exceptionally high number of switching zones, our sensors ensure precision and reliability.

SENSOR SYS

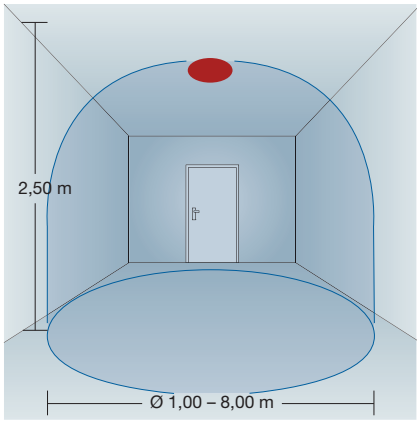
Benefits of PIR

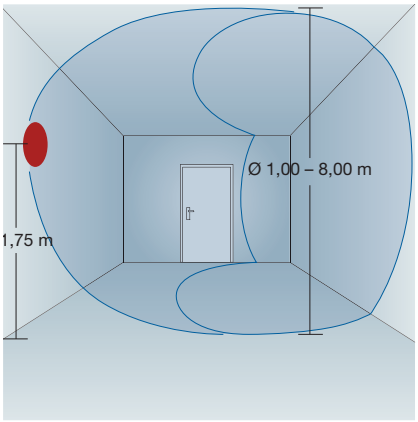
- Very good tangential detection
- Detection reach and angle of coverage can be set with precision
- High number of switching zones
- Also suitable for outdoors as only heat radiation is detected
- Twilight threshold and light 'ON' duration and detection zone can be set to suit individual needs
- Electronic temperature compensation to avoid differences between winter and summer detection quality outdoors



TEM

High-Frequency Technology: Active Detection of Movements





A 360° detection zone with an aperture angle of 160° and reach of up to 8 m all round reliably watches over rooms as large as 50 m².

With the STEINEL Professional range providing hi-tech for everyday use, we are the world's first company to have researched and developed high-frequency sensor systems for application in lighting automation. Perfected and suitable for routine tasks, it's now available to you.

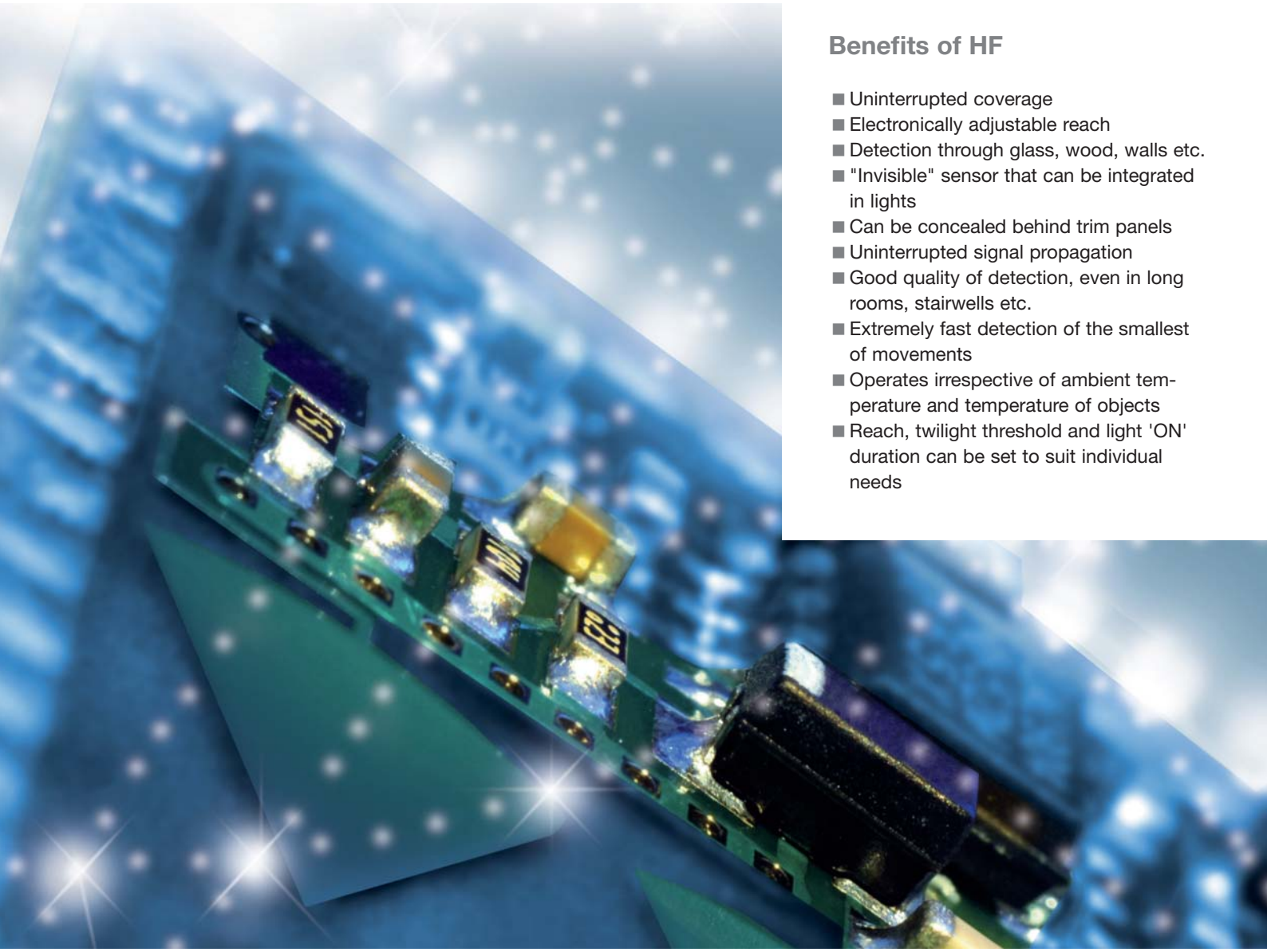
High-frequency sensors in theory

High-frequency sensors actively scan your detection zone. The signals are emitted, reflected as an echo and received again a moment later – any change in echo means a movement is registered. This takes place instantly and irrespective of temperature – in other words, without direction of movement or temperature restricting sensitivity.

High-frequency sensors in practice

High-frequency sensors can be used to provide rooms with uninterrupted, reliable coverage. Walking direction is irrelevant. High-frequency sensors are highly sensitive and extremely precise in the way they respond.
Detecting any movement immediately, the sensor switches light 'ON'. In comparison to good-quality PIR sensors, HF-sensors need not necessarily be given preference nor must they be dismissed. Their use always depends on the particular room and on the specific detection task they are required to perform. STEINEL Professional offers the right sensor technology for every situation.

SENSOR SYS



Benefits of HF

- Uninterrupted coverage
- Electronically adjustable reach
- Detection through glass, wood, walls etc.
- "Invisible" sensor that can be integrated in lights
- Can be concealed behind trim panels
- Uninterrupted signal propagation
- Good quality of detection, even in long rooms, stairwells etc.
- Extremely fast detection of the smallest of movements
- Operates irrespective of ambient temperature and temperature of objects
- Reach, twilight threshold and light 'ON' duration can be set to suit individual needs

TEM

Motion and Presence Detectors

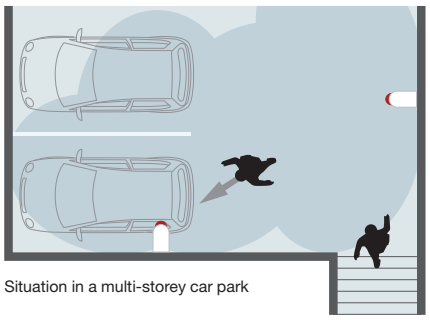
The chief difference between motion and presence detectors lies in their detection properties and areas of use. The particular situation determines which technology is used where.

Dynamic means effective: Motion detectors
Motion detectors respond to walking movements. They perceive these in the selected detection zone and respond to them: this means light is switched 'ON' when a movement is detected once ambient light levels fall below a preselected threshold. Light switches 'OFF again after the period you set. Their use is recommended for detecting moving objects outdoors or in thoroughfares indoors.

High-resolution and sensitive: Presence detectors
Presence detectors respond to the tiniest movements using extremely high-resolution, precision sensor technology. This is important indoors, particularly in conjunction with sedentary activities (offices for desk work, classrooms etc.) as well as for specific lighting tasks, such as in sports halls, changing rooms, corridors and storage areas. The light sensors continuously measure ambient light and constantly compare it with the preselected level. Light is switched on when ambient light falls below a specific threshold while people are present. If it's bright enough, light is automatically switched off even if people are in the room.

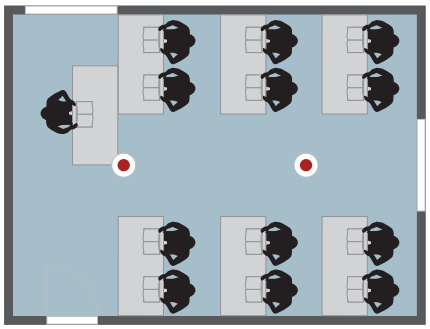
Precision squared
The detection zones of our IR-presence detectors are not round but square. This is not only far more precise and practical but also better to plan – there are no overlaps and no areas omitted. In addition to this, the square detection zones provided by STEINEL Professional presence detectors are precision-scalable.

Detection zones with motion detectors



Situation in a multi-storey car park

Detection zones with presence detectors

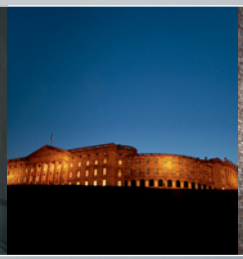


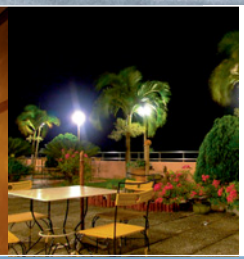
Classroom situation, detection by the Presence Control Pro IR Quattro with square detection characteristic

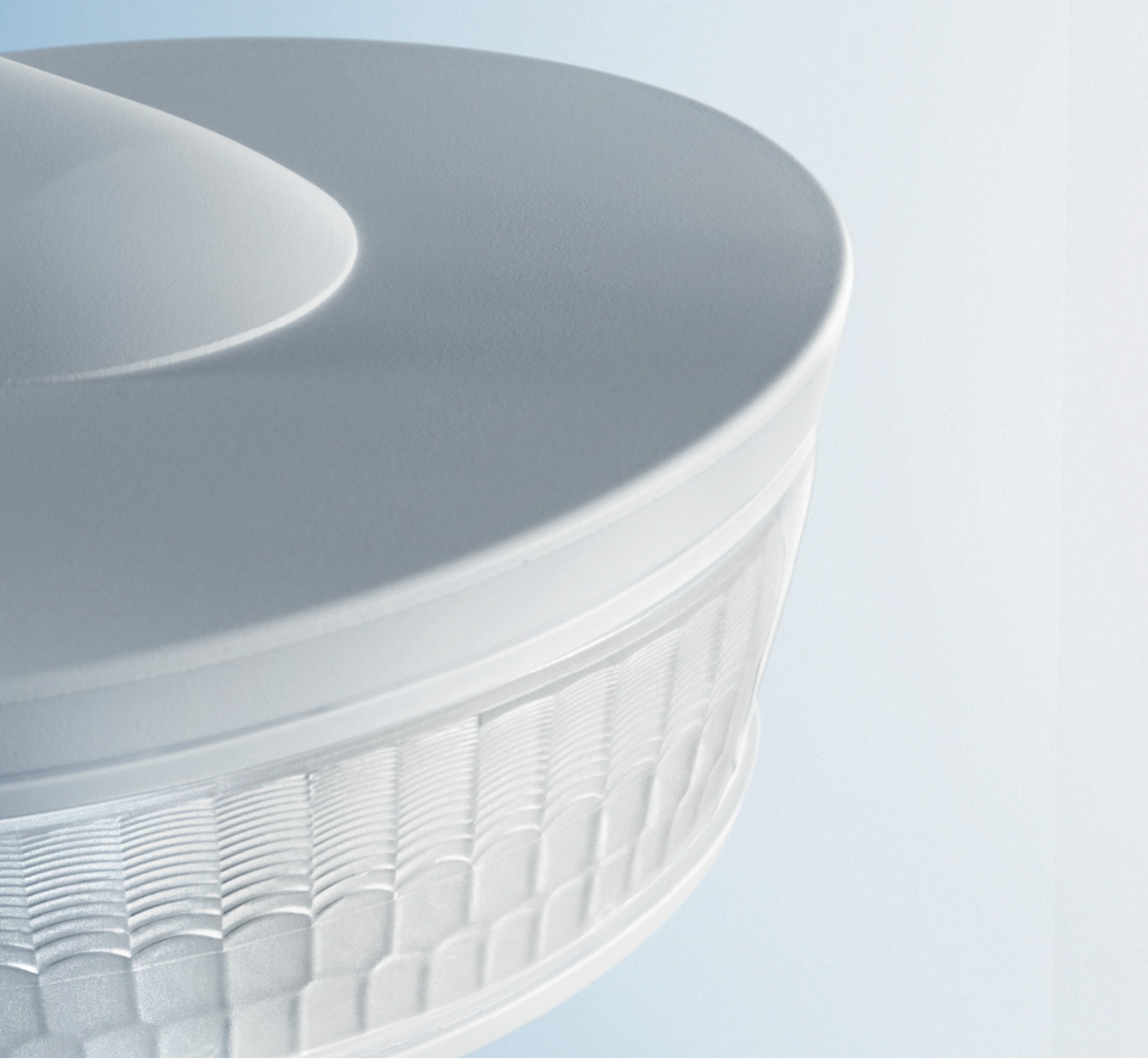
DIFFERENCE

	 	 
	Motion detectors	**Presence detectors**
Detection	Walking movements	Even the tiniest movement, also sedentary activities
Application	Indoors and outdoors Indoors: garages, corridors, storerooms Outdoors: driveways, entrances, car parks, carports, fronts of buildings Motion detectors provide convenience, safety and security	Indoors Offices, classrooms, conference rooms etc. High rooms: warehouses, sports halls etc. Additional control of heating, ventilation, air-conditioning or constant lighting control Presence detectors provide maximum energy efficiency and convenience
Connection capability	Light Relay switching output additional loads	Light Heating, ventilation, air-conditioning (HVAC) 1-10 V dimming interface DALI, KNX
Light 'ON' criterion	Movement after ambient light has fallen below threshold	Light channel: movement/presence when ambient light has fallen below threshold HVAC channel: movement/presence
Light 'OFF' criterion/light measurement	Load/artificial light 'ON' and light measurement deactivated while movement is being detected. Period light stays 'ON' for starts after last detected movement, load/artificial light then switches 'OFF'	Light 'OFF' if ambient light is sufficient despite detection of presence/movement Light measurement remains activated HVAC channel: is switched 'OFF' once the period it is set to stay 'ON' for elapses after last detected movement
Other		More setting capabilities for matching sensor to control task Significantly greater detection precision Different options for different room types







Motion Detectors

Hi-tech for professionals, intelligent motion detectors for every-day use. Our new generation sets new benchmarks in energy efficiency, ease of installation and design.

Overview
Motion Detectors

	Motion detectors							
								
	sensIQ	**IS 3180**	**IS 3360**	**IS 3360 ECO**	**IS D3360**	**IS 345**	**IS 345 MX Highbay**	**HF 3360**
Indoors	●	●	●	●	●	●	●	●
Outdoors	●	●	●	●				
For the wall	●	●						
For the ceiling	●		●	●	●			●
For corridors						●	●	
Mounting height	2.00 – 2.50 m	2.00 m	2.50 – 4.00 m	2.50 – 4.00 m	2.50 – 4.00 m	2.50 – 3.00 m	4.00 – 12.00 m	2.00 – 2.50 m
Switching capacity	2500 W max.	2000 W max.	2000 W max.	2000 W max.	2000 W max.	2000 W max.	2000 W max.	2000 W max.
Detection angle	300°	180°	360°	360°	360°	180°	180°	360°
Reach	20 max.	20 m max. or 8 m max.	20 max.	10 m max.	20 m max.	20 x 4 m max.	30 x 4 m max. radially	8 m max.
Corner wall mount	optional	optional						optional
Special features	mech. reach setting	swivelling multi-lens						detection regard-less of temp.
Accessories	Remote control RC2, soft-start module MS1, wireless module MF1, floating module MPF1							
Page	**34**	**42**	**44**	**44**	**46**	**48**	**50**	**52**

	Motion detectors						Photoelectric lighting controller
							
	IS 2180-5	**IS 2180-2**	**HF 3600**	**IS 300**	**IS D360**	**IS 2160 ECO**	**NightMatic 5000-2**
Indoors	●	●	●	●	●	●	
Outdoors	●	●		●		●	●
For the wall	●	●	●	●		●	●
For the ceiling					●		
For corridors							
Mounting height	2.00 m	2.00 m	2.00 – 2.50 m	2.00 m	2.50 m	2.00 m	no limit
Switching capacity	1000 W max.	1000 W max.	1000 W max.	2000 W max.	1000 W max.	600 W max.	2000 W max.
Detection angle	180°	180°	360°	300°	360°	160°	
Reach	20 m max. or 8 m max.	12 m max. or 5 m max.	8 m max.	12 m max.	8 m max.	12 m max.	
Corner wall mount	included	included	included	optional			
Special features	swivelling multi-lens	swivelling multi-lens	detection regardless of temperature				
Page	**54**	**56**	**58**	**60**	**62**	**64**	**66**

Motion Detectors

Decision matrix for motion detectors

START

Application

Outdoors

Wall


sensIQ


IS 3180


IS 2180-5


IS 2180-2


IS 300


IS 2160

Ceiling


sensIQ


IS 3360


IS 3360 ECO


IS D360


Photoelectric lighting controller
NightMatic 5000-2

sensIQ accessories


Soft-start module MS1


Wireless module MF1


Floating module MPF1


IR remote control RC1


Corner wall mount EWH 05


IS 300, IS FS-300 accessories
Corner wall mount EWH 01


IS 3180, HF 3360 accessories
Corner wall mount EWH 04

Indoors

Wall

HF 3600


IS 3180


IS 2180-5


IS 2180-2


IS 300


IS 2160

Ceiling

HF 3360


IS 3360


IS 3360 ECO


IS D3360


IS D360

Corridor


IS 345


IS 345 MX Highbay

Infrared or high-frequency – with STEINEL Professional, intelligence is built in as standard

Our range of motion detectors covers the entire spectrum of demand in professional applications: versatile and system-based – cleverly designed and practical to use.

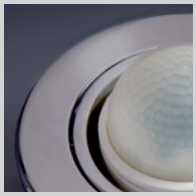
Technology of the next generation
Compromising on nothing, we have developed our motion detectors for professional needs. Innovative technologies, such as the multi-lens and multi-sensor technology as well as the astonishingly high number of switching zones and detection levels provide maximum accuracy to ensure precision coverage. Using infrared or high-frequency sensors, our highly advanced sensor technology reliably detects movements anywhere in the detection zone.

Professionality is a matter of detail
Our motion detectors benefit from unique features:

- highly advanced evaluation software
- optical systems computed, designed and produced in-house
- high-quality, long-life electronics
- high-quality components for professional applications

All made by STEINEL Professional.
100% German Quality – made in Europe.



Motion Detector for Walls and Ceilings

sensIQ stainless steel

sensIQ®

- Reference-class infrared wall and ceiling sensor
- 300° coverage angle with 180° angle of aperture
- Reach can be adjusted with precision in 3 separate directions

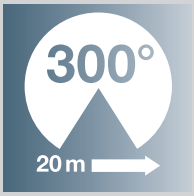
The sensIQ – a spectacular appearance

We feel the sensIQ is one of the most cleverly thought-through and best motion detectors of its type. You'll be delighted with the sensIQ from STEINEL Professional: The sensIQ not only looks good, it's extremely intelligent too. Our high-end reference-class infrared motion detector impressively demonstrates STEINEL Professional's innovative potential. It provides numerous ingenious features: The first sensor for all requirements and coverage angles from 200° to 300°. A remote control makes handling exceptionally convenient. Its detection reach can be adjusted easily, quickly and accurately on the unit itself – in three different directions. This saves you the time that used to be required for shrouding the lens or pressing down the sensor head to regulate reach as well as the bother of pacing out distances in walk tests. We also set high standards when it comes to design. The sensIQ has received the internationally coveted IF Design Award. It's the perfect symbiosis of professional sensor technology and contemporary design – who wouldn't be envious of a product like this.

DESIGNPREIS 2007 NOMINIERT

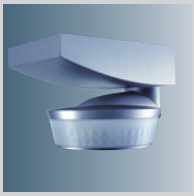
iF product design award 2006

Detection zone



Max. reach:
20 m tangentially
Angle of coverage: 300°
Angle of aperture: 160°

Installation



Wall and ceiling mounting.
Wall mount for installing sensor on corners

sensIQ black

sensIQ white

Less effort – more options
For us, innovation means unrelenting optimisation. This is why we provide you with accessories for our sensIQ models that leave no questions unanswered: Soft-start module, wireless module or floating module optionally adapt the sensIQ to your specific requirements. The remote control makes operation extremely simple.

Basic settings on the unit
You can adjust three important parameters directly and conveniently in the unit itself: the twilight setting, time setting and reach setting. For the twilight setting, the sensor's response threshold can be set to values of between 2 lux and 2000 lux. The time you want the connected load to stay 'ON' for at night can be infinitely varied from 5 seconds to 15 minutes using the time-setting capability. A pulse function is also provided. The reach can be adjusted in 3 directions by 3 control dials (100° respectively) independently from one another. A table gives you a practical summary of reach distances for different mounting heights.

Benefits

to electricians:
- Reach can be set on the unit to the accuracy of a metre, in 3 separate directions – easily, quickly, accurately
- Fast installation
- Large terminal compartment
- One sensor for all detection needs
- Wall and ceiling mounting
- Wall mount is available for external corners to make sensor and building a well-balanced unit
- Control dial for setting time and twilight response threshold
- Optional modules providing installation benefits: wirelessly interconnected or floating

Benefits to consumers:
- First-class detection properties, precision adaptability
- Twilight response threshold can be set by remote control
- Holiday function for warding off intruders, manual override, permanently 'OFF'
- Soft-start module with basic brightness: lighting with greater aesthetic appeal, longer lamp life
- Unbeatable value for money
- Top quality for long service life
- Award-winning design

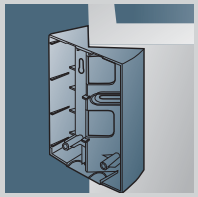
Accessories

Soft-start module MS1: Gently switches connected light 'ON' and 'OFF'.

Wireless module MF1: as a means, for example of creating wirelessly interconnected groups tailored to individual needs.

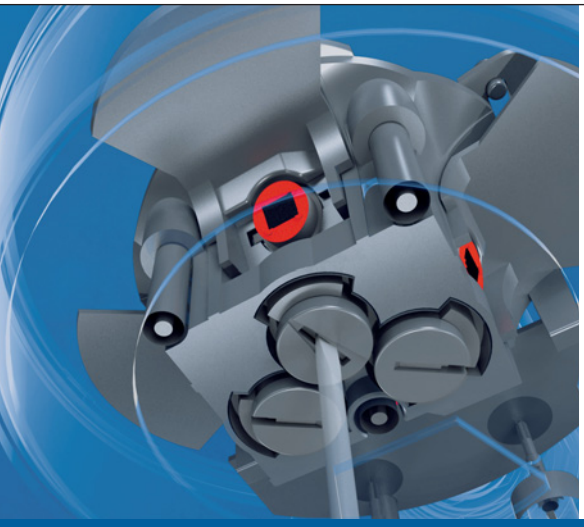
Floating module MPF1: for switching independent appliances, suitable for SELV, 240 V max., 10 AX

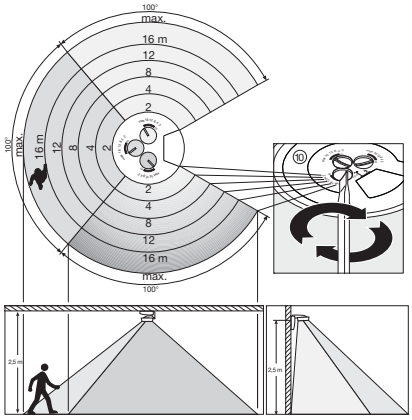
IR remote control RC1 (included): For selecting functions and special functions, setting twilight response threshold and detection zone



Corner wall mount

Detection zones and settings





Simple and well structured – operation and use
The sensIQ benefits from a number of intelligent programmes and modes that can all be selected directly on the unit or using a practical remote control that comes with the sensor. This way, you stay completely in control despite the system's technical complexity. Here's a summary of the main setting options:

Twilight setting (response threshold)
The response threshold can be set to between 2 and 2000 lux. You can save the twilight response threshold using the remote control.

Reach setting
Three control dials set reach in three directions (100° each) to the accuracy of a metre.

Switch-off delay
The time you want the light to stay 'ON' for can be infinitely varied between 5 sec. and 15 min.

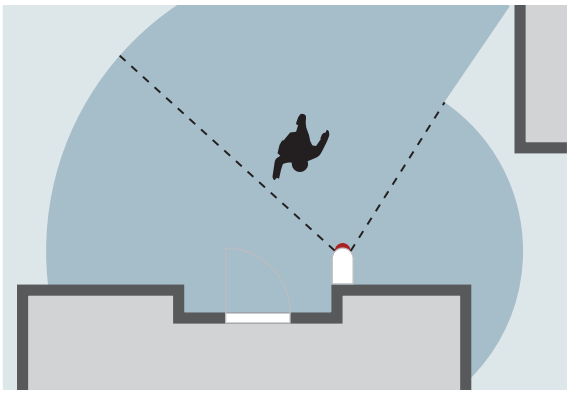
Pulse mode
In the pulse mode, output is activated for 2 seconds (e.g. for staircase lighting time switches). Afterwards, the sensor does not react to movement for approx. 8 sec.

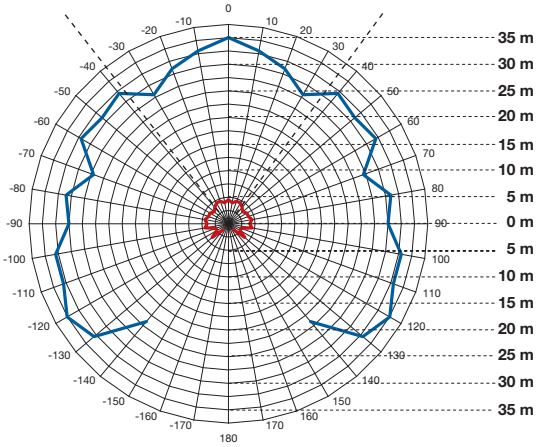
Special functions:
Holiday mode
The sensIQ provides a number of special functions. One of them is the holiday mode. This is activated at the relevant button on the IR remote control. The holiday function simulates occupancy to protect your home from intruders while you're away. When the twilight threshold is reached, the connected load is switched 'ON' and 'OFF' at certain programmed times. Normal sensor mode remains active.

Manual override setting
This function can also be selected using the remote control supplied with the sensor. Pressing the relevant button switches the connected load 'ON' for 4 hours. After this period, the sensor returns to sensor mode automatically.

Setting options

Detection reach is set mechanically to the accuracy of a metre. Three different directions, independently of each other, with a max. detection range of 300°.
Easily defined at three control dials.



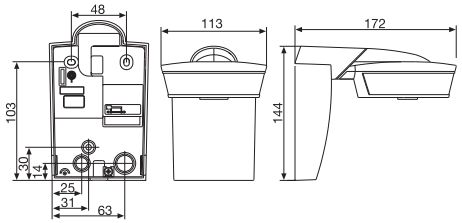


sensIQ reach, mounting height 1.8 m
(blue = tangential walking direction, red = radial walking direction)

sensIQ

EAN	**black 4007841 600518** **white 4007841 600617** **st.-steel eff. 4007841 600716**
Dimensions (w x h x d)	144 x 113 x 172 mm
Output	- 2500 W max. (resistive load, e.g. filament bulb) - 1000 W max. (uncorrected, inductive, cos φ = 0.5, e.g. fluorescent lamps) - max. 1000 W (series corrected) - 500 W max. (parallel corrected, with C ≤ 45.6 µF) - electronic ballasts, capacitive, e.g. low-energy bulbs, max. of 8 each, C ≤ 176 µF
Voltage	230 – 240 V / 50 Hz (2.5 mm² max.)
Detection angle	300° with 180° angle of aperture as well as sneak-by guard for coverage directly below the sensor; capability of masking out individual detection segments
Reach	Adjustable in 3 directions by control dial, (2 – 20 m max., tangentially, temperature-stabilised)
Sensor system	4 sensors, 6 levels for long-distance detection and 5 for sneak-by guard, 1360 switching zones
Time setting	5 sec. – 15 min., pulse mode (approx. 2 sec.)
Twilight setting	2 – 2000 lux
Manual override	selectable (4 h)
IP rating	IP 54
Protection class	II
Ambient temperature	-20° to +50° C
Accessories	- Soft-start module MS1, 100 W max. **EAN 4007841 600815** - Wireless module MF1 **EAN 4007841 736712** - Floating module MPF1 **EAN 4007841 609115** - IR remote control RC1 **EAN 4007841 601416** - Corner wall mount for installing sensor on external corners **EAN 4007841 600969 (black), EAN 4007841 601966 (white), EAN 4007841 602062 (stainless-steel effect)**

FUNCTIONAL 36 month WARRANTY
STEINEL German Quality



sensIQ Accessories

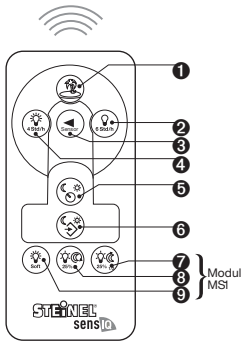
Remote control

- Twilight response threshold is set at the press of a button. The current setting can be changed as often as you wish.
- EE-PROM technology makes the setting memory non-volatile
- Holiday function, manual override, permanent light 'OFF'
- Controlling the optional soft start module

Wireless module

- Suitable for sensIQ and RS PRO 1000/2000
- Convenient actuation of receivers (indoors/outdoors)
- Bi-directional (transmitter/receiver)
- Suitable for indoor and outdoor use

Full functionality at the press of a button: remote control
The remote control is included with every sensIQ. All programmes, functions and modes can be selected ever so conveniently by remote control. The holiday function, for instance, simulates occupancy to protect your home from intruders. It can be activated directly and without having to take the time of searching for it by pressing the appropriate button on the remote control. Even the optional soft-start module can be adjusted with the convenience of remote control.

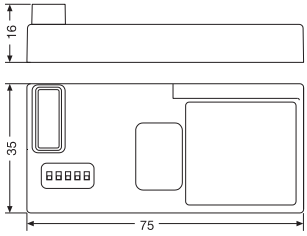


❶ Holiday function
❷ Permanently 'OFF'
❸ Reset function
❹ Manual override
❺ Twilight setting at potentiometer on the unit
❻ Twilight setting at memory button
❼ Soft start/end
❽ Basic brightness
❾ Basic brightness (until the middle of the night)

RC1

EAN	**black** **4007841 601416**
Dimensions (w x h x d)	143 x 114 x 175 mm
Operating voltage	Battery CR 2025

Wireless module MF1
Save yourself the need for permanently installed switching cables. Wireless modules can be used for interconnecting sensIQ motion detectors (as well as sensor and/or slave lights from the RS PRO series etc.) to create switching groups on the basis of bi-directional wireless links.



MF1

EAN	**white** **4007841 736712**
Dimensions (w x h x d)	75 x 35 x 16 mm
Voltage	via sensIQ or RS PRO 1000/2000
Transmitter range	up to 100 m with uninterrupted line of vision, dia. of 30 m indoors
IP rating	IP 54
Operating frequency	868.3 MHz (ISM band)
Transmitter power	less than 1000 µW
Programming	at 5-way DIP switch 32 possible addresses per channel
Number of receivers	Any

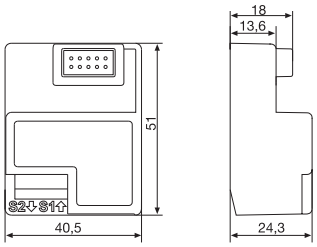
Soft-start module

- Gently switched light 'ON' and 'OFF'
- Basic brightness (if required until the middle of the night)
- Connection of an additional load (100 W max.)
- Soft-start/dimming by reverse phase

Floating module

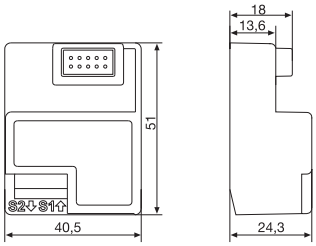
- Floating operation of independent devices
- Suitable for safety extra-low voltage

Soft-start module MS1
The soft-start module gently increases lamp output to 100% power. Light is gently switched 'ON' and 'OFF' by pressing the button on the remote control. You can set a basic brightness (25%). When movement is detected while the light is 'ON' permanently at 25% light output, it is taken to full power. The soft-start module MS1 is rated for connecting as many a two additional loads with a maximum combined wattage of 100 W.



MS1	
EAN	**black** **4007841 600815**
Dimensions (w x h x d)	51 x 40.5 x 24.3 mm
Voltage	via sensIQ

Floating module MPF1
The floating module MPF1 permits the use of a floating output on the sensIQ. This provides a convenient way of operating independent devices or systems. The module can also be activated using the IR remote control included with the SensIQ: this switches the floating output as well as the 2500 W output on the sensIQ.



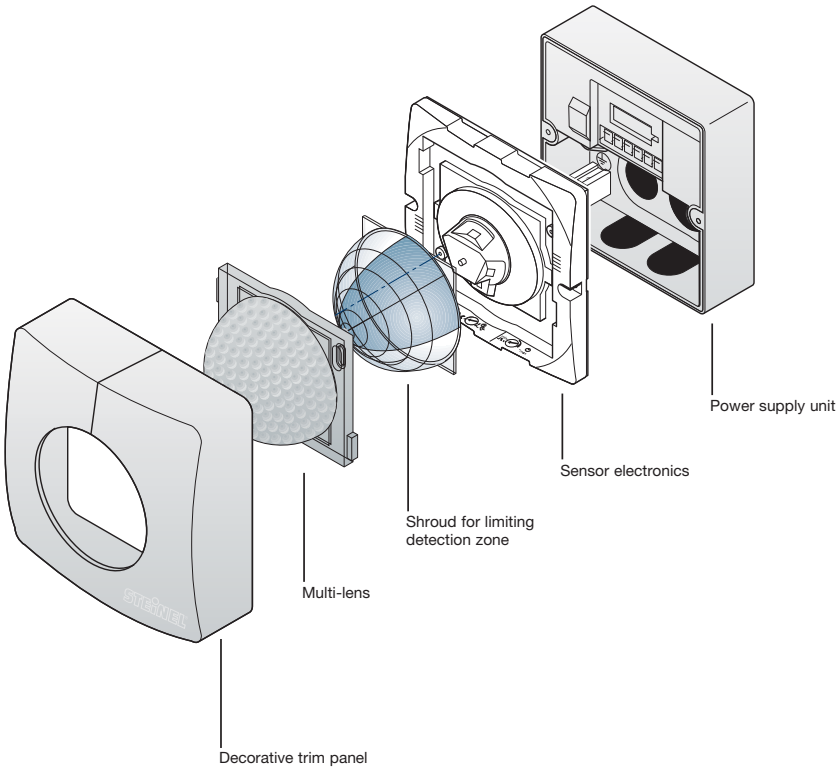
MPF1	
EAN	**black** **4007841 609115**
Dimensions (w x h x d)	51 x 40.5 x 24.3 mm
Voltage	via sensIQ
Output	0 – 240 V 10A filament bulbs or 10 AX fluorescent lamp load Suitable for safety extra-low voltage (SELV)

Motion Detectors

Design of modular-system motion detectors

**Straightforward, flexible, intelligent –
sensors based on the modular principle**

You can see how easy our modular sensors are to install simply by looking at them. The standardised power supply unit is quickly pre-installed. The large terminal compartment makes wiring easy and convenient too. After fitting the sensor module, the sensor is completely assembled. The shrouds provided are used for limiting the detection zone. Reach is adjusted quickly and accurately by re-positioning the plug-in multi-lens. There's no need to spend time handling fiddly tools and countless components.



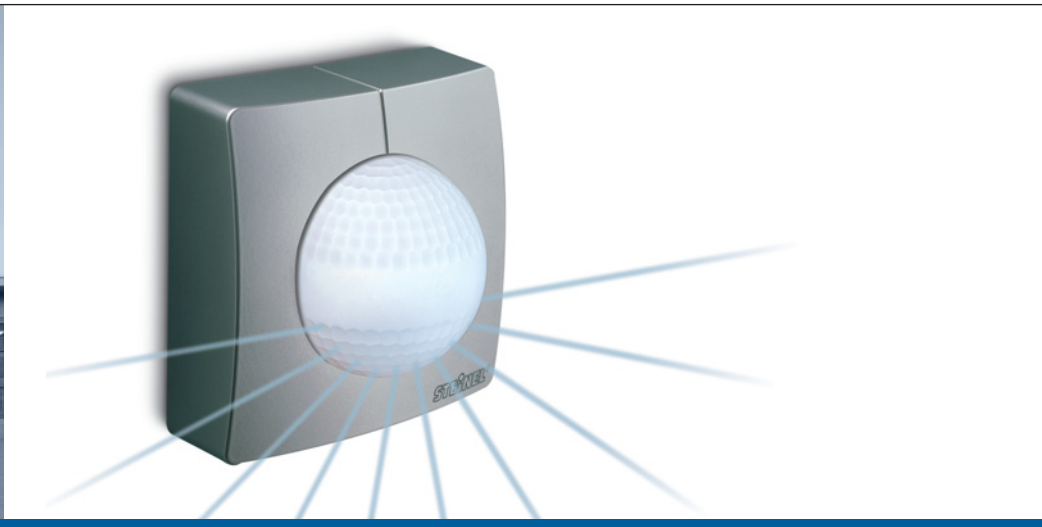
Benefits

Motion detector for indoors and outdoors

- Modular design
- Large terminal compartment with plug-in terminals for fast, easy wiring
- Shrouds for limiting the detection zone
- Protection from inadvertent adjustment, damage and wear from weathering
- Fast, exact reach adjustment by moving the multi-lens
- Potentiometers for precision and convenient selection of time and twilight settings

IS 3180

Motion Detector for the Wall

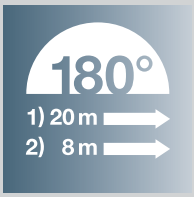


- Infrared wall sensor
- for watching over large areas
- Reach: 4 – 8 m, 8 – 20 m adjustable in no time at all
- Angle of coverage: 180°
- Angle of aperture: 90°
- Pulse function ('ON' for 2 sec.)
- Teach mode (saves ambient brightness)
- Anti-glare protection, overload protection
- Recognition of sensors connected in parallel

The professional detector for large expanses: the IS 3180

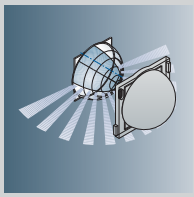
The IS 3180 has 448 switching zones and 7 detection levels with a 180° coverage angle and a 90° angle of aperture. It is equipped with two highly sensitive pyro-sensors in dual-element design and set at an angle of 68° to each other. Nothing escapes the attention of the IS 3180 over a distance of up to 20 metres. The IS 3180 is a true professional when it comes to watching over expansive premises and large spaces of up to 500 m². The infrared wall sensor's intelligent electronic system is tailored to the requirements of professional use. It comes with a switching capacity of 2,000 watts, parallel-connected sensors are automatically identified, their brightness detection capability deactivated. The teach mode demonstrates the ability of the easy-adjustment potentiometer to learn and adapt. Nobody gets round this sensor!

Detection zone



Max. reach:
20 m tangentially
Angle of coverage: 180°
Angle of aperture: 90°

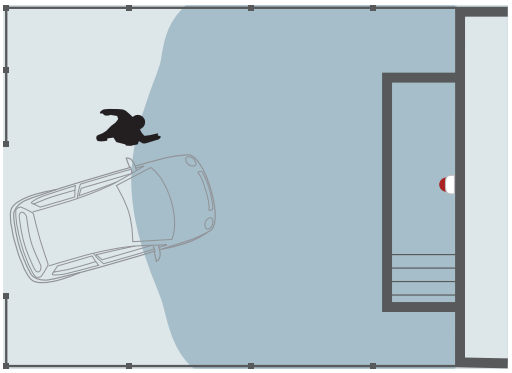
Setting capabilities



Shrouds: restrict the angle of coverage below the lens to suit requirements

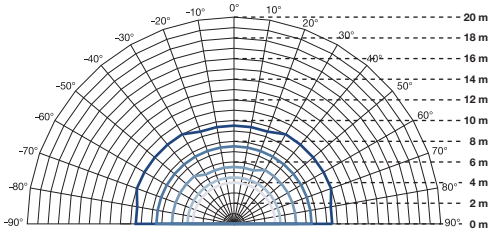
Multi-lens: turns/moves for setting reach

Time and twilight response threshold are set at a potentiometer; manual override (4h) by means of mains power switch

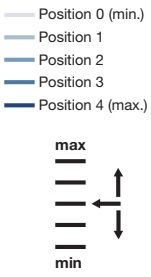


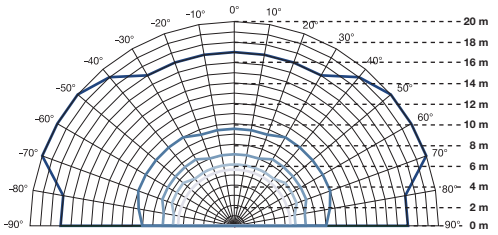
IS 3180

EAN	**black 4007841 606114** **white 4007841 606213** **st.-steel eff. 4007841 606312**
Dimensions (w x h x d)	95 x 95 x 65 mm
Output	- 2000 W max. (resistive load, e.g. filament bulb), - 1000 W max. (uncorrected, inductive, cos φ = 0.5, e.g. fluorescent lamps) - 900 W max. (series corrected) - 500 W max. (parallel corrected, with C ≤ 45.6 µF) - electronic ballasts, capacitive, e.g. low-energy lamps, max. of 8 each, C ≤ 176 µF
Voltage	230 – 240 V / 50 Hz (2.5 mm² max.)
Detection angle	180° with 90° angle of aperture
Reach	Basic setting 1: 8 – 20 m max., tangentially; temperature-stabilised Basic setting 2: 4 – 8 m max.; temperature-stabilised + precision adjustment by re-positioning the lens and shrouds
Sensor system	7 detection levels, 448 switching zones
Time setting	5 sec. – 15 min., + pulse mode (approx. 2 sec.)
Twilight setting	2 – 2000 lux + teach mode
Manual override	selectable (4h)
IP rating	IP 54
Protection class	II
Ambient temperature	-20° to +50° C
Accessories	- Corner wall mount for fitting on internal and external corners **EAN 4007841 648015 (black),** **EAN 4007841 648114 (white)**



IS 3180 reach, mounting height 2 m
tangential direction of walking, 8 m lens



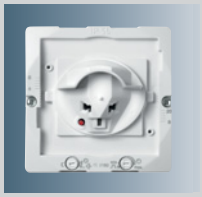


IS 3180 reach, mounting height 2 m
tangential direction of walking, 20 m lens

FUNCTIONAL 36 month WARRANTY ■ STEINEL ■ German ■ Quality

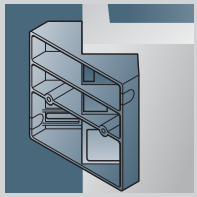
Installation

Large connection compartment with plug-in terminals: fast, convenient power supply unit wiring

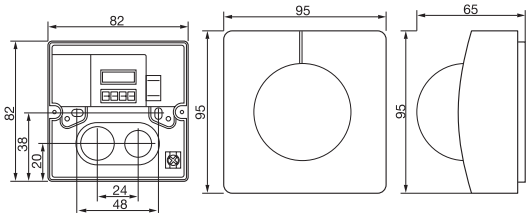


Straightforward installation: pre-install power supply unit, plug in sensor electronics to suit the application

Accessories

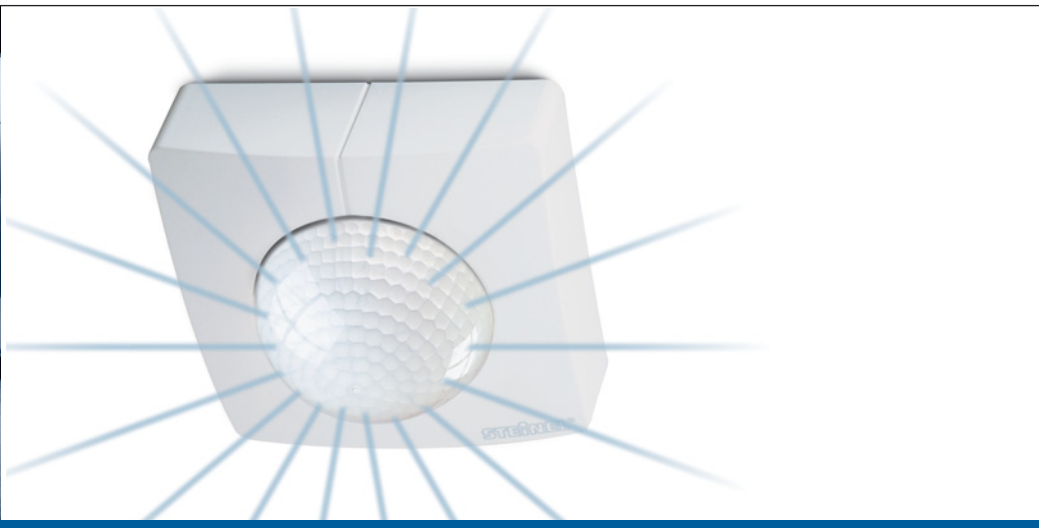


Corner wall mount for installation on internal and external corners



IS 3360

Motion Detector for the Ceiling



- Infrared ceiling sensor
- 360° all-round vision for watching over every inch of high spaces and large areas (up to 4 m)
- Max. reach: 20 m
- Angle of coverage: 360°
- Angle of aperture: 180°
- Pulse function ('ON' for 2 sec.)
- Teach mode (saves ambient brightness)
- Anti-glare protection, overload protection
- Recognition of sensors connected in parallel

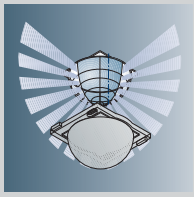
360° all-rounder in professional use: the IS 3360

The IS 3360 boasts an astonishing 1,416 switching zones, 11 detection levels and a basic reach of up to 20 metres. The three highly sensitive infrared detectors are set at an angle of 120° to each other. It has a 360° detection angle with a 180°angle of aperture. With features like these, the highly advanced all-rounder has no problem whatsoever in providing precision, uninterrupted surveillance over huge spaces up to 1,000 m². High indoor spaces, such as warehouses or machine shops or foyers and stairwells are the ideal places for using the IS 3360. The ceiling motion detector has a switching capacity of 2,000 watts and, as you'd expect, also identifies parallel-connected sensors automatically. The slimmed-down version, the IS 3360 ECO, watches over a maximum radius of 10 metres.

