Data sheet

SENSOTEC Sanitaer IR

110062085 SENSOTEC Sanitaer IR SMART
110062086 SENSOTEC Sanitaer IR STANDARD
SENSOTEC Sanitaer IR CUSTOMIZED

Sanitaer IR SMART	Sanitaer IR STANDARD	Sanitaer IR CUSTOMIZED
The SENSOTEC SANITAER IR SMART sensor module is designed to control bistable cartridge valves in touchless washbasin taps. The sensor can be operated with four conventional 1.5V AA alkaline batteries or with a 230V plug-in power supply.	The SENSOTEC SANITAER IR STANDARD version offers more safety with the integrated emergency shutdown in the event of a supply interruption, drain and cleaning stop, as well as undervoltage shutdown.	Based on SMART or STANDARD.

Functions

- Automatic detection calibration with power ON
- Automatic range adjustment Auto Sens
- Water ON as long as user in detection area
- Detection range: 4 levels 8 - 20cm
- Switch-off delay: 0.5 sec - 10 sec
- Drain stop: 30 sec - 180 sec
- Cleaning stop: can be activated for manual release
- Hygiene flush: can be activated, duration: 15 - 120 sec Interval: 24 - 120 hrs
- Parameterization via IR remote control
- Battery voltage monitoring with undervoltage cut-off
- Integrated emergency shutdown in the event of vandalism to the supply voltage or power failure
- Customized designs for optimum customer benefit

Product variants

SENSOTEC SANITAER IR SMART (Type 9013) | Article number: 110062085

- For battery or mains operation
- Fixed configuration
- Without emergency shutdown

SENSOTEC SANITAER IR STANDARD (Type 9014) | Article number: 110062086

- For battery or mains operation
- Configurable
  With emergency shutdown

SENSOTEC SANITAER IR CUSTOMIZED (Type tbd.) | Article number: tbd.

- Functions are adapted to specific customer requirements
- For battery or mains operation
- Configurable
- With emergency shutdown

The SENSOTEC SANITAER IR SMART and STANDARD sensor modules are equipped with a 350 mm connection cable for battery or mains operation and a 135 mm connection cable for connecting a bistable cartridge valve. The cables are fitted with IP65 safe plugs and couplings.

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Sensor technical specifications

	SMART	STANDARD	CUSTOMIZED
Article number	110062085	110062086	tbd.
Type	9013	9014	Based on 9014 or 9013
Dimensions	Housing: 34.8 × 33.2 × 17.5mm IR windows: 26.9 × 9.0mm 3D data available on request	Housing: 34.8 × 33.2 × 17.5mm IR windows: 26.9 × 9.0mm 3D data available on request	Minimum dimension IR windows: 20 × 8.5mm Housing shape according to customer requirements
Equipment	Proximity sensor Light sensor Feedback display	Proximity sensor Light sensor Feedback display Parameterization interface	Proximity sensor Light sensor Feedback display Parameterization interface*
Sensor technology	Infrared technology	Infrared technology	Infrared technology
Operating voltage	6,0 VDC – 7,5 VDC	6,0 VDC – 7,5 VDC	6,0 VDC – 7,5 VDC
Valve outlet	Pulse length: typ. 15ms Rated voltage:6,0 VDC Nominal power: max. 3.0 W	Pulse length: typ. 15ms Rated voltage:6,0 VDC Nominal power: max. 3.0 W	Pulse length: configurable Rated voltage:6,0 VDC Nominal power: max. 3.0 W
Light measuring range	-	-	
Battery life	4 × 1,5 V AA Alkaline: approx. 3.0 years with 150 operations per day	4 × 1,5 V AA Alkaline: approx. 3.0 years with 150 operations per day	tbd. Depending on energy source
Undervoltage level monitoring	< 4.7 V LED flashes, valve is permanently closed	< 4.7 V LED flashes, valve is permanently closed	< 4.7 V LED flashes, valve is permanently closed
Battery voltage detection	automatic	automatic	automatic
Response time	≤ 0,5 sec	≤ 0,5 sec	≤ 0,5 sec
Detection range	25cm max.	25cm max.	tbd. / depending on IR window
Connection	Supply: 350mm, KCC SK/2R IP68 Valve: 135mm, KCC SK/2P IP68	Supply: 350mm, KCC SK/2R IP68 Valve: 135mm, KCC SK/2P IP68	free, according to customer requirements
Supply voltage / power consumption	12 - 22.5VDC / max. 36mA	12 - 22.5VDC / max. 16mA	
Protection class	IP65 according to EN 60529	IP65 according to EN 60529	tbd / depending on structure and housing
Protection class	III	III	III
Temperature range	0°C to +60°C (tc +60°C)	0°C to +60°C (tc +60°C)	0°C ro +60°C (tc +60°C)
Interfaces	Infrared	Infrared	Infrared
Test mark / Conformity	CE	CE	tbd.
Standards	EN 60730-1 EN 55014-1 EN 55022 EN 55032 EN 61000-3-2 EN 61000-3-3 EN 61000-6-2 EN 61000-6-3	EN 60730-1 EN 55014-1 EN 55022 EN 55032 EN 61000-3-2 EN 61000-3-3 EN 61000-6-2 EN 61000-6-3	EN 60730-1 EN 55014-1 EN 55022 EN 55032 EN 61000-3-2 EN 61000-3-3 EN 61000-6-2 EN 61000-6-3

