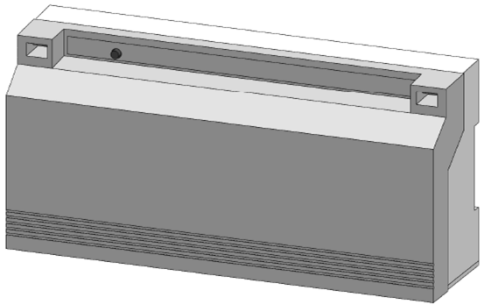
OEM Alpha RF light base station



The OEM Alpha RF light base station is the central connection and control unit for the precise, centrally controlled single room temperature control of panel heating systems.

The OEM Alpha RF light base station utilises the recorded set-point and current temperatures from the paired Alpha RF light room-control devices. In accordance with these specifications, the rooms are always controlled to the specified setpoint temperature via the connected thermal valve actuators.

1.1 Key features

- simple control system for panel heating
- 868 MHz radio technology for installation without cable laying
- simple, intuitive installation, operation and maintenance
- tried-and-tested wire management system and strain relief
- 8 zones for up to 12 valve drives (1 to 2 per zone)
- screwless plug-in/clamp connection method
- fuse
- various LEDs for operating status indication
- automatic load balancing
- integrated pump module including pump protection function
- emergency mode, frost protection function, valve protection function on all outputs
- optimised for operation with locally installed pumps (pump contact is supplied directly with voltage)
- 2-point operation after manual setpoint change (function test, assignment test room-control device – heating zones)
- unlocking FirstOpen
- mounting via DIN rail or screws

1.2 Scope of delivery

- OEM Alpha RF light base stationin individual packaging
- 2 sliders for DIN rail installation
- Quick Installation Guide

The Quick Install Guide for installation and commissioning is included in the following languages:

- German
- English
- French
- Dutch
- Italian
- Spanish
- Danish/Norwegian
- Finnish
- Swedish
- Polish
- Greek
- Turkish

1.3 Optional extensions or differentiations to the basic version

Packaging	Packaging can be customised and printed according to requirements.
Printing on the housing	Laser marking of the company logo (e.g. Logo), the individual type and their device name
Housing	Lower section: Colour customisation, distinctive housing lines on request Cover: custom colour and transparency, shape and interruptions by housing lines
DIN rail	The scope of delivery is expanded to include a DIN rail for mounting in the heating manifold

Please contact us if you have any further requests.

2 Technical data

	BSL 21001-08N2
Operating voltage	230 V
Operating voltage (tolerance)	±10 %
Operating voltage (frequency)	50 Hz
Operating voltage (voltage type)	a.c.
Fuse	T5AH
Overload protection	Current limitation via device fuse
Version of switching element	Relay
Power consumption (idle)	< 0.2 W (power LED on, HZ LEDs off, all relay off)
Power consumption (max.)	< 300 W
Pump contact connection	Contact: 1A (direct pump feed, normally open contact, single-pole switching)
Radio frequency	868.3 MHz SRD band
Radio protocol	proprietary
Maximum number of heating zones	8
Switching capacity per heating zone	HZ 1 – 8: 230 V 1A / HZ
Maximum number of valve drives	12
Max. nominal load of all actuators	24 W
Max. switching capacity of heating zones (total)	4 A
Typical free-field radio range	250 m
Protection class	1
Protection type	IP20
Lead time pump contact	2 min.
Pump contact follow-up time	2 min.
Switching capacity pump contact	3 A at cosj = 1 / inductive max. 200 VA
Connection terminals	Plug-in terminal
Conductor cross-section: solid	0.25 to 1.5 mm²
Conductor cross-section: finely stranded with ferrule (ADH) with/without plastic collar	0.75 mm²
Wire stripping lenght	9 … 10 mm
Permitted ambient temperature	0 … 60 °C
Permitted ambient humidity	5 … 80 %, non-condensing
Storage/transport temperature	-25 °C … 70 °C
Material (housing, cover)	PC+ABS, PC
Housing colour (housing, cover)	RAL7035 (light grey), transparent
Dimensions (W × H × D)	189 × 90 × 52 mm
Dimensions packaging (W × H × D)	215 × 95 × 63 mm
Weight	328 g
Service life	60000 h
Function	Type 1.C
Contamination degree	2
Rated impulse voltage	2500 V
ERP class	1=1 % in EU 811/2013
Power supply version	Terminals, 3 x 1.5 mm²
Control behaviour	PI / 2-point for 30 minutes after setpoint change*