Detection zone

Max. reach:
20 m tangentially
Angle of coverage: 360°
Angle of aperture: 180°

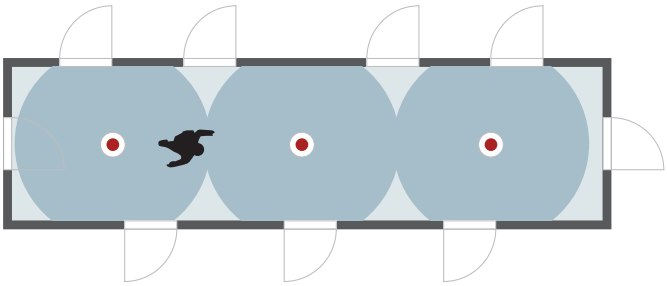
Setting capabilities



Shrouds: restrict the angle of coverage below the lens to suit requirements

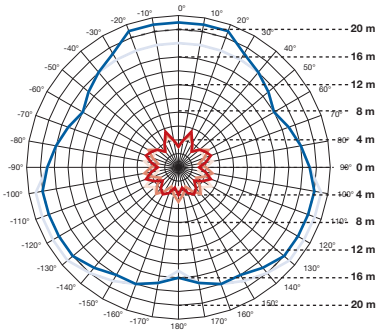
Multi-lens: turns/moves for setting reach

Time and twilight response threshold are set at a potentiometer; manual override (4h) by means of mains power switch

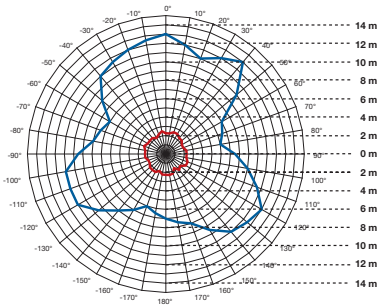


IS 3360, IS 3360 ECO

EAN	**white 4007841 606411 IS 3360** **white 4007841 002732 IS 3360 Eco**
Dimensions (w x h x d)	95 x 95 x 65 mm
Output	- 2000 W max. (resistive load, e.g. filament bulb), - 1000 W max. (uncorrected, inductive, cos φ = 0.5, e.g. fluorescent lamps) - 900 W max. (series corrected) - 500 W max. (parallel corrected, with C ≤ 45.6 µF) - electronic ballasts, capacitive, e.g. low-energy lamps, max. of 8 each, C ≤ 176 µF
Voltage	230 – 240 V / 50 Hz (2.5 mm² max.)
Detection angle	360° with 180° angle of aperture
Reach	20 m max., tangentially; temperature-stabilised = IS 3360 10 m max.; temperature-stabilised = IS 3360 Eco + precision adjustment using shrouds
Sensor system	11 detection levels, 1416 switching zones
Time setting	5 sec. – 15 min., + pulse mode (approx. 2 sec.)
Twilight setting	2 – 2000 lux + teach mode
Manual override	selectable (4h)
IP rating	IP 54
Protection class	II
Ambient temperature	-20° to +50° C



IS 3360 reach, precision adjustment by re-positioning the lens
(blue = tangential walking direction, red = radial walking direction)



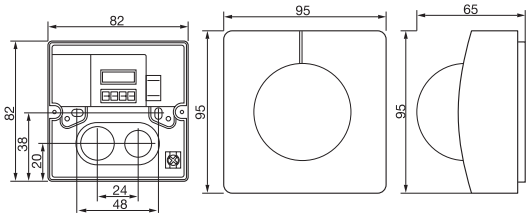
IS 3360 ECO reach, mounting height 2.8 m, precision adjustment by re-positioning the lens
(blue = tangential walking direction, red = radial walking direction)

FUNCTIONAL 36 month WARRANTY | STEINEL German Quality

Installation

Large connection compartment with plug-in terminals: fast, convenient power supply unit wiring

Straightforward installation: pre-install power supply unit, plug in sensor electronics to suit the application



IS D3360

Motion Detector for Recessing in Ceilings

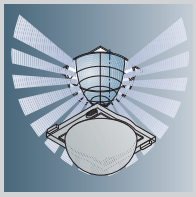
- Infrared ceiling sensor
- 360° all-round vision for watching over every inch of large and high spaces (up to 4 m)
- Max. reach: 20 m
- Angle of coverage: 360°
- Angle of aperture: 180°
- Pulse function ('ON' for 2 sec.)
- Teach mode (saves ambient brightness)
- Anti-glare protection, overload protection
- Recognition of sensors connected in parallel

The professional all-rounder in a version for recessing in ceilings: the IS D3360

The IS D3360 impresses with all the technical features provided in the IS 3360: 1,416 switching zones, 11 detection levels, a basic reach of up to 20 metres, a coverage angle of 360°, an angle of aperture of 180°, a switching capacity of 2,000 watts. It, too, identifies sensors connected in parallel. The difference with this version is that it can be integrated elegantly and discreetly in false ceilings. The practical clip retaining system makes fast, easy work of installing the sensor component.
The IS D3360 is the ideal choice wherever a motion detector is required for a flush-fitting, unobtrusive look.

Detection zone

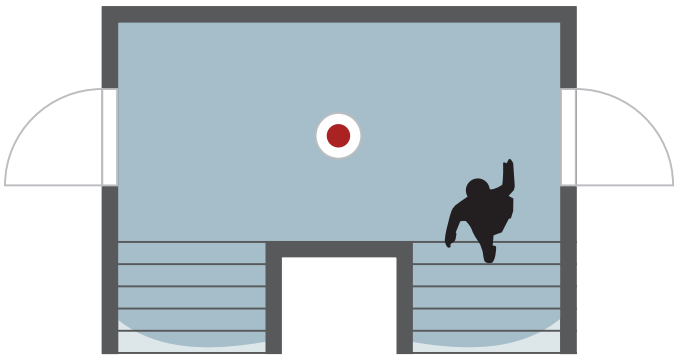
Max. reach:
20 m tangentially
Angle of coverage: 360°
Angle of aperture: 180°

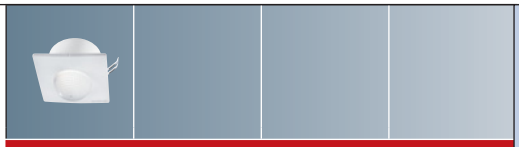


Shrouds: restrict the angle of coverage below the lens to suit requirements

Setting capabilities

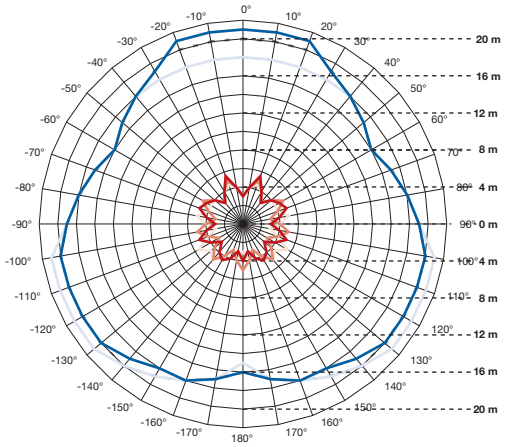
Microprocessor technology and pushbuttons for user-friendly timer adjustment to the accuracy of one second or one minute;
manual override (4 hrs.) by means of mains switch





IS D3360

EAN	**white** **4007841 660918**
Dimensions (w x h x d)	113 x 113 x 79 mm
Output	- 2000 W max. (resistive load, e.g. filament bulb), - 1000 W max. (uncorrected, inductive, cos φ = 0.5, e.g. fluorescent lamps) - 900 W max. (series corrected) - 500 W max. (parallel corrected, with C ≤ 45.6 µF) - electronic ballasts, capacitive, e.g. low-energy lamps, max. of 8 each, C ≤ 176 µF
Voltage	230 – 240 V / 50 Hz (2.5 mm² max.)
Detection angle	360° with 180° angle of aperture
Reach	20 m max., tangentially; temperature-stabilised + precision adjustment using shrouds
Sensor system	11 detection levels, 1416 switching zones
Time setting	5 sec. – 15 min., + pulse mode (approx. 2 sec.)
Twilight setting	2 – 2000 lux + teach mode
Manual override	selectable (4 h)
IP rating	IP 20
Protection class	II
Ambient temperature	-20° to +50° C



IS D3360 reach
(blue = tangential walking direction, red = radial walking direction)

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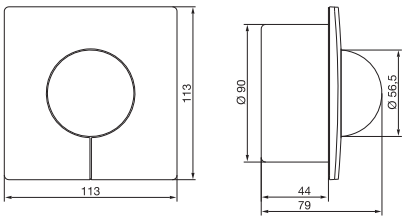
Installation

Pre-mount power supply unit and fit lens with designer-style surround



IS 345

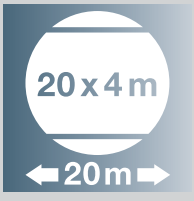
Motion Detector for the Corridor

- Infrared corridor sensor
- for watching over corridors and passageways of up to 2.5 m in height
- Detection zone:
  a) radially: 12 x 4 m
  b) tangentially: 20 x 4 m
- Angle of coverage: 180°
- Angle of aperture: 45°
- Pulse function ('ON' for 2 sec.)
- Teach mode (saves ambient brightness)
- Anti-glare protection, overload protection
- Recognition of sensors connected in parallel

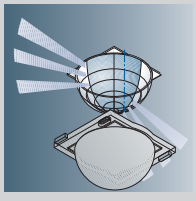
With every corridor in view: the IS 345

The multi-lens in the IS 345 has 280 switching zones on 5 detection levels. It provides a reach of 20 metres for the tangential direction of movement. This makes it the specialist in watching over corridors and passageways of normal height. At a distance of 4 – 6 metres from the sensor, it guarantees perfect detection of persons walking in the radial direction. The area covered in the tangential walking direction is 20 x 4 metres (mounted at a height of 3 m). The IS 345 provides you with on-demand lighting control inn special-function rooms. This means maximum energy efficiency combined with the last word in convenience.

Detection zone



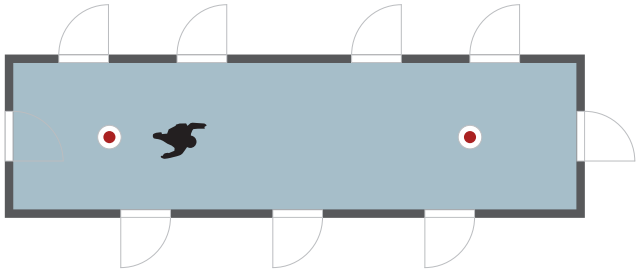
Max. reach:
20 m tangentially
Angle of coverage: 180°
Angle of aperture: 45°

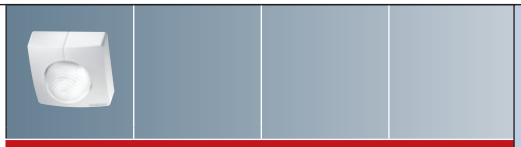


Shrouds: restrict the angle of coverage below the lens to suit requirements

Setting capabilities

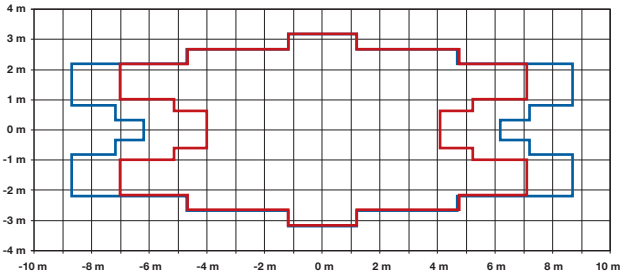
Time and twilight response threshold are set at a potentiometer; manual override (4h) by means of mains power switch





IS 345

EAN	**white** **4007841 606510**
Dimensions (w x h x d)	95 x 95 x 65 mm
Output	- 2000 W max. (resistive load, e.g. filament bulb), - 1000 W max. (uncorrected, inductive, cos φ = 0.5, e.g. fluorescent lamps) - 900 W max. (series corrected) - 500 W max. (parallel corrected, with C ≤ 45.6 µF) - electronic ballasts, capacitive, e.g. low-energy lamps, max. of 8 each, C ≤ 176 µF
Voltage	230 – 240 V / 50 Hz (2.5 mm² max.)
Detection angle	180° with 45° angle of aperture
Reach	max. 20 x 4 m (tangentially) max. 12 x 4 m (radially); temperature-stabilised Precision adjustment by re-positioning the lens and shrouds
Sensor system	5 detection levels, 280 switching zones
Time setting	5 sec. – 15 min., + pulse mode (approx. 2 sec.)
Twilight setting	2 – 2000 lux + teach mode
Manual override	selectable (4h)
IP rating	IP 54
Protection class	II
Ambient temperature	-20° to +50° C



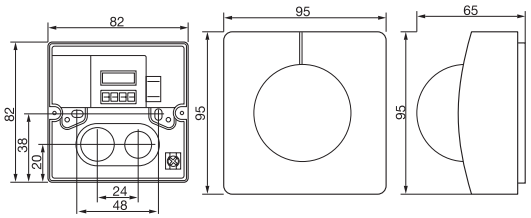
IS 345 reach, mounting height 2.6 m
(blue = tangential walking direction, red = radial walking direction)

FUNCTIONAL 36 month WARRANTY
STEINEL German Quality

Installation

Large connection compartment with plug-in terminals: fast, convenient power supply unit wiring

Straightforward installation: pre-install power supply unit, plug in sensor electronics to suit the application



IS 345 MX Highbay

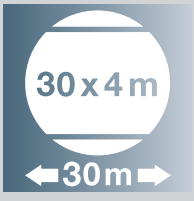
Corridor Motion Detector for Large Heights

- Infrared corridor sensor for watching over corridors and passageways of up to 12 m in height
- Detection zone: 30 x 4 m (for radial direction of movement)
- Angle of coverage: 180° Angle of aperture: 45°
- Pulse function ('ON' for 2 sec.)
- Teach mode (saves ambient brightness)
- Anti-glare protection, overload protection
- Recognition of sensors connected in parallel

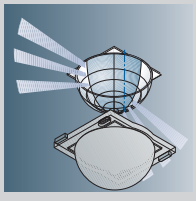
Detection also to great heights: the IS 345 MX Highbay

The IS 345 MX Highbay is ideal for professional use in enclosed spaces of up to 12 metres in height, such as warehouses, machine shops, terminal buildings or waiting areas. Economic and simple to install. The multi-lens in the IS 345 has 280 switching zones on 5 detection levels. The area covered in the radial walking direction is 30 x 4 metres. The IS 345 MX Highbay provides an astonishing radial reach of 15 metres in every direction. We have equipped this model with an optical system specifically designed for installing high up – this makes the IS 345 MX Highbay the undisputed specialist for large heights.

Detection zone



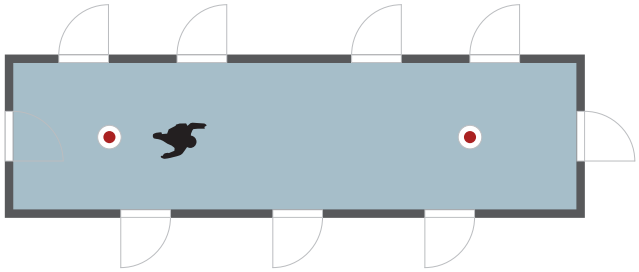
Max. reach: 30 m radially
Max. angle of coverage 180°
Max. angle of aperture: 45°

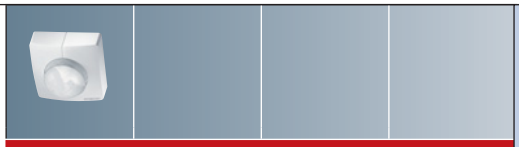


Shrouds: restrict the angle of coverage below the lens to suit requirements

Setting capabilities

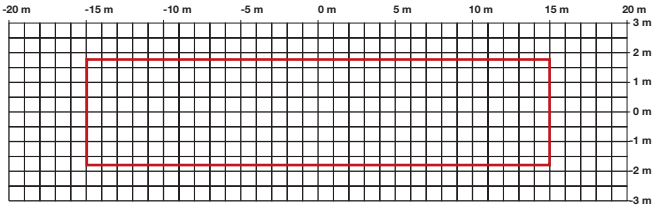
Time and twilight response threshold are set at a potentiometer; manual override (4h) by means of mains power switch



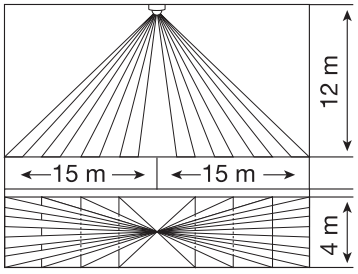


IS 345 MX Highbay

EAN	**white** **4007841 002725**
Dimensions (w x h x d)	95 x 95 x 65 mm
Output	- 2000 W max. (resistive load, e.g. filament bulb), - 1000 W max. (uncorrected, inductive, cos φ = 0.5, e.g. fluorescent lamps) - 900 W max. (series corrected) - 500 W max. (parallel corrected, with C ≤ 45.6 µF) - electronic ballasts, capacitive, e.g. low-energy lamps, max. of 8 each, C ≤ 176 µF
Voltage	230 – 240 V / 50 Hz (2.5 mm² max.)
Detection angle	180° with 45° angle of aperture
Reach	max. of 30 x 4 m (radially) mounted at a height of 12 m; temperature-stabilised Precision adjustment by re-positioning the lens and shrouds
Sensor system	5 detection levels, 280 switching zones
Time setting	5 sec. – 15 min., + pulse mode (approx. 2 sec.)
Twilight setting	2 – 2000 lux + teach mode
Manual override	selectable (4h)
IP rating	IP 54
Protection class	II
Ambient temperature	-20° to +50° C



IS 345 MX Highbay reach, mounting height 12.5 m
(red = radial walking direction)

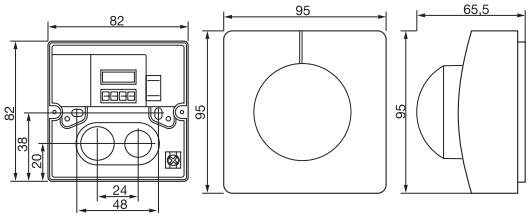


FUNCTIONAL 36 month WARRANTY
STEINEL German Quality

Installation

Large connection compartment with plug-in terminals: fast, convenient power supply unit wiring

Straightforward installation: pre-install power supply unit, plug in sensor electronics to suit the application



HF 3360

High-frequency Motion Detector for Walls and Ceilings

- High-frequency wall and ceiling sensor
- Detection irrespective of temperature
- Perfect coverage of indoor spaces
- Reach: 1 m – 8 m dia.
- Angle of coverage: 360°
- Angle of aperture: 140°
- Pulse function ('ON' for 2 sec.)
- Teach mode (saves ambient brightness)
- Overload protection
- Recognition of sensors connected in parallel

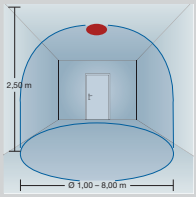
All-round vision without obstructions: the HF 3360

The HF 3360 has a 360° detection angle and a 140°angle of aperture. Its reach can be adjusted to between 1 and 8 metres all round. This sensor is perfect for watching over common spaces indoors. With its high-frequency technology, it fills the entire room. Glass, walls and stairwells are not a problem for the HF 3360. So, if you are looking for a discreet and elegant sensor for multi-storey car parks, stairwells or corridors, the HF 3360 is exactly the right choice.

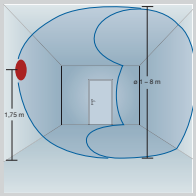
Detection zone

Reach: 1– 8 m dia. radially
Angle of coverage: 360°
Angle of aperture: 140°

Our high-frequency sensors operate at 5.8 GHz and < 1 mW.



Reach setting 1 – 8 m all round when mounted to ceiling.

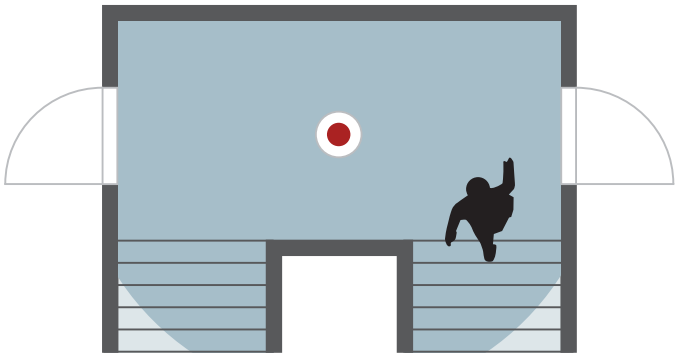


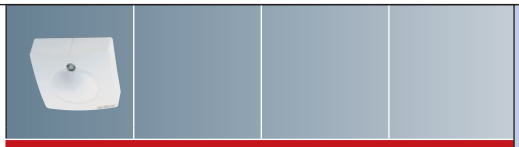
Reach setting 1 – 8 m all round when mounted to wall.

Setting capabilities

Time and twilight response threshold are set at a potentiometer; manual override (4h) by means of mains power switch

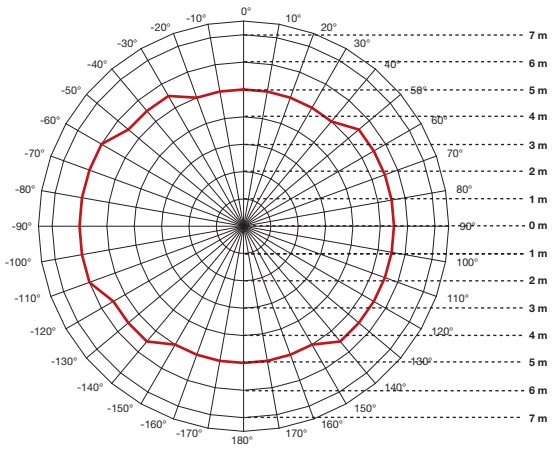
Convenient adjustment of reach by control dial (1 – 8 m all round)





HF 3360

EAN	**white** **4007841 753016**
Dimensions (w x h x d)	95 x 95 x 51.5 mm
Output	- 2000 W max. (resistive load, e.g. filament bulb), - 1000 W max. (uncorrected, inductive, cos φ = 0.5, e.g. fluorescent lamps) - 900 W max. (series corrected) - 500 W max. (parallel corrected, with C = 45.6 µF) - electronic ballasts, capacitive, e.g. low-energy lamps, max. of 8 each, C ≤ 176 µF
Voltage	230 – 240 V / 50 Hz (2.5 mm² max.)
Detection angle	360° with 140° angle of aperture, also through glass, wood and stud walls
Reach	8 m max. all round, infinitely variable
Sensor system	High-frequency 5.8 GHz Transmission power < 1 mW
Time setting	5 sec. – 15 min., + pulse mode (approx. 2 sec.)
Twilight setting	2 – 2000 lux + teach mode
Manual override	selectable (4h)
IP rating	IP 54
Protection class	II
Ambient temperature	-20° to +50° C
Accessories	- Corner wall mount for fitting on internal and external corners **EAN 4007841 648015 (black),** **EAN 4007841 648114 (white)**



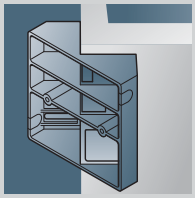
HF 3360 reach, mounting height 2.8 m
(red = radial walking direction)

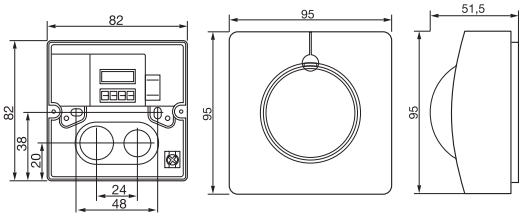
FUNCTIONAL 36 month WARRANTY
STEINEL German Quality

Installation

Straightforward installation: pre-install power supply unit, plug in sensor electronics to suit the application

Accessories





IS 2180-5

Motion Detector for the Wall

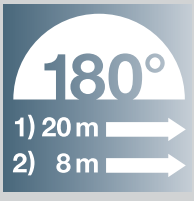
20 m max.

- Infrared wall sensor
- Guarding large outdoor spaces
- Reach:
  1) 20 m max
  2) 8 m max.
  adjustable in next to no time
- Angle of coverage: 180°
- Angle of aperture: 90°

Superb reliability for large outdoor expanses: the IS 2180-5

The swivelling multi-lens divides the detection zone into 504 switching zones on 10 levels. The IS 2180-5 has a reach of up to 20 metres.
It has a 180° detection angle and a 90°angle of aperture.
This means it can easily keep watch over an area as large as 500 m². Its overall switching capacity is 1,000 watts. Large properties and outdoor spaces, such as works and factory premises, are perfectly guarded with the IS 2180-5.
Manual override mode can be set using a line-side light switch (light 'ON' permanently for 4 h), light 'ON' time and twilight response thresholds can be adjusted to suit requirements.

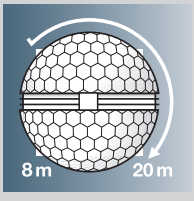
Detection zone



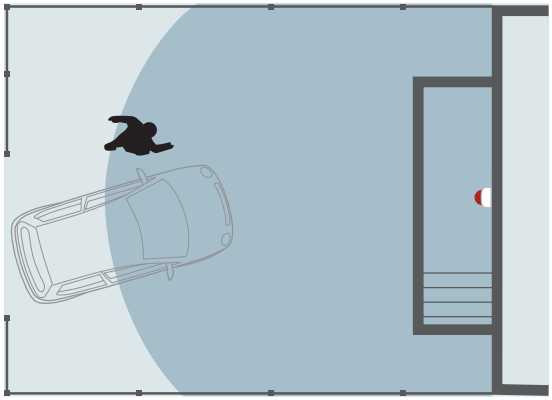
Max. reach:
8 m, 20 m tangentially
Angle of coverage: 180°
Angle of aperture: 90°

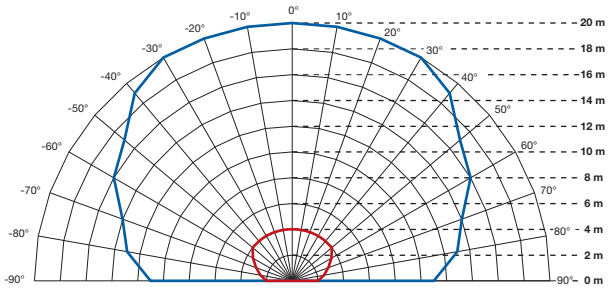
Shrouds: restrict angle of coverage to suit needs.

Setting capabilities



Reach setting by means of swivelling multi-lens (8 m, 20 m)





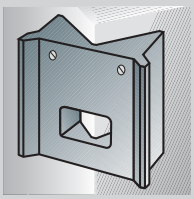
IS 2180-5 reach, 20 m lens
(blue = tangential walking direction, red = radial walking direction)

IS 2180-5

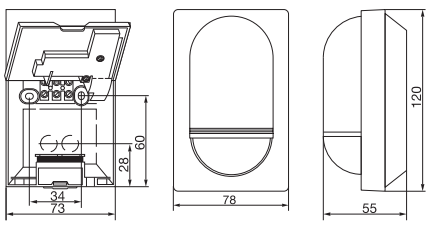
EAN	**black 4007841 605711** **white 4007841 605018** **st.-steel eff. 4007841 605810**
Dimensions (w x h x d)	120 x 78 x 55 mm
Output	- 1000 W max. (resistive load, e.g. filament bulb) - 500 W max. (uncorrected, inductive, cos φ = 0.5, e.g. fluorescent lamps) - 900 W max. (series corrected) - 500 W max. (parallel corrected, with C ≤ 45.6 µF) - electronic ballasts, capacitive, e.g. low-energy lamps, max. of 6 each, C ≤ 132 µF
Voltage	230 – 240 V/50 Hz
Detection angle	180° with 90° angle of aperture
Reach	Basic setting 1: 20 m max. tangentially Basic setting 2: 8 m max. + precision adjustment using shrouds; temperature-stabilised
Sensor system	Basic setting 1: 10 detection levels, 504 switching zones Basic setting 2: 9 detection levels, 412 switching zones
Time setting	5 sec. – 15 min.
Twilight setting	2 – 2000 lux
Manual override	selectable (4h)
IP rating	IP 54
Protection class	II
Ambient temperature	-20° to +50° C
Accessories	- Including corner wall mount for installation on external and internal corners

FUNCTIONAL 36 month WARRANTY
STEINEL German Quality

Accessories

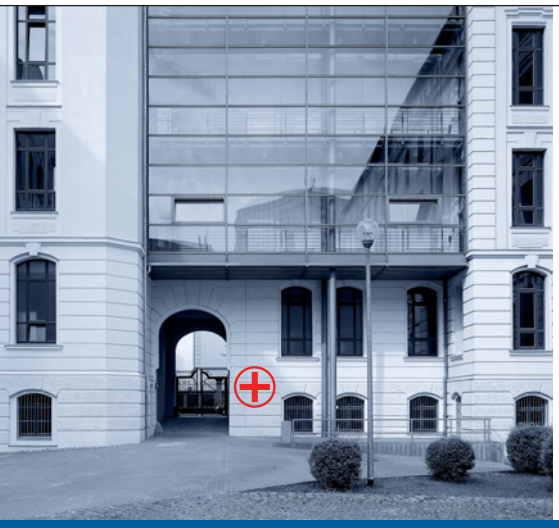


Corner wall mount for installation on internal and external corners



IS 2180-2

Motion Detector for the Wall



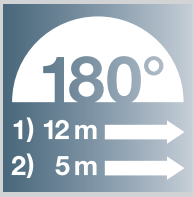
12 m max.

- Infrared wall sensor
- Guarding premises, factory sites and outdoor facilities, fronts of medium-sized buildings
- Reach:
  1) 12 m max
  2) 5 m max.
  adjustable in next to no time
- Angle of coverage: 180°
- Angle of aperture: 90°

Top performance in perfection: the IS 2180-2, the IS 2180-5's smaller brother

You wish to keep watch over medium-sized building fronts and premises? The IS 2180-2 provides the perfect technical line-up for reliably watching over areas as large as 200 m² with exceptional precision: A multi-lens that divides the detection zone into 504 switching zones and 10 levels, a coverage angle of 180° with an angle of aperture of 90° and maximum reach of 12 metres. This wall sensor has an overall switching capacity of 1,000 watts. What's more, the IS 2190-2 also impresses with its perfected, clear-cut design combining top performance with attractive looks. Exactly the right choice for medium-sized premises, factory sites and outdoor facilities or the fronts of buildings.

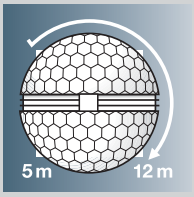
Detection zone



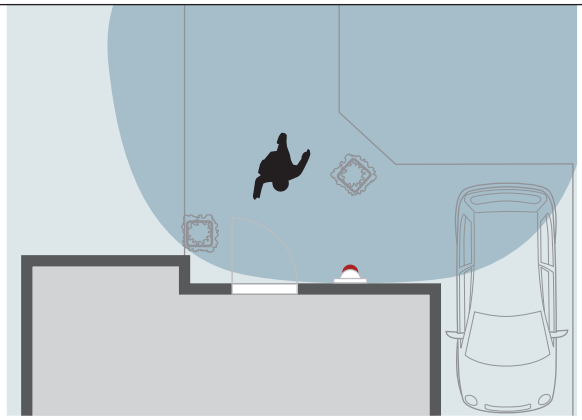
Max. reach:
5 m, 12 m tangentially
Angle of coverage: 180°
Angle of aperture: 90°

Shrouds: restrict angle of coverage to suit needs

Setting capabilities

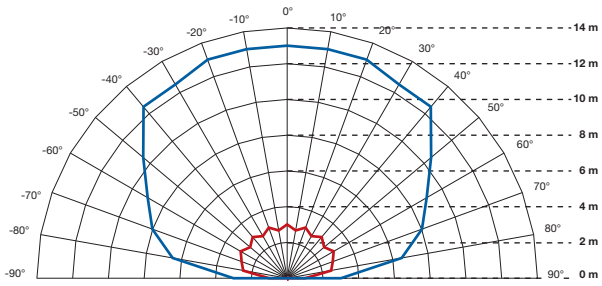


Reach setting by means of swivelling multi-lens (5 m, 12 m)



IS 2180-2

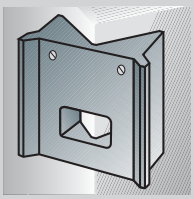
EAN	**black** 4007841 603717 **white** 4007841 603816 **st.-steel eff.** 4007841 603915
Dimensions (w x h x d)	120 x 78 x 55 mm
Output	- 1000 W max. (resistive load, e.g. filament bulb) - 500 W max. (uncorrected, inductive, cos φ = 0.5, e.g. fluorescent lamps) - 900 W max. (series corrected) - 500 W max. (parallel corrected, with C ≤ 45.6 µF) - electronic ballasts, capacitive, e.g. low-energy lamps, max. of 6 each. C ≤ 132 µF
Voltage	230 – 240 V/50 Hz
Detection angle	180° with 90° angle of aperture
Reach	Basic setting 1: 12 m max., tangentially Basic setting 2: 5 m max. + precision adjustment using shrouds; temperature-stabilised
Sensor system	Basic setting 1: 10 detection levels, 504 switching zones Basic setting 2: 9 detection levels, 412 switching zones
Time setting	10 sec. – 15 min.
Twilight setting	2 – 2000 lux
Manual override	–
IP rating	IP 54
Protection class	II
Ambient temperature	-20° to +50° C
Accessories	- Including corner wall mount for installation on external and internal corners



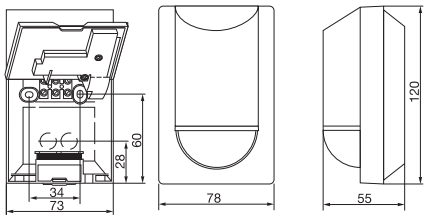
IS 2180-2 reach, 12 m lens
(blue = tangential walking direction, red = radial walking direction)

FUNCTIONAL 36 month WARRANTY | STEINEL German Quality

Accessories



Corner wall mount for installation on internal and external corners



HF 3600

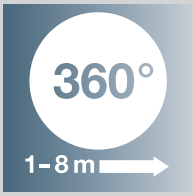
High-Frequency Motion Detector for the Wall

- High-frequency sensor
- Controls indoor lighting installations/ systems (stairwells etc.) irrespective of temperature
- Max. reach: 8 m
- Angle of coverage: 360°
- Angle of aperture: 140°

Exquisite design and management qualities: the HF 3600

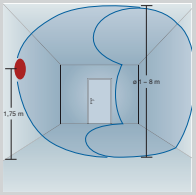
Understated and attractively designed, the HF 3600 is ideal for controlling lighting installations and lighting systems. This high-performance sensor benefiting from cutting-edge HF-sensor technology comes with a 360° coverage angle, an angle of aperture of 140° and reach of up to 8 metres. It sends out a signal of 5.8 GHz and responds with lightning precision to the tiniest of changes in the echo image, i.e. to the smallest of movements made by persons or objects (e.g. 5 cm at a distance of 3 m). It switches almost instantaneously irrespective of temperature and walking direction. With a full 360° angle of coverage, it provides uninterrupted coverage in large indoor spaces, making it the ideal choice for stairwells or deep rooms. Its overall switching load is 1,000 watts. The HF 3600 is easily set to manual override mode (light 'ON' permanently for 4 h) using a line-side light switch. Light 'ON' time, twilight response threshold and reach can also be selected in exactly the way you require.

Detection zone

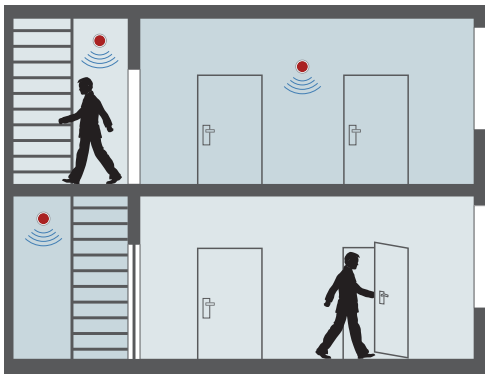


Reach:
1 – 8 m radially
Angle of coverage: 360°
Angle of aperture: 140°

Our high-frequency sensors operate at 5.8 GHz and < 1 mW.

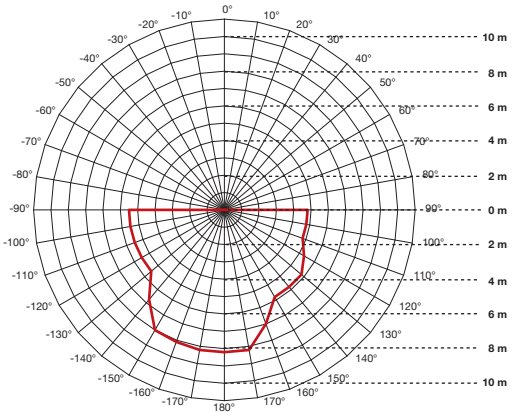


Reach setting 1 – 8 m all round when mounted to wall.



HF 3600

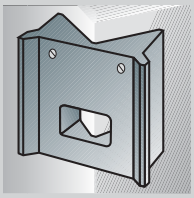
EAN	**black** 4007841 733612 **white** 4007841 733513
Dimensions (w x h x d)	120 x 78 x 41 mm
Output	- 1000 W max. (resistive load, e.g. filament bulb) - 500 W max. (uncorrected, inductive, cos φ = 0.5, e.g. fluorescent lamps) - 900 W max. (series corrected) - 500 W max. (parallel corrected, with C ≤ 45.6 µF) - electronic ballasts, capacitive, e.g. low-energy lamps, max. of 6 each. C ≤ 132 µF
Voltage	230 – 240 V/50 Hz
Detection angle	360° with 140° angle of aperture, also through glass, wood and stud walls
Reach	1 – 8 m dia., infinitely variable
Sensor system	5.8 GHz high-frequency Transmission power < 1 mW
Time setting	5 sec. – 30 min.
Twilight setting	2 – 2000 lux
Manual override	selectable (4 h)
IP rating	IP 54
Protection class	II
Ambient temperature	-20° to +50° C
Accessories	- Including corner wall mount for installation on external and internal corners

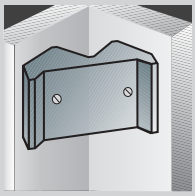


HF 3600 reach, mounting height 1.80 m
(red = radial walking direction)

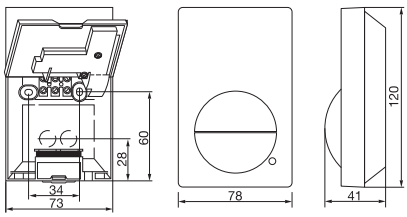
FUNCTIONAL 36 month WARRANTY
STEINEL German Quality

Accessories included



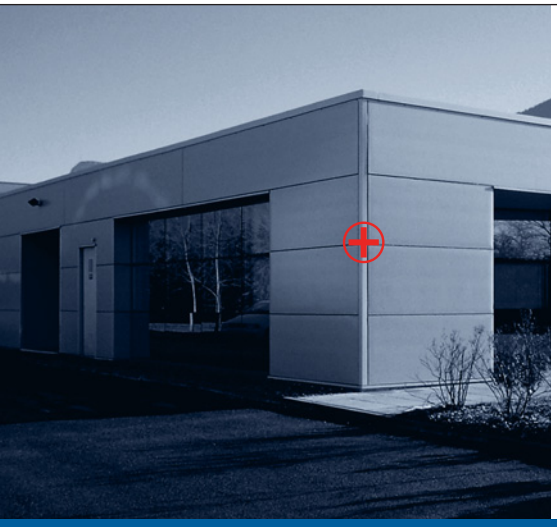


Corner wall mount for installation on internal and external corners



IS 300

Small Motion Detector for Wall and Corner Solutions

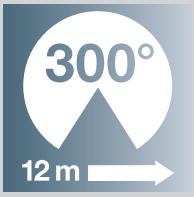


- Infrared wall sensor
- Keeps watch over corner situations, winding corridors etc.
- Max. reach: 12 m
- Angle of coverage: 300°
- Angle of aperture: 90°

A benchmark for problem detection tasks: the IS 300

The IS 300 is ideally equipped for watching over obscure corridors, winding passageways and corners of buildings: With a coverage angle of 300°, which is extremely large for wall-mounted detectors, an angle of aperture of 180° and reach of up to 12 metres, the IS 300 is in full command of watching over the most difficult of building situations. Particularly intelligent: The sensor head can be turned through 80° for precision targeting. The IS 300 has 720 switching zones on 10 levels. At 2,000 watts, its switching capacity is matched to the extremely large detection zone. This means it is easily possible to automate large lighting systems with several lights. The IS 300 from STEINEL Professional is a benchmark in infrared sensor technology and tailored perfectly to needs – no more, no less.

Detection zone

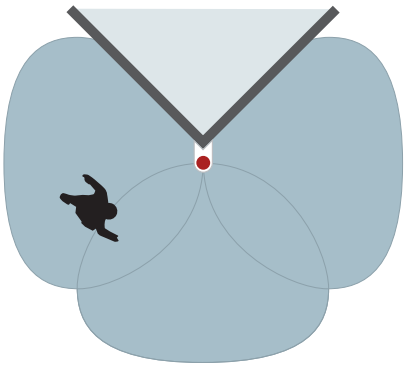


Max. reach:
12 m tangentially
Angle of coverage: 300°
Angle of aperture: 90°

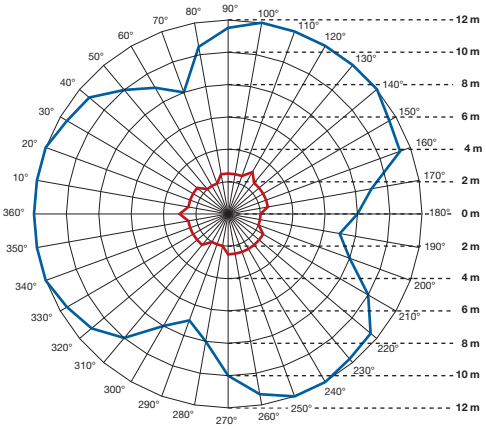
Setting capabilities

Detach decorative ring

Time setting



3-sensor technology of the IS 300



IS 300 reach, mounting height 2.5 m
(blue = tangential walking direction, red = radial walking direction)

IS 300

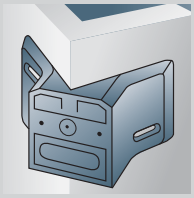
EAN	**black 4007841 602116** **white 4007841 602215**
Dimensions (w x h x d)	85 x 60 x 95 mm
Output	- 2000 W max. (resistive load, e.g. filament bulb), - 1000 W max. (uncorrected, inductive, cos φ = 0.5, e.g. fluorescent lamps) - 1500 W max. (series corrected) - 500 W max. (parallel corrected, with C ≤ 45.6 µF) - electronic ballasts, capacitive, e.g. low-energy lamps, max. of 8 each. C ≤ 176 µF
Voltage	230 – 240 V/50 Hz
Detection angle	300° with 180° angle of aperture
Reach	12 m max., tangentially; temperature-stabilised
Adjustment range	± 80° precision targeting
Sensor system	10 detection levels, 456 switching zones
Time setting	10 sec. – 15 min.
Twilight setting	2 – 2000 lux
Manual override	–
IP rating	IP 54
Protection class	II
Ambient temperature	-20° to +50° C
Accessories	- Corner wall mount (EWH 01) for installation in external corners **4007841 630119 (black), 4007841 630218 (white)**

FUNCTIONAL 36 month WARRANTY
STEINEL German Quality

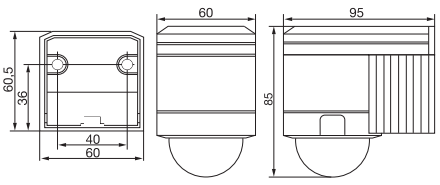
Accessories

Twilight setting

Shrouds: limit the angle of coverage to suit requirements

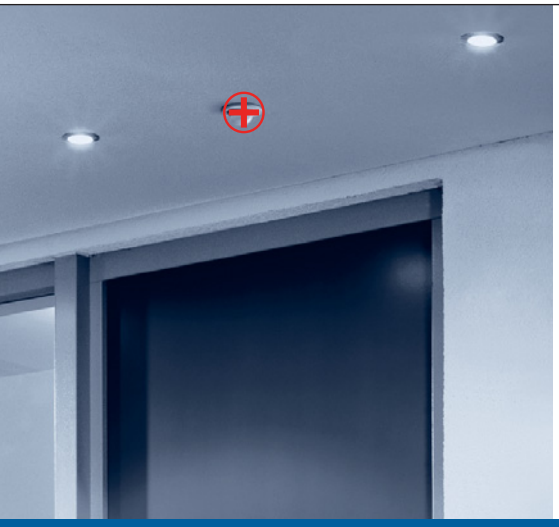


Corner wall mount for installation on external corners



IS D360

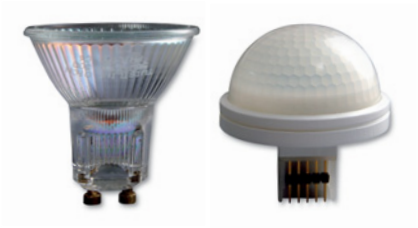
Motion Detector for Controlling Spots



- Recessed ceiling infrared sensor with the dimensions of a bulb (e.g. GU10)
- Can be fitted in any standardised downlight bezel
- Max. reach: 8 m all-round
- Angle of coverage: 360°
- Angle of aperture: 180°
- Floating contact 50 – 250 V

Precision with the perfect figure: the IS D360

Featuring 720 switching zones, the IS D360 guarantees precision detection. It comes with a huge reach of up to 8m, a coverage angle of 360° as well as a 180° angle of aperture. What makes this detector special: the recessed sensor fits into standard recessed downlight trims as it has the outer dimensions of the lamp. This means any design and colour of bezel can be used to match the spots. The IS D360 is compact and quickly installed. Once in place, all you can see is the multi-lens. After detaching the sensor head, settings can be made easily and conveniently by control dial. The IS D360 fits perfectly into any situation as any recessed trim can be used. That's professionality that sets standards – in every respect.