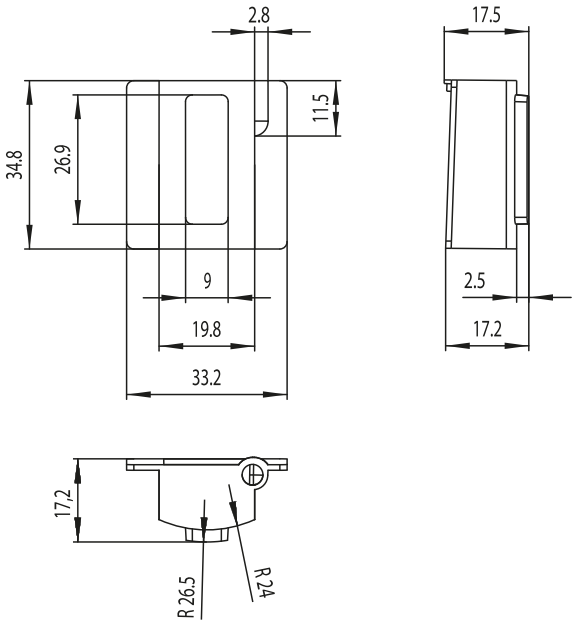
Function assignment

	SMART	STANDARD	CUSTOMIZED
Type	9013	9014	Based on 9014 or 9013
Parameterization access	-	IR remote control	Optional
Range adjustment	-	Auto Sens	available with IR remote control option
Hygienic flushing	-	deactivated*	Optional or available with IR remote control option
Hygiene flush interval	-	24 hours*	With hygienic flush option
Hygiene flushing time	-	15 sec*	With hygienic flush option
Detection area	Level 0	Level 0	according to customer requirements, adjustable with remote control option
Switch-off delay	1 sec	1 sec*	according to customer requirements, adjustable with remote control option
Drain stop	60 sec	60 sec	according to customer requirements
Cleaning stop	available	activated*	optional or available with IR remote control option
Cleaning stop time	120 sec	120 sec	With cleaning stop option
Battery monitoring	available	available	available
Power failure shutdown	available**	available	Base type 9014: available, base type 9013: available**
Vandalism shutdown	-	available	Base type 9014: available, base type 9013