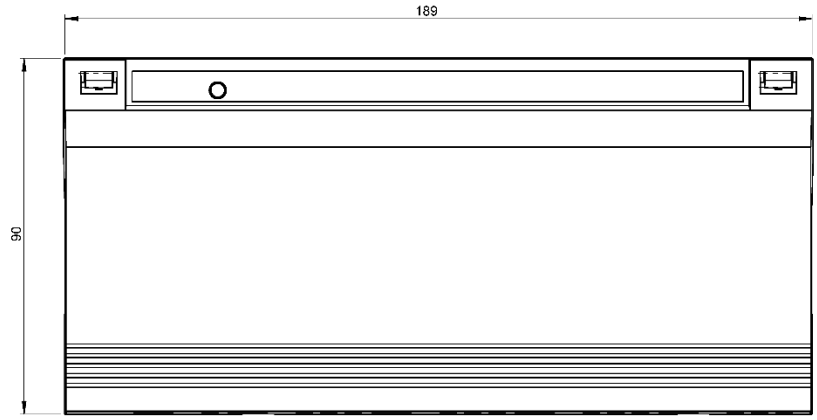
* with a setpoint change of at least 2 K

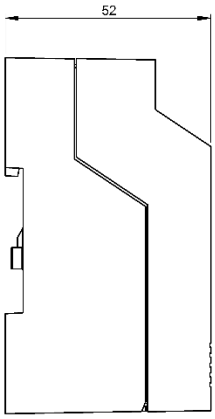
2.1 System boundaries

The maximum possible radio range inside buildings depends on the individual environmental factors at the location. This means that the actual radio range may differ significantly from the radio free-field range!

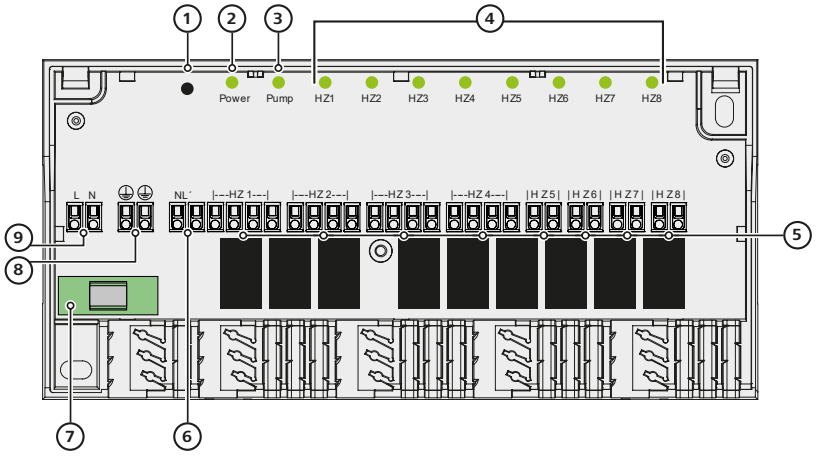
When using the device in conjunction with a heat pump: Observe the manufacturer's instructions for ensuring minimum volume flows! Additional hydraulic measures may need to be taken.

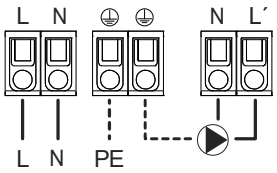
2.2 Dimensions





3 Electrical connection





1	Pairing button
2	LED Power
3	LED Pump
4	LED Heating zone
5	Connections for NC (normally closed) actuators
6	Voltage supply pump (L‘ switched)
7	Fuse
8	PE
9	Power supply (230 V)

Input / output

L	**9**	Power supply (230 V)
N		
PE	**8**	
PE	**6**	Voltage supply pump (L‘ switched)
N		
L‘		
	5	Connections for NC (normally closed) actuators