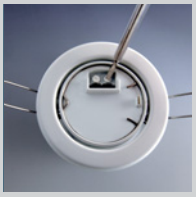


The sensor head with the dimensions of the bulb (e.g. GU10)

Detection zone

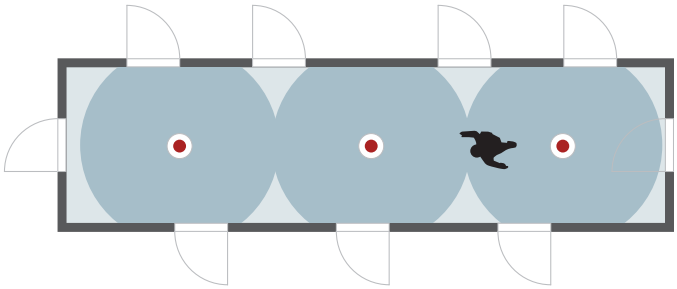
Max. reach:
8 m tangentially
Angle of coverage: 360°
Angle of aperture: 180°

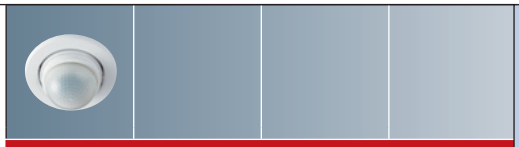
Setting capabilities



Time and twilight setting: concealed beneath the sensor head

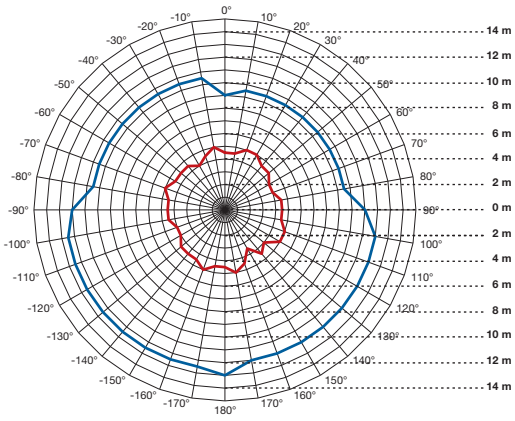
Optional: Recessed trim with swivel mechanism





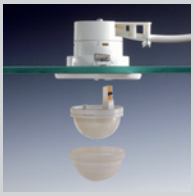
IS D360

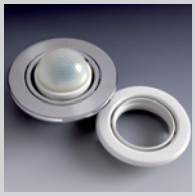
EAN	**white** **4007841 601317**
Dimensions (w x h x d)	83 x 82 mm dia.
Output	- 1000 W max. (resistive load, e.g. filament bulb) - 500 W max. (uncorrected, inductive, cos φ = 0.5, e.g. fluorescent lamps) - 900 W max. (series corrected) - 500 W max. (parallel corrected, with C ≤ 45.6 µF) - electronic ballasts, capacitive, e.g low-energy bulbs, max. of 4 each, C ≤ 88 µF
Voltage	230 – 240 V/50 Hz
Detection angle	360° with 180° angle of aperture
Reach	8 m max. all round; temperature-stabilised
Sensor system	10 detection levels, 720 switching zones
Time setting	5 sec. – 20 min.
Twilight setting	2 – 2000 lux
Manual override	selectable (4 h)
IP rating	IP 20
Protection class	II
Ambient temperature	-20° to +50° C
Accessories	includes standard white trim



IS D360 3-sensor technology, mounting height 2.8 m
(blue = tangential walking direction, red = radial walking direction)

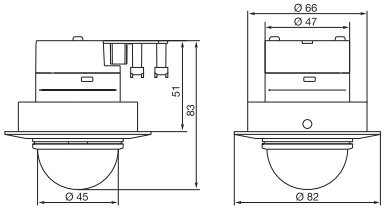
FUNCTIONAL 36 month WARRANTY
STEINEL German Quality





Straightforward installation: pre-install power supply unit, plug in sensor electronics to suit the application

Any trim can be used.
Fitting dimensions:
Outer dia. = 72 mm dia.
Fitting depth = 53 mm



IS 2160 ECO

Motion Detector for the Wall

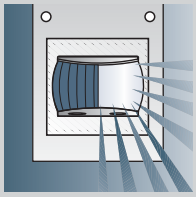
- Attractively priced infrared wall sensor
- Watches over entrances, small properties etc.
- Max. reach: 12 m
- Angle of coverage: 160°
- Angle of aperture: 40°

Less is more: the IS 2160 ECO

The attractively priced IS 2160 ECO is ideal for use in smaller-type properties and at entrances. With this model, we offer our customers a sound, quality motion detector from European production. It reliably watches over areas as large as 170 m². The multi-lens divides its detection zone into 260 switching zones and 5 levels. With a reach of up to 12 metres, an angle of coverage of 160° and an angle of aperture of 40°, it provides high-quality technical features. At 600 watts, its overall switching capacity is matched to demand. Both light 'ON' time and twilight response threshold can be selected to suit individual requirements. Benefiting from outstanding, high-quality technology, the IS 2160 ECO from STEINEL Professional takes care of smaller-type lighting tasks with familiar precision and reliability.

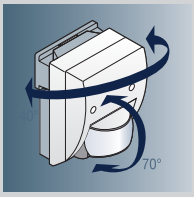
Detection zone

Max. reach:
12 m tangentially
Angle of coverage: 160°
Angle of aperture: 40°

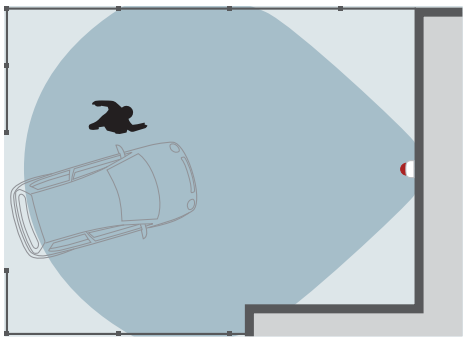


Shroud foils:
limit the angle of coverage to suit requirements

Setting capabilities

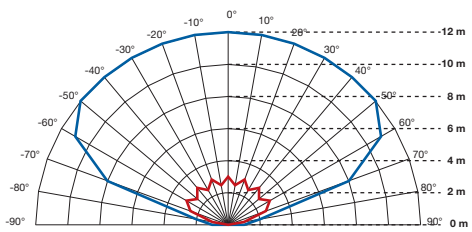


Detection zone:
exact adjustment by tilting and turning



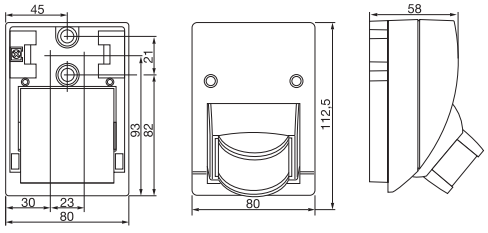
IS 2160 ECO

EAN	**black** 4007841 605919 **white** 4007841 606015
Dimensions (w x h x d)	113 x 78 x 73 mm
Output	- 600 W max. (resistive load, e.g. filament bulb), - 500 W max. (uncorrected, inductive, cos φ = 0.5, e.g. fluorescent lamps) - 500 W max. (series corrected) - 500 W max. (parallel corrected, with C ≤ 45.6 µF) - electronic ballasts, capacitive, e.g. low-energy lamps, max. of 6 each. C ≤ 132 µF
Voltage	230 – 240 V/50 Hz
Detection angle	160°
Reach	12 m max.
Adjustment range	40° horizontally, 70° vertically
Sensor system	5 detection levels, 260 switching zones
Time setting	8 sec. – 35 min.
Twilight setting	2 – 2000 lux
Manual override	–
IP rating	IP 54
Protection class	II
Ambient temperature	-20° to +50° C



IS 2160 ECO reach, mounting height 1.8 m
(blue = tangential walking direction, red = radial walking direction)

FUNCTIONAL 36 month WARRANTY
STEINEL German Quality



NightMatic 5000-2

Photoelectric Lighting Controller

- Photoelectric lighting controller for switching light 'ON' automatically at night
- Twilight switching threshold: 0.5 – 100 lux
- Unique night economy mode
- Selectable: Light 'ON'/'OFF' in the morning
- Anti-glare protection, overload protection
- Recognition of sensors connected in parallel
- Reset function

Turns night into day: the NightMatic 5000-2

The NightMatic 5000-2 switches light 'ON' and 'OFF' in relation to ambient brightness. Its switching load is 2,000 watts. The microprocessor-controlled photoelectric lighting switch is the ideal choice when it comes to illuminating shop windows, advertising systems or surfaces all night long. Practical: the variable night economy mode and capability of selecting light 'ON' or 'OFF' in the morning. This is of particular interest if you want light to come 'ON' at dusk but then go out for a certain number of hours during the night. In this mode, light switches 'ON' in the evening, then switches 'OFF' for a selectable period during the night and comes 'ON' again before daybreak if you want it to; obviously staying 'OFF' automatically during the day.

Setting capabilities

Digital twilight response threshold easy to set by button (Response threshold can be set to between 0 – 5 and 100 lux)

Night economy mode: connected load can be switched 'OFF' at night

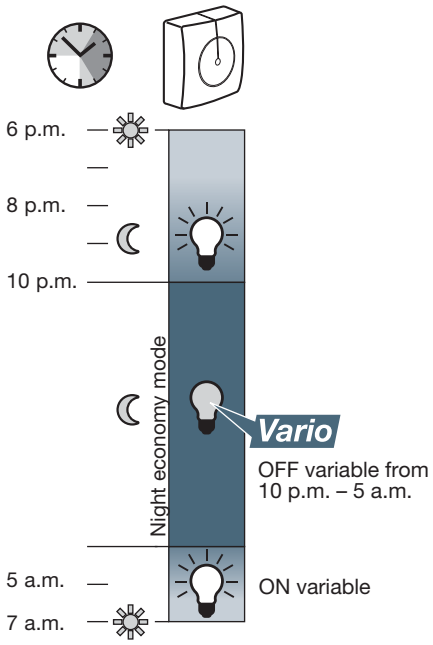
Setting for the morning hours: Light 'ON'/ 'OFF'

Installation

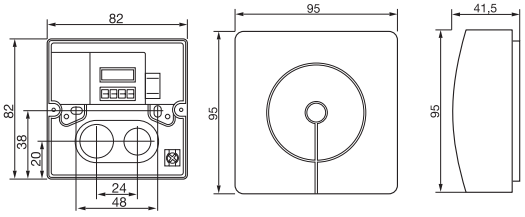
Large terminal compartment with plug-in terminals makes the power supply unit easy to wire.

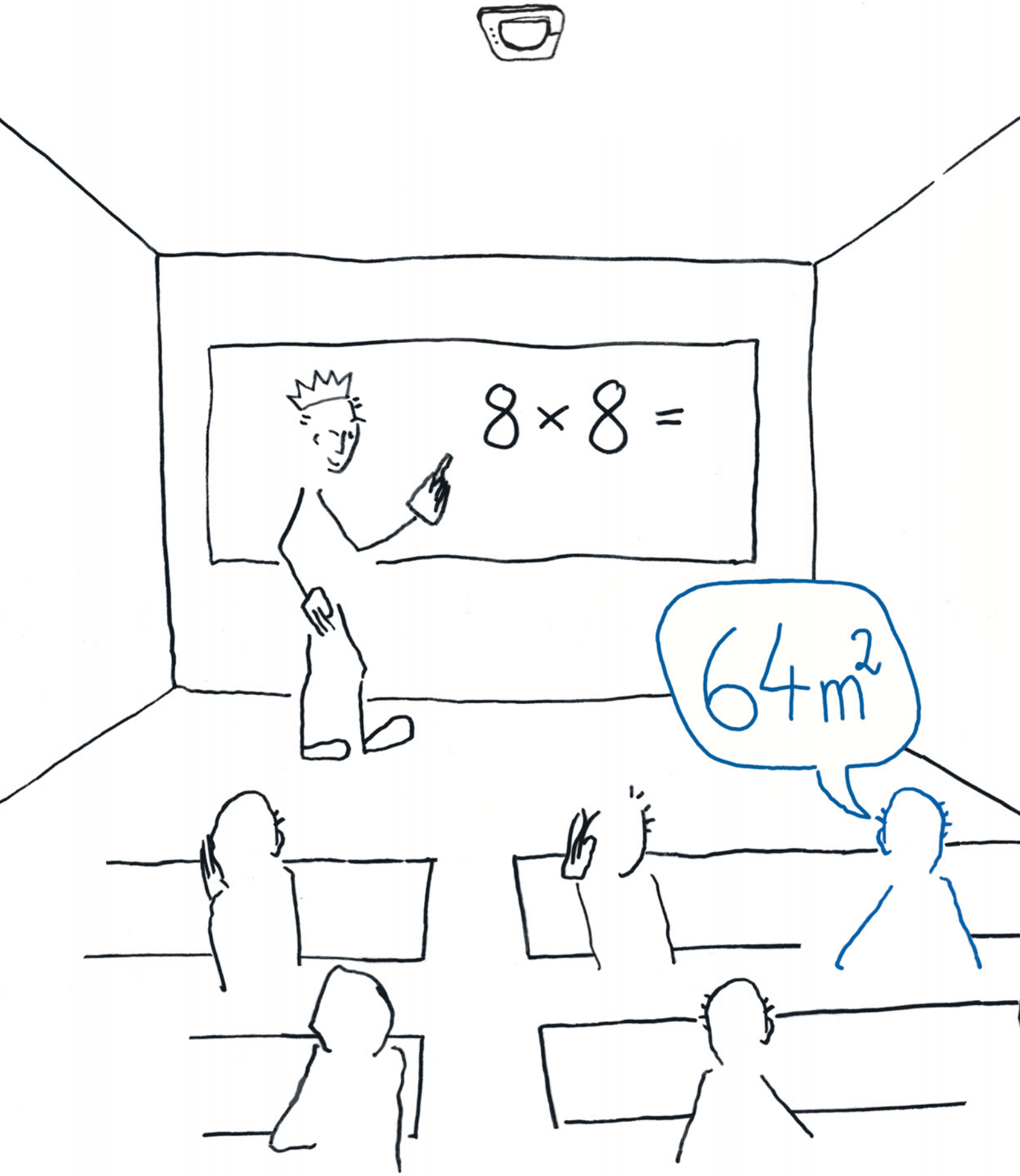
NightMatic 5000-2

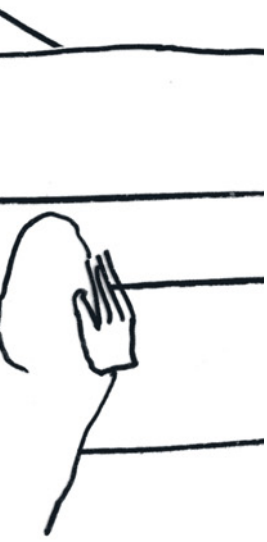
EAN	**black** **4007841 550714** **white** **4007841 550813**
Dimensions (w x h x d)	95 x 95 x 41.5 mm
Output	- 2000 W max. (resistive load, e.g. filament bulb), - 1000 W max. (uncorrected, inductive, cos φ = 0.5, e.g. fluorescent lamps) - 900 W max. (series corrected) - 500 W max. (parallel corrected, with C ≤ 45.6 µF) - electronic ballasts, capacitive, e.g. low-energy lamps, max. of 8 each, C ≤ 176 µF
Voltage	230 – 240 V / 50 Hz (2.5 mm² max.)
Twilight setting	0.5 – 100 lux
Night economy mode	variable night 'OFF' time
Morning setting	Light 'ON' or 'OFF'
IP rating	IP 54
Protection class	II
Ambient temperature	-20° to +50° C



FUNCTIONAL 36 month WARRANTY
STEINEL German Quality

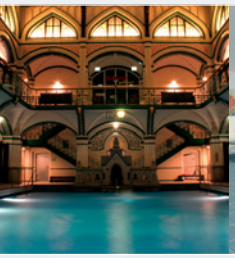



8×8=
64m²

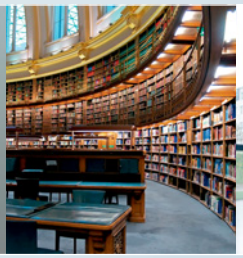


Welcome to the Cream of the Crop.

Anybody also wanting to control lighting automatically indoors enters a field that's capable of saving huge amounts of energy. Yet maximum demands must also be made on the sensors because they need to identify precisely and reliably whether people are present in the room even if they hardly move, let's say while sitting at work. A product that no longer notices school students quietly studying and switches the light 'OFF' shouldn't call itself a presence detector. Even one with a low detection resolution is unsuitable in our eyes. With perfected sensor technology as our foremost maxim, this catalogue now presents you with true presence detectors that can actually say they meet the most exacting of demands. At the same time being tailored to any room type and indoor control task.



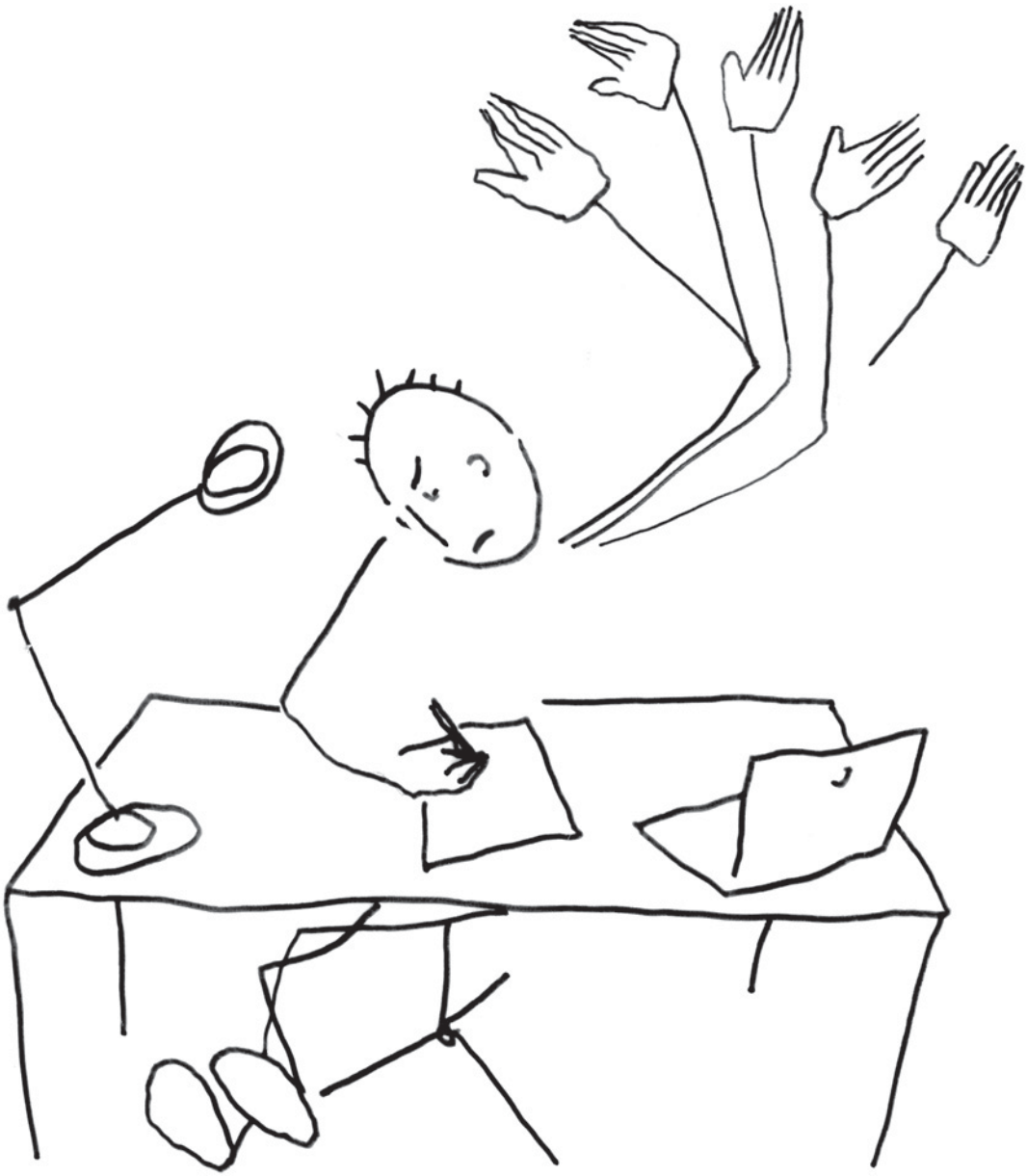





Presence Detectors

Expertise, efficiency and precision – our newly developed range of presence detectors is a shining example of tomorrow's intelligent use of energy. We make technology that's committed to a system.

Presence Detectors really need to Work



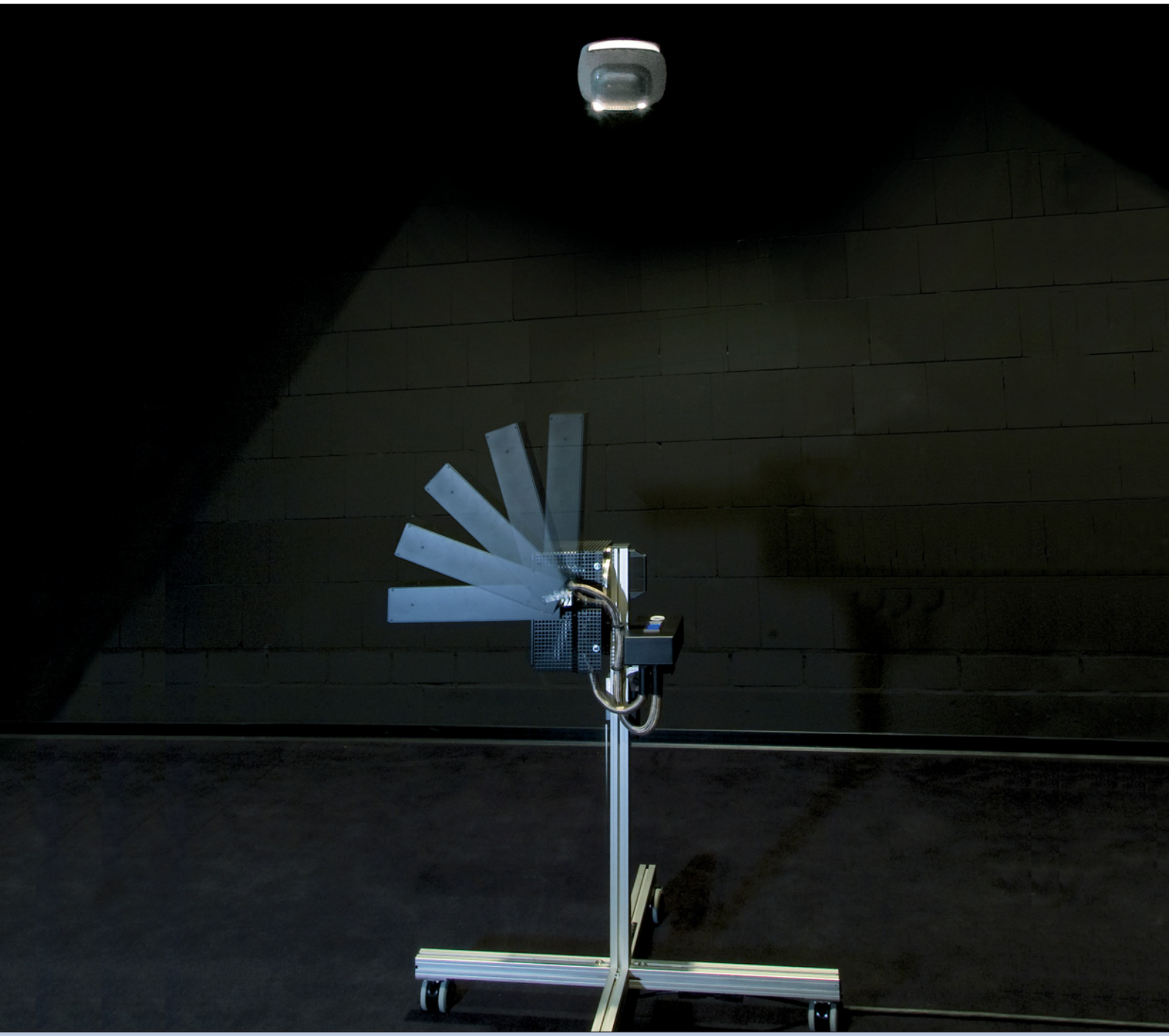
Made for the most exacting of demands: Presence detectors from STEINEL Professional

Presence detectors are the cream of the crop in lighting automation. We say: What counts is light when it's needed – and no light when it isn't. All automatically. And always with perfection.

Technology that works
Presence detectors must work in a way that requires absolutely no thinking on the part of either the people using them or the electricians fitting them. Our foremost maxim is sensor technology that works perfectly. Because a building comes with all sorts of different detection tasks and rooms that also involve widely differing activities, sensor technology needs to satisfy a wide range of demands. Presence detectors that leave pupils sitting in the dark while they are quietly at study are not particularly helpful. Long stay-'ON' times to compensate for detection weaknesses are not particurlary helpful either. Nor are presence detectors that fail to provide the capability of manual intervention - to turn the light 'OFF', say, for video presentations. Poor detection performance is simply no use at all – and has nothing to do with what we can provide.

Top expectations demand performance to match
We are committed to meeting the expectations placed on us by building the best sensors money can buy – because only a first-class engine makes a first-class car. In our opinion, this is the only way of providing you with the very best presence detectors that are available on the market. Developed and produced entirely by STEINEL Professional from the initial idea down to the very last detail. For perfection that works and lasts.

Putting Presence Detectors through their Paces



A real-life measurable basis for comparing the way presence detectors actually work not only ensures a high standard of quality and performance. This shows who's the No. 1 in the technology stakes.

Performance by comparison

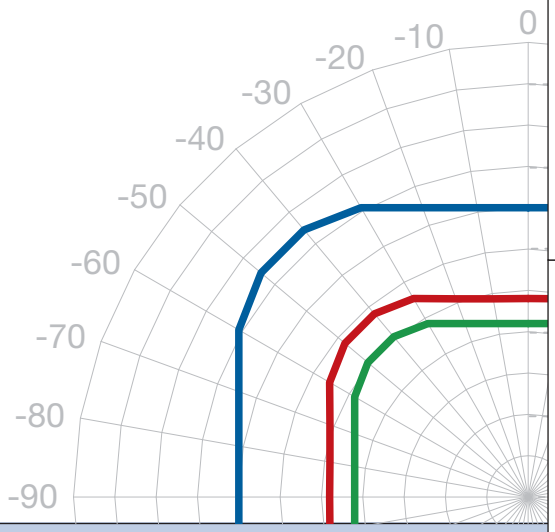
To be in a position to compare all presence detectors, they must be measured under exactly the same conditions: Position, room temperature – excluding other non-controllable influences – and, in particular, the same, standardised movement at all times. Only then is it possible to compare the true performance of presence detectors. At STEINEL Professional, we have a special test room that meets all of these conditions. This means we know our own sensors and those of all our competitors inside out.

The optical system, its resolution density, reach, detection characteristics and evaluation software are all crucial to the quality of a presence detector. Standardised testing provides us with the tremendous precision and the knowledge with which we bring objectivity and hard fact into the equation: It's an incorruptible measurement process that permits international comparison.

We know what we're talking about

Standardised movement is performed by a robot that simulates the human forearm: our NEMA arm robot. Using a temperature-controlled, standardised forearm model of unchanging mass, it performs a 90°-movement that's always the same (conforming to the American NEMA Standard).

Whether and the speed with which the sensor detects it is recorded in a measurement protocol that ultimately provides the basis for producing the detection diagram. There's not a sensor in the world that can't be measured and compared as objectively as this. On the basis of this process, we know exactly how every motion and presence detector performs. And we are extremely proud of where our products rank in this comparison – but at the moment we'll politely refrain from comment.



Control PRO System

CONTROL PRO SYSTEM

STEINEL Professional – true Presence Detectors

An all-new generation of sensor technology:
Control PRO System
We have taken a thorough look at the demands that are made on sensor technology today. In addition to the expectations users put on them, we also devote our attention to those of planners, architects, consultants and electrical fitters. After painstakingly and exhaustively analysing the market, we can meet the expectations placed on modern sensor technology with solutions tailored to every specific need.

The result: our Control PRO generation of presence detectors.

The Professional line-up: covering a range no other can
The Control PRO System uses 4 sensor technologies, 2 infrared versions and 2 high-frequency versions. Both infrared presence detectors have a mechanically scalable square-shaped detection characteristic – unparelleled anywhere else in the world. The design of our new Control PRO family is understated. This range is intended for recessed ceiling installation and therefore extremely shallow. They go perfectly with square as well as round ceiling elements and lights. A range of accessories also permits surface-mounting. Needless to say, our presence detectors are available in all the most commonly demanded combinations (switching output, HVAC output, 1 – 10 V dimming output, KNX/EIB, DALI). Featuring additional functions and setting capabilities, they can be used in master/slave applications and benefit from a self-learning IQ mode. They can also be operated by IR remote control. A precision constant-light controller is, of course, also integrated. Alongside presence detectors, the Control PRO System also offers a modern DUAL smoke detector and an air-quality sensor covering all demands on building sensors in matching design.

That's STEINEL Professional – Intelligent lighting for professional applications.

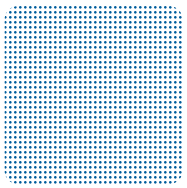
Benefits

- Exactly the right sensor technology for any specific lighting application
- (infrared, digital infrared, high-frequency sensor systems, DUAL technologies, dedicated corridor sensors etc.)
- Unique square-shaped detection zone
- Unparalleled mechanical scalability of reach
- All the main connection options (high-load relay, 2 outputs, DALI, KNX, 1–10 V interface, wireless interconnectability etc.)
- Master-master/master-slave systems
- All products in one and the same design
- Plus smoke detector and air-quality sensor with co-ordinated design and operating concept
- Pushbutton/switch input for semi-automatic operation
- Load-free programming with visible LED
- Constant-light function, permanent light 'OFF' function
- Can be remotely controlled
- Concealed, surface and ceiling mounting
- Compatible with all common recessed boxes

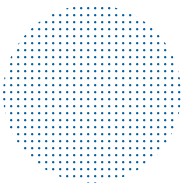
Interfaces

COM1 COM1 AP	COM2	DIM
KNX	DALI	IMPULSER

Unique Presence Detectors



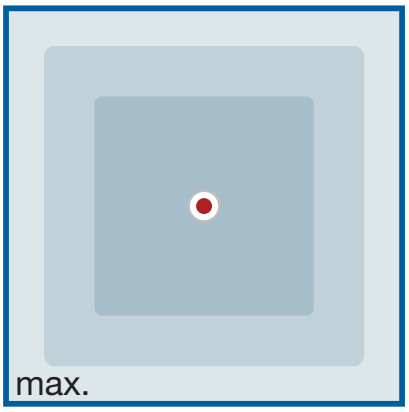
IR Quattro/
IR Quattro HD

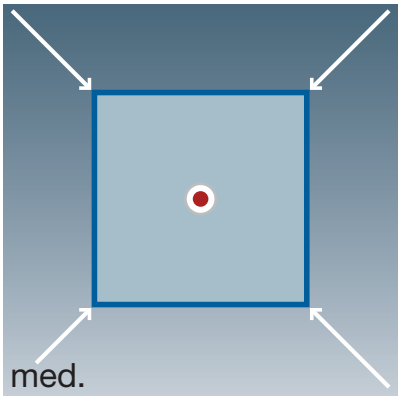


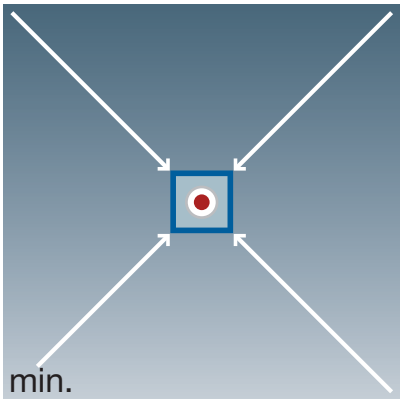
conventional
presence detector

The square, scalable detection zone from Presence Control PRO IR

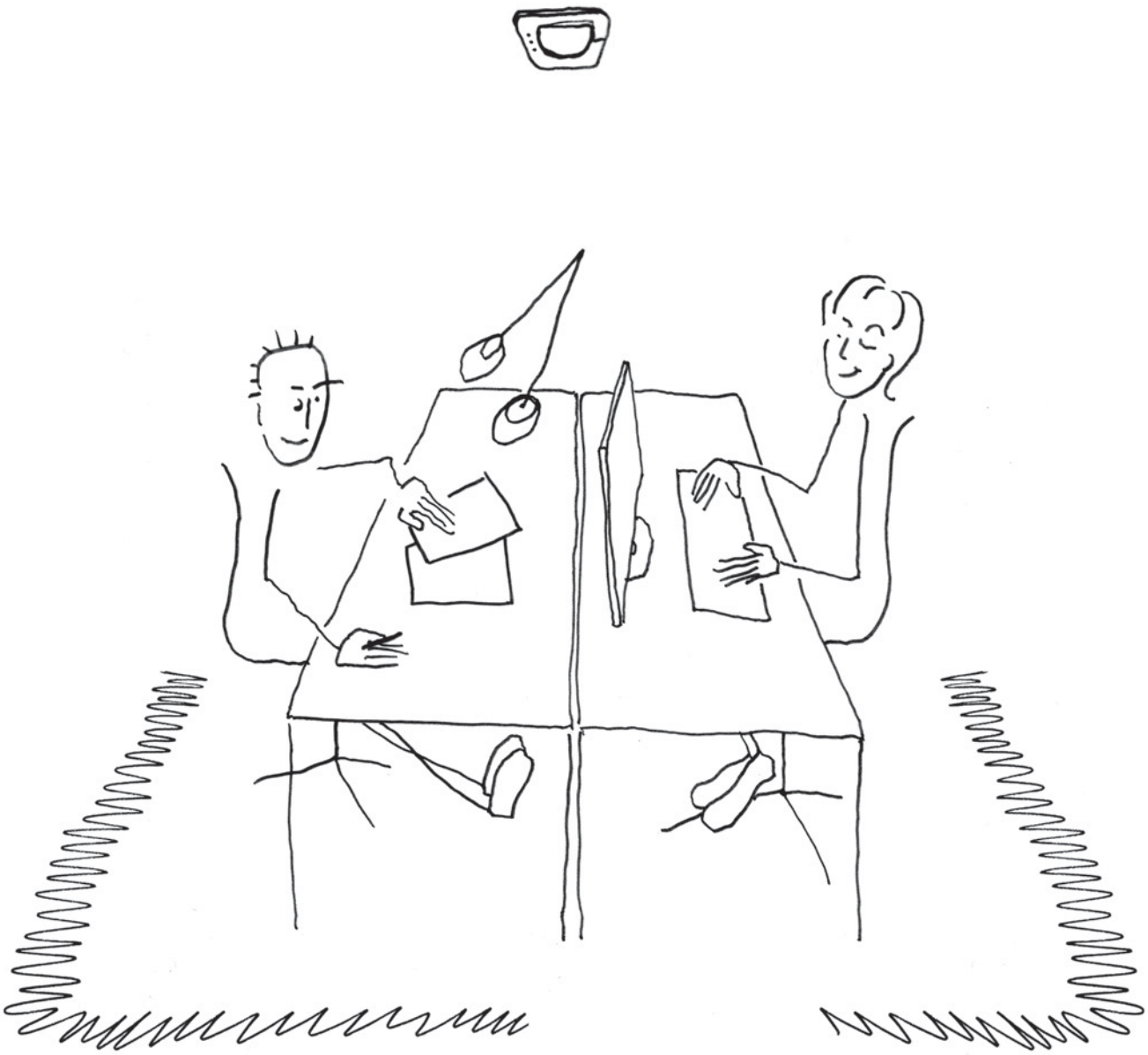
The world is round – rooms aren't
Our IR presence detectors have a square detection zone providing unmatched precision. This detection zone can be scaled with precision, and that's unique. Never before has it been possible to cover rooms with presence detectors without overlaps or leaving gaps: perfectly plannable zones, reliable detection at every point of the room. No longer is there any need for planners, electrical fitters or users to get worked up later on over poor presence-detection performance. Instead, everyone can look forward to maximum energy savings. Unseen anywhere else in the world, the incredible resolution of our presence detectors, with up to 4,800 switching zones, provides a level of detection precision that's previously not been possible.







CONTROL PRO SYSTEM



Overview
Presence Detectors

	Presence Control PRO				Smoke Detector	Air-quality Sensor
						
	IR Quattro	**Quattro HD**	**HF 360**	**Dual HF**	**Fire Control PRO**	**Air Control PRO Signal**
Indoors	●	●	●	●	●	●
In-ceiling installation	●	●	●	●		●
On-ceiling installation	●	●	●	●	●	●
COM1	●	●	●	●		
COM1 AP	●	●	●	●		
COM2	●	●	●			
DIM	●	●	●	●		
DALI	●	●	●	●		
KNX	●	●	●	●		
IMPULSER	●					
Mounting height	2.5 m – 8 m	2.5 m – 10 m	2.5 m – 3.5 m	2.5 m – 3.5 m	2.5 m – 3 m	2.5 m – 3 m
IR-Switching zones	1760	4800	-	-		
Square detection zone	Presence: 4 x 4 m max. Radially: 5 x 5 m max. Tangentially: 7 x 7 m max.	Presence: 8 x 8 m max. Radially: 8 x 8 m max. Tangentially: 20 x 20 m max.	Detection zone: 1 – 8 m dia.	Detection zone: 3 x 20 m		
Detection angle	360°	360°	360°	360°		
Page	**84**	**86**	**88**	**90**	**104**	**106**

	LuxMaster			
				
	BLS	**BLS D**	**BLS DF**	**BLS T**
Indoors	●	●	●	●
In-ceiling mounting				
On-ceiling mounting	●	●	●	●
Mounting height	2.50 - 3 m	2.50 - 3 m	2.50 - 3 m	2.50 - 3 m
IR-Switching zones	1320	1320	1320	1320
Detection angle	360° with 180° angle of aperture	360° with 180° angle of aperture	360° with 180° angle of aperture	360° with 180° angle of aperture
Reach	12 m max.	12 m max.	12 m max.	12 m max.
Page	**110**	**110**	**110**	**110**

Decision-making Matrix for Presence Detectors and Room Sensors

Outdoors
(see page 32)

BLS LuxMaster

Room presence detector

- Offices
- Conference rooms
- Class rooms
- Meeting rooms

- IR-sensor with 3 pyro-sensors
- Round detection characteristic
- Reach 12 m

BLS
LuxMaster

Switching light

BLS, BLS T
(semi-automatic)

1–10 V interface for constant-lighting control & basic brightness

BLS D, BLS DF
(remote control)

Control PRO System

CONTROL PRO SYSTEM

COM1	**Switching light (1 relay)**
COM1 AP	**Switching light slim-line surface-mounting version (1 relay)**
COM2	**Switching light & HVAC (heating/ventilation/air-conditioning, 2 relays)**
DIM	**1–10 V interface for constant-lighting control & basic brightness**
DALI	**Digital DIM interface for constant-lighting control & basic brightness**
KNX	**Digital BUS interface for 4 lighting controls & HVAC (heating/ventilation/air-conditioning)**
IMPULSER	**Battery-operated wireless sensor (transmitter)**

Indoors

Application

Presence Control

Presence detector Room

- Small offices
- WCs, washrooms
- Storage, service, utility rooms
- No detection of mechanical movements (e.g. lift)

- IR-sensor with 1 pyro-sensor
- Mechanical reach setting
- Restrictable square detection zone for the typical shape of a room
- 7 x 7 m tangential detection
- 5 x 5 m radial detection
- 4 x 4 m presence detection


Presence Control PRO IR Quattro

Presence Control

- Medium-sized to large offices
- Conference and meeting rooms
- Class rooms, lecture theatres
- Wherever the tiniest movement needs detecting
- Also suitable for large heights (e.g. sports halls and warehouses)

- IR-sensor with 4 digital pyro-sensors
- Mechanical reach setting
- Restrictable square detection zone for the typical shape of a room
- 20 x 20 m tangential detection
- 8 x 8 m radial detection
- 8 x 8 m presence detection


Presence Control PRO IR Quattro HD

Presence Control

- WCs with toilet cubicles
- Break rooms
- Changing rooms
- Multi-storey car parks
- Stairwells

- HF-sensor
- 360° detection zone
- Extremely slim-line design
- unobtrusive on ceilings
- 8 m all-round detection
- Electronic reach setting
- Detection independent of temperature


Presence Control PRO HF 360

Presence detector Corridor

- Passageways
- Corridors etc.

- HF-sensor
- ideal for corridors with people walking towards the sensor
- for 2 x 20 m (radially) detection zone
- Electronic reach setting
- Detection independent of temperature


Presence Control PRO Dual HF

Fire Control

Smoke detector

- Smoke detector with 2 sensor sizes (smoke + heat)
- For detecting fire
- Low-battery indicator
- Light sensor for daytime low-battery warning
- Function button 10-minute muting and self-test
- Relay contact
- Wired interconnection of as many as 30 STEINEL Professional smoke detectors
- 230 V power supply

- Version with 9V alkaline block battery
- Long-life lithium battery


Fire Control PRO


Fire Control PRO Lithium

Air Control

Air-quality sensor

- Classrooms and conference rooms
- Studies
- Offices
- Training and conference rooms
- Version for surface and concealed mounting

- CO_2 sensor for monitoring air quality
- Traffic-light system for indicating air quality
- Floating output
- For connecting a ventilation system or window operating system providing automatic control for both


Air Control PRO Signal AP (surface-mounting)


Air Control PRO Signal UP (concealed mounting)

Accessories


Remote control RC3, Service


Remote control RC6, Service KNX


Remote control RC4


Remote control RC5 DALI


Remote control RC7 KNX


Surface-mounting adapter IP 54

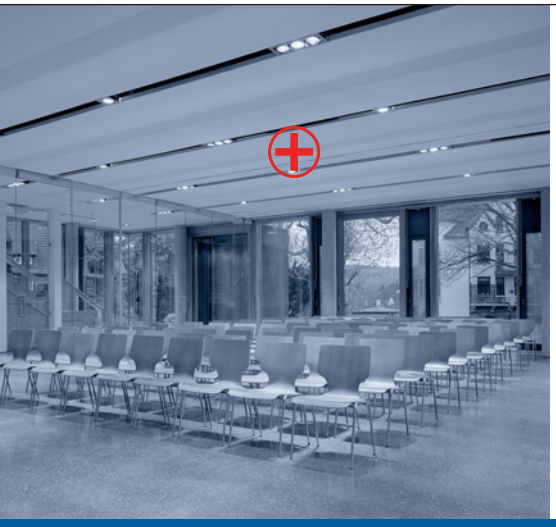

Surface-mounting adapter KNX


Clamping-type adapter

Guard cage

Presence Control PRO IR Quattro HD

Passive Infrared Presence Detector



HD
4800 switching zones

CONTROL PRO SYSTEM

- Extremely high-resolution
- 4 digital pyros
- 4800 switching zones for maximum detection quality
- Presence zone covering a true 64 m²
- Mechanical reach setting
- Precision planning as a result of square detection zone
- Precision, infinitely variable scalability
- Quickly installed, parameters quickly set
- Can be remotely controlled

We take high definition quite literally: PRESENCE CONTROL PRO IR QUATTRO HD

The "HD" version is our range-topping presence detector which provides performance that's second to none. And when we say high definition, we mean high definition: With performance specifications that are hard to believe, the precision of detection this model gives you is truly unique: 4800 switching zones, a genuine presence zone of 8 x 8 m (= no less that 64 sqm), mechanically scalable square detection zone. The secret behind this high-performance presence detector lies in the precision co-ordinated optical system, in the software developed with all the expertise from 20 years of sensor technology and in the first-ever use of 4 digital pyros, i.e. elements that detect infrared radiation emitted from a human being. Digital technology significantly improves signal evaluation even further without increasing the risk of switching errors.

HD is a presence detector for the most challenging of detection tasks in a building: Offices and classrooms, where most activities are performed sitting down, high spaces, such as sports halls and foyers, as well as meeting, training and conference rooms. The remote control allows you to select and set all the main functions, programmes and operating modes easily and conveniently. The Presence Control PRO IR Quattro HD gives you a wide range of options. It's available in a COM1, COM1 AP, COM2 as well as a 1 – 10 V DIM, KNX and DALI version.

Detection zone

Detection zone:
20 x 20 m max., tangentially

Accessories

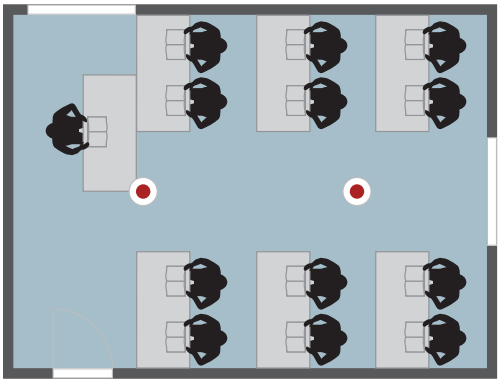
Service remote control
RC3
RC6 KNX

Remote control
RC4

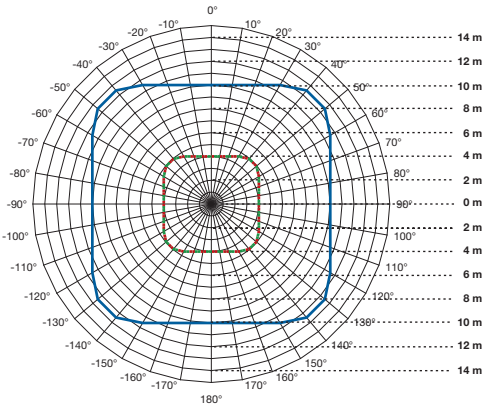
Remote control
RC5 DALI
RC7 KNX

Clamping-type
ceiling adapter
Control PRO UP Box

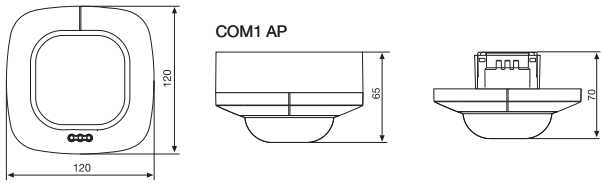
Surface-mounting adapter
Control PRO AP Box (IP 54)

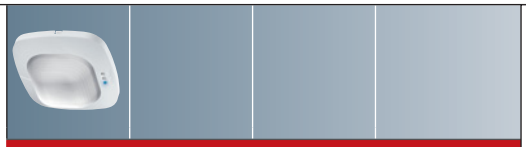


tangential radial presence



Presence Control PRO IR Quattro HD, installation height 2.80 m
blue = tangentially, red = radially, green = presence





IR Quattro HD

EAN	**IR Quattro HD COM1** **4007841 002794** **IR Quattro HD COM1 AP** **4007841 592400** **IR Quattro HD COM2** **4007841 002770** **IR Quattro HD DIM** **4007841 002787** **IR Quattro HD KNX** **4007841 002763** **IR Quattro HD DALI** **4007841 002756**
Dimensions (WxHxD)	120 x 120 x 76 mm
Square detection zone	- Presence 8 x 8 m max. (64 sqm) - Radially 8 x 8 m max. (64 sqm) - Tangentially 20 x 20 m max. (400 sqm)
Point of application	inside buildings
recommended installation height	2.5 m – 10 m ceiling height
Reach	mechanically adjustable
Sensor system	13 detection levels, 4,800 switching zones
Functions set at DIP switches (KNX using ETS software)	DIP 1 Normal / test mode DIP 2 Semi-/ fully automatic mode DIP 3 Pushbutton / switch mode DIP 4 Pushbutton 'ON' / pushbutton 'ON'-'OFF' DIP 5 Constant-lighting control 'ON'-'OFF' (DIM/DALI)
Parallel connections	Master/slave Master/master
User-friendly setting capability	Teach-in (with optional RC3 remote control)
Light-level setting	10 – 1000 lux, ∞ / daylight DIM 100 – 1000 lux
IP rating	IP 20 (IP 54 with AP Box)
Protection class	II
Temperature range	0° C to +40° C
Housing	UV-resistant, paintable
Accessories	- RC3 service remote control **EAN 4007841 000387** - RC4 remote control **EAN 4007841 003012** - RC5 DALI remote control **EAN 4007841 592806** - RC6 KNX service remote control **EAN 4007841 593018** - RC7 KNX remote control **EAN 4007841 592912** - Surface-mounting adapter Control PRO AP Box **EAN 4007841 000363** - Clamping-type ceiling adapter Control PRO UP Box **EAN 4007841 000370** - Guard cage **EAN 4007841 003036** - Surface-mounting adapter Control PRO AP BOX KNX **EAN 4007841 003029**

Interfaces

Surface-mounting adapter Control PRO AP Box KNX

Guard cage

COM1 COM1 AP	COM2	DIM
KNX	DALI	

For information on the interfaces specified, please turn to page 92 in this section.