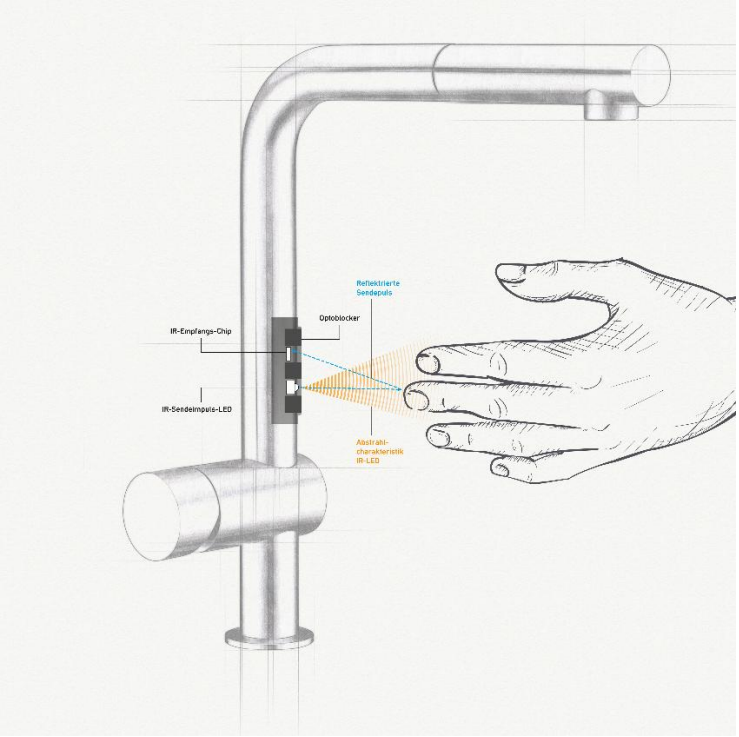
*Factory settings; see remote control for value range