FUNCTIONAL 36 month WARRANTY

STEINEL German Quality

Presence Control PRO IR Quattro

Passive Infrared Presence Detector

CONTROL PRO SYSTEM

- 1760 switching zones for excellent detection quality
- Mechanical reach setting
- Precision planning from square detection zone
- Precision, infinitely variable scalability
- Quick installation, fast parameter setting

The new benchmark: the Presence Control PRO IR Quattro

A presence detector of the category that offers a host of innovative details, yet primarily a level of performance that's nothing short of perfect. The IR QUATTRO is the basic version from STEINEL Professional's new range of presence detectors. It provides a square detection zone (QUATTRO optical system) that can be mechanically scaled for precision adjustment to the specific detection task in a room. Adjusting reach results in no overall reduction or enlargement of presence, radial and tangential zones. Reducing reach precisely restricts the field's outer limits though. To begin with, the tangential zone becomes smaller until it is eliminated, then the radial range is taken out and finally the presence zone is reduced in size. This way, unbeatable detection qualities are maintained at all times in spite of optical restriction. All told, IR QUATTRO sensors provide a level of precision that's never been seen before. The RC3 service remote control allows you to select and set all the main functions, programmes and operating modes easily and conveniently. The Presence Control PRO IR Quattro also provides a wide range of options. It comes in a COM1, COM1 AP, COM2, IMPULSER as well as a 1 – 10 V DIM, KNX and DALI version and with RC3, RC4 Dim and RC5 DALI remote controls.

Detection zone

Detection zone:
7 x 7 m max., tangentially

Accessories

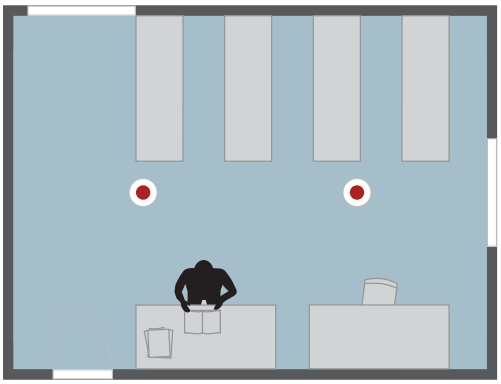
Service remote control
RC3
RC6 KNX

Remote control
RC4

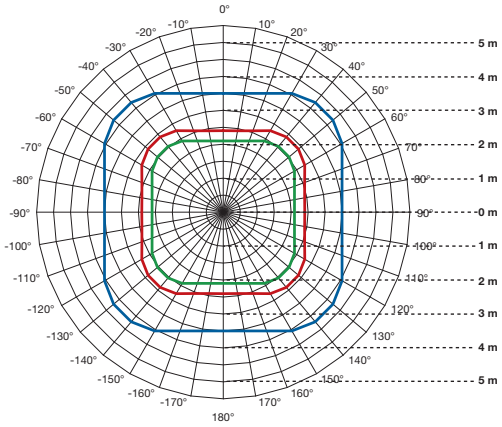
Remote control
RC5 DALI
RC7 KNX

Clamping-type
ceiling adapter
Control PRO UP Box

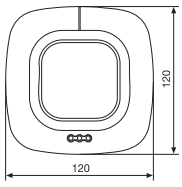
Surface-mounting adapter
Control PRO AP Box (IP 54)



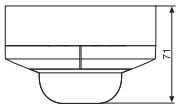
tangential radial presence

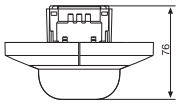


Presence Control PRO IR Quattro, installation height 2.80 m
blue = tangentially, red = radially, green = presence



COM1 AP





Presence Control PRO IR Quattro

EAN	**IR Quattro COM1** **4007841 000349** **IR Quattro COM1 AP** **4007841 592301** **IR Quattro COM2** **4007841 000356** **IR Quattro DIM** **4007841 002718** **IR Quattro KNX** **4007841 002701** **IR Quattro DALI** **4007841 002749**
Dimensions (WxHxD)	120 x 120 x 76 mm
Square detection zone	- Presence 4 x 4 m max. (16 sqm) - Radially 5 x 5 m max. (25 sqm) - Tangentially 7 x 7 m max. (49 sqm)
Application	inside buildings
recommended installation height	2.5 m – 8 m ceiling height
Reach	mechanically adjustable
Sensor system	13 detection levels, 1760 switching zones
Functions set at DIP switches (KNX using ETS software)	DIP 1 Normal / test mode DIP 2 Semi-/ fully automatic mode DIP 3 Pushbutton / switch mode DIP 4 Pushbutton 'ON' / pushbutton 'ON'-'OFF' DIP 5 Constant-lighting control 'ON'-'OFF' (DIM/DALI)
Parallel connections	Master/slave Master/master
User-friendly setting capability	Teach-in (with optional RC3 remote control)
Light-level setting	10 – 1000 lux, ∞ / daylight DIM 100 – 1000 lux
IP rating	IP 20 (IP 54 with AP Box)
Protection class	II
Temperature range	0° C to +40° C
Housing	UV-resistant, paintable
Accessories	- Control PRO RC3 service remote control **EAN 4007841 000387** - RC4 remote control **EAN 4007841 003012** - RC5 DALI remote control **EAN 4007841 592806** - RC6 KNX service remote control **EAN 4007841 593018** - RC7 KNX remote control **EAN 4007841 592912** - Surface-mounting adapter Control PRO AP Box **EAN 4007841 000363** - Clamping-type ceiling adapter Control PRO UP Box **EAN 4007841 000370** - Guard cage **EAN 4007841 003036** - Surface-mounting adapter Control PRO AP BOX KNX **EAN 4007841 003029**

Interfaces

Surface-mounting adapter Control PRO AP Box KNX

Guard cage

COM1 COM1 AP	COM2	DIM
KNX	DALI	IMPULSER page 176

For information on the interfaces specified, please turn to page 92 in this section.

FUNCTIONAL 36 month WARRANTY

STEINEL German Quality

Presence Control PRO HF 360

High-Frequency Presence Detector

- High-frequency sensor system
- Extremely slim and "invisible"
- Detection irrespective of temperature
- Reach is electronically adjustable and can be restricted on two sides
- Ideal for WCs, changing rooms, stairwells etc.
- System with an extremely long life
- All connection options available

A pioneer of sensor technology: Presence Control PRO HF 360

The Presence Control PRO HF 360 for the first time provides a new technology for presence detectors: the high-frequency sensor system. This technology was developed by STEINEL Professional – there's no one else in the world with an understanding of this technology that's as deep and goes as long way back as ours does. Cutting-edge, high-frequency technology guarantees that movement is detected absolutely anywhere. Reach is electronically adjustable. This model is exceptionally slim, making it hardly visible mounted on the ceiling. Not without reason: With no lens and because it doesn't immediately look like a presence detector, it's not a target for wilful damage (for vandals, say). 1 or 2 detection directions can be masked out for adjustment to the room situation. As the sensor works with an active detection system, movements are detected no matter what the temperature. High-frequency sensors work extremely swiftly, switching light 'ON' instantly (e.g. in WCs: light comes 'ON' in response to the very first movement of the door, meaning it's already 'ON' as soon as someone enters the room). The Presence Control PRO HF 360 model is available in a COM1, COM1 AP, COM2 as well as a 1 – 10 V DIM, KNX and DALI version.

Detection zone

Reach: 1 – 8 m all round
Angle of coverage: 360°
Angle of aperture: 140°

Our high-frequency sensors work at 5.8 GHz and 1 mW.

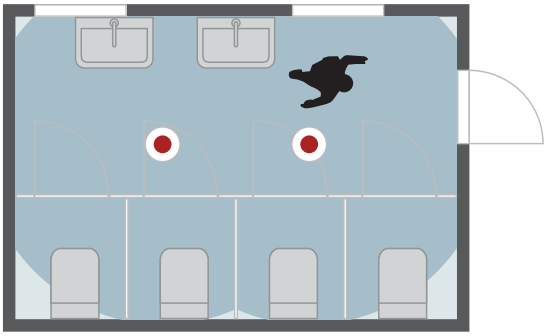
Accessories

Service remote control
RC3
RC6 KNX

Remote control
RC4

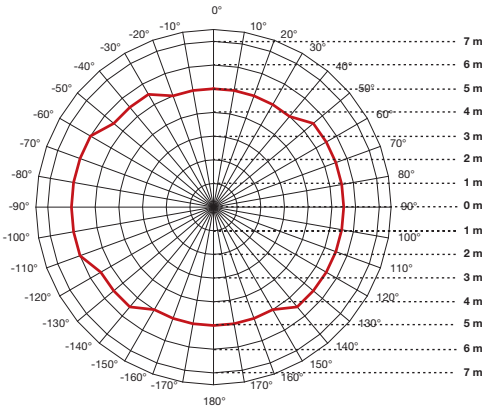
Remote control
RC5 DALI
RC7 KNX

Clamping-type
ceiling adapter
Control PRO UP Box

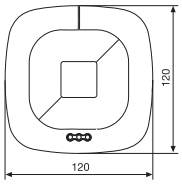


Presence Control PRO HF 360

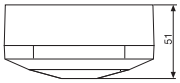
EAN	**HF 360 COM1** **4007841 002800** **HF 360 COM1 AP** **4007841 751302** **HF 360 COM2** **4007841 002848** **HF 360 DIM** **4007841 002831** **HF 360 KNX** **4007841 002824** **HF 360 DALI** **4007841 002817**
Dimensions (WxHxD)	120 x 120 x 56 mm
Point of application	inside buildings
recommended installation height	2.5 m – 3.5 m ceiling height
Detection angle	360° with 140° angle of aperture, also through glass, wood and stud walls; 1 or 2 detection directions can be masked for adjustment to room situation
Reach	8 m max. all round, electronically and infinitely variable
Sensor system	High-frequency 5.8 GHz, transmission power < 1mW
Functions set at DIP switches (KNX using ETS software)	DIP 1 Normal / test mode DIP 2 Semi-/ fully automatic mode DIP 3 Pushbutton / switch mode DIP 4 Pushbutton 'ON' / pushbutton 'ON'-'OFF' DIP 5 Constant-lighting control 'ON'-'OFF' (DIM/DALI)
Parallel connections	Master/slave Master/master
User-friendly setting capability	Teach-in (with optional RC3 remote control)
Light-level setting	10 – 1000 lux, ∞ / daylight DIM 100 – 1000 lux
IP rating	IP 20 (IP 54 with AP Box)
Protection class	II
Temperature range	0° C to +40° C
Housing	UV-resistant, paintable
Accessories	- RC3 service remote control **EAN 4007841 000387** - RC4 remote control **EAN 4007841 003012** - RC5 DALI remote control **EAN 4007841 592806** - RC6 KNX service remote control **EAN 4007841 593018** - RC7 KNX remote control **EAN 4007841 592912** - Surface-mounting adapter Control PRO AP Box **EAN 4007841 000363** - Clamping-type ceiling adapter Control PRO UP Box **EAN 4007841 000370** - Guard cage **EAN 4007841 003036** - Surface-mounting adapter Control PRO AP Box KNX **EAN 4007841 003029**

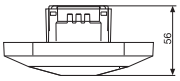


Presence Control PRO HF 360, installation height 2.80 m
red = radially



COM1 AP





Surface-mounting adapter Control PRO AP Box (IP 54)

Surface-mounting adapter Control PRO AP Box KNX

Guard cage

COM1 COM1 AP | COM2 | DIM

KNX | DALI

For information on the interfaces, please turn to page 92 in this section.

FUNCTIONAL 36 month WARRANTY

STEINEL German Quality

Presence Control PRO Dual HF

High-Frequency Presence Detector for Corridors

- Ideal corridor sensor using high-frequency technology
- Reliable detection over up to 20 m
- Reach electronically adjustable for both directions together
- Detection irrespective of temperature
- Ideal for detecting radial movement towards the sensor
- Ideal in corridors of normal ceiling height (hotel landings, halls and passageways at home, etc.)

Lighting automation perfected: Presence Control PRO DUAL HF

This product uses high-frequency technology that differs from the one used by the Presence Control PRO HF 360: DUAL HF with dual directional characteristic. Landings in hotels, corridors in schools and office buildings etc. are typical areas that lend themselves to automatic lighting control. But so far, there's been no sensor that could really cope with the job satisfactorily. That's a bold claim, but one that can be explained in physical terms. In corridors, most people walk towards the sensor (radially). Because of the direction they walk in, this is where infrared sensors installed at normal ceiling height are pushed to their limits because the probability of someone crossing 2 switching zones is rare and only happens late on. Attempts can be made to improve this situation by using special lenses, but at the end of the day it's the laws of physics that count. High-frequency technology, in contrast, even prefers a radial walking direction because the signal generated is even greater. The DUAL HF sensor is the first system to be featured in our range that uses 2 special HF-sensors to watch over both directions in a corridor from the ceiling: providing reliable detection over up to 24 m! Truly unique! Reach can be proportionally reduced in both directions all electronically. This model is available in the COM1, COM1 AP, KNX, DALI and 1 – 10 V DIM connecting options.

Detection zone

Max. reach: 3 –10 m
in each direction, infinitely adjustable

Our high-frequency sensors work at 5.8 GHz and 1 mW.

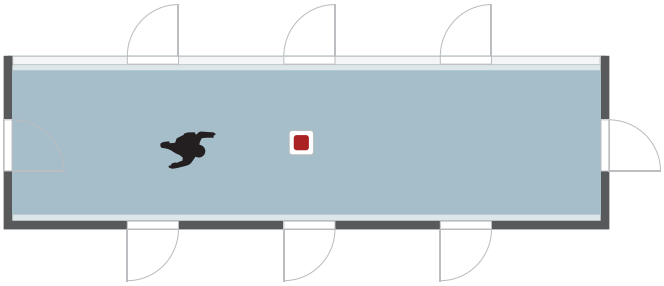
Accessories

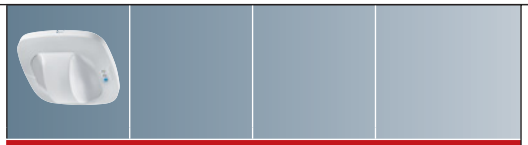
Service remote control
RC3
RC6 KNX

Remote control
RC4

Remote control
RC5 DALI
RC7 KNX

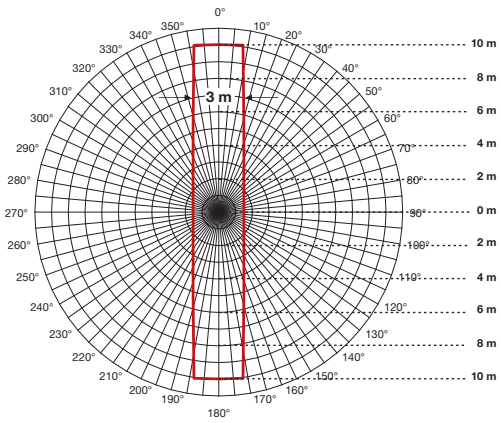
Clamping-type
ceiling adapter
Control PRO UP Box



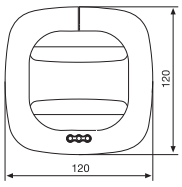


Presence Control PRO DUAL HF360

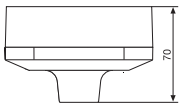
EAN	**DUAL HF COM1** 4007841 002978 **DUAL HF COM1 AP** 4007841 590703 **DUAL HF DIM** 4007841 002985 **DUAL HF KNX** 4007841 002992 **DUAL HF DALI** 4007841 003005
Dimensions (WxHxD)	120 x 120 x 76 mm
Point of application	inside buildings
recommended installation height	2.5 m – 3.5 m ceiling height
Detection angle	360° with 140° angle of aperture, also through glass, wood and stud walls
Reach	10 x 3 m max. in each direction, electronically and infinitely adjustable
Sensor system	High-frequency 5.8 GHz, transmission power < 1mW
Functions set at DIP switches (KNX using ETS software)	DIP 1 Normal / test mode DIP 2 Semi-/ fully automatic mode DIP 3 Pushbutton / switch mode DIP 4 Pushbutton 'ON' / pushbutton 'ON'-'OFF' DIP 5 Constant-lighting control 'ON'-'OFF' (DIM/DALI)
Parallel connections	Master/slave Master/master
User-friendly setting capability	Teach-in (with optional RC3 remote control)
Light-level setting	10 – 1000 lux, ∞ / daylight DIM 100 – 1000 lux
IP rating	IP 20 (IP 54 with AP Box)
Protection class	II
Temperature range	0° C to +40° C
Housing	UV-resistant, paintable
Accessories	- RC3 service remote control **EAN 4007841 000387** - RC4 remote control **EAN 4007841 003012** - RC5 DALI remote control **EAN 4007841 592806** - RC6 KNX service remote control **EAN 4007841 593018** - RC7 KNX remote control **EAN 4007841 592912** - Surface-mounting adapter Control PRO AP Box **EAN 4007841 000363** - Clamping-type ceiling adapter Control PRO UP Box **EAN 4007841 000370** - Guard cage **EAN 4007841 003036** - Surface-mounting adapter Control PRO AP Box KNX **EAN 4007841 003029**

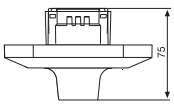


Presence Control PRO Dual HF, installation height 2.8 m, indoor corridor situation, radial walking direction



COM1 AP





COM1 COM1 AP	DIM	IMPULSER Page 176
KNX	DALI	

Surface-mounting adapter Control PRO AP Box (IP 54)

Surface-mounting adapter Control PRO AP Box KNX

Guard cage

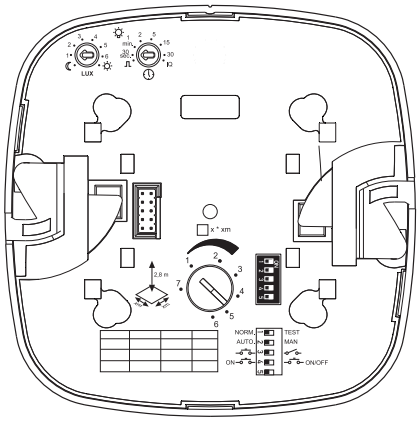
For information on the interfaces, please turn to page 92 in this section.

FUNCTIONAL 36 month WARRANTY

STEINEL German Quality

Presence Detector Interfaces/Operation

COM1/COM1 AP (Switching Light)



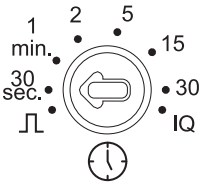
	COM1	COM1 AP
	Presence Control PRO	
Voltage	230 – 240 V, 50 Hz/60 Hz	
Output	Relay 230 V - Resistive load 2000 W max. (cos φ = 1) - 1000 VA max. (cos φ = 0.5) - Max. 'ON' current 800 A/200 µs - 30 x (1 x 18 W), 25 x (2 x 18 W) - 25 x (1 x 36 W), 15 x (2 x 36 W) - 20 x (1 x 58 W), 10 x (2 x 58 W) Pay attention to specific 'ON' currents of electronic ballasts. A relay or contactor must be provided on line side for higher switching capacities.	
Time setting	30 sec. – 30 min., pulse mode (approx. 2 sec.), IQ mode (automatic adjustment to usage profile)	

Presence Detector Network

STEINEL Professional offers you all the customary connection options. Straightforward and efficient, they provide the means of interconnecting presence detectors to create entire, automatically controlled lighting systems. From COM1 and COM2, KNX, DALI and DIM interface, right through to interconnecting presence detectors using our Impulser system, STEINEL Professional covers the entire range of connection options. Interfaces are simply selected exactly as required for the chosen models to provide technically perfected lighting automation tailored to the specific application.

COM1 and COM1 AP interfaces are available for the following sensors:

- IR Quattro
- IR Quattro HD
- HF 360
- DUAL HF



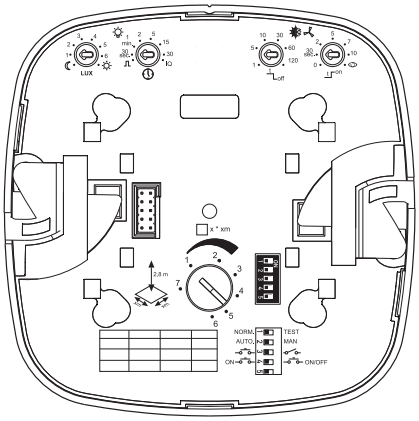
COM1/COM1 AP (surface-mounting) interface is only responsible for switching light 'ON' and 'OFF'.

Lighting controller
Operating in response to ambient brightness and the presence of persons, the lighting controller switches light 'ON' when it's needed and 'OFF' again when it isn't. Light is only switched 'ON' when it's needed. Avoiding any wastage of energy and unnecessary costs.

Brightness level potentiometer for light output
When ambient light falls below the preselected brightness level, the detector switches artificial light 'ON' whenever someone is present. Brightness level is set on a scale from 1 – 6, with these levels reflecting typical room situations. Alternatively, day or night-time mode can be selected. Using the RC3 service remote control, current brightness level can be programmed in (teach-in mode) as the switching threshold.

Stay-'ON' time potentiometer for light output
Lighting stay-'ON' time indicates the time light stays 'ON' for until switching 'OFF' again after the last detected movement. A pulse mode activating any staircase lighting time switch and the IQ mode are provided as special functions. The IQ mode automatically matches stay-'ON' time to suit room and usage situation.

COM2 (Switching Light & HVAC)



	COM2
	Presence Control PRO
Voltage	230 – 240 V, 50 Hz/60 Hz
Power Switching contact 1	Relay 230 V - Resistive load 2000 W max. (cos φ = 1) - 1000 VA max. (cos φ = 0.5) - Max. 'ON current 800 A/200 µs - 30 x (1 x 18 W), 25 x (2 x 18 W) - 25 x (1 x 36 W), 15 x (2 x 36 W) - 20 x (1 x 58 W), 10 x (2 x 58 W) Pay attention to specific 'ON' currents of electronic ballasts! A relay or contactor must be provided on line side for higher switching capacities.
Power Switching contact 2	Presence - 230 W max./230 V - 1A max. (cos φ = 1) for HVAC (heating/ventilation/air-conditioning)
Time setting Switching contact 1	30 sec. – 30 min., pulse mode (approx. 2 sec.), IQ mode (automatic adjustment to usage profile)
Time setting Switching contact 2	0 sec. – 10 min. switch-'ON' delay 1 min. – 2 h stay-'ON' time automatic room surveillance

The COM2 interface is available for the following sensors:

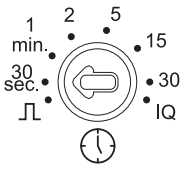
- IR Quattro
- IR Quattro HD
- HF 360

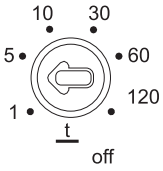
COM2 is the interface for using the presence detector to control heating, ventilation and air-conditioning in addition to lighting. This way, all room services can be managed conveniently and with maximum energy efficiency.

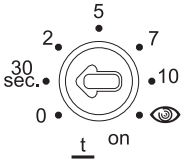
Lighting controller
Operating in response to ambient brightness and the presence of persons, the lighting controller switches light 'ON' when it's needed and 'OFF' again when it isn't. Light is only switched 'ON' when it's actually required. Avoiding wastage of energy and unnecessary costs.

HVAC control
Heating, ventilation and air-conditioning systems are controlled from the HVAC output. This only switches systems 'ON' and 'OFF' in relation to the presence of persons since heating, ventilation and air-conditioning need to be provided even if daylight is bright enough. If a room is not being used any more, heating, ventilation and air-conditioning can be switched off to save energy and costs.

Brightness threshold potentiometer for light output
When ambient light falls below the preselected brightness level, the detector switches artificial light 'ON' whenever someone is present. Brightness level is set on a scale from 1 – 6, with these levels reflecting typical room situations. Alternatively, day or night-time mode can be selected. Using the RC3 service remote control, the current brightness level can be programmed in (teach-in mode) as the switching threshold.







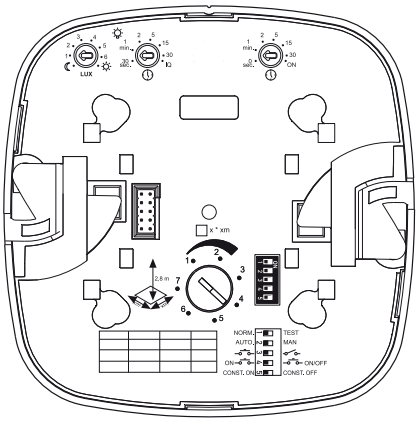
Stay-'ON' time potentiometer for light output
The light output's stay-'ON' time defines how long light is set to stay 'ON' for after the last movement is detected. A pulse mode activating any staircase lighting time switch and the IQ mode are provided as special functions. The IQ mode automatically matches the stay-'ON' time to suit any particular room situation and its usage.

Stay-'ON' time potentiometer for HVAC output
The HVAC output controls interfaced actuators in relation to presence as heating, ventilation and air-conditioning need to stay 'ON' during the day too. The stay-'ON' time selected indicates how long the HVAC output is to stay 'ON' for after the last detected movement.

Switch-'OFF' delay potentiometer for HVAC output
The HVAC output time delay provides the capability of setting a time delay of up to 10 minutes before switching the contact. It can be switched 'ON' immediately by selecting the 0 seconds setting. The room surveillance function provides the means of activating the HVAC switching contact only when the room is being used. The actuator only switches in when many movements are being detected. This way, for example, taking a quick look into a room leaves the actuator 'OFF'.

Presence Detector Interfaces/Operation

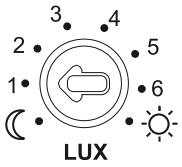
1 – 10 V DIM (Switches and Controls Light):

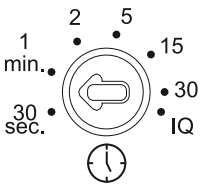


	DIM
	Presence Control PRO
Voltage	230 – 240 V, 50 Hz/60 Hz
Output	Relay 230 V - Resistive load 2000 W max. (cos φ = 1) - 1000 VA max. (cos φ = 0,5) - Max. 'ON' current 800 A/200 µs - 30 x (1 x 18 W), 25 x (2 x 18 W) - 25 x (1 x 36 W), 15 x (2 x 36 W) - 20 x (1 x 58 W), 10 x (2 x 58 W) Pay attention to specific 'ON' currents of electronic ballasts! A relay or contactor must be provided on line side for higher switching capacities.
Time setting	30 sec. – 30 min., IQ mode (automatic adjustment to the usage profile)
Control output	1 – 10 V, 50 electronic ballasts max. (100mA max.)
Basic brightness	0 sec. – 30 min., 10 %

The DIM interface is available for the following sensors:

- IR Quattro
- IR Quattro HD
- HF 360
- DUAL HF



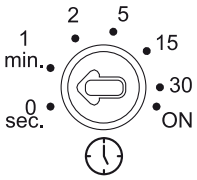


The 1 – 10 V DIM interface allows you to control light by means of the constant-lighting controller and activated basic brightness.

Lighting controller
The preselected brightness level indicates the level of light that's to be maintained in a room all the time. The basic brightness function provides the capability of selecting a basic lighting level of 10% after the stay-'ON' time elapses. It can be switched 'ON' for safety purposes or to show the way for a specific period, or if ambient light falls below the brightness threshold.

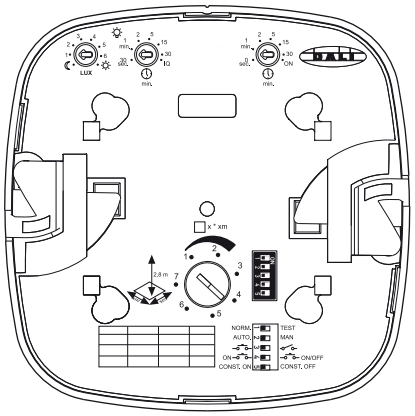
Brightness threshold potentiometer for light output
When ambient light falls below the preselected brightness level, the detector switches artificial light 'ON' whenever someone is present. Brightness level is set on a scale from 1 – 6, with these levels reflecting typical room situations. Alternatively, day or night-time mode can be selected. Using the RC3 service remote control, current brightness level can be programmed in (teach-in mode) as the switching threshold.

Stay-'ON' time potentiometer for light output
The light output's stay-'ON' time indicates the time light stays 'ON' for until switching 'OFF' again after the last detected movement. The IQ mode is provided as a special function. The IQ mode automatically matches the stay-'ON' time to suit the room and usage situation.



Stay-'ON' time potentiometer for basic brightness
When ambient light falls below the selected brightness threshold, this function provides basic illumination for the duration of the stay-'ON' time that's set. It is dimmed to 10% of maximum light intensity. As soon as a person enters the scene, the detector switches either to 100% light intensity (constant-lighting controller 'OFF') or adjusts to the preselected brightness level (constant-lighting controller 'ON'). Once movement is no longer being detected, the detector dims back to basic brightness after the stay-'ON' time expires. This is switched 'OFF' when stay-'ON' time (1 min. – 30 min.) has expired or the daylight component is sufficient to exceed the selected level of brightness. In the 'ON' setting, the detector switches basic brightness 'ON' and 'OFF' as soon as the level of light falls below the brightness threshold.

DALI (Digital DIM Interface for Controlling 2 Lighting Channels)



	Presence Control PRO
Voltage	230 – 240 V, 50 Hz/60 Hz
DALI output 1	2-core DALI control cable/broadcast
DALI output 2	2-core DALI control cable/broadcast
Controllable DALI electronic ballasts	12 DALI electronic ballasts per output mode
Time setting	30 sec. – 30 min., IQ mode
Basic brightness	0 sec. – 30 min., 10 %

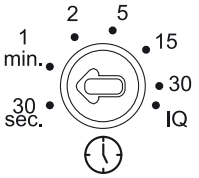
The DALI interface is available for the following sensors:

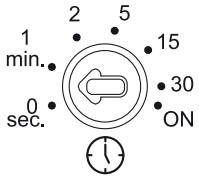
- IR Quattro
- IR Quattro HD
- HF 360
- DUAL HF

Controlling lighting through the Digital DALI interface provides the capability of managing light by means of a constant-lighting controller as well as leaving a basic brightness switched 'ON', e.g. in corridors or stairwells.

Lighting controller
The preselected brightness level indicates the level of light that is to be constantly maintained in the room. The basic brightness function provides the capability of selecting a basic lighting level of 10% after the stay-'ON' time elapses. It can be switched 'ON' for safety purposes or to show the way for a specific period or if ambient light falls below the brightness threshold. The DALI interface additionally provides a second light output that can be operated by remote control independently of the first light output. DALI also allows you to save and retrieve two different lighting situations by remote control as a means of quickly and easily providing recurring lighting scenarios (e.g. presentations) at the press of a button.

Brightness threshold potentiometer for light output
When ambient light falls below the preselected brightness level, the detector switches artificial light 'ON' whenever someone is present. The brightness level is set on a scale from 1 – 6, with these levels reflecting typical room situations. Alternatively, day or night-time mode can be selected. Using the RC3 service remote control, the current brightness level can be programmed in (teach-in mode) as the switching threshold.





Stay-'ON' time potentiometer for light output
The light output's stay-'ON' time indicates the time light stays 'ON' for until switching 'OFF' again after the last detected movement. The IQ mode is provided as a special function. The IQ mode automatically matches the stay-'ON' time to suit the room and usage situation.

Stay-'ON' time potentiometer for basic brightness
When ambient light falls below the selected brightness threshold, this function provides basic illumination for the duration of the stay-'ON' time that is set. It is dimmed to 10% of maximum light intensity. As soon as a person is present, the detector switches either to 100% light intensity (constant-lighting controller 'OFF') or adjusts to the preselected brightness level (constant-lighting controller 'ON'). Once movement is no longer being detected, the detector dims back to basic brightness after the stay-'ON' time expires. This is switched 'OFF' when its stay-'ON' time (1 min. – 30 min.) has expired or the daylight component is sufficient to exceed the level of brightness selected. In the 'ON' setting, the detector switches basic brightness 'ON' and 'OFF' as soon as the level of light falls below the brightness threshold.

Presence Detector Interfaces/Operation

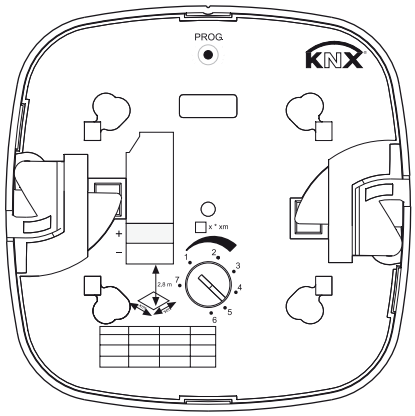
KNX (Digital BUS interface for 4 lighting controls & HVAC (heating/ventilation/air-conditioning))

The last word in flexibility, convenience and security: KNX

KNX is a field bus, an upgrade of the EIB, and has the purpose of interconnecting individual components for automating building services. It provides the capability of using a single system for controlling services, such as lighting, heating, ventilation and air-conditioning, alarm and surveillance systems, interfaces for maintenance work and building protection etc. KNX is used for interconnecting various devices (via twisted cable pairs, wireless link, 230V mains power, IP/Ethernet). Data can then be communicated freely between individual components – irrespective of make or type of application. The various components can be configured at any time i.e. also retrospectively. Tailoring light management in this way produces a high level of efficiency and matches it to requirements.

IR remote controls

Two special IR remote controls are available as accessories for our presence detectors. These allow the user to make settings very easily for lighting, dimming as well as saving and retrieving up to 4 scenarios. Brightness measurement can be calibrated by remote control, detector parameters can also be changed without using the ETS software and a test mode can be started and terminated. In the KNX version, parameters changed by IR remote control can be read and written via the bus.



	Presence Control PRO
KNX mains connection	24 V via KNX bus voltage
Settings	by means of ETS software, remote control or bus
Lighting channels Light 1 – Light 4	Switching/dimming; Switching mode - constant-lighting control
Stay-'ON' time	IQ mode, 1 – 30 min., depending on presence and brightness
Light measurement	Mixed light
Basic brightness	OFF/ 10% – 50%
Stay-'ON' time	Basic brightness 'ON' duration, 1 – 30 min.
HVAC output	depending on presence
Switch-'ON' delay	Room surveillance, 1 – 30 min.
Stay-'ON' time	1 – 120 min.
Presence stay-'ON' time output	1 – 255 sec.
Further outputs	Brightness level

The KNX interface is available for the following sensors:

- IR Quattro
- IR Quattro HD
- HF 360
- DUAL HF

The Control PRO System presence detectors equipped with the KNX interface are capable of performing the following functions:

- Presence detection
- Controlling lighting with brightness control
- Controlling HVAC

Presence detection
This function watches over a room. A signal is immediately sent out as soon the presence of a person is reliably detected and also as soon as presence stops being detected. This watchdog function can, for example, be inhibited during the day and only enabled at night for a specific duration as well as over the weekend.

Lighting controller
Operating in relation to ambient brightness and the presence of persons, the lighting controller switches light 'ON' when it's needed and 'OFF' again when it isn't. Light is only switched 'ON' when it's needed. Avoiding any waste of energy and unnecessary costs.

HVAC controller
Heating, ventilation and air-conditioning systems are controlled using the HVAC output. This only switches systems 'ON' and 'OFF' in relation to persons being present because heating, ventilation and air-conditioning need to be provided even if daylight is sufficient. When a room is not being used any more, heating, ventilation and air-conditioning can be switched off to save energy and costs.

Presence detector operating modes
One of the following operating modes needs assigning to the presence detector:

- Individual detector
- Master
- Slave
- Master in parallel mode

Individual detector
Only one detector is installed in the room.

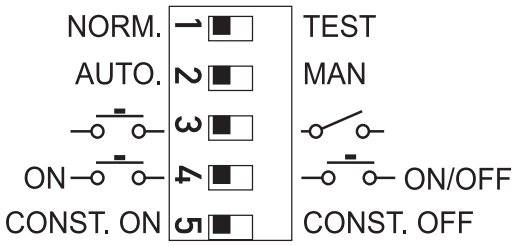
Master
Presence detection zone can be extended by connecting as many as 4 additional presence detectors (slaves or master in parallel mode) to the master via the bus. The main detector ascertains overall presence (is a person present in at least one of the detection zones?), controls lighting, heating, ventilation and air-conditioning for the entire room and sends the relevant objects.

Slave
A slave delivers the "Presence 'ON'" and "Presence 'OFF information to the main detector.

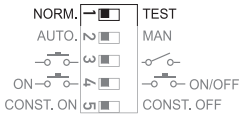
Main master in parallel mode
As many as 4 secondary masters in parallel mode can be connected to a master in parallel mode. These provide independent lighting management with brightness control for their specific detection zone. The main detector ascertains overall presence (is a person present in at least one of the detection zones?), controls lighting, heating, ventilation and air-conditioning for the entire room and sends the relevant objects.

Presence Detector Interfaces/Operation

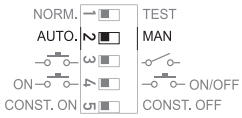
DIP Switches



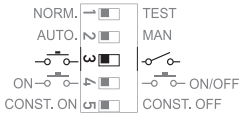
The functions of the DIP switches apply to all connection options.



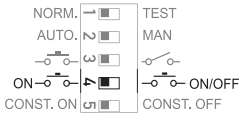
Normal/test-mode DIP switches
The test mode has the purpose of checking for proper operation as well as for setting and pacing out the detection zone. On detecting presence, the presence detector switches the load 'ON' for approx. 8 seconds. In addition, the blue indicator LED on the presence detector instantly shows that a detection has been made, permitting load-free testing. In the normal operating mode, the presence detector operates on the basis of the functions and values set by potentiometer, DIP switch and remote control.



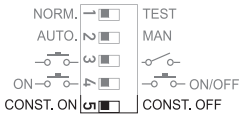
Fully/semi-automatic mode DIP switches
In the fully automatic mode, the detector switches 'ON' when movement is detected and ambient light falls below the brightness threshold selected. Light is automatically switched 'OFF' when movement is no longer being detected and the stay-'ON' time selected has elapsed or there is sufficient daylight. Working as a semi-automatic unit, the detector only switches 'ON' and automatically 'OFF' again after manually operating an external button or switch.



Button/switch DIP switches
A separate "S" terminal allows an external button or switch to be connected to the presence detector. To evaluate the signal, the detector needs to know whether an external button or switch is connected. This can be used for operating the detector as a semi-automatic unit and for manually overriding it at any time (4h 'ON', 4h 'OFF').



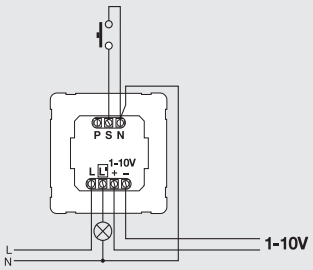
'ON' – 'ON'/'OFF' DIP switches
Two options are provided here: ON/OFF means that the detector can be switched 'ON' and 'OFF' manually at any time. 'ON', in contrast, means it can only be switched 'ON' manually. This prevents light from being switched 'OFF' in areas requiring permanent security lighting or, for example, when using a detector as a staircase lighting time switch.



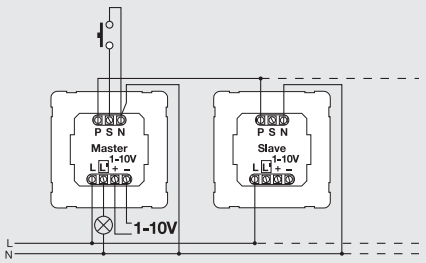
Constant-lighting control – 'ON'/'OFF' DIP switches
Constant-lighting control provides a constant level of light in offices, classrooms, conference rooms etc. The detector measure the prevailing level of daylight and switches in a component of artificial light to achieve the desired level of brightness. As daylight changes, the switched-in artificial lighting component is adjusted accordingly. In addition to the daylight component, artificial light is also switched 'ON' and 'OFF' in relation to whether or not persons are present.

Interconnected master/master – master/slave system
The presence detectors also provide the option of an interconnected master/master and master/slave system. In the case of an interconnected master/master system, the detection zone is extended by the interconnected detectors, each switching a load in accordance with specific master settings. The slaves in an interconnected master/slave system merely extend the detection zone and report presence to the master. The connected load is only switched 'ON' and 'OFF' on the basis of the master's settings.

DIM detector

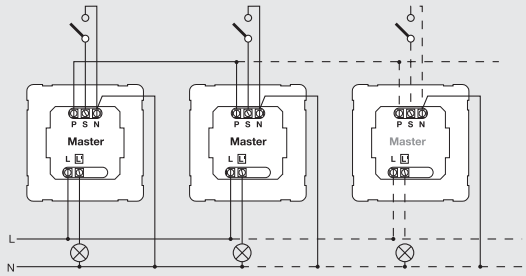


DIM detector with slave

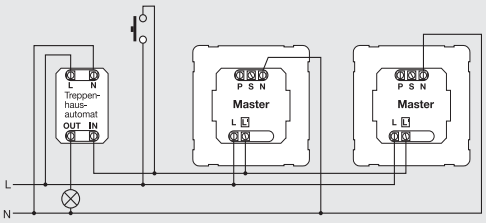


Wiring Diagrams

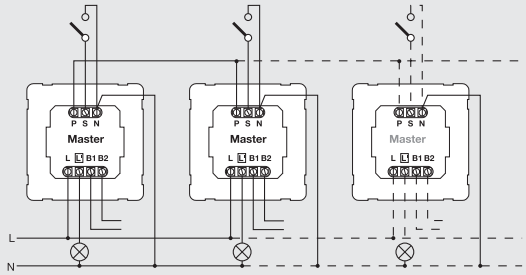
Master/master COM1



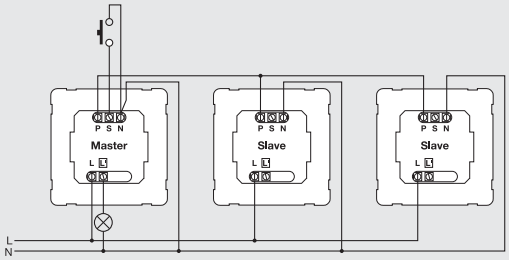
2 detectors connected to external staircase lighting time switch
Old building/refurbishment project



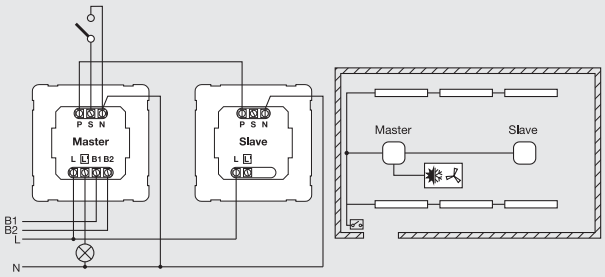
Master/master
COM1/COM2



Detector connected to staircase lighting time switch

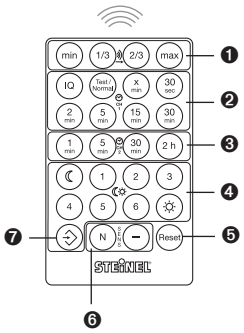


Master/slave



Accessories for Presence Control PRO

Remote Controls



RC3 service remote control
EAN 4007841 000387
RC6 KNX service remote control
EAN 4007841 593018

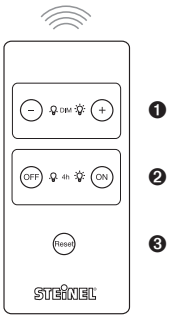
❶ Reach setting HF
❷ Stay-'ON' time, switching contact 1, light
❸ Stay-'ON' time, switching contact 2 (HVAC)
❹ Twilight setting
❺ Reset function at potentiometer and DIP settings
❻ Reduce sensitivity (HF only, cf. RS PRO)
❼ Teach IN

suitable for Presence Control PRO
- IR Quattro HD
- IR Quattro
- HF 360
- Dual HF 360

RC3 in conjunction with COM1, COM1 AP, DIM and DALI interface
RC6 KNX in conjunction with KNX interface

RC4 user remote control
EAN 4007841 003012

❶ Light dimming function
❷ Light 'ON'/'OFF' (4 hours)
❸ Reset function at potentiometer and DIP settings



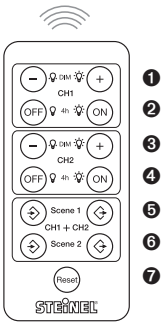
suitable for Presence Control PRO
- IR Quattro HD
- IR Quattro
- HF 360
- Dual HF 360

RC4 in conjunction with COM1, COM1 AP, COM2 and DIM interface

You will find further information on operation at:
www.steinel.de

RC5 DALI user remote control
EAN 4007841 592806
RC7 KNX user remote control
EAN 4007841 592912

❶ Reduce DIM level, increase output 1
❷ Permanent 'OFF'/'ON', output 1 (4 hours)
❸ Reduce DIM level, increase output 2
❹ Permanent 'OFF'/'ON', output 2 (4 hours)
❺ Save lighting scenario 1
(value for output 1/2 is saved)
❻ Save lighting scenario 2
(value for output 1/2 is saved)
❼ Reset function at potentiometer and
DIP settings

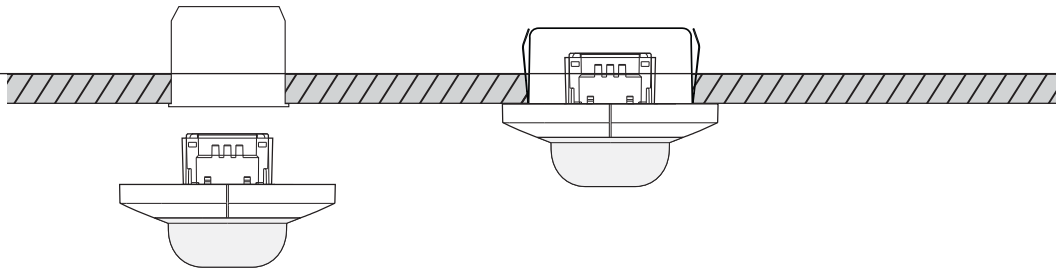


suitable for Presence Control PRO
- IR Quattro HD
- IR Quattro
- HF 360
- Dual HF 360

RC5, in each case with DALI interface
RC7, in each case with KNX interface

FUNCTIONAL 36 month WARRANTY
STEINEL German Quality
CE

Accessories for Presence Control PRO

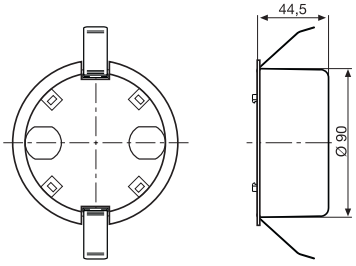


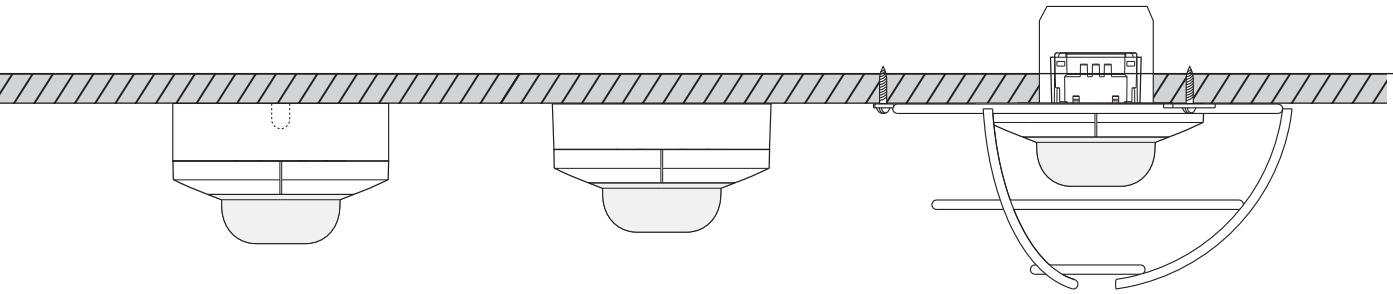
Standard installation
The products are intended as standard for concealed installation in flush-mounting boxes.

Clamping-type ceiling adapter Control PRO UP Box
EAN 4007841 000370
The clamping-type adapter can be used for fitting the chosen detector directly in the ceiling. Installation is fast and straightforward, no additional screw-mounting or fixing necessary.

suitable for Presence Control PRO
- IR Quattro HD
- IR Quattro
- HF 360
- Dual HF 360

- COM1
- COM2
- DIM
- KNX
- DALI





Surface-mounting adapter Control PRO AP Box (IP 54)
EAN 4007841 000363
The surface-mounting adapter Control PRO AP Box is provided for facilitating surface-mounting. With four-wire cable entry and large wiring compartment, installation is convenient and requires hardly any no effort. It provides protection rating to IP 54.

suitable for Presence Control PRO
- IR Quattro HD
- IR Quattro
- HF 360
- Dual HF 360

- COM1
- COM2
- DIM
- DALI

Surface-mounting adapter Control PRO AP Box KNX
EAN 4007841 003029
Also featuring four-wire cable entry and a large wiring compartment, the surface-mounting adapter is suitable for surface-mounting the KNX and DALI connection options.

suitable for Presence Control PRO
- IR Quattro HD
- IR Quattro
- HF 360
- Dual HF 360

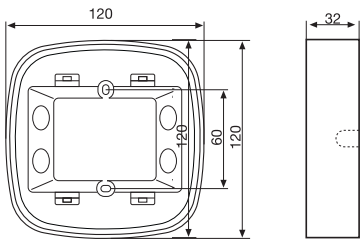
- KNX

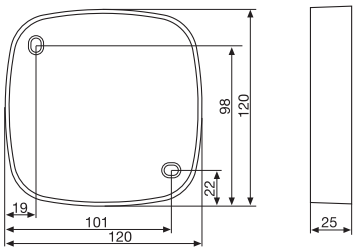
Guard cage Control PRO
EAN 4007841 003036
It provides protection from damage, e.g. from balls or vandals.

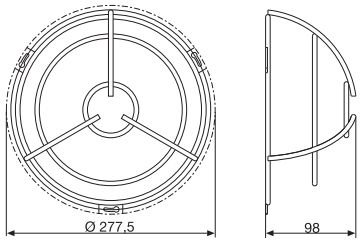
suitable for Presence Control PRO
- IR Quattro HD
- IR Quattro
- HF 360
- Dual HF 360

- COM1/COM1 AP
- COM2
- DIM
- KNX
- DALI

- Air Control
- Fire Control







Fire Control PRO

Smoke Detector

- Identifying hazards
- Warning people
- Saving life

- 2 detection sensor variables: smoke and temperature (optical/thermal)
- Light sensor for low-battery warning during the day (loud acoustic warning signal)
- 24 h auto-calibration
- Microprocessor-controlled signal evaluation
- Symmetrical-flow smoke chamber
- Temperature-drift correction
- Cyclical self-test function
- Also suitable for kitchens and bathrooms
- Design co-ordinated with presence detector for a neat ceiling look

The new generation of safety: Fire Control

The Fire Control PRO is a state-of-the-art smoke detector neatly integrated in the Control PRO family from STEINEL Professional. As a DUAL sensor, the Fire Control PRO uses two detection methods for twice the safety: Smoke and temperature detection. Smoke is detected in a specially designed smoke chamber, temperature by a thermo-differential sensor.

It provides the capability of reliably detecting different types of fire, such as burning liquids or smouldering fires. This also makes the system less receptive to kitchen and bathroom vapours, dust or electrical interference pulses.
The Fire Control PRO benefits from processor-controlled signal evaluation and drift compensation, preventing any triggering of false alarms to the greatest possible extent.

Indicated status:
OK / Fire detected /
230 V

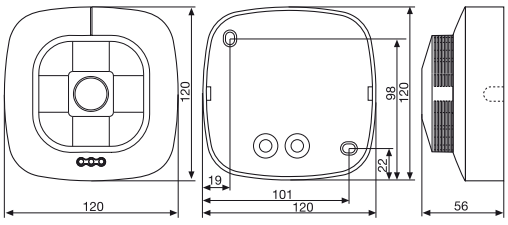
Smoke detection
deactivated for 15 min.
or test mode

Fire Control PRO

EAN	**FC PRO** **4007841 590406** **FC PRO Lithium** **4007841 000073**
Dimensions (WxHxD)	120 x 120 x 56 mm
Rated voltage	230 V
Battery	9-V MH block battery, or 9-V long-life lithium block battery
Battery failure signal	30 s cycle, 30 days
Acoustic alarm	85 dB (A)
Maximum detection zone	80 m²
Relay contact	1 A 250 V
IP rating	IP 40
Protection class	II
Operating temperature	0° C to 40° C
Storage temperature	-5° C to +70° C
Interconnectability	up to 30 Fire Control PRO

Smoke detection can be deactivated for 10 minutes by function button (e.g. in the event a large controlled quantity of smoke coming from a saucepan); with temperature detection remaining active. To begin with, a light sensor only allows the acoustic low-battery warning to sound during the day. Only when battery capacity becomes critical is a warning also given at night. In addition to the 9-V battery (lithium or metal hydride), the Fire Control PRO smoke detector also comes with a 230-V connection and a communication port for interconnecting detectors. Needless to say, the STEINEL Fire Control is VDS-tested and has a self-test feature.

FUNCTIONAL 36 month WARRANTY · STEINEL German Quality · CE · VdS



Air Control PRO Signal

Air-Quality Sensor

AC PRO Signal

- Air-quality sensor matching presence detector
- High energy-saving potential from on-demand ventilation
- Automatic, maintenance-free CO_2 measurement
- Controls air-conditioning (ventilation, window opening, co-ordinated heating control etc.)
- Provides information on air quality and the need for fresh air (visually and acoustically)
- Also suitable for retrofitting in training, conference, classrooms, offices and the home
- Acoustic warning every 5 min. above 1500 ppm (can be deactivated)
- Self-calibrating (to fresh air and air pressure/altitude)
- Indicator with 3 LED's (green, amber, red)
  Green: < 1000 ppm
  (light 'ON' permanently, can be switched 'OFF')
  Orange:1000 ppm – 1500 ppm
  (light 'ON' permanently)
  Red: > 1500 ppm (flashing)

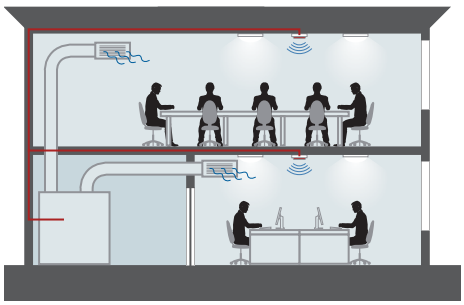
It's a matter of quality: Air Control

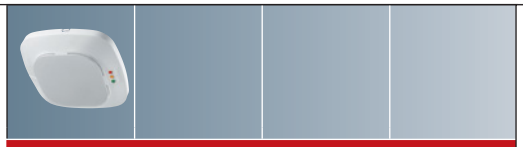
In addition to managing light, some of our presence detectors also provide the capability of controlling heating, ventilation, air-conditioning in relation to whether or not persons are present. This makes a lot of sense from an energy point of view as it can save large quantities of it: If nobody's there, why keep the heating on all the time.

Yet, gradually, another aspect's creeping into the focus of discussion: air quality or the content of CO_2 in room air. Ventilation systems require energy and the air that's exchanged needs either heating or cooling. But the mere presence of persons is not enough for air to be exchanged through a ventilation system or automatically controlled window. What's important is the quality of air.

People inhale O_2 and exhale CO_2. This is a situation everyone's familiar with: as the meeting wears on, concentration lapses and, at some point everybody's tired, and later on people start to get a headache. The reason for this is the content of CO_2 in room air. Unfortunately, this is something people only notice when it's far too late to remedy the situation and actively provide ventilation. This is where our Air Control sensor comes in - because it measures the amount of CO_2 that's present in room air.

CO_2 meas. range	Controls
400 – 2000 ppm	
CO_2 measurement range 400 – 2000 ppm with an accuracy of +/- 150 ppm	The LED traffic-light logic indicates the quality of room air





AC PRO Signal

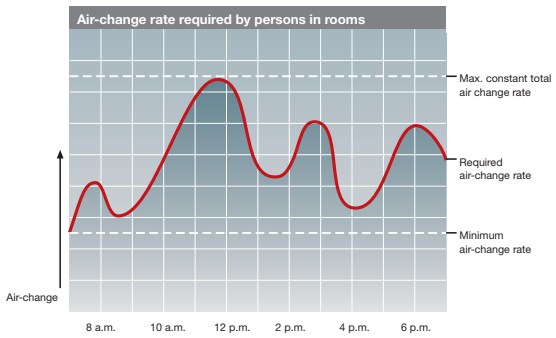
EAN	**AC PRO Signal UP (surface-mounting) 4007841 592608** **AC PRO Signal AP (concealed) 4007841 592707**
Dimensions (WxHxD)	AC PRO Signal UP 120 x 120 x 53 mm AC PRO Signal AP 120 x 120 x 49 mm
Voltage	230 VAC, electrically isolated power supply unit
CO_2 measurement range	400 – 2000 ppm
CO_2 accuracy	5% of measurement reading ± 150ppm (at 25°C and 1013 hPa)
Indicated by LED	Green: up to 1000 ppm (light 'ON' permanently, can be switched 'OFF') Amber: from 1000 ppm CO_2 to 1500 ppm CO_2, (light permanently 'ON') Red: over 1500 ppm CO_2 (flashing) Acoustic warning signal: every 5 min. above 1500 ppm CO_2, can be switched 'OFF'
Temperature dependence of CO_2	< 5 ppm per °C
Temperature (storage)	- 40°C to + 70°C
Relay (function)	Relay ON from 1200ppm Relay OFF from 800ppm (with falling CO_2 concentration)
Response time (T90)	5 min
Signal output	HVAC equipment connected by means of floating base-isolated output; 230 W max.
Housing	Standardised concealed box
IP rating	IP 20 (shock hazard protection for indoors)
Protection class	II

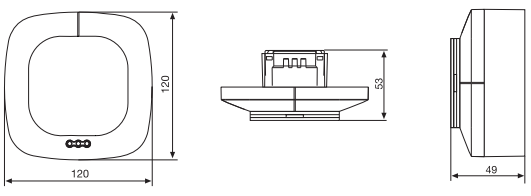
A traffic-light system of LED's indicates air quality to persons present in a room: green, amber and red. On red, a short acoustic warning signal additionally warns every 5 minutes.

The product also provides a floating switching output for connecting an automatic ventilation system. Ventilation is switched on in the amber range and only switches off again when the light switches to green. This new system can be used for controlling ventilation systems extremely efficiently, optimising the use of energy.

But the Air Control sensor without automatic ventilation is also an extremely recommendable option in meeting rooms, training rooms, conference rooms etc. for improving concentration and performance.

The green LED and acoustic warning signal can be deactivated by DIP switch. This also makes the system ideal for use in bedrooms and hotel rooms. The Air Control sensor is available as a surface-mounting and concealed version.





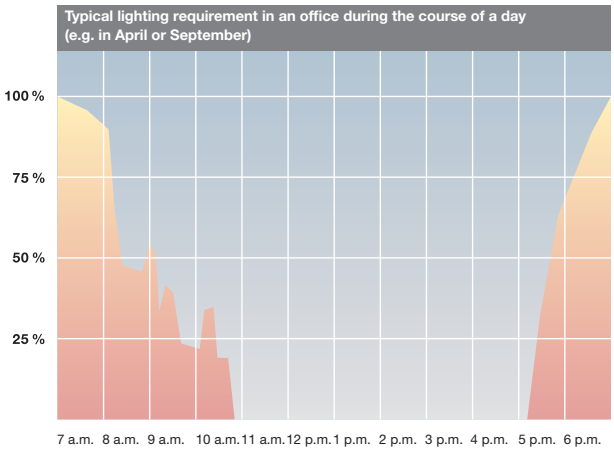
LuxMaster Presence Detectors

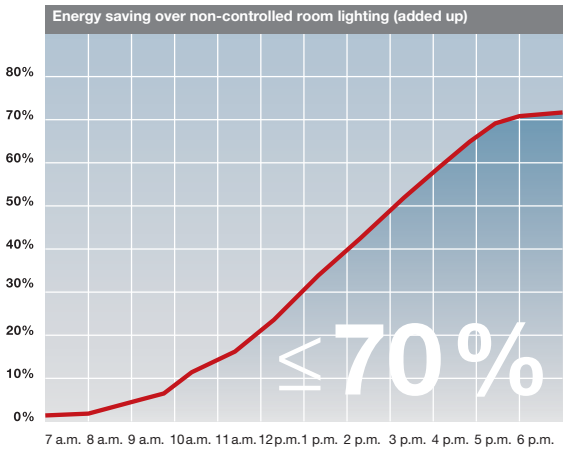
LuxMaster – Classic Lighting Managers

Lighting conditions tailored to requirements, at all times and to a system: LuxMaster takes care of lighting management for larger-type rooms. The multisensor system creates optimum lighting situations. This enhances a sense of well-being, boosts productivity and brings down energy costs. Three interconnected pyro-detectors register the presence of persons. Geared to the light sensitivity of the human eye, a light sensor continually measures the ambient light level and co-ordinates it with the brightness setting. LuxMaster uses this as the basis for calculating the lighting required and the intensity of light from the connected light sources. Providing 1320 switching zones for high detection accuracy and a reach of 12 m, LuxMaster is the ideal manager for a whole host of rooms. Conveniently operated by remote control, it guarantees optimised lighting conditions.

Benefits

- 1320 switching zones
- Generous reach of up to 12 m
- Very high switching capacity
- Automatically switches light 'ON' and 'OFF' in relation to presence and ambient light
- Integrated brightness control for a constant level of light (BLS D, BLS DF)
- High energy savings of between 40 % and 70 %
- Controls fluorescent tubes, halogen lamps and filament bulbs without a problem
- Fast installation
- Can be remotely controlled (BLS DF)





BLS

Presence Detectors

BLS

BLS D

BLS DF

BLS T

BLS
- Perceives persons and ambient brightness
- Activates light sources when needed

BLS D
- Integrated dimmer function
- Adapts light intensity to ambient brightness
- Activates light sources when needed

BLS DF
- Perceives persons and ambient brightness
- Integrated dimmer function
- Adapts light intensity to ambient brightness
- Activates light sources when needed
- Controls light intensity, 'ON'/'OFF' by remote control

BLS T
- Semi-automatic presence detector
- 'ON' manually
- 'OFF' automatically or manually

After you: Office lighting that falls in with your wishes

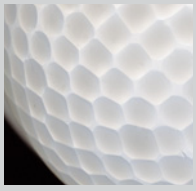
LuxMaster BLS is particularly recommendable for rooms that are only used for short periods. It switches light 'ON' and 'OFF in relation to the presence of persons and ambient brightness.

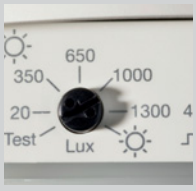
LuxMaster BLS D is suitable in particular for all rooms requiring constant, even lighting that's pleasant to work in. It features an additional dimming function. This automatically increases or reduces light output in relation to ambient brightness.

LuxMaster BLS DF is the all-in system. Ideal for use in large rooms. Using the remote control, light cannot only be switched 'ON' and 'OFF' but also lowered for slide shows or projector presentations.

LuxMaster BLS T is a semi-automatic presence detector providing a high level of energy efficiency. You can actively switch light 'ON' and 'OFF' while the presence detector itself automatically switches light 'OFF' as soon as it's no longer needed.

Detection zone | **Setting capabilities**



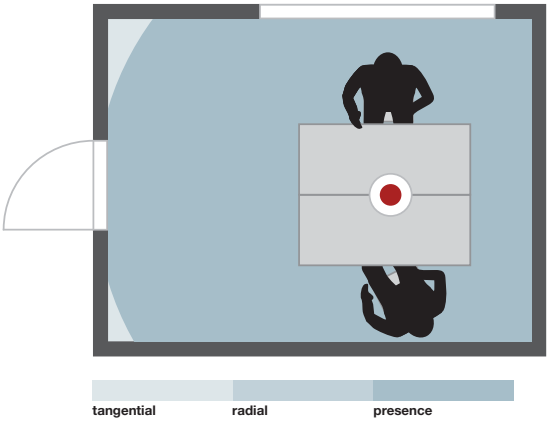


Reach: 12 m
Max. angle of coverage: 360° by means of 3 pyro-sensors; light sensor measures ambient brightness

Multi-lens:
divides detection zone into 11 levels and 1,320 switching zones

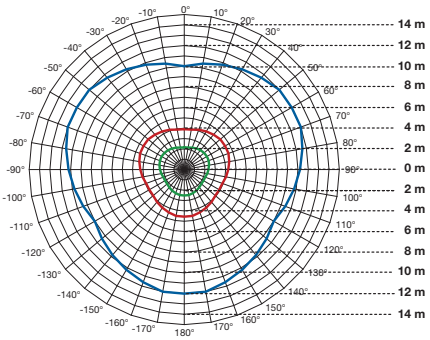
Shrouds:
limit the angle of coverage to suit requirements

Brightness switching threshold: defines level at which light switches 'OFF'; test function for adjusting the detection zone



LuxMaster, BLS, BLS D, BLS DF, BLS T

EAN	**BLS white 4007841 720414** **BLS D white 4007841 720513** **BLS DF white 4007841 720612** **BLS T white 4007841 720315**
Dimensions (WxHxD)	120 x 120 x 66 mm
Output	- 2000 W max., VDE-tested (resistive load, e.g. filament bulb), - 1000 W max. (low-voltage halogen) - 1000 W max., VDE-tested (fluorescent lamps with conventional ballasts, cos φ = 0.5) - max. number of electronic ballasts: 16 x (1 x 36 W) or 12 x (2 x 36 W) or 12 x (1 x 58 W) or 8 x (2 x 58 W) A relay or contactor must be provided on the line side for high switching capacities
Voltage	230 – 240 V/50 Hz
Detection angle	360° with 180° angle of aperture
Recommended installation height	2.5 m – 3 m ceiling height
Max. reach	12 m in each direction high-resolution close-up range: 4 m radius (person seated) reliable long-distance range: 12 m radius (person walking)
Sensor system	11 detection levels, 1320 switching zones
Switching threshold or constant light level	BLS/BLS T: 20 – 1300 lux, ∞ / daylight BLS D / BLS DF: 100 – 1300 lux, ∞ / daylight
Switching 'ON'	BLS T: manually by NC button BLS/BLS D/ BLS DF: in response to detecting movement
Switch-'OFF' delay	4 min. – 30 min., pulse mode (approx. 2 sec.), Long-term mode (approx. 2 h)
IP rating	IP 20
Protection class	II
Temperature range	-20° to +50° C
Control signal	BLS D / DF; 1 – 10 V (50 electronic ballasts max.)
Accessories	- Hand-held transmitter for setting switching threshold (for BLS DF) **EAN 4007841 720711**



LuxMaster BLS/D/DF/T detection zone, mounted at a height of 2.50 m

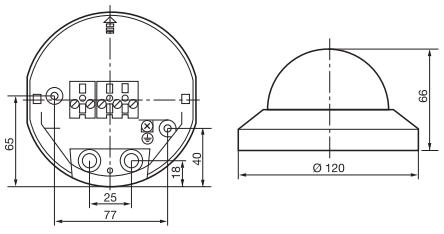
Distance from sensor	Minimum distance moved
1 m	8 cm
2 m	17 cm
3 m	26 cm
4 m	34 cm
5 m	43 cm
6 m	52 cm
8 m	69 cm
10 m	86 cm
12 m	103 cm

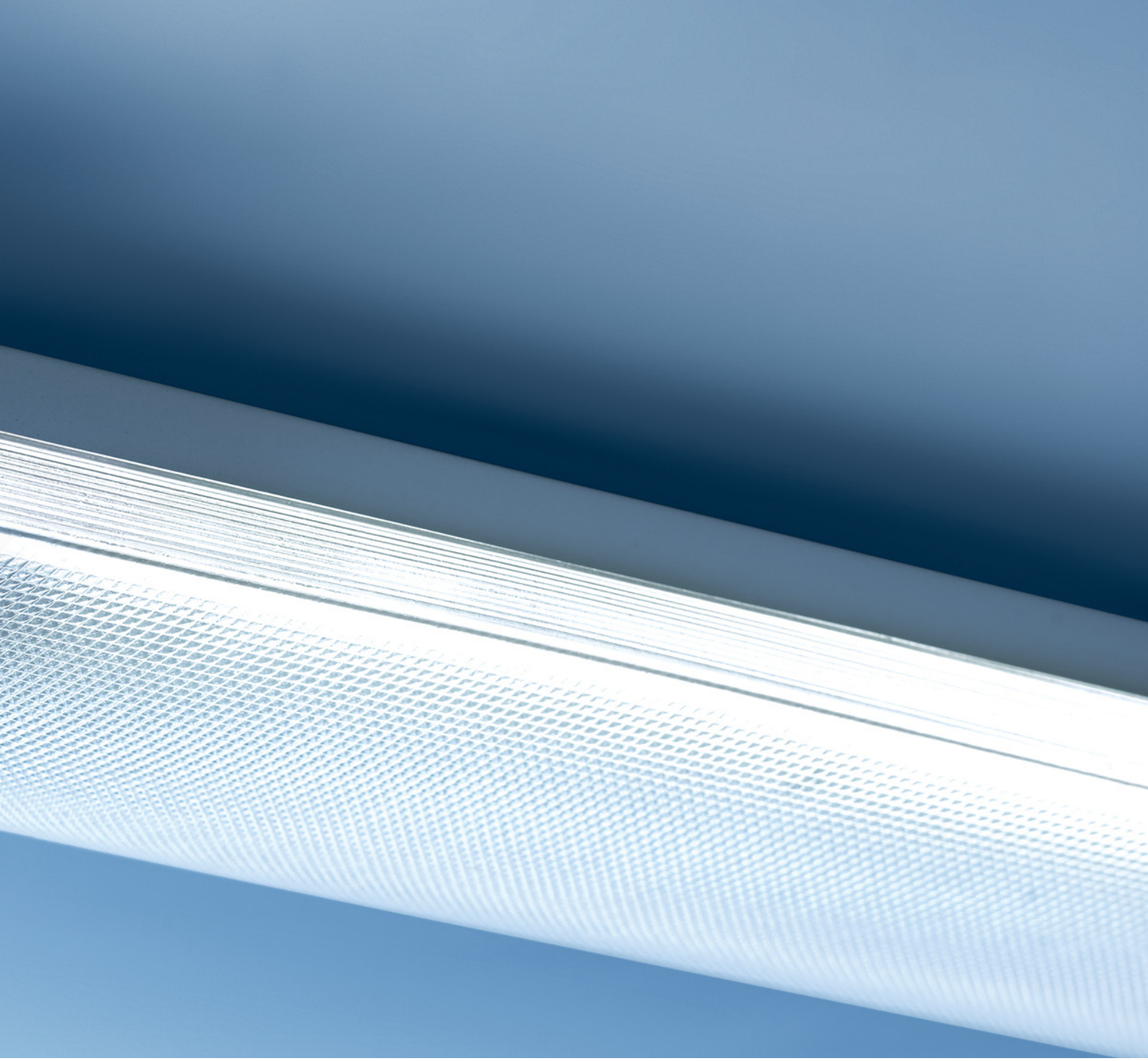
FUNCTIONAL 36 month WARRANTY
STEINEL German Quality

Accessories

Automatic switch 'OFF': Margin of 4-30 minutes plus special 2-h mode; individually selectable adjustment at potentiometer

Remote control: 'ON'/ 'OFF'; adjusts light level as required

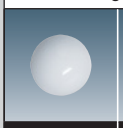


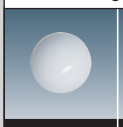
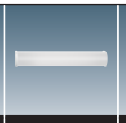
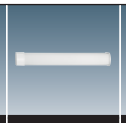
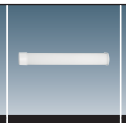
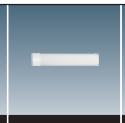


SensorLights

Our HF-SensorLights for indoors know how to save power.
They supply rooms with light only when it's needed.
Intelligently – and economically.

Overview
HF-SensorLights for Indoors

	HF-SensorLights RS PRO									
										
	RS PRO 500	**RS PRO 1000**	**RS PRO 2000**	**RS PRO 5000**	**RS PRO 5002 LED**	**RS PRO 5200**	**RS PRO 5100**	**RS PRO 5500**	**RS PRO DL 100**	**RS PRO LED S1**
impact-resistant	●	●	●	●	●	●	●	●		●
Glass shade	●	●	●							●
IP rating	IP 44	IP 44	IP 44	IP 65	IP 65	IP 65	IP 65	IP 21/IP 44 *2	IP 20	IP 20
Lamp	2 x 13 W TC-DEL G 24-Q1 *1	2 x 18 W TC-DEL G 24-Q2 *1	2 x 26 W TC-DEL G 24-Q3 *1	2 x 28 W T5 *1	2 x 28 W T5/LED *1	2 x 54 W T5 *1	1 x 54 W T5 *1	2 x 28 W T5 *1	2 x 18 W TC-DEL G 24-Q2 *1	16 W LED
Sensor	●	●	●	●	●	●	●	●	●	●
Slave	●	●	●	●	●	●	●	●	●	
Designer-style rings	●	●	●							
Mounting adapter	●	●	●							
MLED1 module	●	●	●							
Battery-powered MLED1 module	●	●	●							
Emergency lighting module	●	●	●							
Emergency light shunt				●	●	●	●	●		
LED orientation light					●					
Wirelessly interconnectable		●	●							●
Remote control RC 2				●	●	●	●	●	●	
Page	**124**	**124**	**124**	**132**	**132**	**132**	**132**	**136**	**138**	**142**

	HF-SensorLights									
										
	RS 50	**BRS 81**	**BRS 82**	**BRS 83**	**BRS 86**	**BRS 87**	**BRS 80 P**	**BRS 83 P**	**BRS 85 P**	
impact-resistant	●			●				●		
Glass shade		●	●		●	●	●		●	
IP rating	IP 44	IP 44	IP 44	IP 44	IP 44	IP 44	IP 44	IP 44	IP 44	
Lamp	1 x 13 W TC-DEL G 24-Q1 *1	1 x 24 W T5 *1	1 x 24 W T5 *1	1 x 24 W T5 *1	1 x 24 W TC-L *1	1 x 24 W TC-L *1	1 x 24 W T5 *1	1 x 24 W T5 *1	1 x 24 W TC-L *1	
Sensor	●	●	●	●	●	●	●	●	●	
Close-range sensor		●	●	●	●	●	●	●	●	
Designer rings	●									
Socket							●	●	●	
Page	**146**	**148**	**148**	**148**	**148**	**148**	**148**	**148**	**148**	

*1 It is only permissible to use the lamps specified.
*2 IP 44 only when ceiling-mounted

HF-SensorLights for Indoors

HF-SensorLights from STEINEL Professional

**Our lights have a mind of their own.
They demonstrate the efficiency of
decentralised lighting control in practice:
economically, independently and systematically.**

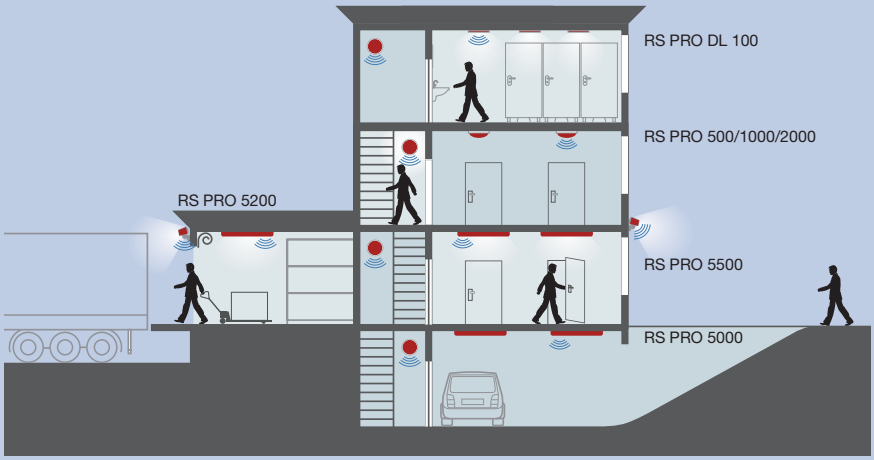
The HF-SensorLights are designed for practical indoor convenience: stairwells, corridors, WCs, bathrooms etc. The range combines the latest advances made in our cutting-edge sensor technology with practical design. Our line-up features round lights, downlights as well as linear fluorescent luminaires in a choice of sizes and ratings.

All working in the same way, the products belonging to the RS PRO family also share the same design and operating concept. Although each light can be used on its own, they are all easily interconnected – wirelessly or by cable. Particularly economical: at last you now can put an end to additional and unnecessary connecting cables, switches and separate detectors. Yet our intelligent lighting systems are just as quick to install as conventional lights. Chip-controlled electronic ballasts and the use of modern lamps throughout not only enhance service life and lighting quality but also reduce costs and effort.

Benefits of RS PRO

Indoors

- Decentralised lighting management
- Highly advanced HF-technology
- Uniform design
- Precision detection and reliable operation
- Uniform operating concept
- Uniform working principle
- High level of economy from efficient lighting control
- No need for switches, connecting cables, additional detectors
- Reliable all-round detection regardless of temperature and direction of movement
- Practical interconnection by wireless link or cable
- Fast installation
  sensor + light = 1 connection



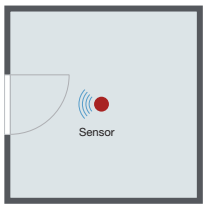
The example makes it clear: light is only switched 'ON' and 'OFF' again in response to movement. All other areas stay unlit.

RS PRO SYSTEM

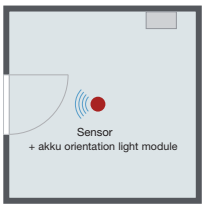
HF-SensorLights for Indoors

Extreme versatility: RS PRO SYSTEM

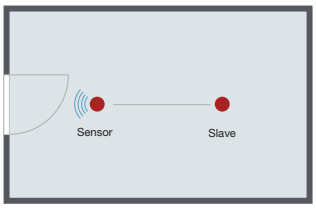
The lights from the RS PRO series permit decentralised intelligent lighting control with maximum energy efficiency. Each light can control itself to come 'ON' and go out as and when required. The RS PRO 500,1000 and 2000 can be interconnected with and without sensor. The RS PRO 1000 and 2000 can also be interconnected bidirectionally without cables using wireless modules.



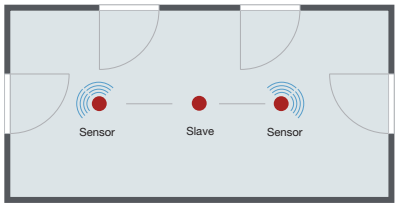
e.g. in the basement, workshop, boiler room, garage



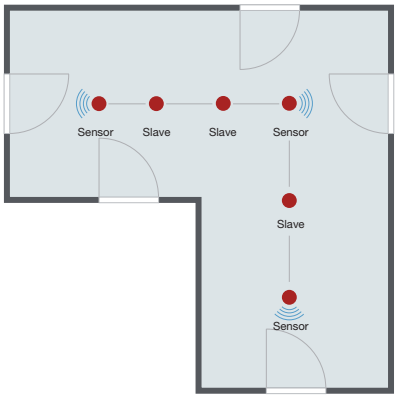
Ideal for use as a single light in basement rooms with fuse box; light when a fuse has tripped or during a power cut



Both lights are activated in response to movement detected by the master unit with integrated sensor.



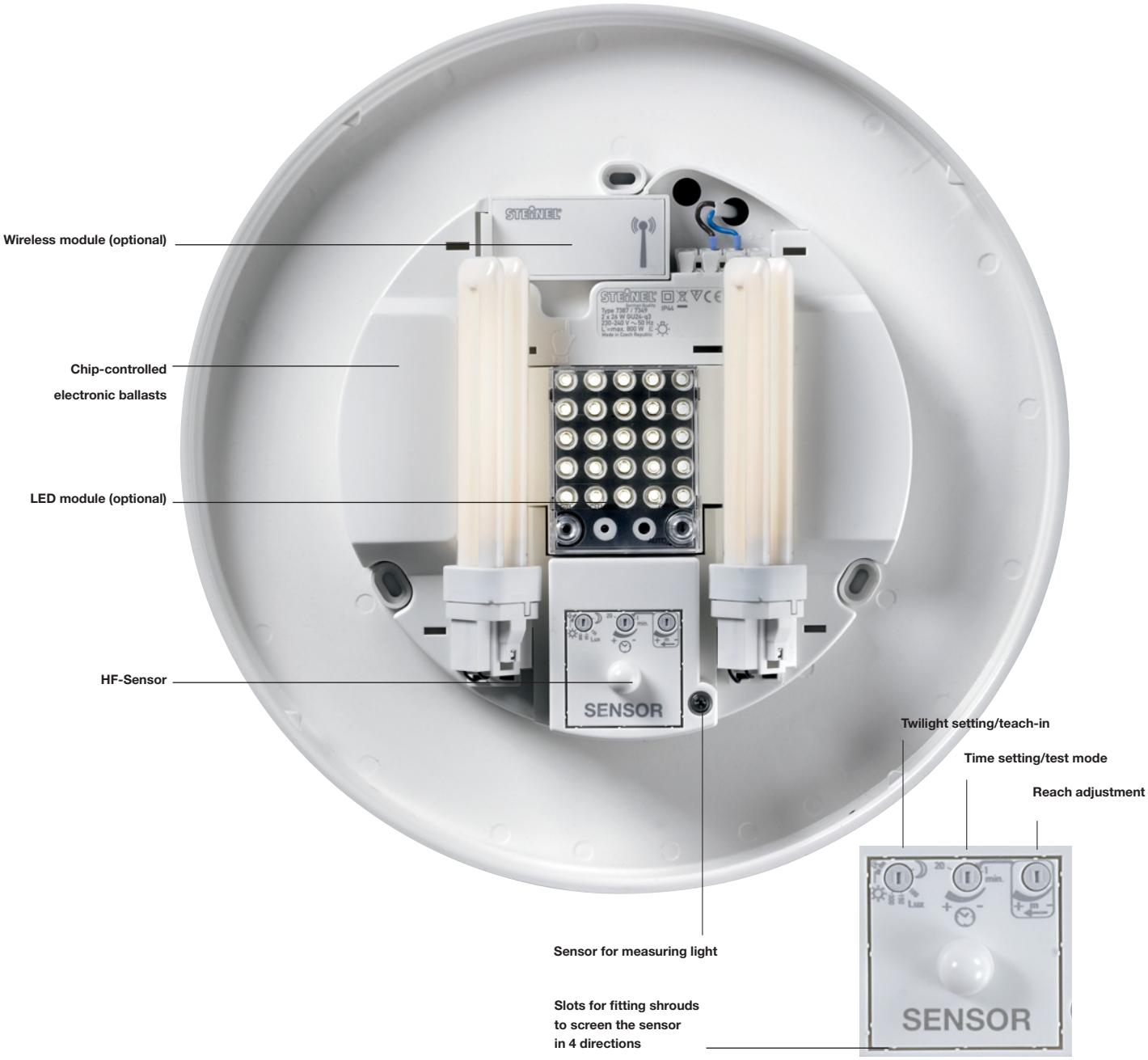
With optional orientation light for basic illumination in a corridor



Whether independent single SensorLights or systems interconnected by wireless link or by cable – all combinations are possible.
= interconnected by wireless link or cable

RS PRO SYSTEM

HF-SensorLights for Indoors



RS PRO SYSTEM

High-frequency technology: RS PRO means hi-tech

Each light features state-of-the-art high-frequency sensors.
This guarantees the last word in detection accuracy. The sensors do their work regardless of ambient temperature or direction of movement. They provide greater precision, respond more quickly and reach further. Also giving you switching performance that's virtually instant, they are integrated more or less out of sight.

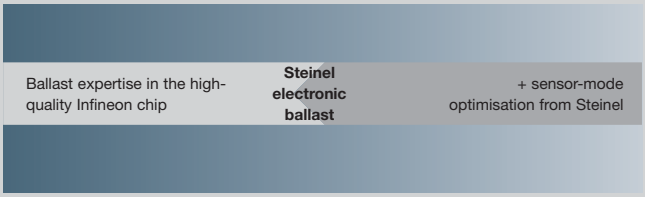
Technical benefits: chip-controlled electronic ballasts
Compared with other control gears, chip-controlled electronic ballasts provide an obvious advantage: less wasted energy, more light for power input from high-frequency operation, no starting flicker, no hum and a pre-heating system that's particularly kind on lamps. We have developed electronic ballasts for use in our RS PRO lights that perfectly combine rapid start-up and long lamp life.

Benefits to professional users: Infineon chip for sensor mode
We have coupled our sensor expertise with a high-quality chip from Infineon designed specifically for optimising sensor operation. Our chip-controlled electronic ballasts are fast starters (less than 0.8 sec. compared with 1.6 or even 1.9 sec.). This means you are provided with light as soon as you enter a room. And they are also designed for extra-long lamp life even if light is frequently switched 'ON' and 'OFF'. Effects disturbing the sensor are reduced to a minimum.

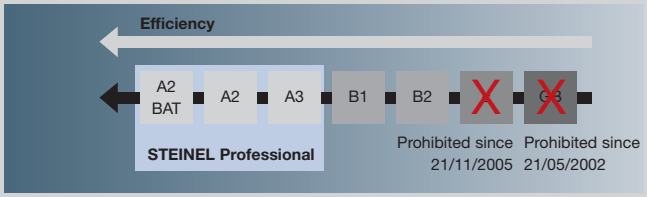
Benefits of chip-controlled electronic ballasts from STEINEL Professional

- Extra-gentle pre-heating
- No starting flicker or hum
- Low losses in the ballast
- High-quality chip from Infineon designed specifically for optimising sensor operation.
- Rapid start-up (< 0.8 sec. compared with 1.6 – 1.9 sec.)
- Extra-long lamp life
- More light for the same power output

The benefits from Steinel electronic ballasts are the result of:



European energy efficiency index (EEI) for ballasts

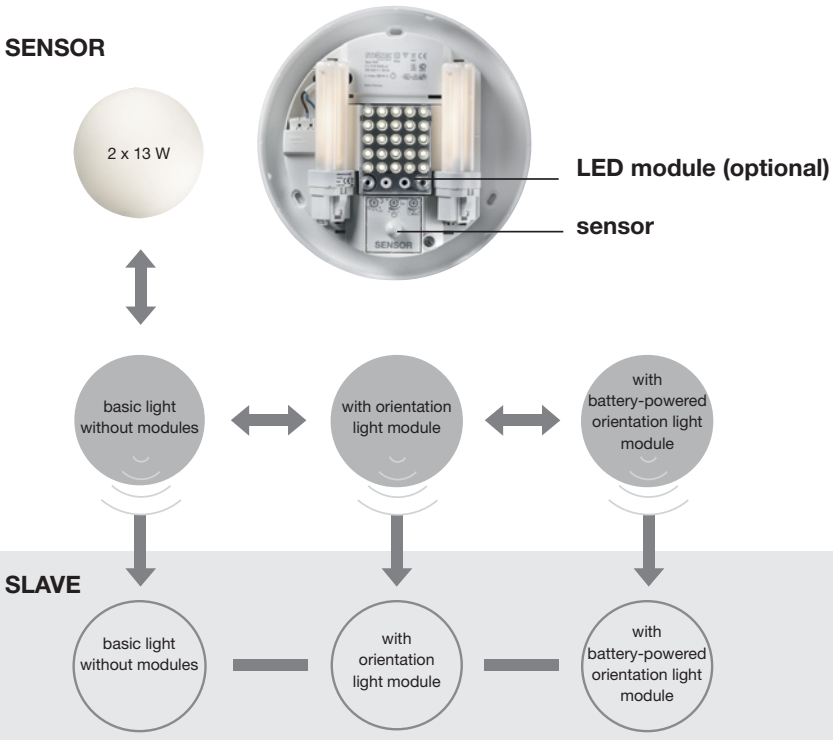


RS PRO 500

HF-SensorLights for Indoors

Small but wow: the RS PRO DL 500

Although the models from the RS PRO series come with different talents, they all operate in the same way. The RS PRO 500 works at 2 x 13 watts and with one electronic ballast. Our SensorLights are designed to provide light when they need to, either on their own or also working together in interconnected systems. Interconnect them by cable – this can also be done with the slave options from RS PRO series without sensor.
Capability of connecting additional loads of no more than 800 watts (e.g. bathroom/WC extractor fan) or lights. The aluminium base of these lights is particularly durable. Shades are available in glass or impact-resistant plastic.



Features

Low-energy lamp
- RS PRO 500: 2 x 13 W/TC-DEL G 24-Q1
- 1 electronic ballast

Sensor
- HF-sensor 360°, 1– 8 m all round
- Reach can be set as required
- Precision adjustment of light 'ON' time and twilight threshold

Accessories (optional)

LED module
- 25 LED's
- Mains-operated or - when battery-powered - mains-independent orientation light

Emergency light
- Connection to an emergency power system
- 3 W power-LED

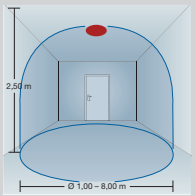
Wired interconnectability (5 x RS PRO 500 max.)

Direction of communication from sensor to sensor or to slave

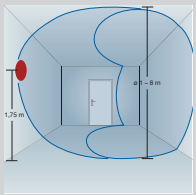
Detection zone

Max. reach: 8 m
Angle of coverage: 360°

Our high-frequency sensors operate at 5.8 GHz and 1 mW.



Reach setting
1 – 8 m all round
when mounted to ceiling.



Reach setting
1 – 8 m all round
when mounted to wall.

Models

RS PRO 500 sensor:
2 x 13 W, 1 electronic ballast

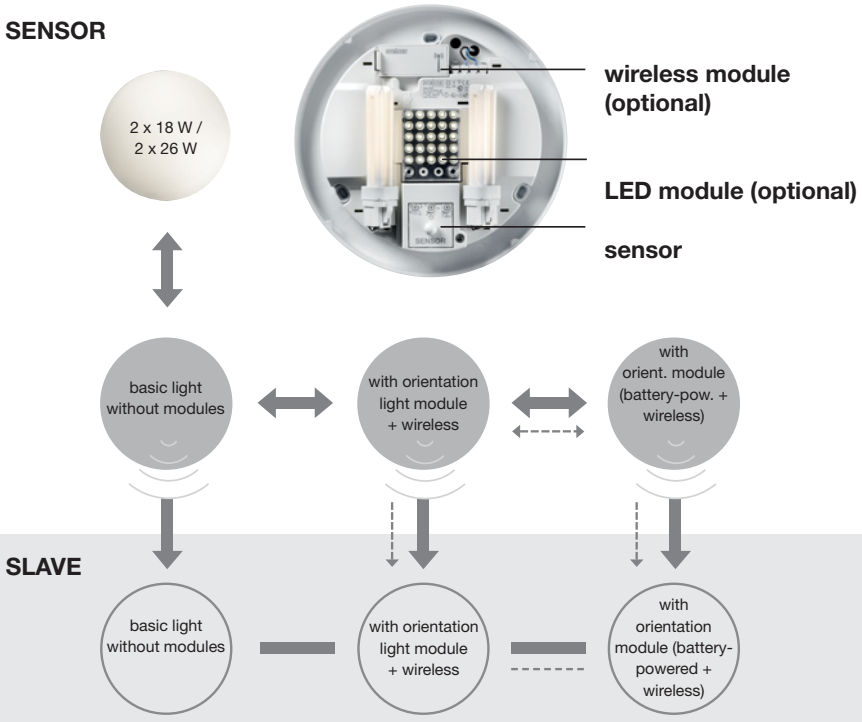
RS PRO 500 slave:
2 x 13 W, 1 electronic ballast

RS PRO 1000
RS PRO 2000

HF-SensorLights for Indoors

Grown up and powerful: RS PRO 1000 and RS PRO 2000

The RS PRO 1000 works with 2 x 18 W low-energy lamps and 2 electronic ballasts. The 2000 version is rated for a powerful 2 x 26 W/ TC-DEL G 24-Q3 as well as a separate electronic ballast for each of the two lamps. Both lights from the RS PRO family can be interconnected bidirectionally by wireless link. To do this, wireless modules are plugged directly into the lights. No fewer than 32 addresses are also available for creating complex interconnected groups. Wireless transmission is fast and extremely reliable. The aluminium base of these lights is particularly durable. Shades are available in glass or impact-resistant plastic. Needless to say, interconnection is also possible by cable. Additional loads of up to 800 watts (e.g. bathroom/ WC extractor fan) or lights can be connected.