**Dependent on power supply unit; works if power is sufficient

Dimensioned drawings



Measuring principle

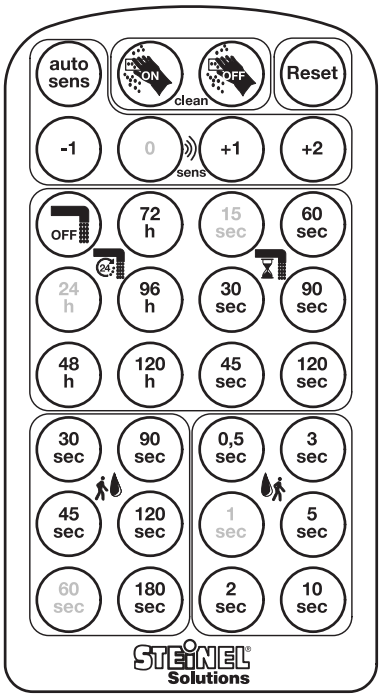


IR remote control

SENSOTEC SANITAER IR Remote control

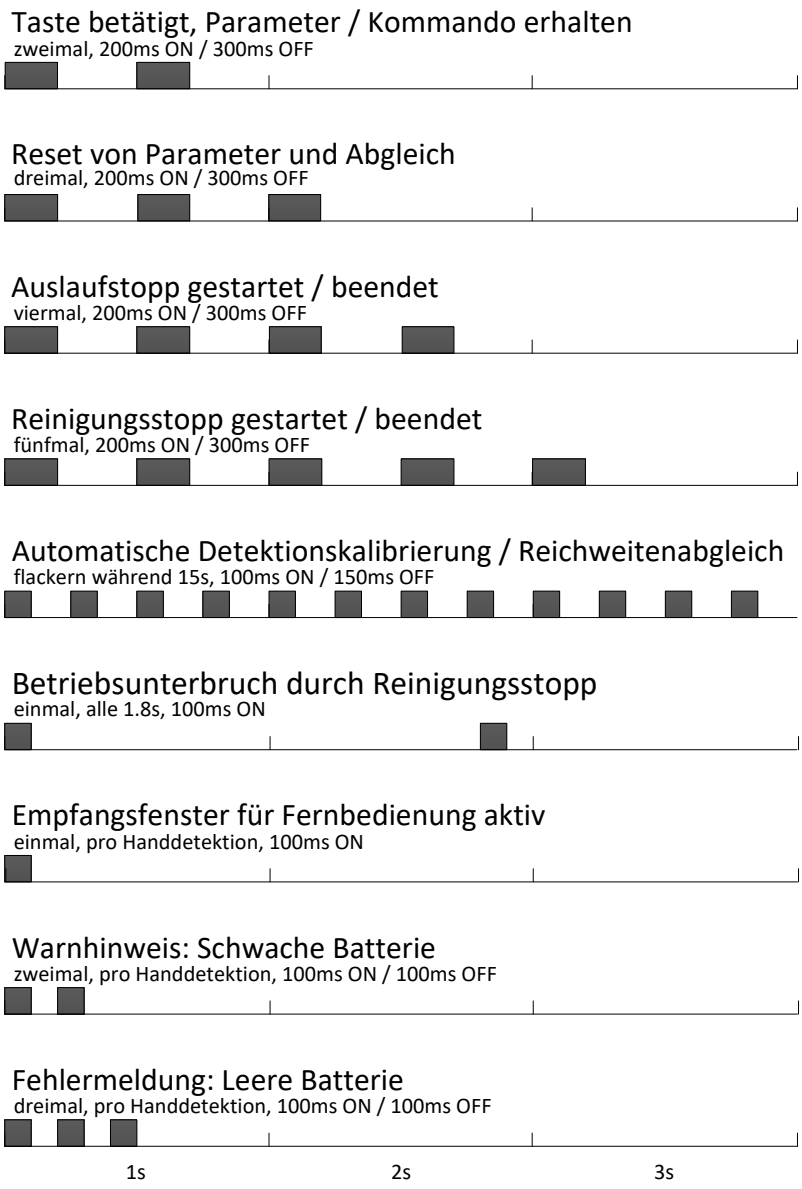
Article number: 110058329

- Battery: Button cell 3V lithium, CR 2032



Reset	Reset to factory settings
auto sens	Start automatic range adjustment
	Activate / deactivate cleaning stop
sens	Set detection area
	Set hygiene flush interval
	Set hygiene flush duration
	Set reference period until run-out stop
	Set switch-off delay

Meaning of the blink codes



Parameterization access for remote control

Parameterization is carried out via an IR interface. Access is only active 10 minutes after connecting the battery or 10 minutes after triggering a cleaning stop. After that, parameterization access is blocked to save energy.

Reset to factory settings

Pressing the «Reset» button for more than 3 seconds resets the sensor to the factory settings. Ranges set using the "Auto Sens" automatic range adjustment function are also reset to the original value.

Automatic detection calibration

When the supply voltage is connected, the sensor is calibrated to the surroundings. During this phase, which can be recognized by the rapid flickering of the LED, nobody should be in the vicinity of the sensor (within a radius of 2 meters). The measured values are then continuously updated during operation.

Automatic range adjustment

The automatic range adjustment "Auto Sens" is used when false alarms caused by reflections occur due to special installation situations or other environmental influences. During the adjustment process, which is indicated by the rapid flickering of the LED, interfering objects are detected and suppressed so that false alarms no longer occur.

Activation & triggering cleaning stop

If the cleaning stop function has been activated with the remote control, a cleaning stop can be started by holding the hand in front of the sensor window (<3 cm) for more than 10 seconds. This function, which is used for cleaning purposes, prevents the flow of water for 2 minutes. However, it can also be stopped manually. This is done in the same way as starting.

Configuration of the Sanitaer flush

Hygiene flush" refers to an automatic flush carried out at regular intervals. As soon as a flush interval or a flush duration is selected on the remote control, the hygiene flush is activated at the same time as this setting is accepted. The time of the automatic flush always refers to the last flush. There is a separate "OFF" button to deactivate the function.

Switch-off delay with run-out stop

The valve opening time lasts as long as the hand is within the set detection range and the set switch-off delay. Because there is a risk of someone leaving an object in the washbasin, the valve closes unconditionally after an adjustable maximum time. After this, the sensor only switches to normal operation if there has been no detection for at least 2 seconds.

Monitoring the battery status

Regular voltage measurements ensure that the condition of the battery is known. If the battery voltage is at a minimum, the feedback LED flashes twice each time water is drawn as long as the battery status is still sufficient to reliably switch the valve. From the critical point at which closing of the valve can no longer be guaranteed, the valve is permanently closed for safety reasons and the error message is indicated by a triple flash on manual detection.

Emergency shutdown Power failure / vandalism

With the SENSOTEC SANITAER IR STANDARD variant, the open valve is closed immediately in the event of a power failure or if the power supply is disconnected from the sensor. The energy required for this is stored in the sensor. The SENSOTEC SANITAER IR SMART variant is not equipped with the energy storage unit, so no emergency shutdown can take place if the power supply is disconnected.