Features

Low-energy lamp
- RS PRO 1000: 2 x 18 W/TC-DEL G 24-Q2
- RS PRO 2000: 2 x 26 W/TC-DEL G 24-Q3
- 2 separate electronic ballasts, one for each lamp
- Can also be operated with just one lamp

Sensor
- HF-sensor 360°, 1– 8 m all round
- Reach can be set as required
- Precision adjustment of light 'ON' time and twilight threshold

Accessories (optional)

LED module
- 25 LED's
- Mains-operated or - when battery-powered - mains-independent orientation light

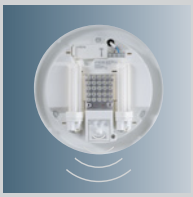
Emergency light
- Connection to an emergency power system
- 3 W power-LED

Wireless
- 32 channels
- Bidirectional link
- Max. 100 m in the open
- Wireless and cabled interconnection can be combined

Wired interconnectability (3 x RS PRO 1000/2000 max.)

Direction of communication from sensor to sensor or to slave

Interconnectability with wireless modules (any number of RS PRO 1000/2000, max. reach 100m with direct visual contact)



RS PRO 1000 sensor:
2 x 18 W,
2 electronic ballasts

RS PRO 1000 slave:
2 x 18 W,
2 electronic ballasts

RS PRO 2000 sensor:
2 x 26 W,
2 electronic ballasts

RS PRO 2000 slave:
2 x 26 W,
2 electronic ballasts

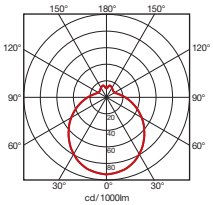
RS PRO 500, 1000, 2000

HF-SensorLights for Indoors

RS PRO SYSTEM

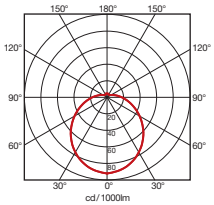
Light distribution curves for RS PRO 500/1000/2000

RS PRO 500

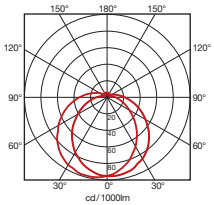


2 x 13 W

RS PRO 1000

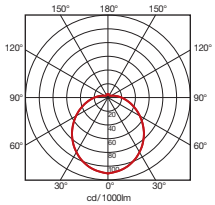


2 x 18 W

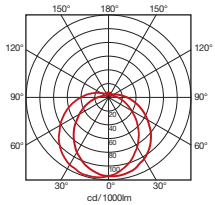


1 x 18 W

RS PRO 2000

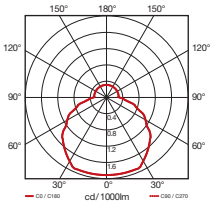


2 x 26 W

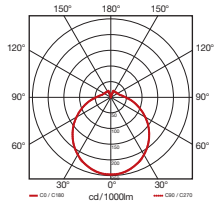


1 x 26 W

RS PRO 500, 1000, 2000

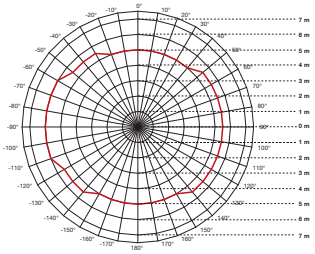


Module MLED1



Emergency lighting module

Detection zone at a mounting height of 2.8 m
(red = radial walking direction)



PLUS X AWARD®
achieved for:
Ecology

Accessories

MLED 1 module: Orientation light; 25 LED's; optional

Module MLED 1A: Orientation light for battery-powered operation, independently of mains power; optional

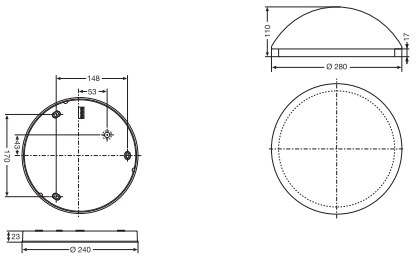
Emergency lighting module: Connection to emergency power system, optionally with 3 W LED

Wireless MF 1 module: Interconnection by bidirectional wireless link; optional (not for RS PRO 500)

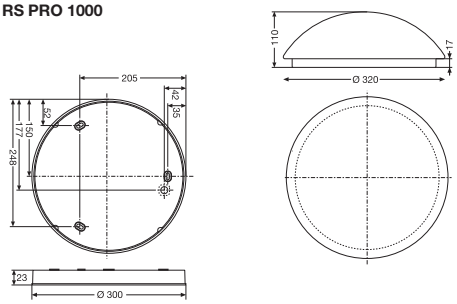
Designer rings in white and silver, optional

Mounting adapter for recessed box, hole spacing 74 – 82 mm, optional

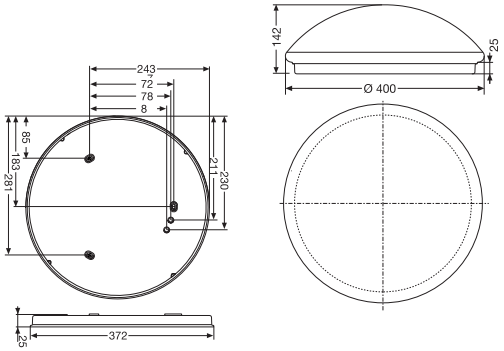
RS PRO 500

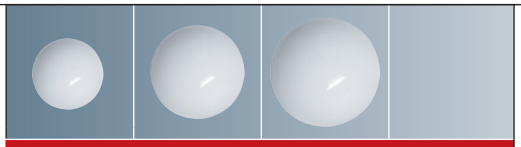


RS PRO 1000



RS PRO 2000





RS PRO 500/1000/2000

EAN	impact-resistant plastic shades **RS PRO 500 sensor, white, 4007841 732615** **RS PRO 500 slave, white, 4007841 732714** **RS PRO 1000 sensor, white, 4007841 736514** **RS PRO 1000 slave, white, 4007841 736613** **RS PRO 2000 sensor, white, 4007841 734916** **RS PRO 2000 slave, white, 4007841 735418** also in glass version **RS PRO 500 G sensor, white, 4007841 000240** **RS PRO 500 G slave, white, 4007841 000257** **RS PRO 1000 G sensor, white, 4007841 736811** **RS PRO 1000 G slave, white, 4007841 736910** **RS PRO 2000 G sensor, white, 4007841 738716** **RS PRO 2000 G slave, white, 4007841 733919**
Dimensions (WxHxD)	RS PRO 500: 280 x 280 x 110 mm RS PRO 1000: 320 x 320 x 110 mm RS PRO 2000: 400 x 400 x 142 mm
Output	RS PRO 500: 2 x 13 W / TC-DEL G 24-Q1 *1 (1 electr. ball.) RS PRO 1000: 2 x 18 W / TC-DEL G 24-Q2 *1 (2 electr. ball.) RS PRO 2000: 2 x 26 W / TC-DEL G 24-Q3 *1 (2 electr. ball.)
Additional switching capacity	RS PRO 500: no more than 4 additional lights RS PRO 1000/2000: no more than 2 additional lights
Voltage	230 – 240 V/50 Hz
HF-System	5.8 GHz (responds irrespective of temperature to the tiniest of movements) *2
Detection angle	360° with 160° angle of aperture *2
Transmitter power	approx. 1 mW *2
Reach	1 – 8 m all round, infinitely variable, in 4 directions *2
Max. area covered	approx. 50 m^2 *2
Time setting	1 min. – 20 min. + install mode *2
Twilight setting	2 – 2000 lux + teach-in mode *2
IP rating	IP 44
Protection class	II
Temperature range	-10° to +50° C
Accessories	- Mounting adapter for recessed box, hole spacing 74 – 82 **EAN 4007841738662** - MLED1 orientation light module with 25 LED's **EAN 4007841732813** - Orientation light module (battery-powered), nickel-metal hybrid MLED1A for cordless orientation light **EAN 4007841732912** - Emergency light module with 1 LED for connection to the emergency power system **EAN 4007841002626** - RS PRO 1000/2000 only: Wireless module MF1 for interconnecting several lights, 868 MHz FM modulation, redundant information transmission, 100 m max. EAN **4007841736712** - Designer rings **RS PRO 500 white 4007841 000288** **RS PRO 500 silver 4007841 000295** **RS PRO 1000 white 4007841 000301** **RS PRO 1000 silver 4007841 000318** **RS PRO 2000 white 4007841 000325** **RS PRO 2000 silver 4007841 000332**

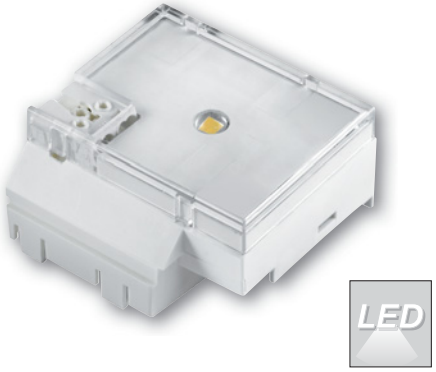
*1 It is only permissible to use the lamps specified.
Lamp life is not affected by switching 'ON' and 'OFF'.
*2 For sensor-controlled version only.

FUNCTIONAL 36 month WARRANTY
STEINEL German Quality

RS PRO 2000

Accessories for RS PRO 500, 1000, 2000

HF-SensorLights for Indoors



MLED 1 module: Orientation light

EAN 4007841732813

- LED's for automatic orientation light

This module provides orientation light from LED's while the SensorLight is not detecting movement. This way, a room doesn't look completely dark from a distance. Orientation light only works when supplied with mains power. As soon as movement is detected, the module switches over to main light.

MLED 1A module
Orientation light as battery-powered version
EAN 4007841732912

- LED's for automatic orientation light
- Automatic battery-powered operation in the event of mains power failure

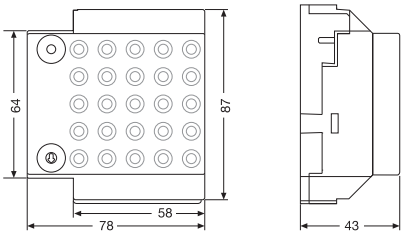
In the battery-powered version, the orientation light is charged from mains power and then operates in the same way as the MLED 1 version. What makes this light special: In the event of a power cut, the module automatically switches over to battery-powered operation. The LED's shine irrespectively of ambient brightness and help to show the way.

Emergency lighting module

EAN 4007841002626

- Connection to the emergency power system
- One 3 W power-LED
- For plugging into the light

The emergency light module provides light in the event of a mains power supply failure or fault (230 V). It is equipped with one power-LED for bright light when it's really needed.



Wireless module MF1

EAN 4007841736712

- Suitable for the RS PRO 1000/2000-series and sensIQ
- Convenient actuation of receivers (indoors/outdoors)
- Bidirectional (transmitter/ receiver)

Save yourself the need for permanently installed switching cables. Wireless modules provide the capability of interconnecting sensor and/or slave lights from the RS PRO series by bidirectional wireless link to create switching groups. This also applies to the sensIQ motion detectors.

Mounting adapter (base)

EAN 4007841738662

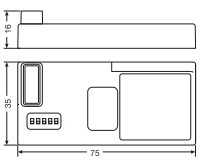
- For recessed boxes
- Hole spacing 74 – 82 mm

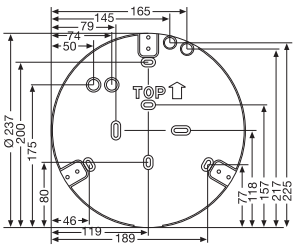
Mounting adapter for positioning the light neatly on the recessed box.

Designer rings

- For matching to designer-style properties and rooms
- Accessory for existing RS PRO 500, 1000, 2000 lights
- Straightforward installation

The designer rings add a touch of individuality to the system. You can use the high-quality plastic rings to vary the rational design of the RS PRO lights and match them with flexibility to existing room situations. They are available either in white or silver.





EAN	**RS PRO 500 white**	**4007841 000288**
	RS PRO 500 silver	**4007841 000295**
	RS PRO 1000 white	**4007841 000301**
	RS PRO 1000 silver	**4007841 000318**
	RS PRO 2000 white	**4007841 000325**
	RS PRO 2000 silver	**4007841 000332**
Dimensions (WxHxD)	RS PRO 500:	310 x 310 x 30 mm
	RS PRO 1000:	358 x 358 x 33 mm
	RS PRO 2000:	437 x 437 x 33 mm

RS PRO SYSTEM

FUNCTIONAL 36 month WARRANTY

STEINEL German Quality

CE

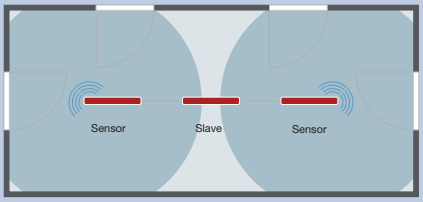
HF-SensorLights for Indoors

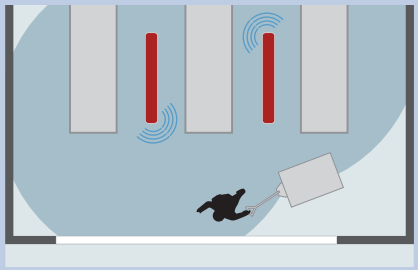
RS PRO SYSTEM

Systematic versatility

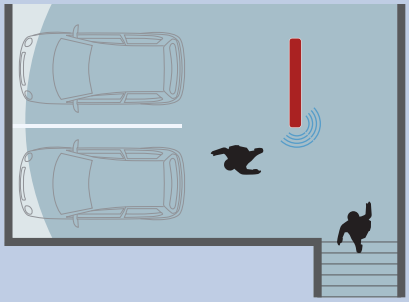
The range of linear fluorescent luminaires provides a wide choice of options based on a uniform concept. We have developed various models geared to the particular lighting task they are required to perform. Out high-frequency sensors are particularly suitable for concealed, trouble-free use. They are discreetly integrated in the luminaire and are not irritated by adverse temperature or climatic conditions either (e.g. in open or closed multi-storey car parks).

A wealth of intelligent features complements this range. Chip-controlled electronic ballasts, low-energy lamps and the efficient use of LED orientation lighting provide clever extras that meet all professional needs. The necessary settings are not made directly in the lights themselves but conveniently and efficiently by remote control. Capable of being interconnected with unique ease, these models van be used for a broad range of applications. Modern lighting control does't get more efficient than this.

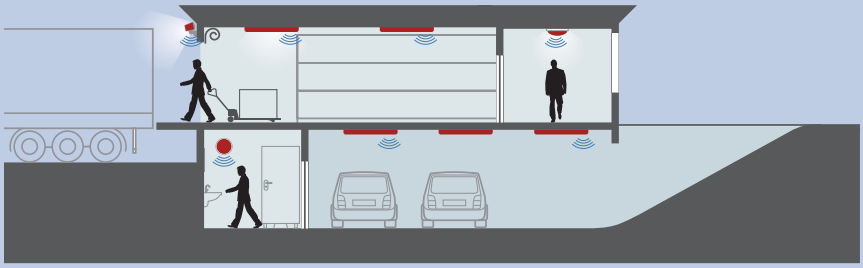




Planning example for a warehouse



Planning example for a multi-storey car park



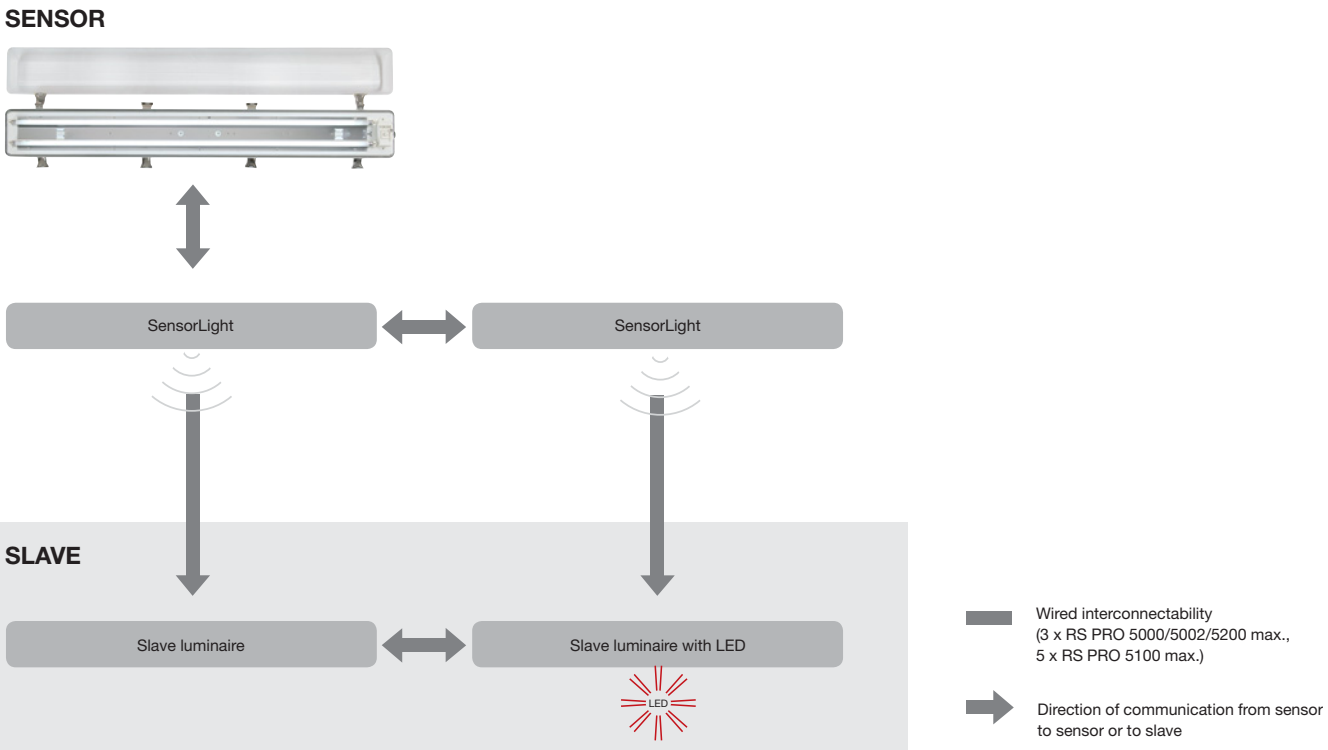
Planning example for an underground car park

HF-SensorLights for Indoors

RS PRO 5000, 5002 LED, 5100, 5200

High-frequency linear fluorescent luminaires are the ideal choice for the sensor-controlled illumination of large spaces or long aisles. They immediately come 'ON' the moment movement is detected. Whether in multi-storey car parks, underground car parks, basements or storage rooms, temperature has no relevance whatsoever for HF-sensors. These are the ideal places for using reliable high-frequency sensors that are not affected by external influences. The high-resolution sensors are integrated directly in the linear fluorescent luminaires.

The different models from the RS PRO 5000-series are based on one and the same principle. They can be interconnected to create groups. The RS PRO 5002 provides the option of basic LED illumination in the space it serves.



RS PRO SYSTEM

Light 'ON' in response to movement
(Cars or Persons)

Basic night-time illumination with manual override
wiring for individual luminaires

Basic night-time illumination from LED's
(RS PRO 5002)

RS PRO 5000, 5002 LED, 5100, 5200

HF-SensorLights for Indoors

RS PRO 5000
RS PRO 5002 LED
RS PRO 5200

RS PRO SYSTEM

- Individual luminaires can be interconnected
- Capability of connecting additional loads
- LED orientation light (RS PRO 5002) 6.7 W
- Slim-line, practical design
- Impact-resistant
- Includes 2 PG screw connections
- Can be remotely controlled
- Burn-in function for the fluorescent tubes (100 hours)

One system providing many solutions: the RS PRO 5000-Series

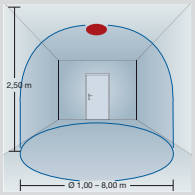
The 5000-Series offers four different lighting solutions. All of them can be selected individually to meet your needs exactly. And these models can also be quickly interconnected if you require all-inclusive systems with several switching groups. All models come with 360° HF-Sensors and any selectable reach setting of 1 – 8 metres all round. The diffusers are impact-resistant. The practical design is slim-line and robust.

The RS PRO 5000 and 5002 linear fluorescent luminaires are rated for 2 x 28 W T5 tubes and a separate electronic ballast for each of the two lamps.
More light can be provided from the RS PRO 5200 with 2 x 54 W T5.
The RS PRO 5100 works with 1 x 54 W T5. The RS PRO 5002 model is equipped with integrated power-LED's for orientation light. This way, large spaces are provided with basic illumination using minimal energy even before bright light is switched 'ON' in response to movement. The parameters for the sensor in all models can be set either manually at the potentiometers or conveniently and practically by remote control with the diffuser in place.

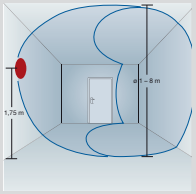
Detection zone

Max. reach: 8 m
Angle of coverage: 360°

Our high-frequency-sensors work at 5.8 GHz and 1 mW.



Reach setting 1 – 8 m all round when mounted to ceiling.



Reach setting 1 – 8 m all round when mounted to wall.

RS PRO 5100

Features

Low-energy lamp
- only 2 x 28 W/T5 fluorescent tubes for RS PRO 5000, RS PRO 5002 LED
- only 2 x 54 W/T5 for RS PRO 5200
- only 1 x 54 W/T5 for RS PRO 5100
- Two separate chip-controlled electronic ballasts for two tubes (except RS PRO 5100)

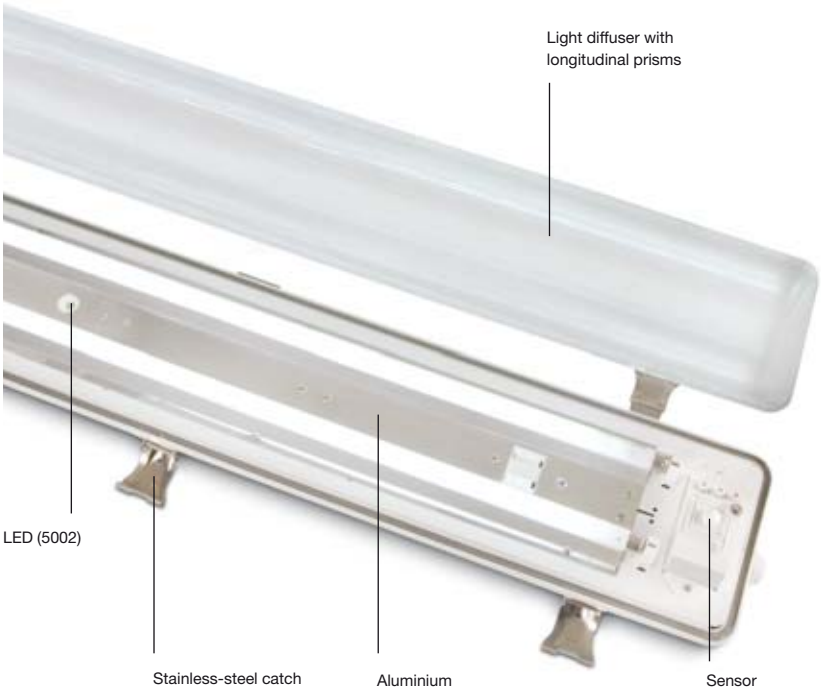
Sensor
- HF-sensor 360°, 1– 8 m all round
- Reach can be set as required
- Precision adjustment of light 'ON' time and twilight threshold
- Parameters can be set by optional remote control

Reflector
- Extremely high level of efficiency from aluminium reflectors

Catch
- High-quality stainless steel clips

Light diffuser
- Polycarbonate
- Robust, practical, strong
- Longitudinal prisms for optimum illumination

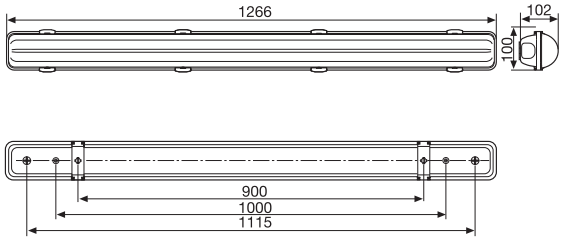
Example: sensor



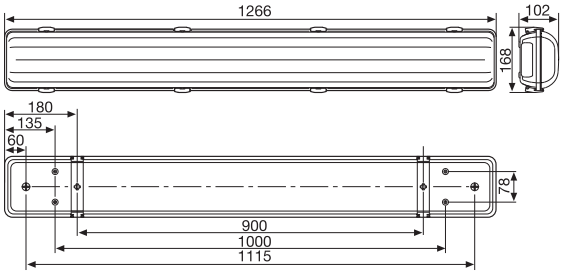
RS PRO slave version without sensor

RS PRO 5000, 5002 LED, 5100, 5200

HF-SensorLights for Indoors

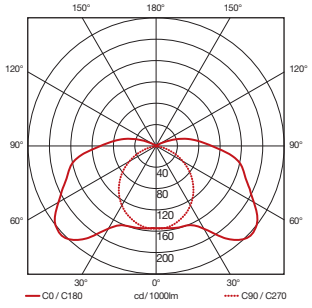


RS PRO 5100



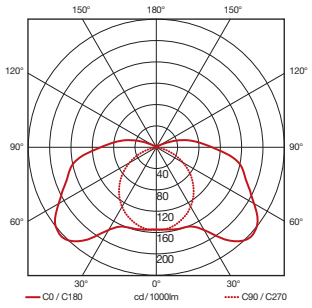
RS PRO 5000, RS PRO 5002 LED, RS PRO 5200

Light distribution curves for RS PRO 5000



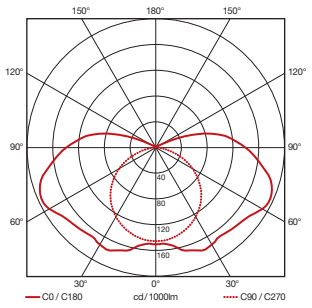
2 x 28 W — C0 /C180
C90/C270

Light distribution curves for RS PRO 5002 LED



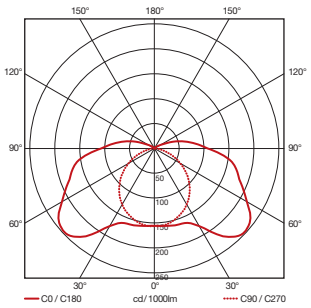
2 x 28 W — C0 /C180
C90/C270

Light distribution curves for RS PRO 5100



1 x 54 W — C0 /C180
C90/C270

Light distribution curves for RS PRO 5200



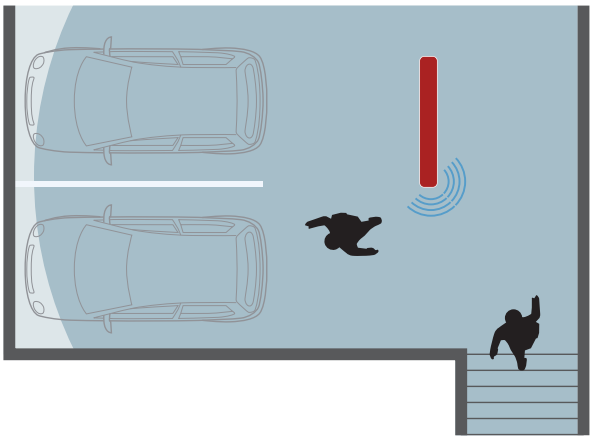
2 x 54 W — C0 /C180
C90/C270

Accessories

You will find further information on operation at: **www.steinel.de**
For example applications, turn to p. 129

Remote control RC 2

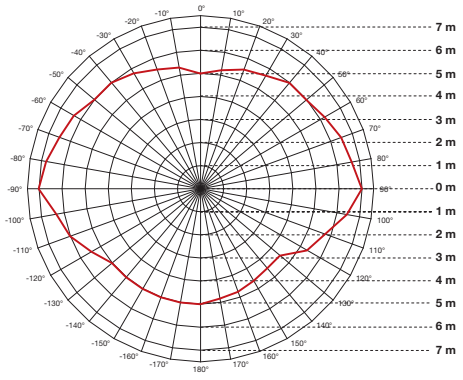
Emergency light shunt
Switches over to emergency power system if standard connection fails



RS PRO 5000/5002 LED/5100/5200

EAN	**RS PRO G 5000 sensor, white EAN 4007841 738815** **RS PRO G 5000 slave, white EAN 4007841 738914** **RS PRO G 5002 LED sensor, white EAN 4007841 731915** **RS PRO 5002 LED slave, white EAN 4007841 733810** **RS PRO 5100 sensor, white EAN 4007841 749613** **RS PRO 5100 slave, white EAN 4007841 749712** **RS PRO 5200 sensor, white EAN 4007841 002664** **RS PRO 5200 slave, white EAN 4007841 002671**
Dimensions (WxHxD)	RS PRO 5000, 5002, 5200: 102 x 168 x 1266 mm RS PRO 5100: 102 x 100 x 1266 mm
Output	RS PRO 5000, 5002: 2 x 28 W / T5 *1 (2 electr. ballasts) RS PRO 5200: 2 x 54 W / T5 *1 (2 electr. ballasts) RS PRO 5100: 1 x 54 W / T5 *1 (1 electr. ballast)
Additional switching capacity	RS PRO 5000/5002/5200: no more than 2 additional lights RS PRO 5100: no more than 4 additional lights
Voltage	230 – 240 V/50 Hz
HF-System	5.8 GHz (responds irrespective of temperature to the tiniest of movements) *2
Detection angle	360° with 160° angle of aperture *2
Transmitter power	approx. 1 mW *2
Reach	1 – 8 m all round, infinitely variable, in 4 directions *2
Max. area covered	approx. 50 m² *2
Time setting	1 min. – 20 min. + install mode *2
Twilight setting	2 – 2000 lux + teach-in mode *2
IP rating	IP 65
Protection class	I
Temperature range	-10° to +50° C
Accessories	- Remote control RC 2 **EAN 4007841737818** - Emergency light shunt **EAN 4007841002657**

Detection zone at a mounting height of 2.8 m
(red = radial walking direction)



*1 It is only permissible to use the lamps specified.
Lamp life is not affected by switching 'ON' and 'OFF'.
*2 For sensor-control version only.

FUNCTIONAL 36 month WARRANTY
STEINEL German Quality

RS PRO 5500

HF-SensorLights in Slim-line Design

RS PRO SYSTEM

- 2 x 28-W/T5 tubes
- Chip-controlled double electronic ballast
- Additional loads can be connected
- Can be interconnected by cable
- IK class 07 impact-resistant
- Includes 2 PG screw connections
- Can be remotely controlled
- Burn-in function for the fluorescent tubes (100 hours)

Slim and dynamic: the RS PRO 5500

The RS PRO 5500 is a veritable high-performance athlete: With lightning-fast reflexes and lean enclosure, the linear fluorescent luminaire instantly responds to movements and switches light 'ON'. It is ideal for corridors and passageways in commercial properties. Even after switching 'ON' and 'OFF' time and time again, it shines with endurance and long tube life. Developed in-house by STEINEL Professional, the chip-controlled double electronic ballast keeps strain on the tubes to a minimum. It is optimised for sensor-controlled operation. It also permits rapid start-up. This means that light comes 'ON' immediately when movement is detected in the room. With the highly efficient chip-controlled electronic ballasts, flickering starts were yesterday.

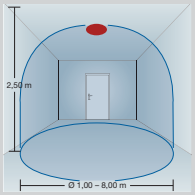
The RS PRO 5500 is rated for two T5 28-watt fluorescent tubes. For complex lighting tasks, the luminaires can be interconnected easily and economically by cable. It is available in both a master and a slave version. Individual functions and settings can also be selected practically and conveniently by an optional remote control.

Detection zone

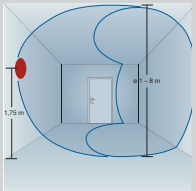
Max. reach: 8 m
Angle of coverage: 360°

Our high-frequency-sensors operate at 5.8 GHz and 1 mW.

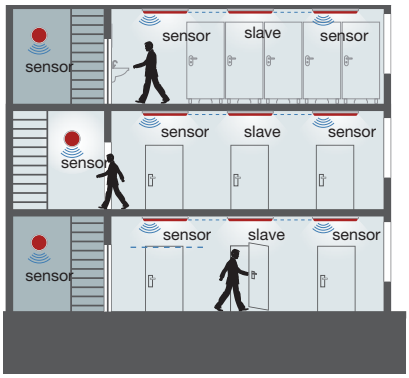
Setting capabilities



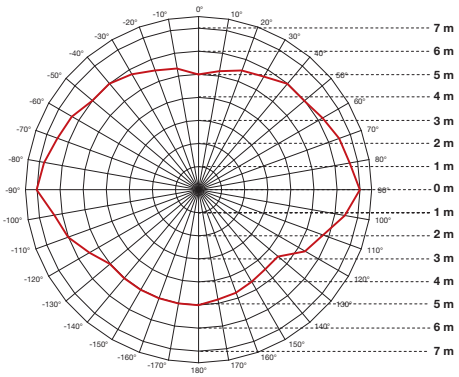
Reach setting 1 – 8 m all round when mounted to ceiling.



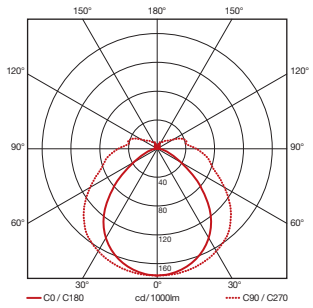
Reach setting 1 – 8 m all round when mounted to wall.

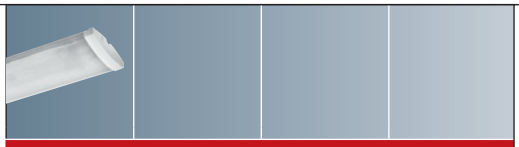


Detection zone at a mounting height of 2.8 m
(red = radial walking direction)



Light distribution curves for RS PRO 5500





RS PRO 5500

EAN	**RS PRO 5500 sensor, white** **4007841 749811** **RS PRO 5500 slave, white** **4007841 749910**
Dimensions (WxHxD)	1295 x 163 x 64 mm
Output	2 x 28 W / T5 *1 (1 chip-controlled double electronic ballast)
Additional switching capacity	RS PRO 5500: no more than 4 additional lights
Voltage	230 – 240 V/50 Hz
HF-System	5.8 GHz (responds irrespective of temperature to the tiniest of movements) *2
Detection angle	360° with 160° angle of aperture *2
Transmitter power	approx. 1 mW
Reach	1 – 8 m all round, infinitely variable, in 4 directions *2
Max. area covered	approx. 50 m² *2
Time setting	1 min. – 20 min. + install mode *2
Twilight setting	2 – 2000 lux + teach-in mode *2
IP rating	IP 44/IP 21 when wall-mounted
Protection class	I
Temperature range	-10° to +50° C
Accessories	- Remote control RC 2 **EAN 4007841737818** - Emergency light shunt **EAN 4007841002657**

*1 It is only permissible to use the lamps specified.
Lamp life is not affected by switching 'ON' and 'OFF'.
*2 For sensor-control version only.

FUNCTIONAL 36 month WARRANTY
STEINEL German Quality

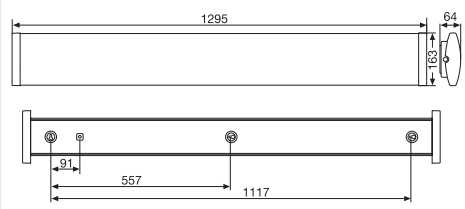
Accessories

Manual parameter settings directly at potentiometers.

Generous terminal compartment for ease of wiring.

Remote control RC2
RS PRO 5500

Emergency light shunt
Switches over to emergency power system if standard connection fails



RS PRO DL 100

HF-Sensor Downlight for Recessing in Ceilings

RS PRO SYSTEM

- Unique sensor-controlled downlight
- 2 x 18 W TC-DEL
- Two separate chip-controlled electronic ballasts
- Sensor concealed out of sight behind the ceiling panel
- Reach 2 – 8 m all round, infinitely variable
- Angle of coverage: 360°
- Protection class: IP 20
- Other loads can be connected (800 W max., e.g. bathroom/WC extractor fan, no more than 4 x RS PRO DL 100 SLAVE)

Open to integration: the RS PRO DL 100

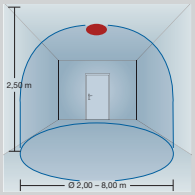
The sensor-controlled RS PRO DL 100 downlight can be fitted elegantly in the ceiling and is particularly suitable for large installations (e.g. WC rooms) at airports, in schools, office buildings and administration centres. The electronics completely disappear behind the suspended ceiling. From the outside, the light looks like any other. On the inside, though, it's equipped with highly advanced technology. Two chip-controlled electronic ballasts for 2 x 18 W TC-DEL ensure efficient, fast and long-lasting light management. Additional loads can be added without a problem. All function settings can only be changed by remote control. However, the light leaves the factory with basic settings suitable for everyday purposes. This downlight comes in a sensor and a slave version.

Detection zone

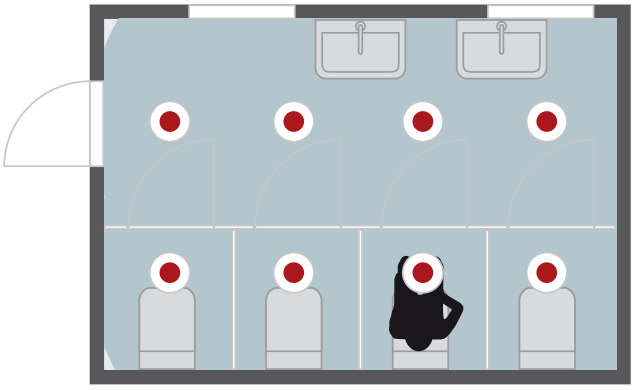
Max. reach: 8 m
Angle of coverage: 360°

Our high-frequency-sensors work at 5.8 GHz and 1 mW.

Setting capabilities



Reach setting 2 – 8 m all round when mounted to ceiling.

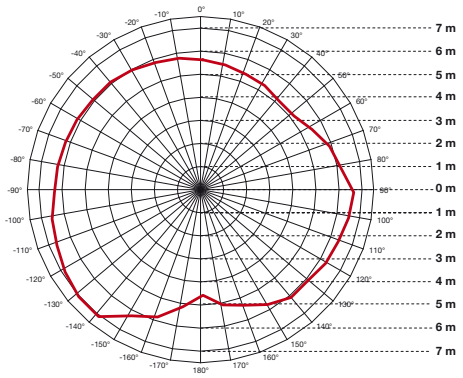


RS PRO DL 100

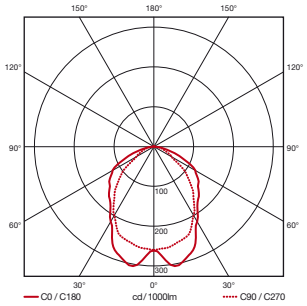
EAN	**RS PRO DL 100 sensor, white, including RS PRO remote control 4007841 002640** **RS PRO DL 100 sensor without remote control, white 4007841 003043** **RS PRO DL 100 slave without remote control, white 4007841 002633**
Dimensions (WxHxD)	240 x 394 x 90 mm
Output	2 x 18 W / TC-DEL *1 (2 electronic ballasts)
Additional switching capacity	RS PRO DL 100: no more than 4 additional lights
Voltage	230 – 240 V/50 Hz (Can be operated on direct current in emergency lighting mode)
HF-System	5.8 GHz (responds irrespective of temperature to the tiniest of movements) *2
Detection angle	360° with 160° angle of aperture *2
Transmitter power	approx. 1 mW *2
Reach	2 – 8 m all round, infinitely variable (by remote control only)
Max. area covered	approx. 50 m² *2
Time setting	1 min. – 1 h (by remote control only)
Twilight setting	2 – 2000 lux (by remote control only)
IP rating	IP 20
Protection class	II
Temperature range	-10° to +50° C
Accessories	- Remote control RC 2 **EAN 4007841737818**

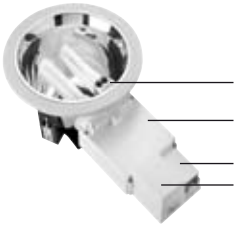
*1 It is only permissible to use the lamps specified.
Lamp life is not affected by switching 'ON' and 'OFF'.
*2 For sensor-control version only.

Detection zone at a mounting height of 2.8 m
(red = radial walking direction)



Light distribution curves for RS PRO DL 100





RS PRO DL 100 with light sensor and IR receiver for the remote control

electronic ballasts

connection block
HF-sensor

FUNCTIONAL 36 month WARRANTY
STEINEL German Quality

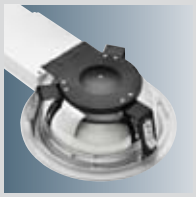
Accessories

Models

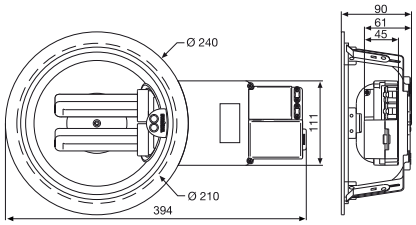
Remote control RC 2

RS PRO DL 100 in the version with sensor

RS PRO DL 100 in the slave version without sensor



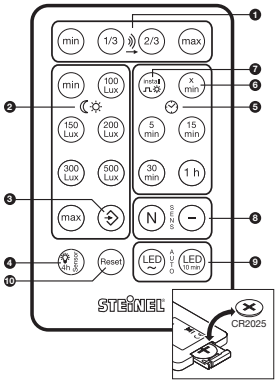
RS PRO DL 100 for easy installation in ceiling.



Accessories for RS PRO 5xxx, DL 100

Remote Control for Setting Parameters

RS PRO SYSTEM

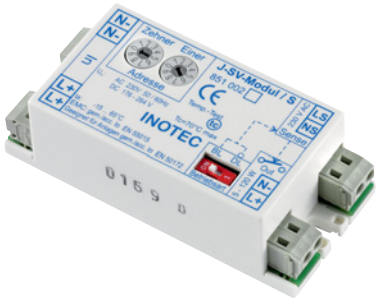


❶ Reach setting
❷ Response threshold
❸ Teach mode
❹ Manual override
❺ Time setting
❻ Light 'ON' time
❼ Install mode
❽ Sensor sensitivity
❾ LED orientation light
❿ Reset

Convenience at the press of a button: RC 2 remote control
EAN 4007841 737818

The practical and clearly set-out remote control is an extremely valuable aid for controlling our lights. There's no longer any need to make all the settings on the light before you close the cover.
Using the remote control, settings are easily adjusted or changed at any time without a ladder. You can select the most important parameters at the press of a button: Sensor reach, time and twilight setting, light 'ON' time at night, manual override or the sensitivity of the sensor. The remote control is optionally available for the RS PRO 5000 – 5500 and DL 100 models.

FUNCTIONAL 36 month WARRANTY



RS PRO emergency light shunt
EAN 4007841002657

- Provides light in the event of mains power supply failure or fault
- Switches over to mains-independent power supply

The emergency light shunt provides light in the event of a mains power supply failure or fault (230 V). In an emergency, it switches over to the mains-independent power supply. This ensures continuous, reliable lighting.
Suitable for RS PRO 5000, 5002 LED, 5100, 5200 and 5500.

RS PRO LED S1

HF-SensorLights for Indoors

LED

RS PRO SYSTEM

- Completely innovative design
- HF-sensor technology and LED light for maximum efficiency
- LED output 16 W
- Instant light, no start-up curve
- no relay clicking sound
- Pleasant colour of light
- Master/master configurations by 868-MHz wireless link
- Glass or plastic shade

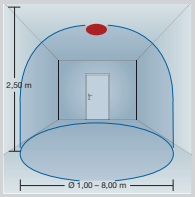
The smartest light in the world: RS PRO LED S1

It has everything today's technology can offer in the way of being an ideal, self-controlled light offering maximum efficiency: a high-frequency sensor for detecting persons, LED's for efficient instant light, a light sensor for identifying the room situation, an 868-MHz wireless communication system for creating light groups, and a modern, slim-line design that also ensures optimum cooling for the LED's. All in all, the RS PRO LED S1 is a lighting revolution: the temperature of the LED's is electronically monitored all the time. Going unnoticed, the system controls output to suit demand so as to provide optimum light all the time while maximising LED life. Several lights can interconnected by wireless communication in a room to form a group. What's interesting here is that all lights have equal status, working and responding as one big light.
Enjoy the unrivalled benefits of LED: no maintenance, no need to change lamps any more, virtually unlimited service life.

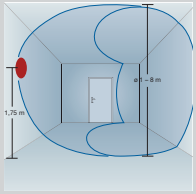
Detection zone

Max. reach: 8 m
Angle of coverage: 360°

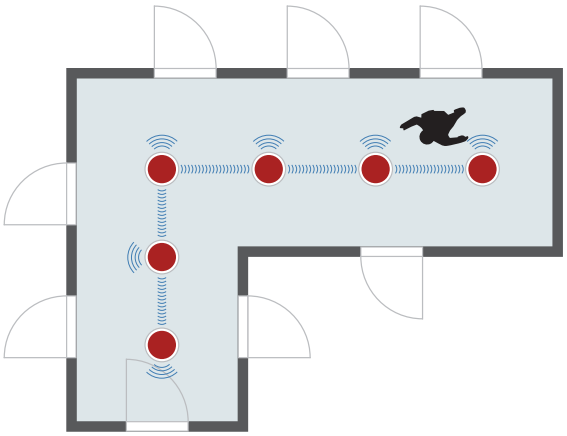
Our high-frequency-sensors operate at 5.8 GHz and 1 mW.



Reach setting 1 – 8 m all round when mounted to ceiling.

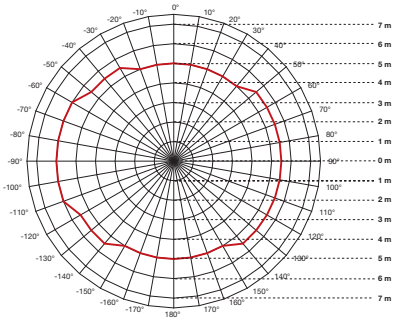


Reach setting 1 – 8 m all round when mounted to wall.

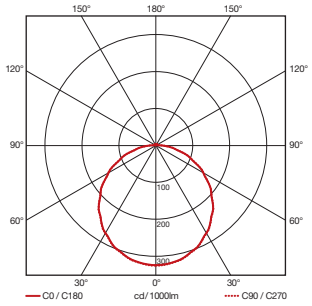


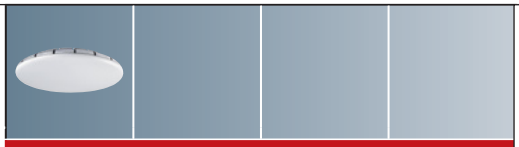
Several lights can interconnected by 868 MHz wireless communication in a room to form a group.

Detection zone at a mounting height of 2.8 m
(red = radial walking direction)



Light distribution curves for RS PRO LED S1





RS PRO LED S1

EAN	**RS PRO LED S1 sensor, PC** [1]	**4007841 744700**
	RS PRO LED S1 sensor, PMMA [2]	**4007841 745400**
	RS PRO LED S1 sensor, glass	**4007841 744601**
Dimensions (WxHxD)	300 x 300 x 67 mm	
Voltage	230 – 240 V/50 Hz	
Output	16 W LED (1.8 W dimmed)	
Lighting current	1200 lm (without shade)	
Efficiency	75 lm/W (without shade)	
Lighting current (with shade)	Plastic PC: Plastic PMMA: Glass:	535 lm 760 lm 660 lm
Efficiency (with shade)	Plastic PC: Plastic PMMA: Glass:	33,44 lm/W 47,50 lm/W 41,25 lm/W
Light colour	3500 Kelvin	
HF-System	5.8 GHz (responds irrespective of temperature to the tiniest of movements)	
Detection angle	360° with 160° angle of aperture	
Transmitter power	approx. 1 mW	
Reach	1 – 8 m all round, infinitely variable, in 4 directions	
Max. area covered	approx. 50 m^2	
Time setting	5 sec. – 15 min. + install mode	
Twilight setting	2 – 2000 lux + teach-in modus	
Brightness control	10 % when dimmed (1.8 W) a) all night b) 10 min. after selected time elapses c) 30 min. after selected time elapses	
IP rating	IP 20	
IK-class	PC: IK07; PMMA: IK03, Glas: IK02	
Protection class	I	
Temperature range	-10° to +50° C	

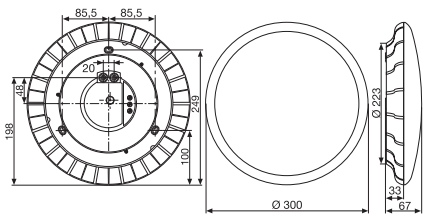
RS PRO LED S1 PC

Detail

Cooling fins and light diffuser merge into an aesthetically pleasing unit.

Interconnection

Secure wireless protocol;
Reach: approx. 30 m in buildings, no interference possible from permanent transmitters. Wireless-'ON'/'OFF' selector switch

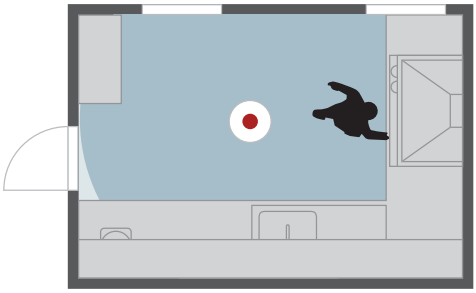


1) PC = Polycarbonate
2) PMMA = Polymethylmethacrylate (colloquial acrylic glass or Plexiglass)

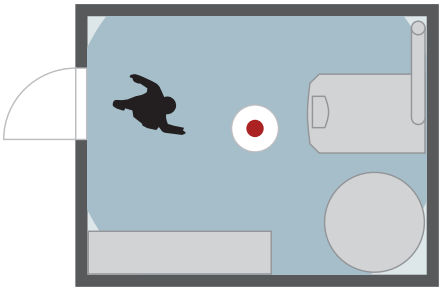
HF-SensorLights for Indoors

High-frequency Sensors: Intelligent and Focused

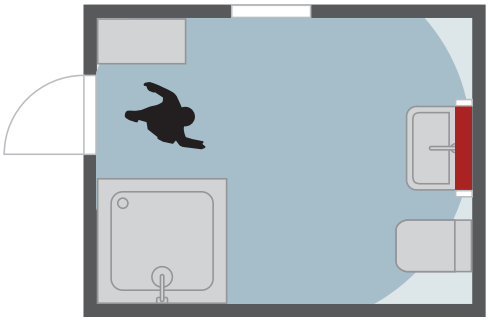
Economy of the new generation
HF-SensorLights are quick-witted: They switch light 'ON' in fast response to any movement. They are intelligent, focused, economical and convenient. Whether for commercial, public or home use, an extremely short response time permits highly effective lighting management. Our lights are suitable for mounting on the wall or ceiling. When it comes to saving costs, convenience and safety, they're the ideal choice for commercial premises, administration centres, school buildings, hotels, hospitals, retirement homes or office complexes. They are as quick and easy to install as conventional lights. Doing away with any switch, separate motion detector and connecting cables, they provide a whole new economic intelligence.



Planning examples for kitchen



Planing examples for boiler room



Planning examples for bathrooms

You will find further decorative SensorLights for indoors and outdoors in our separate "Style" catalogue.

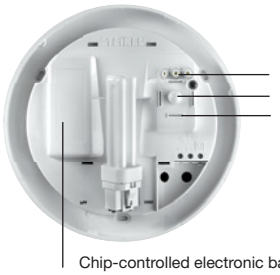
RS 50

High-Frequency SensorLights for Indoors

- 1 x 13 W TC-DEL G 24-Q1 low-energy lamp
- Chip-controlled electronic ballast
- Impact-resistant plastic shade
- Shrouds for screening the sensor in 4 directions

Gateway to professional lighting control: The RS 50

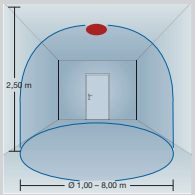
The RS 50 is our entry-level light for 1 x 13 W TC-DEL lamps. It is equipped with everything today's highly advanced sensor technology has to offer: it has its own chip-controlled electronic ballast for energy-efficient and convenient rapid start-up. This also gives it a long life. Its understated and practical design also has it all: the white round shade is in impact-resistant plastic, the base is made of aluminium and generously proportioned to facilitate installation. This makes it the ideal starter model for smaller-type lighting tasks.



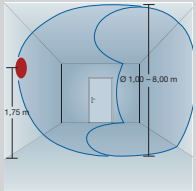
Detection zone

Max. reach: 8 m
Angle of coverage: 360°

Our high-frequency-sensors operate at 5.8 GHz and 1 mW.

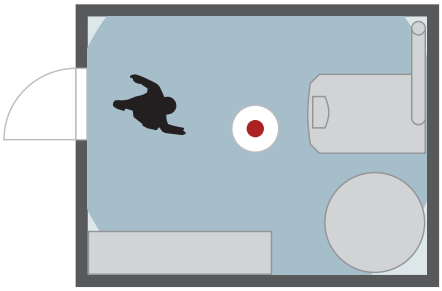


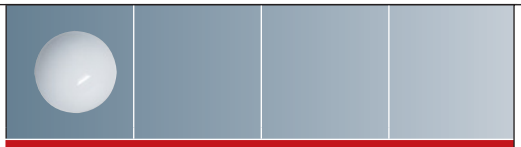
Reach setting 1 – 8 m all round when mounted to ceiling.



Reach setting 1 – 8 m all round when mounted to wall.

You will find further information on operation at:
www.steinel.de
For example applications, turn to p. 145



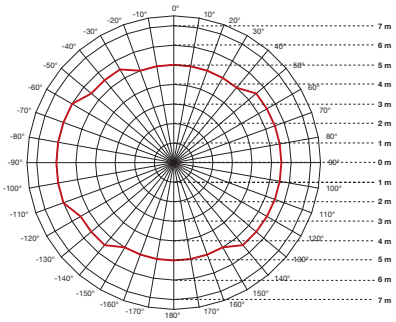


RS 50

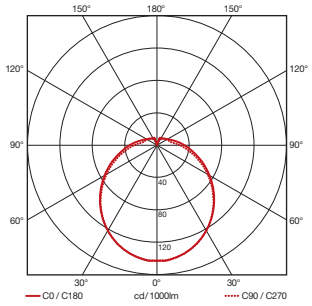
EAN	**RS 50 sensor, white plastic** **4007841 732516**
Dimensions (WxHxD)	280 x 280 x 110 mm
Voltage	230 – 240 V/50 Hz
Output	1 x 13 W / TC-DEL G 24-Q1 *1 additional switching capacity at L´: 100 W max., not more than 4 x RS 50
HF-System	5.8 GHz (responds irrespective of temperature to the tiniest of movements)
Detection angle	360° with 160° angle of aperture
Transmitter power	approx. 1 mW
Reach	1 – 8 m all round, infinitely variable, in 4 directions
Max. area covered	approx. 50 m²
Time setting	1 min. – 15 min.
Twilight setting	2 – 2000 lux
IP rating	IP 44
Protection class	II
Temperature range	-10° to +50° C
Accessories	- Designer rings **white** **4007841 000208** **silver** **4007841 000295**

*1 It is only permissible to use the lamps specified.
Lamp life is not affected by switching ‚ON' and ‚OFF'.

Detection zone at a mounting height of 2.8 m
(red = radial walking direction)



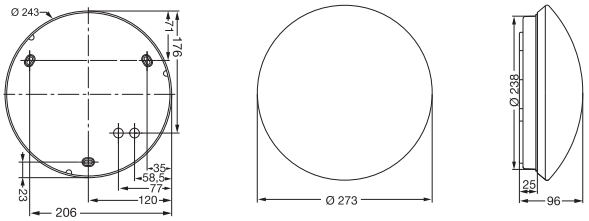
Light distribution curves for RS 50



FUNCTIONAL 36 month WARRANTY ■ STEINEL ■ German ■ Quality

Accessories

Designer-style rings in white and silver, optional



BRS T5/TC-L

HF-SensorLights for Indoors

BRS 81 L opal glass shade / chrome cap 665 x 104 mm

BRS 80 P with power socket, opal glass shade / white cap 710 x 104 mm

- for 1x 24 W low-energy lamp TC-L or T5
- Optional close-range switch for no-touch operation
- Capability of synchronising two lights
- Additional loads can be connected
- Elegant design, exquisite materials
- 2 sizes: 665 mm or 430 mm in length
- Opal glass shade with a choice of caps
- Also available in an impact-resistant finish
- Also with power socket

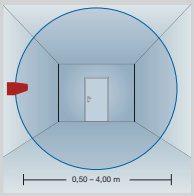
As wall or mirror light: the BRS models know how to impress

The lights from the BRS series have what it takes: Depending on requirements, they are either switched 'ON' and 'OFF' automatically by the integrated HF-sensor on entering the detection zone or manually by means of a no-contact close-range sensor. This makes them ideal for WCs, bathrooms, kitchens, corridors or cloakrooms in buildings and premises open to the public as well as hotels, retirement homes, hospitals and medical departments. The close-range sensor permits high standards of hygiene. The lights are suitable for powerful 24-watt lamps (TC-L or T5). These are driven by the efficient chip-controlled electronic ballasts from STEINEL Professional. This ensures long life and the convenience of light that starts up instantly without flicker or hum. The setting potentiometers are concealed behind a screw-mounted trim panel to prevent users from inadvertently changing settings.

Detection zone | **Setting capabilities**

Max. reach: 4 m
Angle of coverage: 360°

Our high-frequency-sensors operate at 5.8 GHz and 1 mW.



Reach setting 0.5 – 4 m all round when mounted to wall.

Response brightness can be set to any level from 2 – 2000 lux

BRS 82 L opal glass shade / matt chrome cap
665 x 104 mm

BRS 86 L opal glass shade / chrome cap
430 x 104 mm

BRS 83 L impact-resistant plastic / white cap
665 x 104 mm

BRS 87 L opal glass shade / matt chrome cap
430 x 104 mm

BRS 83 P with power socket, impact-resistant plastic / white cap 710 x 104 mm

BRS 85 P with power socket, opal glass shade / white cap 480 x 104 mm

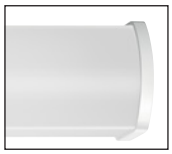
Features

Low-energy lamp
- 24 W lamp
- TC-L or T5
- Chip-controlled electronic ballast

Sensor
- 360°-high-frequency sensor, 0.5 – 4 m
- Reach can be set as required
- Precision adjustment of light 'ON' time and twilight response threshold
- Close-range sensor

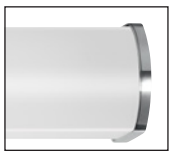
Practical, stylish design

The tasteful design of these lights fits into any room with a stylish look of harmony. The glass shades are crafted from matt opal glass and also available in an impact-resistant finish. The caps can be varied: white, chrome or matt chrome. The models from the BRS range come in two sizes: in a length of 660 or 425 millimetres. In addition, all models are easily interconnected by cable. They can be combined to create entire lighting groups. Some models feature a power socket. The close-range sensor switches light 'ON' or 'OFF' without touching. This is a particular advantage in rooms where greater importance needs to be attached to hygiene, cleanliness and electrical safety. Even when hands are wet or dirty, light can be switched 'ON' safely and hygienically precisely when it's needed. A light-emitting diode makes the sensor surface easy to find in the dark as well. The light is supplied with a sticker telling the user how to operate it.

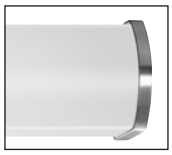


white

socket



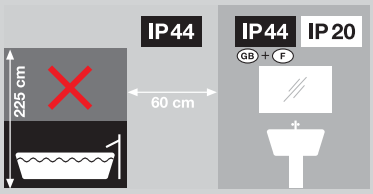
polished chrome



matt chrome

'ON' period can be infinitely varied from 1 – 15 min.

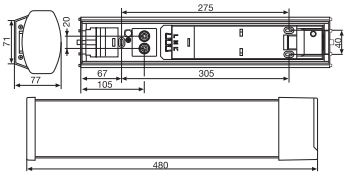
Can be switched 'ON' by no-contact close-range sensor



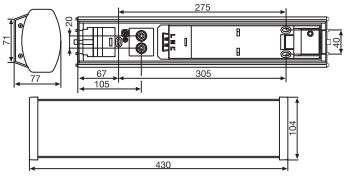
IP 44 rating
suitable for rooms exposed to moisture

BRS T5/TC-L

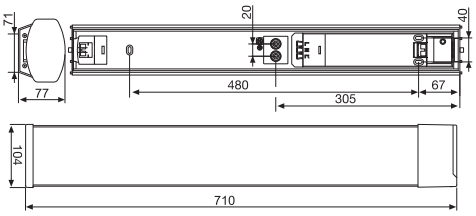
HF-SensorLights for Indoors



BRS with power socket, short

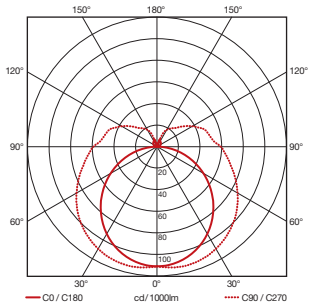


BRS short

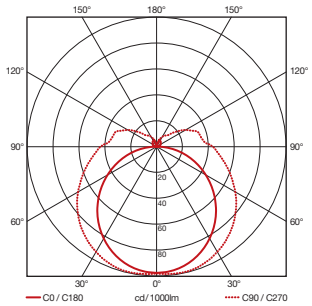


BRS with power socket, long

Light distribution curves for BRS short and BRS long

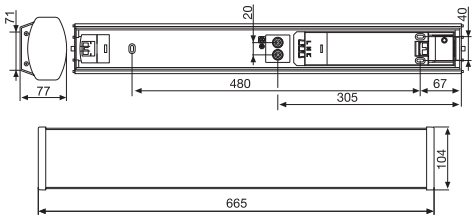


1 x 24 W (TC-L)



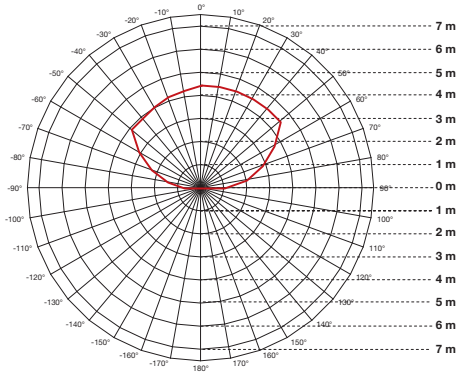
1 x 24 W (T5)

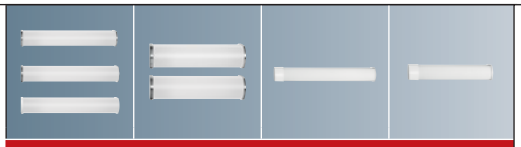
You will find further information
on operation at:
www.steinel.de
For example applications, turn to p. 145



BRS long

Detection zone at a mounting height of 1.8 m
(red = radial walking direction)



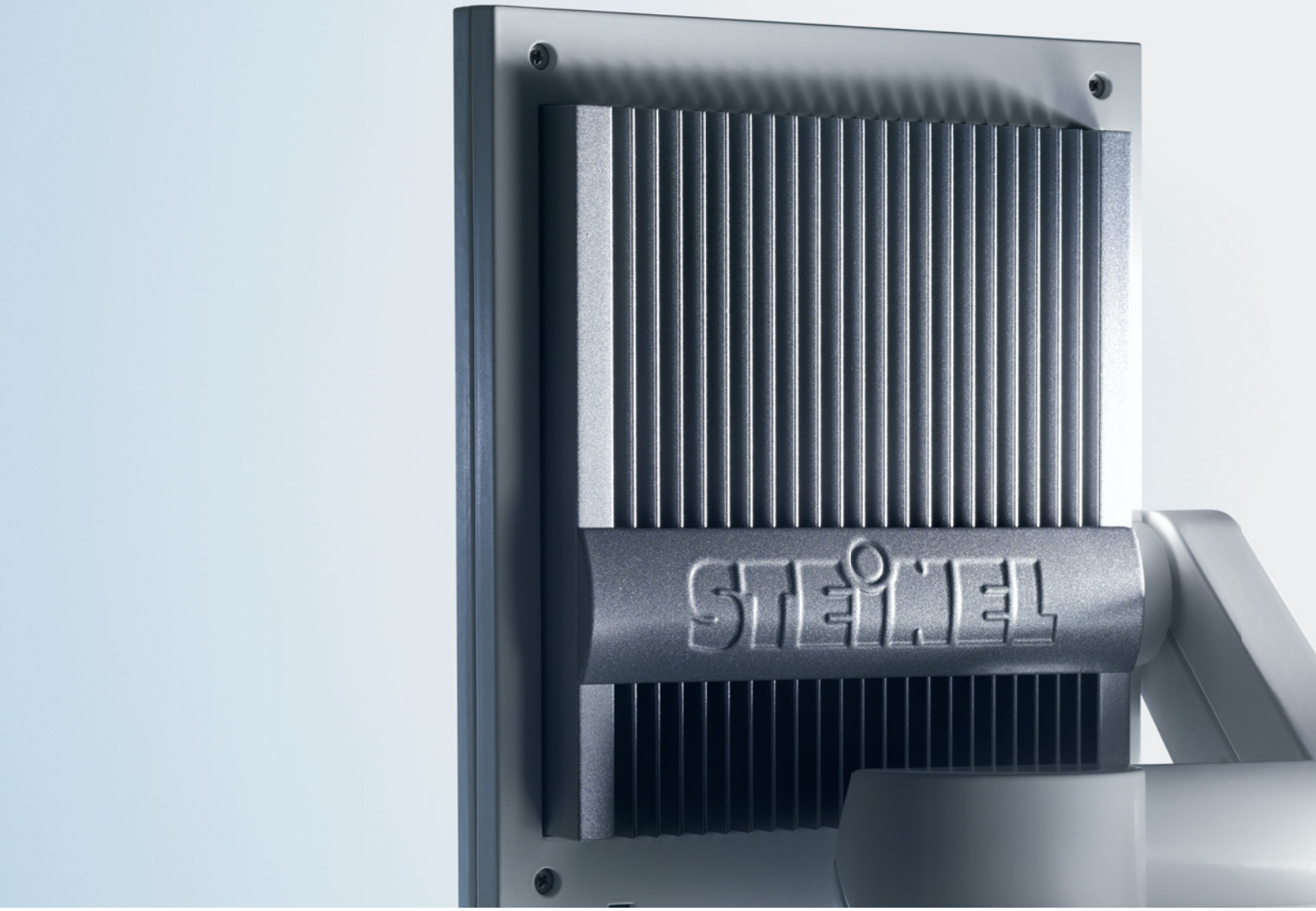


BRS 81/82/83/86/87
BRS P 80/83/85

EAN	**BRS 81 L chrome,**	**long**	**4007841 741310**
	BRS 82 L matt chrome,	**long**	**4007841 741419**
	BRS 83 L impact-resist.,	**long**	**4007841 741914**
	BRS 86 L chrome,	**short**	**4007841 741617**
	BRS 87 L matt chrome,	**short**	**4007841 741716**
	Power socket options		
	BRS 80 P Euro,	**long**	**4007841 744809**
	BRS 80 P GB,	**long**	**4007841 744823**
	BRS 80 P CH,	**long**	**4007841 744816**
	BRS 83 P Euro impact-res.,	**long**	**4007841 744908**
	BRS 83 P GB,	**long**	**4007841 744922**
	BRS 83 P CH,	**long**	**4007841 744915**
	BRS 85 P Euro,	**short**	**4007841 745004**
	BRS 85 P GB,	**short**	**4007841 745028**
	BRS 85 P CH,	**short**	**4007841 745011**
Dimensions (WxHxD)	BRS long		104 x 665 x 77 mm
	BRS short		104 x 430 x 77 mm
	BRS P long		104 x 710 x 77 mm
	BRS P short		104 x 480 x 77 mm
Output	BRS long		T5 24 W *1
	BRS short		TC-L 24 W *1
	(1 chip-controlled electronic ballast)		
Voltage	230 – 240 V/50 Hz		
Transmitter power	approx. 1 mW		
Detection angle	360° with 160° angle of aperture, also through glass, wood and stud walls		
HF-System	5.80 GHz (responds irrespective of temperature to the tiniest of movements)		
Reach	0.5 – 4 m, infinitely variable Close-up range approx. 5 cm		
Time setting	1 min. – 15 min.		
Twilight setting	2 – 2000 lux		
IP rating	IP 44		
Protection class	I		
Temperature range	-10° to +50° C		

*1 It is only permissible to use the lamps specified.

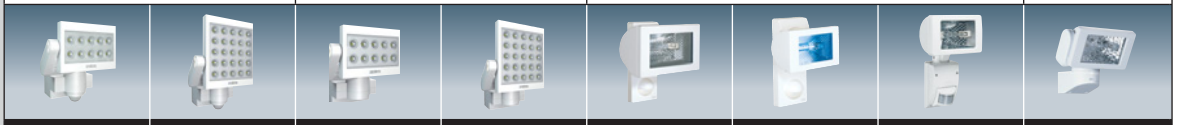
FUNCTIONAL 36 month WARRANTY
STEINEL German Quality



Sensor-Switched Floodlights

A wide range of attractive forms and design options meet technology of the finest quality and maximum efficiency in our range of sensor-switched floodlights.

Overview
Sensor-Switched Floodlights

	Sensor-Switched LED Floodlights		LED Floodlights		Sensor-Switched Halogen Floodlights			Halogen Floodl.
								
	XLed 10	**XLed 25**	**XLed-SL 10**	**XLed-SL 25**	**HS 502**	**HS 152 XENO**	**HS 2160**	**HS-S 150 W**
With sensor	●	●			●	●	●	
Without sensor, for interconnecting			●	●				●
Output	10 LED's, approx. 25 W	25 LED's, approx. 60 W	10 LED's, approx. 25 W	25 LED's, approx. 60 W	500 W/R7S	150 W/R7S	150 W/R7S	150 W/R7S
Additional switching capacity	800 W max.	800 W max.	800 W max.	800 W max.	500 W max.	800 W max.	500 W max.	
Detection angle	240°	240°			180°	180°	160°	
Reach	12 m max.	12 m max.			20 m max. or 8 m max.	20 m max. or 8 m max.	12 m max.	
Ground spike	Optional	Optional	Optional	Optional				
Corner wall mount								Optional
Page	**158**	**158**	**160**	**160**	**162**	**164**	**166**	**168**

Sensor-Switched LED Floodlights

Ecologically and Economically Intelligent: Sensor-Switched LED Floodlights

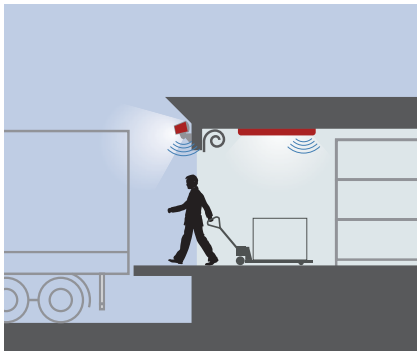
Our top-performing XLed sensor-switched floodlights set standards in efficiency. Outdoor lighting makes up an important aspect of planning, particularly for large open spaces and expansive properties. This is where the best possible cost-benefit ratio takes top priority. An automated lighting system geared exactly to providing light when it's needed goes a long way towards saving energy and, with this, also costs.

The XLed-sensor-switched floodlights from STEINEL Professional combine high-quality sensor technologies and LED light. The range systematically demonstrates that efficiency is a matter of technology: this being 100% LED light requiring only about a third of the energy used by halogen flood-lights. That speaks for itself.

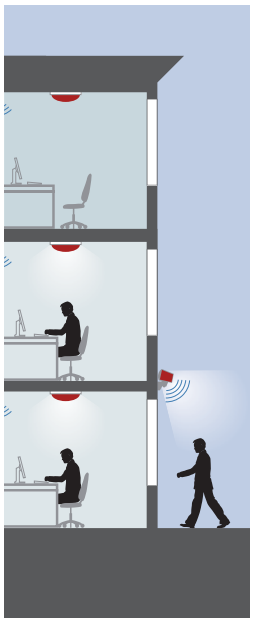
The challenge with high-performance LED floodlights of this type (at up to 60 W) lies in heat management. Our answer to this: ATC. We achieve optimum heat dissipation through our cooling fins as well as from our patented Active-Thermo-Control system. The temperature of the LED's is measured continuously. Action is taken in critical situations, all controlled by microprocessor and going unnoticed by the user. Only this way can the high-performance LED's be guaranteed to last their full life expectancy.

Benefits of XLed

- Very high energy saving
- Convenience from automated light management
- Combination of sensor system and LED light
- Integrated electronic ballasts
- ATC - Active Thermo Control
- Also suitable for installing under porches
- Well-spread radiation of light
- Life of LED's: 50,000 h
- Fast 2-piece installation



Planning example for loading bay



Planning example for outdoor area

XLED

Designpreis Deutschland 2010 NOMINIERT

product design award 2009

PLUS X AWARD achieved for: Innovation Design Ease of use Ecology

XLed 10, XLed 25

Sensor-Switched LED Floodlights for Mounting on Walls and Ground Installation

XLED

- XLed either with 10 or 25 LED's
- Flat-design-light head, aluminium
- Approx. 25 or 60 W power consumption
- Integrated 240° motion detector
- 70% energy saving
- Well-spread light radiation
- Head tilts and swivels
- ATC - Active Thermo Control
- Integrated electronic ballasts

Power LED Floodlights

The models from this range have attracted awards not only for their outstanding design but also for innovation, operating convenience and ecology.
Stunning in looks, these floodlights employ a cooling concept developed specifically for it. They are actively controlled by microprocessor. As a result of their unique directional flexibility, illumination can be adjusted with extreme precision. With an evenly broad radiation of light, this high-end solution provides day-bright light all around the building – and does so using a minimal amount of energy. If you wish, you can select a basic brightness of 10 per cent (approx. 3 W). Either all night long or for 10 minutes after the selected 'ON' time elapses.

product design award 2009

PLUS X AWARD achieved for: Innovation, Design, Ease of use, Ecology

Designpreis Deutschland 2010 NOMINIERT

- 70% energy saving from LED technology
- Long-life LED's

LED

Detection zone

Max. reach: 12 m
Angle of coverage: 240°

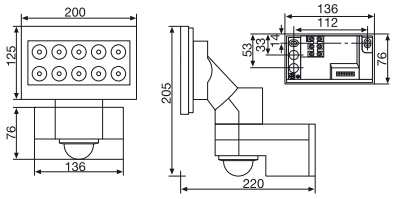
Setting capabilities

Time, twilight and basic-brightness setting

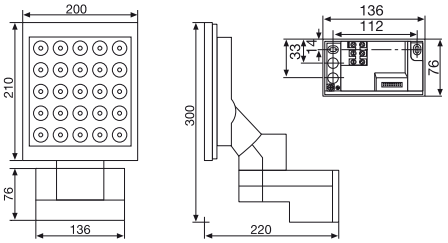
Reducing detection range

Reducing coverage angle

XLed 10



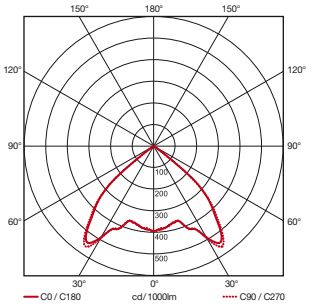
XLed 25



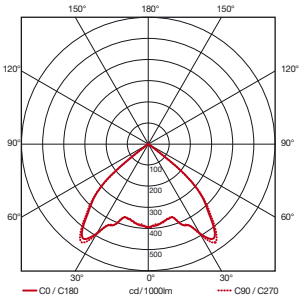
XLed 10 / XLed 25

EAN	**XLed 10 black 4007841 654511** **XLed 10 white 4007841 654610** **XLed 25 black 4007841 654719** **XLed 25 white 4007841 654818**
Dimensions (WxHxD)	XLed 10 205 x 200 x 220 mm XLed 25 300 x 200 x 220 mm
Voltage	230 – 240 V/50 Hz
Output	XLed 10 10 LED's, approx. 25 W XLed 25 25 LED's, approx. 60 W
Additional switching capacity	- 800 W max. (resistive load, e.g. filament bulb) - 400 W max. (uncorrected, inductive, cos φ = 0.5, e.g. fluorescent lamps) - electronic ballasts, capacitive, e.g. low-energy lamps, no more than 4 each, ≤ 88 µF
Life of LED's	up to 50,000 hrs. (at 3 hrs./day, approx. 45 years)
Detection angle	240° with sneak-by guard
Reach	12 m all round, temperature-stabilised
Sensor system	9 detection levels, 304 switching zones
Time setting	5 sec. – 15 min.
Twilight setting	2 – 2000 lux
IP rating	IP 44
Protection class	I
Temperature range	-20° to +50° C
Brightness control	10% basic brightness (approx. 3 W) a) 10 min. after time setting elapses b) all night
Manual override	4 hours, selectable.
Accessories	- Ground spike, silver, 365 x 136 x 80 mm **EAN 4007841654917**

Light distribution curves for XLed 10, XLed 25



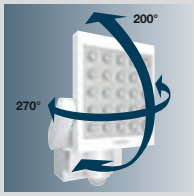
XLed 10



XLed 25

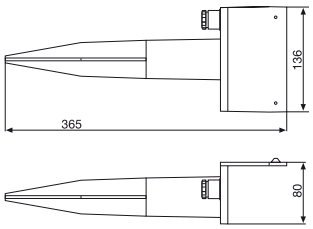
FUNCTIONAL 36 month WARRANTY ■ STEINEL ■ German Quality

Accessories



Aluminium light head: Flat design, adjustable in all directions

Ground spike, silver



XLed-SL 10, XLed-SL 25

Sensor-Switched LED Floodlights for Mounting on Walls and Ground Installation

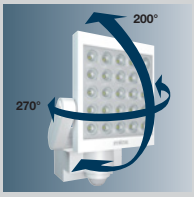
- XLed either with 10 or 25 LED's
- Flat-design-light head, aluminium
- Approx. 25 or 60 W power consumption
- 70% energy saving
- Well-spread light radiation
- Head tilts and swivels
- ATC - Active Thermo Control
- Integrated electronic ballasts

Powerful LED floodlights

The high-end XLed floodlights are also available in a slave version without sensor. This way, LED technology can be added to multiple-light systems, managing complex lighting tasks with maximum efficiency. Long-life LED's also provide dazzlingly bright light using a minimal amount of energy. Giving off very little heat, they can also be installed below projecting structures without a problem. The detection zone is perfectly adjusted by tilting and turning the flat-design light head. This is made of aluminium and equipped with either ten or twenty-five LED's.

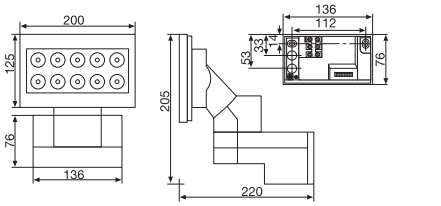
- 70% energy saving from LED technology
- Long-life LED's

Setting capabilities

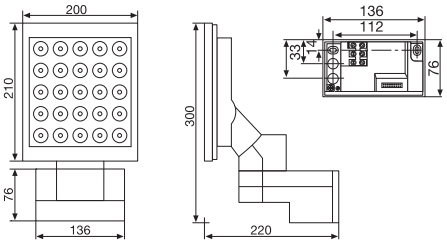


Aluminium light head: Flat design, adjustable in all directions

XLed-SL 10



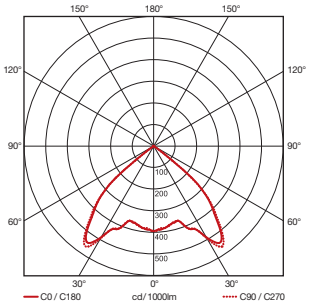
XLed-SL 25



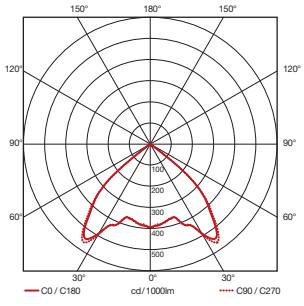
XLed-SL 10 / XLed -SL25

EAN	**XLed-SL 10 black** **4007841 658113** **XLed-SL 10 white** **4007841 658212** **XLed-SL 25 black** **4007841 658519** **XLed-SL 25 white** **4007841 658618**
Dimensions (WxHxD)	XLed-SL 10 205 x 200 x 220 mm XLed-SL 25 300 x 200 x 220 mm
Voltage	230 – 240 V/50 Hz
Output	XLed-SL 10 10 LED's, approx. 25 W XLed-SL 25 25 LED's, approx. 60 W
Life of LED's	up to 50,000 hrs. (at 3 hrs./day, approx. 45 years)
IP rating	IP 44
Protection class	I
Temperature range	-20° to +40° C
Accessories	- Ground spike, silver, 365 x 136 x 80 mm **EAN 4007841 654917**

Light distribution curves for XLed-SL 10, XLed-SL 25



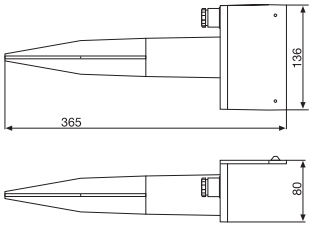
XLed-SL 10



XLed-SL 25

FUNCTIONAL 36 month WARRANTY
STEINEL German Quality

Accessories



Ground spike, silver

HS 502

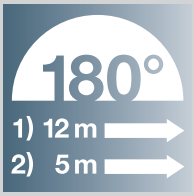
Sensor-Switched Halogen Floodlight for Mounting on Walls

- Sensor-switched halogen floodlight
- 500 watts max.
- Tilting/turning reflector head
- Connection of other loads at an additional switching output
- Head tilts through: 40°
- Head turns through: 30°
- Linear ECO halogen lamp is included

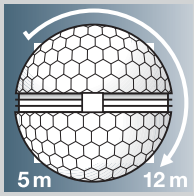
Compact and understated: the HS 502

Halogen floodlight 502 is equipped with a DUO-sensor and multi-lens. The sensor has a reach of up to 12 metres with a coverage angle of 180° and an angle of aperture of 90°. It is the perfect choice specifically for sensitive common areas in which conventional lights are not bright enough. Reach is limited to about 5 metres quickly and easily by turning the two-zone multi-lens. Bezel, wall mount and floodlight enclosure are made of tough die-cast aluminium.
This floodlight is rated for halogen lamps of up to 500 watts. Further loads can be connected at an additional switching output. Of timeless design, this compact floodlight is understated, making it suitable for any purpose.

Detection zone



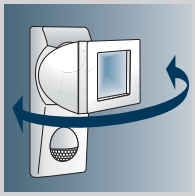
Max. reach: 5 m, 12 m
Angle of coverage: 180°
Angle of aperture: 90°



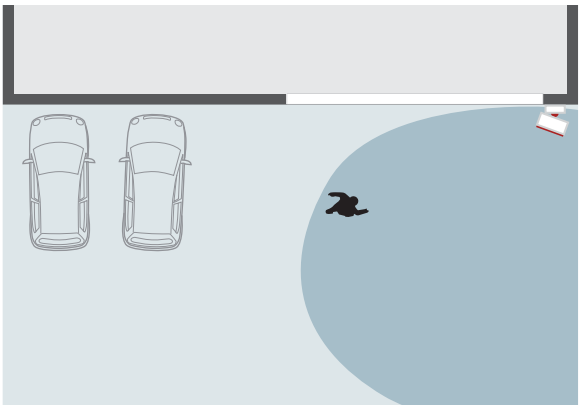
Multi-lens: reach is adjusted by turning

Setting capabilities

Shrouds:
restrict the angle of coverage and reach to suit requirements



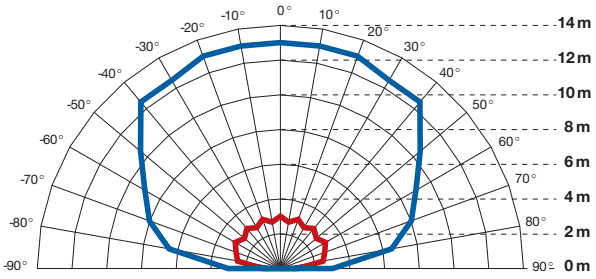
Floodlight enclosure:
cone of light can be precisely targeted by turning the enclosure (30° max.).....



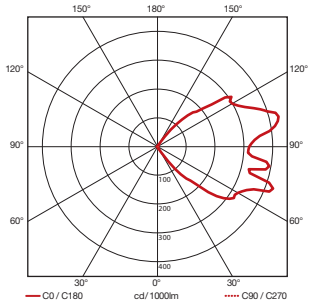
HS 502

EAN	**HS 502 black** **HS 502 white** **HS 502 silver**	**4007841 632717** **4007841 632816** **4007841 648510**
Dimensions (WxHxD)	236 x 220 x 155 mm	
Voltage	230 – 240 V/50 Hz	
Output	500 W max. / R7s 400 W ECO linear lamp (included)	
Additional switching capacity	- 500 W max. (resistive load, e.g. filament bulb) - 300 W max. (uncorrected, inductive, cos φ = 0.5, e.g. fluorescent lamps) - electronic ballasts, capacitive, e.g. low-energy lamps, no more than 2 each, ≤ 44 µF	
Detection angle	180° with 90° angle of aperture	
Reach	Basic setting 1: 12 m max. Basic setting 2: 5 m max. + precision adjustment using shrouds; temperature-stabilised	
Sensor system	10 detection levels (12 m), 9 detection levels (5 m), 504 switching zones (12 m), 412 switching zones (5 m)	
Time setting	10 sec. – 15 min.	
Twilight setting	2 – 2000 lux	
IP rating	IP 44	
Protection class	I	
Temperature range	-20° to +40° C	

HS 502 reach, mounting height 1.8 m
(blue = tangential walking direction, red = radial walking direction)

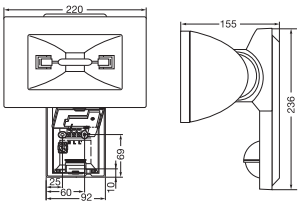


Light distribution curves for HS 502



FUNCTIONAL 36 month WARRANTY
STEINEL German Quality

… and tilting through 40°



HS 152 XENO

Sensor-Switched Halogen Floodlight with XENO Light for Mounting on Walls

- Sensor-switched halogen floodlight delivering light similar to daylight
- 150 W max.
- Tilting/turning reflector head
- Linear ECO halogen lamp is included
- Connection of other loads at an additional switching output
- Head tilts through: 40°
- Head turns through: 30°

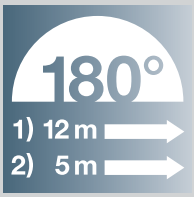
As bright as day: the HS 152 XENO

The HS 152 XENO benefits from the STEINEL Professional DUO-sensor and two-zone multi-lens. The sensor has a reach of up to 12 metres with a coverage angle of 180° and an angle of aperture of 90°. Bezel, wall mount and floodlight enclosure are manufactured from tough die-cast aluminium. Twilight threshold and light 'ON' time can be adjusted to suit the user's requirements. The XENO glass filter is unique. Filtering the halogen light, it provides a colour temperature similar to that of daylight. The HS 152 XENO has a maximum rating of 150 watts. Further loads can be connected at an additional switching output.

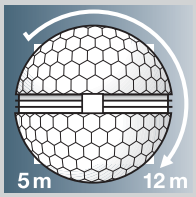
XENO Light

SENSOR ECO incl. 125 W

Detection zone



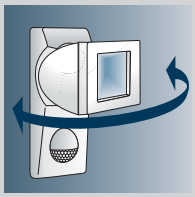
Max. reach: 5 m, 12 m
Angle of coverage: 180°
Angle of aperture: 90°



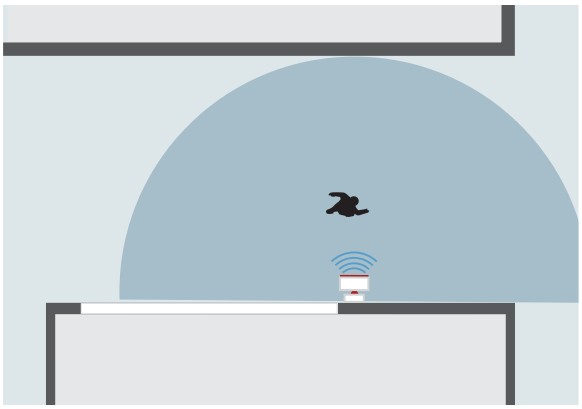
Multi-lens: reach set by turning

Setting capabilities

Shrouds:
restrict the angle of coverage and reach to suit requirements



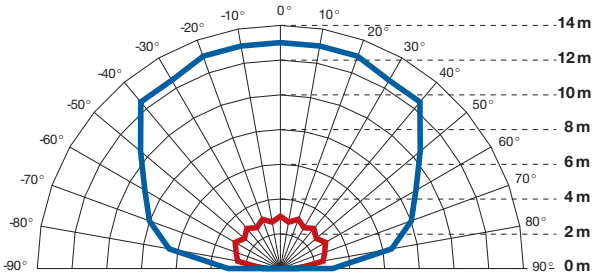
Floodlight enclosure: cone of light can be aimed precisely by turning the enclosure (30° max.).....



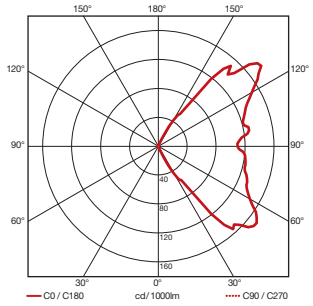
HS 152 XENO

EAN	**HS 152 XENO black**	**4007841 632014**
	HS 152 XENO white	**4007841 632113**
	HS 152 XENO silver	**4007841 648411**
Dimensions (WxHxD)	236 x 160 x 133 mm	
Voltage	230 – 240 V/50 Hz	
Output	150 W max. / R7S 125 W ECO linear lamp (included)	
Additional switching capacity	- 800 W max. (resistive load, e.g. filament bulb) - 400 W max. (uncorrected, inductive, cos φ = 0.5, e.g. fluorescent lamps) - electronic ballasts, capacitive, e.g. low-energy lamps, no more than 4 each, ≤ 88 µF	
Detection angle	180° with 90° angle of aperture	
Reach	Basic setting 1: 12 m max. Basic setting 2: 5 m max. + precision adjustment using shrouds; temperature-stabilised	
Sensor system	10 detection levels (12 m), 9 detection levels (5 m), 504 switching zones (12 m), 412 switching zones (5 m)	
Time setting	10 sec. – 15 min.	
Twilight setting	2 – 2000 lux	
IP rating	IP 44	
Protection class	I	
Temperature range	-20° to +40° C	

HS 152 XENO reach
(blue = tangential walking direction, red = radial walking direction)

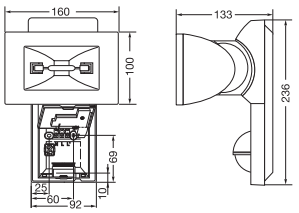


Light distribution curves for HS 152 XENO



FUNCTIONAL 36 month WARRANTY
STEINEL German Quality

… and tilting through 40°



HS 2160 ECO

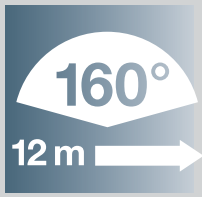
Sensor-Switched Halogen Floodlights for Mounting on Walls

- Sensor-switched halogen floodlights
- Tilting/turning reflector
- Linear ECO halogen lamp is included
- Tilts through: 80°
- Turns through: 44°
- Light 'ON' time and twilight threshold are easily set by dial
- Connection of other loads at an additional switching output
- Sensor and floodlight head can be adjusted exactly as required

Economy halogen light: the HS 2160 ECO

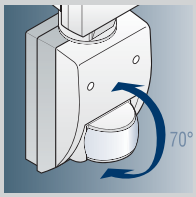
The economy floodlight is rated for a maximum of 150 watts. It is equipped with the same tried and proven sensor technology as the IS 2160 sensor and has a detection angle of 160° with an angle of aperture of 40°. With this, and a reach of 12 metres, it can reliable watch over every last inch of areas a large as 170 m². Its enclosure not only tilts through an angle of up to 80° but also turns horizontally through up to 44°. This allows you to adjust illumination with ease and precision exactly as you require. Related to the IS 2160 in design as well, both products from our economy range provide unbeatable value.