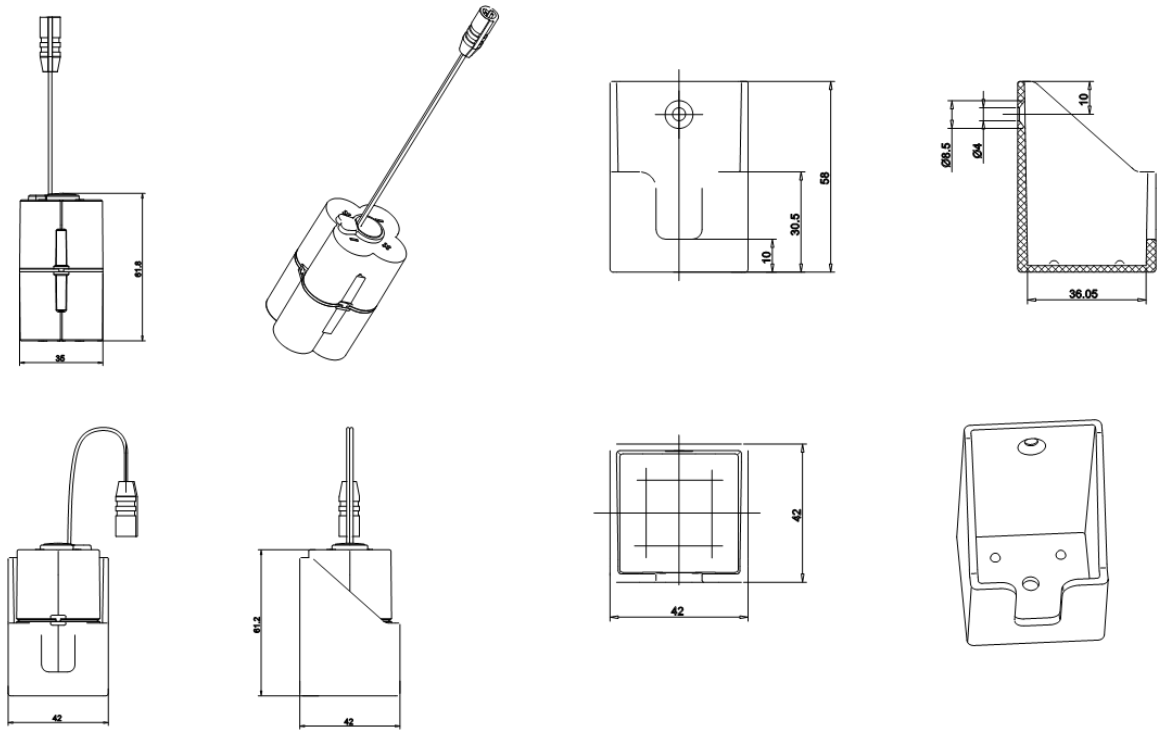
IP42 battery module

SENSOTEC SANITAER battery module 6V

Article number: 120002059

- IP42 battery module for 6 VDC incl. cable 125mm with IP65 coupling and wall bracket

Batteries: 4 x LR6 1,5 V AA
Article number: 120000288

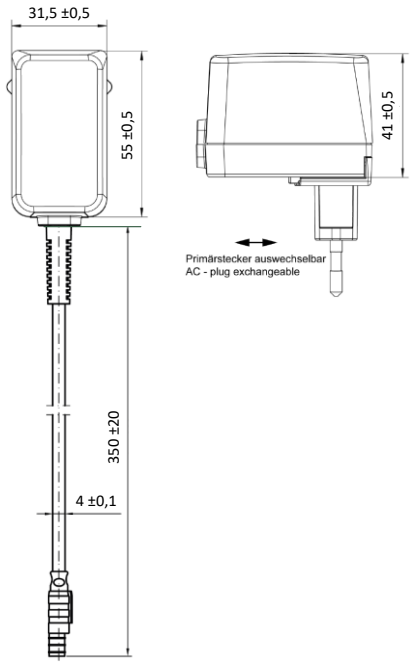


Plug-in power supply unit

SENSOTEC SANITAER Plug-in power supply 6V

Article number: 110062211

- Plug-in power supply 230 VAC / 6 VDC incl. cable 350mm with IP65 plug.