Detection zone

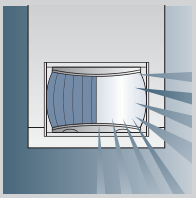


Max. reach: 12 m
Angle of coverage: 160°
Angle of aperture: 40°

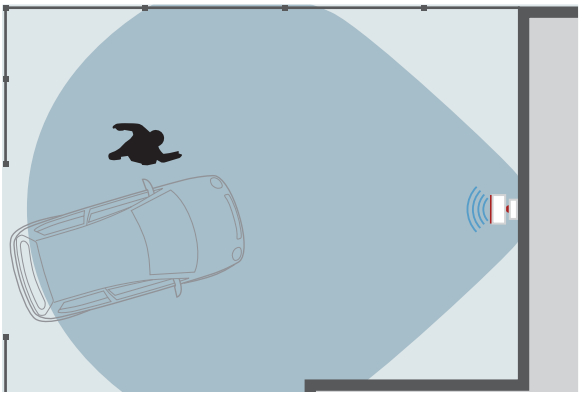
Setting capabilities



Exact detection zone adjustment by tilting



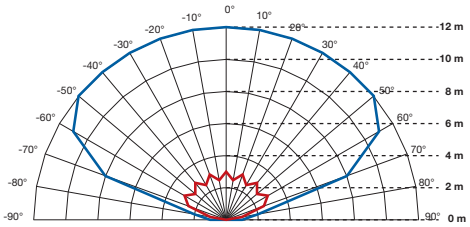
Shrouds: restrict the angle of coverage and reach to suit requirements



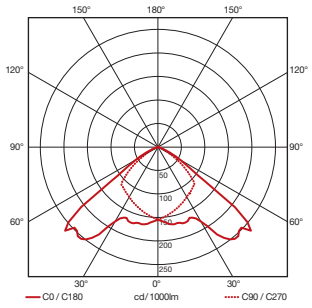
HS 2160 ECO

EAN	**HS 2160 ECO black** **HS 2160 ECO white**	**4007841 630713** **4007841 630812**
Dimensions (WxHxD)	250 x 155 x 102 mm	
Voltage	230 – 240 V/50 Hz	
Output	150 W max. / R7s, 125 W ECO linear lamp (included)	
Additional switching capacity	- 500 W max. (resistive load, e.g. filament bulb) - 300 W max. (uncorrected, inductive, cos φ = 0.5, e.g. fluorescent lamps) - electronic ballasts, capacitive, e.g. low-energy lamps, no more than 2 each, ≤ 44 µF	
Detection angle	160° with 40° angle of aperture	
Reach	12 m max.	
Sensor system	5 detection levels, 260 switching zones	
Time setting	8 sec. – 35 min.	
Twilight setting	2 – 2000 lux	
IP rating	IP 44	
Protection class	I	
Temperature range	-20° to +40° C	

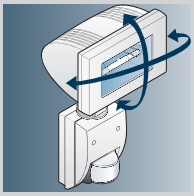
HS 2160 ECO reach, mounting height 1.8 m
(blue = tangential walking direction, red = radial walking direction)



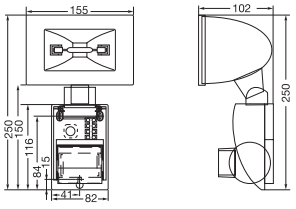
Light distribution curves for HS 2160 ECO



FUNCTIONAL 36 month WARRANTY
STEINEL German Quality

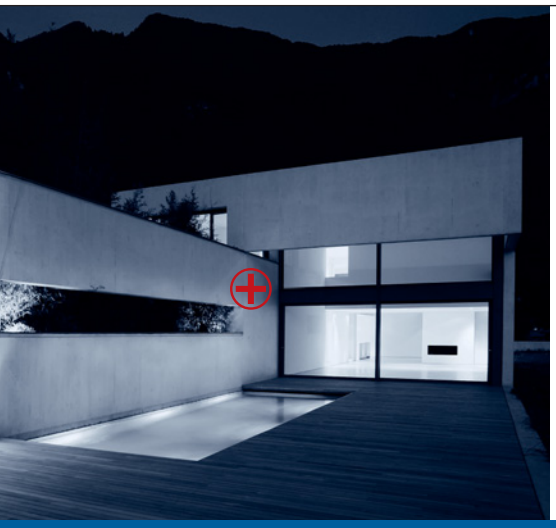


Floodlight housing can be turned 80° vertically, 44° horizontally



HS-S 150 W Slave

Halogen Floodlight for Mounting on Walls and Corners



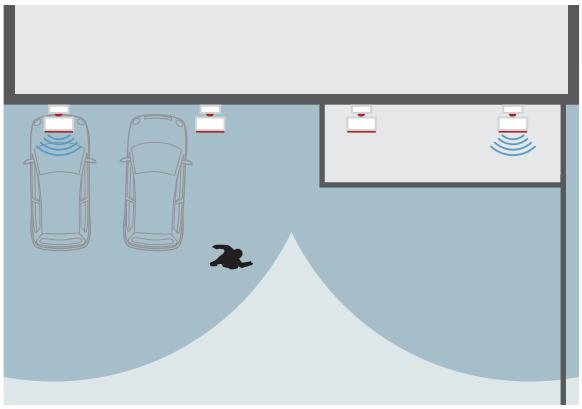
- Halogen floodlight
- For connecting to sensor-switched halogen floodlights with external switch output
- Enclosure in die-cast aluminium
- Linear ECO halogen lamp is included
- Head tilts through 80° and turns through 44°
- Ceramic reflector

At your service: the HS-S 150 W Slave

This halogen floodlight in the slave version without sensor is designed specifically for connecting to sensor-switched halogen floodlights with external switch output. This is ideal for lighting tasks on walls and in corner situations.
It comes with a maximum rating of 150 watts. Made from durable, tough die-cast aluminium, its enclosure can be tilted and turned for exact reach adjustment. The reflector is made of ceramic material for good thermal and optical properties.

Setting capabilities

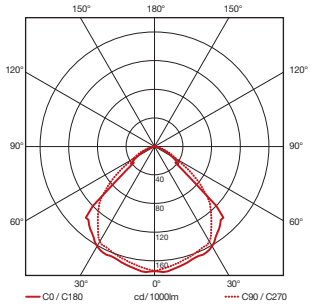
Floodlight housing can be turned 80° vertically, 44° horizontally



HS-S 150 W Slave

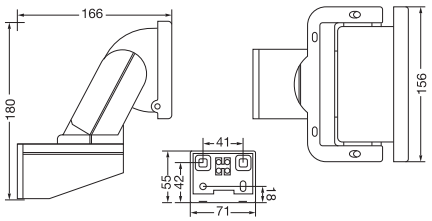
EAN	**HS-S 150 W Slave black 4007841 631314** **HS-S 150 W Slave white 4007841 631215**
Dimensions (WxHxD)	180 x 156 x 166 mm
Voltage	230 – 240 V/50 Hz
Output	150 W max. / R7s, 125 W ECO linear lamp (included)
IP rating	IP 44
Protection class	I
Temperature range	-20° to +40° C
Accessories	- Corner wall mount (EWH 02) optionally available **EAN 4007841630560 (black),** **EAN 4007841630669 (white)**

Light distribution curves for HS-S 150 W Slave



HS-S 150 W Slave

FUNCTIONAL 36 month WARRANTY
STEINEL German Quality



IMPULSER

IMPULSER

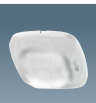
WIRELESS 868 MHZ

Transmitter Receiver

Wireless Sensor Systems

Our Impulser range provides completely new options for installing and interconnecting sensors and SensorLights.

Overview
Wireless Sensor Systems

	Transmitters			Receivers					
									
	IR Quattro	**IS-FS 300**	**RC 400**	**XLed-FE 10**	**XLed-FE 25**	**HS-FE 150**	**HS-FE 500**	**FE 8100**	**FE 8200**
Indoors	●	●	●					●	●
Outdoors		●	●	●	●	●	●	●	
Mounting height	2.50 – 3.50 m	2.00 m							
Type of installation	Ceil. mounting	Wall mounting		Wall mounting	Wall mounting	Wall mounting	Wall mounting	Surface wiring	Conceal. wiring
Operating voltage/ power output	9-V block battery	9-V block battery	3 x 1.5-V battery AAA	10 LED's, approx. 25 W	25 LED's, approx. 60 W	150 W/R7s	500 W/R7s	1000 W max.	1000 W max.
Sensor detection zone	7 x 7 m (49 m²)	300°							
Sensor reach		12 m max.							
Optional accessories/ special features	guard cage, surface-mounted adapter, clamp-type ceiling adapter	Corner wall mount		Ground spike	Ground spike	Corner wall mount			
Page	**176**	**177**	**178**	**179**	**179**	**180**	**181**	**182**	**182**

	Transceiver		
			
	MF1	**RS PRO 1000, 2000 + MF1**	**sensIQ + MF1**
Indoors	●	●	
Outdoors	●		●
Mounting height		2.00 – 2.50 m	2.00 – 2.50 m
Type of installation		Wall or ceiling mounting	Wall or ceiling mounting
Operating voltage/ power output		230 – 240 V, 50 Hz	230 – 240 V, 50 Hz
Detection zone		360°	300°
Reach		8 m max.	20 m max.
Optional accessories/ special features		Mounting adapter, MLED1 module, battery-powered MLED1a module, emergency light module	Corner wall mount, RC2 remote control
Page	**183**	**183**	**183**

Wireless Sensor Systems

IMPULSER

The new flexibility in communication: our wireless family
Our wireless sensor family communicates without cords or cables. Wireless transmission at 868.3 MHz also makes this reliable and eliminates interference. The combination of cutting-edge sensor technology and intelligent processor control also takes care of exacting applications.

The members of our wireless family
Our wireless family is made up of sensors, remote control as well as outdoor halogen floodlights and modules. This provides the basis for integrating the hi-tech sensIQ sensor and the RS PRO series in wirelessly interconnected lighting automation systems. In other words, both indoor and outdoor lighting can be combined to provide seamless, high-efficiency lighting management.

At the core of our Impulser series is state-of-the art 868.3-MHz wireless technology. The ISM frequency band is unique in the way in provides interference-free and reliable wireless communication between individual products. It allows you to set as many as 32 addresses per component. Although the 'ON' command from a sensor or remote control is sent to all wireless modules in the transmission zone, only receivers with the same address respond to it.

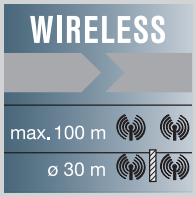
Impulser High-Lights

Features
- Fast, easy installation without cables
- Sophisticated options for combining transmitters and receivers
- User-configured transmitters and receivers
- Reliable wireless communication on the 868.3-MHz band
- Sensors, outdoor and indoor lights as well as other actuators can be interconnected in any way you choose

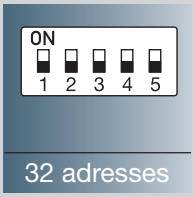
Safety and security
- Lights switch 'ON' automatically to deter intruders
- Surveillance of private, commercial, industrial, public as well as remote areas and spaces

Convenience
- Automated lighting
- Lights and loads switch 'ON' and 'OFF' by themselves

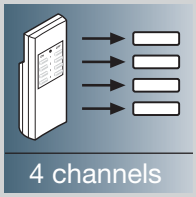
Secure wireless protocol; no interference possible from permanent transmitters



Wireless range: 100 m in open spaces; reliable wireless connection up to 30 m indoors



32 possible addresses can be set with ease at 5-way DIP switches



Remote control can be set to four different fixed addresses at one and the same time

Presence Control PRO IR Quattro

Transmitter

Presence Detector for Mounting to Ceilings

9V

Presence Control PRO IR Quattro Impulser

EAN	**white** **4007841 592509**
Dimensions (WxHxD)	120 x 120 x 71 mm
Operating voltage	9-V block battery (lithium)
Square detection zones	- Presence 4 x 4 m max. (16 sq.m.) - Radially 5 x 5 m max. (25 sq.m.) - Tangentially 7 x 7 m max. (49 sq.m.)
Recommended installation height	2.5 m – 3.5 m ceiling height
Sensor system	13 detection levels, 1760 switching zones
Twilight setting	2 – 2000 lux, ∞/daylight
Time setting	1 min. – 15 min.
IP rating	IP 20
Protection class	II
Temperature range	-20° to +50° C
Operating frequency	868.3 MHz (ISM band)
Transmitter range	up to 100 m in the open, 30 m all round indoors
Transmitter power	less than 1000 µW
Programming	at 5-way DIP switch, 32 possible addresses per channel
Number of receivers	Any
Housing	UV-resistant, paintable
Accessories	- Guard cage **EAN 4007841 003036**

The simplest answer to indoor lighting automation: the Presence Control PRO IR Quattro

- 1760 switching zones for first-class detection quality
- Square detection zones for exact planning
- Precision, infinitely variable scalability of reach
- Fast installation, parameters quickly set

Together with the recessed FE 8200 receiver, this autonomous wireless version of the Presence Control IR Quattro is the fastest way of upgrading a room to perfectly automated lighting control. The battery-operated detectors are mounted below the ceiling without the need for wiring. The FE 8200 then receives the commands sent and switches light 'ON' and 'OFF' from switch box.

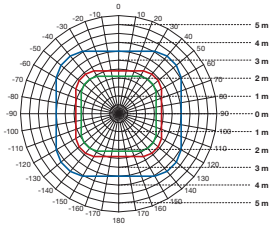
With 1760 switching zones, the IR Quattro guarantees precision detection of all movements. The unique, mechanically scalable reach setting can be infinitely varied for systematic detection zone adjustment: Even where entire systems are installed, individual zones can be clearly segregated.

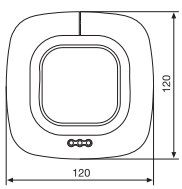
FUNCTIONAL 36 month WARRANTY

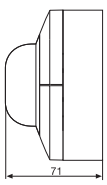
STEINEL German Quality

Detection zone

IMPULSER WIRELESS 868 MHZ Transmitter Receiver







Further product details:
Page 86

IS-FS 300

Transmitter

STEINEL PROFESSIONAL

300° Wireless Motion Detector for Wall and Corner Mounting

9V

	IS-FS 300
EAN	**black** 4007841 704711 **white** 4007841 705213
Dimensions (WxHxD)	85 x 60 x 95 mm
Operating voltage	9 x -V block battery* (alkaline) (life expectancy at least 12 months)**
Detection reach	12 m max., electrically stabilised
Detection angle	300° horizontally, 180° vertically
Sensor system	10 detection levels, 720 switching zones
Sensor turning range	± 80°
Time setting	1 min. – 15 min.
Twilight setting	2 – 2000 lux
IP rating	IP 54
Temperature range	-20° to +50° C
Operating frequency	868.3 MHz (ISM band)
Transmitter range	up to 100 m in the open, 30 m all round indoors
Transmitter power	less than 1000 µW
Programming	at 5-way DIP switch, 32 possible addresses per channel
Number of receivers	Any
Accessories	Corner wall mount **EAN 4007841 630119 black** **EAN 4007841 630218 white**

* Depending on triggering frequency (frequency of motion detection)
** At temperatures constantly below -20° C, we recommend using 9-V lithium batteries

Battery-operated sensor:
the IS FS 300

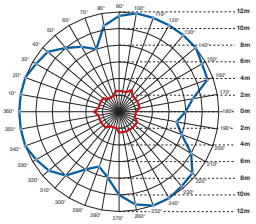
- 300° angle of coverage
- Wireless surveillance of areas as large as 300 m²
- Wireless transmission of commands to each Impulser receiver

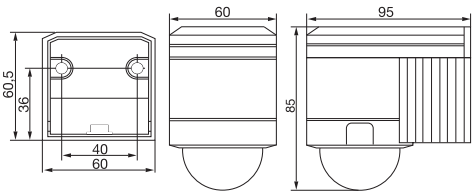
With a horizontal angle of coverage of 300° and vertical angle of coverage of 180°, the IS-FS 300 detects any movement in an area of 300 m². Transmitters with a reach of up to 100 metres in the open or 30 metres indoors report detected movement to any STEINEL Professional receiver from the Impulser family.

FUNCTIONAL 36 month WARRANTY
STEINEL German Quality

Detection zone

IMPULSER WIRELESS 868 MHZ
Transmitter Receiver





RC 400

Transmitter

Wireless Handheld Transmitter

	RC 400
EAN	**black** **4007841 704810**
Dimensions (WxHxD)	107 x 40.5 x 20 mm
Operating voltage	3 x 1.5-V battery, type AAA (life expectancy at least 12 months)
Transmitter range	up to 100 m in the open, 30 m all round indoors
Function	Switches permanently 'ON'/'OFF'
IP rating	IP 20
Operating frequency	868.3 MHz (ISM band)
Transmitter power	less than 1000 µW
Programming	at 5-way DIP switch, 32 possible addresses per channel
Number of receivers	Any

* Depending on use

Simply convenient:
the RC 400

- Convenience for operating STEINEL Professional receivers (indoors/outdoors)
- Power supply: 3 x 1.5-V battery (not included)
- Switches permanently 'ON'/'OFF'

Using this 4-way remote control, you can operate any of our receivers practically and conveniently. Small and handy, it is ready for use at any time. Four channels are available that can be assigned in any way you choose.

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STEINEL German Quality
CE

IMPULSER WIRELESS 868 MHZ Transmitter Receiver

XLed-FE 10, XLed-FE 25

STEINEL PROFESSIONAL

Receiver

LED Floodlights with Integrated Wireless Receiver

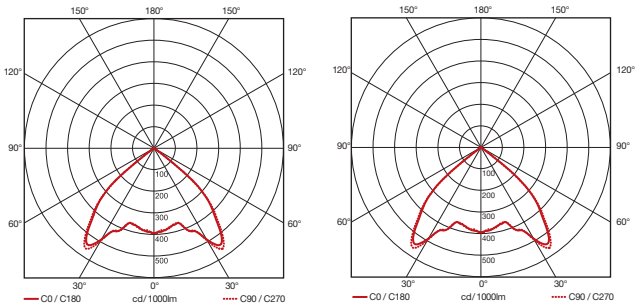
XLed-FE 10, XLed-FE 25	
EAN	**XLed-FE 10 black** **4007841 705619** **XLed-FE 10 white** **4007841 705718** **XLed-FE 25 white** **4007841 705916** **XLed-FE 25 black** **4007841 705817**
Dimensions (WxHxD)	XLed-FE 10 205 x 200 x 220 mm XLed-FE 25 300 x 200 x 220 mm
Voltage	230 – 240 V/50 Hz
IP rating	IP 44
Protection class	I
Temperature range	-20° to +50° C
Lamp wattage	XLed-FE 10 10 LED's, approx. 25 W XLed-FE 25 25 LED's, approx. 60 W
Life of LEDs	up to 50,000 hrs. (at 3 hrs./day, approx. 45 years)
Switching capacity	- 800 W max. (resistive load, e.g. filament bulb) - 400 W max. (uncorrected, inductive, cos φ = 0.5, e.g. fluorescent lamps) - electronic ballasts, capacitive, e.g. low-energy bulbs, max. of 4 each, C ≤ 88 µF
Operating frequency	868.3 MHz (ISM band)
Programming	As many as 8 different transmitters can be programmed at the press of a button
Accessories	- Ground spike, silver, 365 x 136 x 80 mm **EAN 4007841 654917**

Powerful LED floodlights
XLed-FE 10, XLed-FE 25

- Receives wireless signals from as many as 8 STEINEL Professional transmitters
- LED light head in flat design
- Tilting/turning reflector
- Integrated electronic ballasts
- Active Thermo-Control

The XLed-FE 10 and XLed-FE 25 models are LED floodlights that easily interconnect by wireless signal within the Impulser system. The enclosure can be turned through 270° and tilted through 200° for exact reach adjustment.

Light distribution curves for XLed FE 10, XLed FE 25



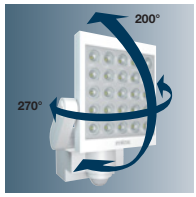
- 70% energy saving from LED technology
- Extremely long-life LED's

FUNCTIONAL 36 month WARRANTY · STEINEL German Quality · 10 · VDE · GS · CE

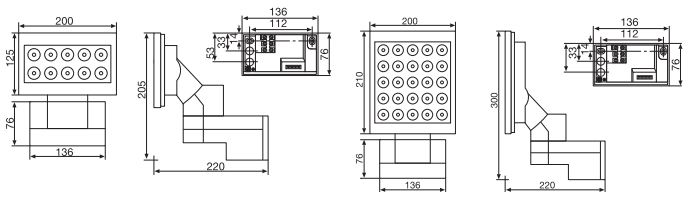
Accessories

IMPULSER WIRELESS 868 MHZ Transmitter Receiver

Ground spike in silver



Aluminium light head: flat design, adjusts in all directions



HS-FE 150

Receiver

Wireless Halogen Floodlight with Receiver

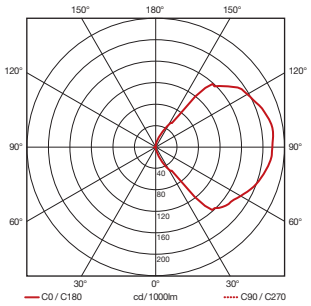
HS-FE 150	
EAN	**black** 4007841 704919 **white** 4007841 705312
Dimensions (WxHxD)	180 x 156 x 166 mm
Voltage	230 – 240 V/50 Hz
IP rating	IP 44
Protection class	I
Temperature range	-20° to +50° C
Lamp wattage	150 W max./R7s (included) 125 W ECO linear halogen lamp
Switching capacity	- 800 W max. (resistive load, e.g. filament bulb) - 400 W max. (uncorrected, inductive, cos φ = 0.5, e.g. fluorescent lamps) - electronic ballasts, capacitive, e.g. low-energy bulbs, 4 each max., C ≤ 88 µF
Operating frequency	868.3 MHz (ISM band)
Programming	As many as 8 different addresses can be programmed at the press of a button
Accessories	- Corner wall mount (EWH 02) available **EAN 4007841 630560 black** **EAN 4007841 630669 white**

Modern communication:
the HS-FE 150:

- Receives wireless signals from as many as eight STEINEL Professional transmitters
- Housing in die-cast aluminium
- Floodlight housing tilts and turns
- Ceramic reflector

The HS-FE 150 is capable of receiving wireless signals from STEINEL receivers. Made of die-cast aluminium, the floodlight enclosure tilts and turns.

Light distribution curves for HS-FE 150



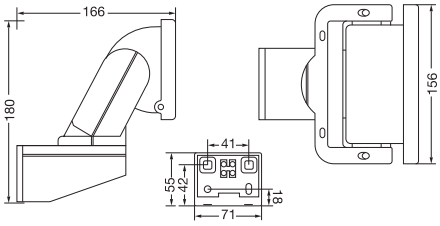
SENSOR ECO incl. 125 W

FUNCTIONAL 36 month WARRANTY

STEINEL German Quality

RWTÜV GS CE

IMPULSER WIRELESS 868 MHZ Transmitter Receiver



HS-FE 500

Receiver

STEINEL PROFESSIONAL

Wireless Halogen Floodlight with Receiver

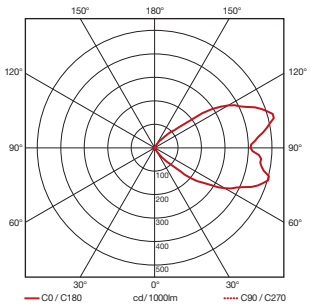
HS-FE 500	
EAN	**black** 4007841 705015 **white** 4007841 705411
Dimensions (WxHxD)	205 x 205 x 246 mm
Voltage	230 – 240 V/50 Hz
IP rating	IP 44
Protection class	I
Temperature range	-20° to +50° C
Lamp wattage	500 W max./R7s (included) 400 W ECO linear halogen lamp
Operating frequency	868.3 MHz (ISM band)
Programming	As many as 8 different addresses can be programmed at the press of a button

A powerful communicator: the HS-FE 500

- Receives wireless signals from as many as eight STEINEL Professional transmitters
- Housing in die-cast aluminium
- Floodlight housing tilts and turns

The HS-FE 500 is rated for 500 watts. This model also receives STEINEL Professional transmitters and can be adjusted both horizontally and vertically.

Light distribution curves for HS-FE 500



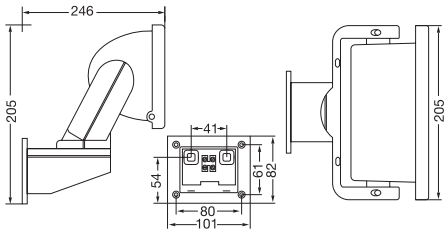
SENSOR ECO incl. 400 W

FUNCTIONAL 36 month WARRANTY

STEINEL German Quality

RWTÜV GS CE

IMPULSER WIRELESS 868 MHZ Transmitter Receiver



FE 8100, FE 8200

Receiver

Wireless Receivers

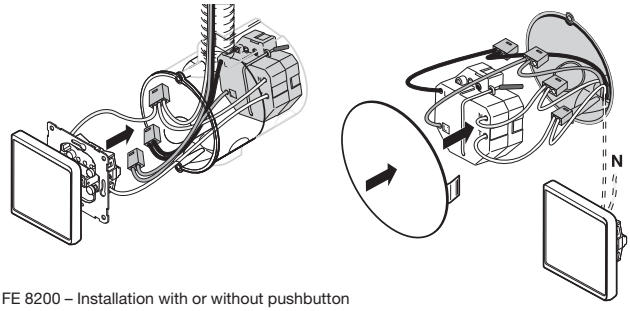
FE 8100/FE 8200	
EAN	**FE 8100 black 4007841 705114** **FE 8100 white 4007841 705510** **FE 8200 white 4007841 000455**
Dimensions (WxHxD)	FE 8100 110 x 75.5 x 43 mm FE 8200 51 x 51 x 24.5 mm
Voltage	230 – 240 V/50 Hz
Connection lead	FE 8200 1 x N, 1 x L, 1 x L‘, 1 x button
IP rating	FE 8100 IP 54 FE 8200 IP 20
Protection class	II
Temperature range	-20° to +50° C
Switching capacity	- 1000 W max. (resistive load, e.g. filament bulb) - 500 W max. (uncorrected, inductive, cos φ = 0.5, e.g. fluorescent lamps)
Operating frequency	868.3 MHz (ISM band)
Programming	As many as 8 different addresses can be programmed at the press of a button

FE 8100 and FE 8200

- Receives wireless signals from as many as eight STEINEL Impulser transmitters
- Automatically switches loads 'ON'/'OFF'
- Indoors/outdoors
- FE 8100 for surface mounting
- FE 8200 for installing in flush-mounting boxes

The FE 8100 and FE 8200 can receive wireless signals from STEINEL Professional wireless transmitters with up to 8 different addresses. To do this, the relevant transmitters must be assigned to them first.

The FE 8200 is a wireless receiver for installing in flush-mounting boxes. On the practical side, it has a potentiometer for setting the operating mode (normal and pulse mode), a button for the programming mode and an LED.



FE 8200 – Installation with or without pushbutton

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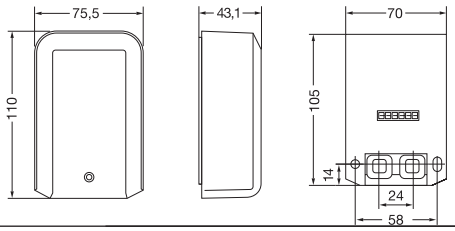
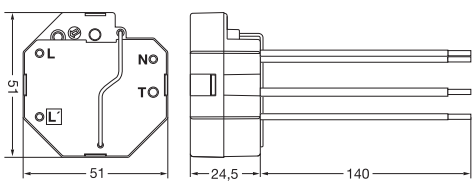
FE 8100



FE 8200



MF1

Transceiver

Wireless Module for sensIQ and RS PRO 1000 and 2000

	MF1
EAN	**white** **4007841 736712**
Dimensions (WxHxD)	75 x 35 x 16 mm
Transmitter range	up to 100 m in the open, 30 m all round indoors
Operating frequency	868.3 MHz (ISM band)
Transmitter power	less than 1000 µW
Programming	at 5-way DIP switch, 32 possible addresses
Number of receivers	Any

Wireless module MF1

- For conveniently operating STEINEL Impulser receivers and transmitters (indoors/outdoors)
- Bidirectional (transmitter/receiver)
- For sensIQ, RS PRO 1000/2000

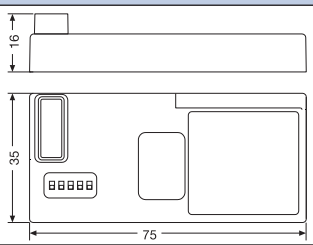
Save yourself the need for permanently installed switching cables. Wireless modules can be used for reliably interconnecting motion detectors and SensorLights to create switching groups on the basis of bidirectional wireless links.

FUNCTIONAL 36 month WARRANTY

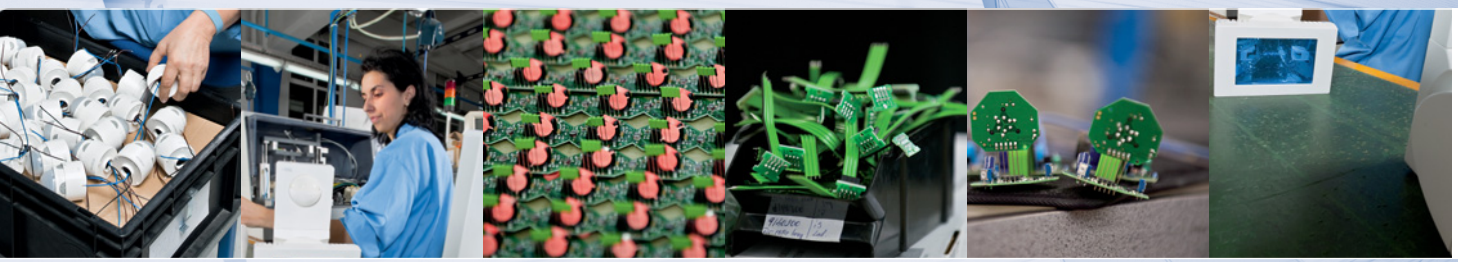
STEINEL German Quality

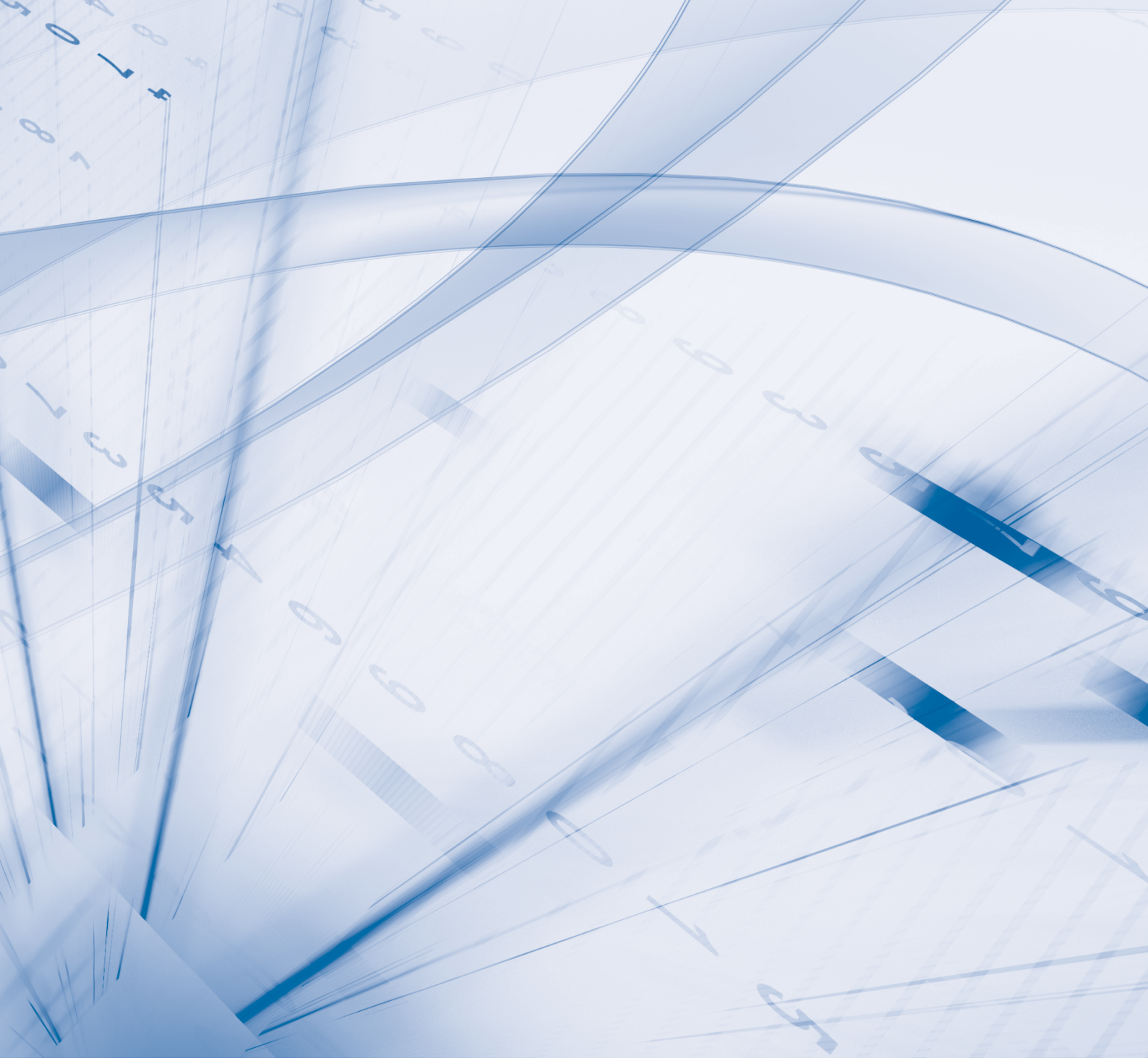
CE

IMPULSER WIRELESS 868 MHZ Transmitter Receiver



Further product details:
sensIQ page 34
RS PRO 1000/2000 page 123



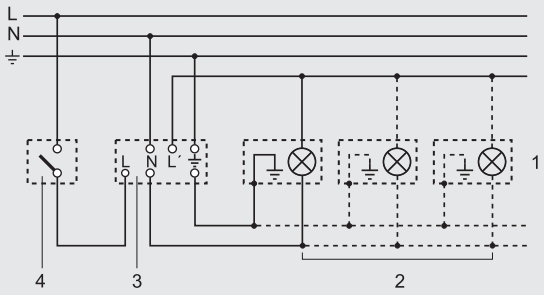


Support Service

Wiring diagrams, IP class, IK class, approval marks
Hot line for urgent matters +49 (0) 5248 448 - 188

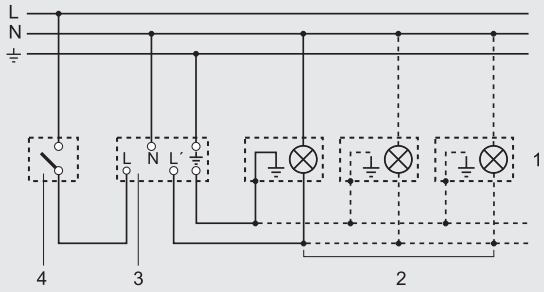
Wiring Diagrams for Motion Detectors

Light without existing neutral conductor



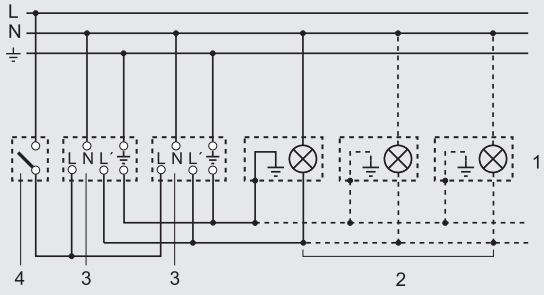
❶ e.g. 1 – 4 x 100 W filament bulbs
❷ Load, lighting
❸ Sensor connection terminals
❹ Indoor switch

Light with existing neutral conductor



❶ e.g. 1 – 4 x 100 W filament bulbs
❷ Load, lighting
❸ Sensor connection terminals
❹ Indoor switch

Several sensors connected in parallel

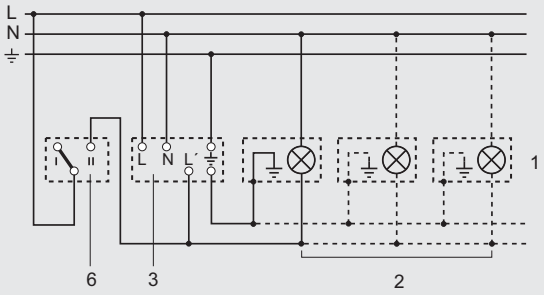


❶ e.g. 1 – 4 x 100 W filament bulbs
❷ Load, lighting
❸ Sensor connection terminals
❹ Indoor switch

PLANNING

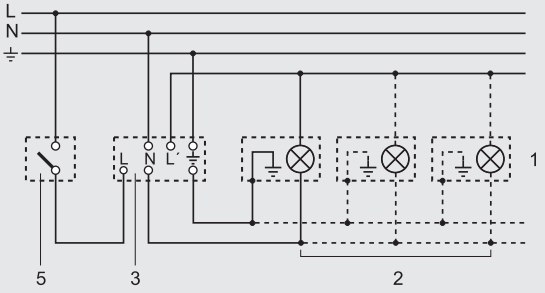
Connection by means of a two-way switch for manual override and automatic operation
Setting I:
Automatic operation
Setting II:
Manual operation, light 'ON' permanently

Note: The system cannot be switched 'OFF', it is only possible to select operation at setting I or II.



❶ e.g. 1–4 x 100 W filament bulbs
❷ Load, lighting
❸ Sensor connection terminals
❻ Indoor double-throw switch, automatic, permanent light

Connection using two-circuit single-interruption switches for manual and automatic operation



❶ e.g. 1–4 x 100 W filament bulbs
❷ Load, lighting
❸ Sensor connection terminals
❺ Indoor two-circuit single interruption switch, manual, automatic

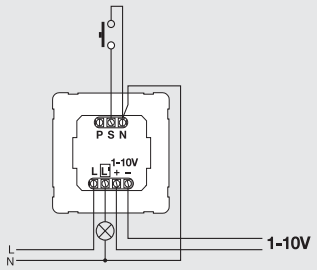
Wiring Diagrams for Presence Detectors

Interconnecting master/master and master/slave

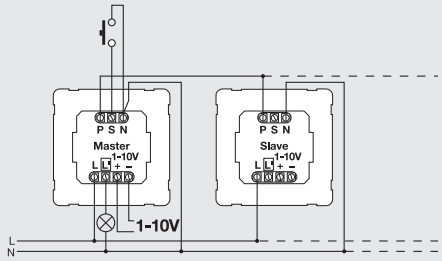
The presence detectors provide the option of interconnecting master/master and master/slave. In an interconnected master/master configuration, the detection zone is extended by interconnected detectors with each switching its own load in line with the specific settings of each and every master.

The slaves in an interconnected master/slave configuration merely extend the detection zone and report the presence of persons to the master. Only the master switches the connected load in line with its settings.

DIM detector

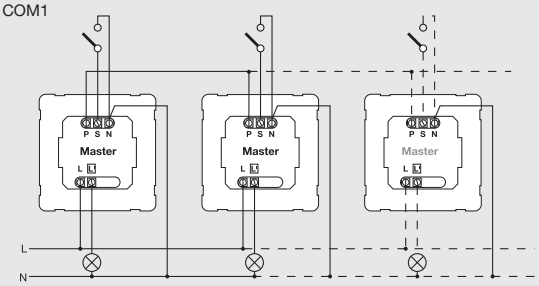


DIM detector with slave

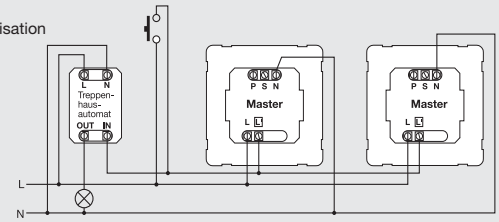


PLANNING

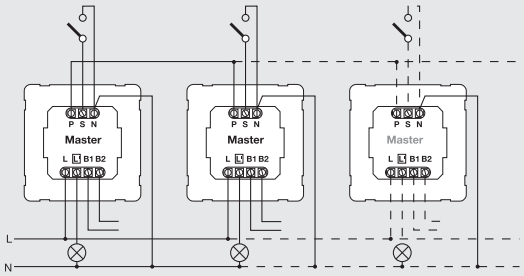
Master/master COM1



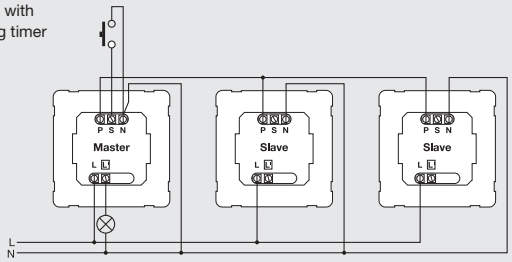
2 detectors linked with external stairwell lighting timer
Old buildings/
building modernisation



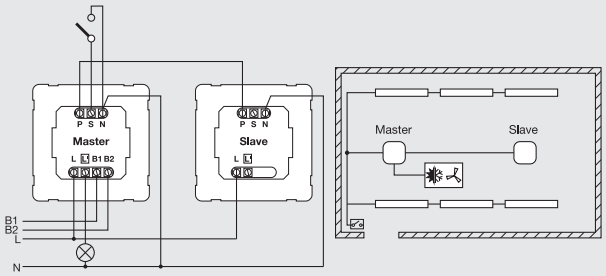
Master/master
COM1/COM2



Detector linked with
stairwell lighting timer



Master-slave



IP protection rating
The IP code classifies the level of protection provided by enclosures and covers used for protecting electrical equipment.
The IP code is defined under IEC 529, EN 60529, DIN VDE 0470-1 and NF C 20-010.
The protection ratings are defined by the letters IP (International Protection) followed by two digits. This means that the full protection rating consists of the two letters and the digits indicating the level of protection.

1st digit
Protection of equipment against the ingress of solid, foreign objects and also protection of persons against contact with hazardous parts.

2nd digit
Protection of equipment against the harmful ingress of water.

Where there is no protection rating – with regard to one of the criteria – the digit is replaced with the letter X, e.g. IP X4 or IP 6X.

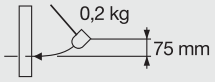
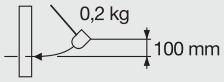
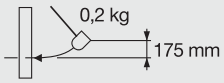
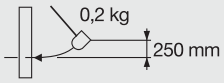
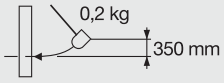
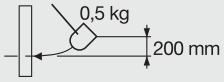
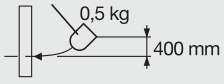
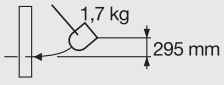
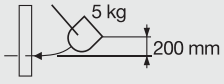
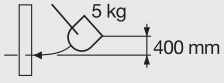
1st digit	Protection against ingress of foreign objects	Protection against contact/application
0	Equipment provides no protection against ingress of solid, foreign objects.	No particular personal protection against accidental contact with live and/or moving parts. In enclosures with no access.
1	Protection against ingress of solid, foreign objects in a diameter > 50 mm.	Protection against accidental contact by large surfaces of the body (back of the hand) with live and/or moving parts. Closed areas only accessible to authorised and trained personnel.
2	Protection against ingress of solid, foreign objects in a diameter > 12.5 mm.	Protection against finger contact with live and/or internal moving parts. Specific accessible areas.
3	Protection against ingress of solid, foreign objects in a diameter > 2.5 mm.	Protection against contact between live and/or internal moving parts and tools, wires or similar objects in a thickness of > 2,5 mm. Generally accessible parts.
4	Protection against ingress of solid, foreign objects in a diameter > 1 mm.	Protection against contact between live and/or internal moving parts and tools, wires or similar objects in a thickness of > 1 mm. Generally accessible parts.
5	Protection against harmful, internal dust deposits. Ingress of dust is not entirely prevented. The quantity of dust entering must not interfere with operation (dust-protected).	Complete protection against contact with live and/or internal moving parts. Areas exposed to short-term high dust deposits.
6	Protection against ingress of dust (dust-tight).	Complete protection against contact with live and/or internal moving parts. Generally accessible areas.

SERVICE

2nd digit	Protection against ingress of water	Application
0	No particular protection.	In dry areas.
1	Protection against vertically falling drops of water (protection against dripping water). Shall have no harmful effect.	In areas exposed to moisture with component in pre-defined vertical position (e.g. condensation water).
2	Protection against vertically falling drops of water (protection against dripping water). Dripping water falling at an angle shall have no harmful effect on equipment (enclosure) tilted at an angle of up to 15° from its normal position.	In areas exposed with component not positioned exactly vertically (e.g. condensation water).
3 	Protection against water falling at any angle up to 60° from the vertical. Shall have no harmful effect (protection against spraying water.)	Areas exposed to rain and not splashing water.
4 	Protection against water splashing against equipment (enclosure) from any direction. Shall have no harmful effect (protection against spraying water).	Areas exposed to rain and splashing water (e.g. areas exposed to passing vehicles).
5 	Protection against water projected by a nozzle against equipment (enclosure) from any direction. Shall have no harmful effect (protection against water jets).	Areas exposed to moderately powerful water jets.
6	Protection against heavy sea or powerful jets of water. Water in harmful quantities must not enter the equipment (enclosure) (protection against floodwater)	Areas exposed to heavy wash and floodwater (e.g. jetties).
7	Protection against water when equipment (housing) is immersed in water under defined conditions of pressure and time. Water must not enter in harmful quantities (immersion).	Areas washed over temporarily or covered with snow for a prolonged period.
8	Equipment (housing) is suitable for continuous immersion in water under conditions which shall be specified by the manufacturer (submersion). However, the conditions must not be any more severe than those for digit 7.	In submerged function.

IK protection code as defined in EN 501 02
The degree of protection provided by enclosures for electrical equipment against external mechanical impacts is defined by the IK code under standard EN 50102 – VDE 0470 Part 100 and EN 50102 – VDE 0470 Part 100.

IK 0X
IK = Code letters (international mechanical protection)
0X = IK class of impact protection (from 00 to 10)

IK	Test	Energy in Joules
IK 00		0
IK 01		0.15
IK 02		0.2
IK 03		0.35
IK 04		0.5
IK 05		0.7
IK 06		1
IK 07		2
IK 08		5
IK 09		10
IK 10		20

SERVICE

Marks of conformity:

VDE label
For electrotechnical products, including products within the meaning of the German Act on Equipment and Product Safety (GPSG) and medical products within the meaning of the German Medical Products Act (MPG). The VDE label indicates conformity to VDE provisions or European or internationally harmonised standards and provides confirmation that the protection requirements of the pertinent guidelines are met. The VDE label shows that the product is safe in terms of electrical, mechanical, thermal, toxic, radiological and other risk.

VDE-GS label
For technical work equipment and ready-to-use items of daily use within the meaning of the GPSG (optionally instead of VDE label for these products).
If products are technical work equipment or ready-to-use items of daily use within the meaning of the German Act on Equipment and Product Safety, you can also use the VDE-GS label.

VDE-EMC mark
For equipment conforming to the standards on electromagnetic compatibility. The VDE-EMC label expresses a product's conformity with the applicable standards on the electromagnetic compatibility of products. However, this mark also signalises the reliable operation of your product in an electromagnetic environment. As the requirements on issuing the label automatically and unreservedly cover satisfaction of the relevant standards.

ENEC label from VDE
For products meeting harmonised certification procedures.
The European standards specified in the ENEC Agreement provide the basis for testing. Products (these currently being lights, light components, low-energy lamps, IT equipment, transformers, appliance switches, electrical regulators and control devices, terminals, appliance couplers, some types of capacitor and radio interference suppression components) tested on this basis are allowed to carry VDE's ENEC label. Approval from another body involved in the European certification procedure is not necessary.

VDE cable marking
VDE cable marking applies to cables, leads and wiring conduits and trunkings.

CE label
The manufacturer documents and declares in its sole responsibility that the product marked satisfies the basic requirements of EU directives. This label is not a mark of tested safety and quality but is directed towards the authority supervising the market.

F label
Information showing that lights may be mounted on normally flammable surfaces.

Protection classes

Protection class I
In the case of lights provided with class I protection, the protection aim is achieved by insulating live parts and connecting contactable metal parts to the protective-earth conductor. The protective-earth conductor connection terminal is marked ⏚.

Protection class II
In the case of lights provided with class II protection, electrical safety is ensured by means of double insulation.

Protection class III
In the case of light provided with class III protection, protection is based on safety extra-low voltage (SELV).

Glow-wire test

Glow-wire test
Lights carrying this mark have had their external parts tested for resistance to fire and combustion with a 850°C wire to European standard.

Legal note

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