Technical data

Operating temperature	0°C - +45°C
Storage temperature	-40°C - +70°C
Air humidity	<95 %, non-condensing
Protection class	IP40
Protection class	II
Length of DC output cable	350mm
Nominal input voltage	100-240VAC ±10%
Nominal input frequency	50-60Hz
Nominal input current	0.16-0.08Arms @ max. Last
Idle power consumption with UE	230VAC: ≤ 0.1W
Output voltage	UA: 5,9VDC ±5%, UBr: ≤ 150mVss
Rated output current	IA: 1200mA
Efficiency	≥ 76,15%

Intended use

- The power supply unit is used to supply power to electronic devices or assemblies.
- It is suitable for connection to power grids (AC input) and to the DC output of devices that are compatible with the technical data of the power supply unit.
- The power supply unit may only be used in closed rooms.
- It is only intended for operation in compliance with the technical data.

The following restrictions apply to the power supply unit

- Never use to power life-saving or life-sustaining equipment.
- Never use outdoors.
- Never immerse in water or other liquids.
- Never operate near water.
- Keep away from splashing water.
- Avoid ambient conditions such as high humidity with the risk of condensation and constant vibrations.

Warnings and safety instructions

- If the adapter housing is visibly damaged or the appliance is not working properly, unplug the adapter from the socket and take precautions to prevent further use of the adapter. Do not open the appliance, ask a certified electrician or the appropriate customer service for assistance. Refer all servicing to qualified service personnel. Servicing is required when the appliance has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the appliance, the appliance has been exposed to rain or moisture, or has been dropped.
- Disconnect the mains plug from the socket if you are not going to use it for a longer period of time.
- A regular safety inspection by an authorized electrician (in accordance with the national standards of the country of destination) is recommended for the following points:
  – Insulation resistance > 7MΩ with a DC voltage source of 500V at a load of 500kΩ.
  – Equivalent leakage current <250µA
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and / or knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.
- This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children must not play with the appliance. Cleaning and user maintenance must not be carried out by children without supervision.

Care

- Danger to life due to electric shock if liquid gets inside the power supply unit!
- Disconnect the power supply unit from the mains before cleaning.
- Do not use chemical cleaning agents.
- Do not use liquids for cleaning.
- Only wipe the power supply unit dry.
- Technical data

Troubleshooting

- The power supply unit is maintenance-free. Contact the dealer or manufacturer if the power supply unit is defective or in the event of faults that cannot be rectified.

Safety and warning notices

General

- Electrical appliances may only be installed and fitted by qualified electricians.
- Fire hazard. The maximum permissible load must not be exceeded.
- Risk of electric shock. Before installing the sensor, check that the housing is not damaged. Never open the housing.
- The sensor is not suitable for use in intrusion detection or alarm technology.

Read operating instructions

- These operating instructions contain information for the safe use of SENSOTEC SANITAER IR and the optional power supply unit.
- First read the operating instructions, then use the power supply unit.
- The instructions for use are part of the product and must always be available.
- Illustrations show examples of functions and may differ from the actual appearance.

Avoid risk of electric shock

- Never use the power supply unit if the housing or cable is damaged.
- Never modify the power supply unit or open the housing.
- Only connect the power supply unit to an approved socket.
- Protect plug connections from moisture.

Avoid material damage

- Never carry or pull the power supply unit by the electrical cable.
- Only pull on the plug to disconnect a plug connection. Never pull on the cable.
- Lay pipes in a protected location and ensure that no one can fall over them.
- Disconnect the power supply unit from the mains during thunderstorms.
- Only use original spare parts or accessories.

Conformity / test mark

CE

Link:

Note

For your own CUSTOMIZED variant, please get in touch with your contact person.

These operating instructions do not constitute a guarantee of the properties of the product described within the meaning of the statutory warranty regulations.

Waste disposal

Environmental damage due to incorrect disposal!

Make the power supply unit or sensor unusable by cutting the cable and return it to the designated return system!