

Outdoor radiation probe

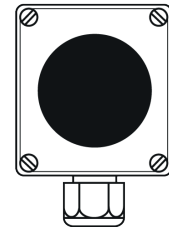
Article no.: 801211 1011

Outdoor radiation probes measure the radiant heat for safe and constant temperature detection and control in outdoor areas. The maintenance-free sensor is installed in a dustproof, jet-proof housing (IP 65) made of UV-resistant and impact-resistant polyamide, which is optimally suited for use outdoors or in damp areas and can also withstand adverse weather conditions. Configure the probe according to your requirements as 2-, 3- or 4-wire version with all common sensors.



Customizable options

- A - Measuring element
- B - Connection Type



General Information	
Measuring range	-30 °C to +90 °C depending on the measuring element and the housing
Perm. range °C Housing	-30 °C to +90 °C
Accuracy	depending on sensor Type
Response time	t63 / t99: information is available on request
Supply and output	
Max. measurement current	max. 1 mA
Supply voltage	approx. 5 V depending on measurement current
Measurement signal	passive (resistance value)
Ambient conditions	
Protection class	IP65 according DIN 60529
Humidity and moisture condensation resistance	according to application-specific qualification
Certificates and Standards	
Standards	DIN EN 61326-1:2013 DIN EN IEC 63000:2019-05
Directive	RoHS 2011/65/EU 2014/30/EU
Certificates	Certificate of suitability (on request)

A - Measuring element				
Code	Sensor	Accuracy / Tolerance resistance	min ²⁾	max ²⁾
A012	Pt100	Cl. B dT = ±(0,30 °C + 0,005 t) ¹⁾	-50 °C	+400 °C
A011	Pt100	Cl. A dT = ±(0,15 °C + 0,002 t) ¹⁾	-50 °C	+300 °C
A032	Pt1000	Cl. B dT = ±(0,30 °C + 0,005 t) ¹⁾	-50 °C	+400 °C
A031	Pt1000	Cl. A dT = ±(0,15 °C + 0,002 t) ¹⁾	-50 °C	+300 °C
A105	NTC 5 kOhm	R25 = 5 kOhm ±1 %	-40 °C	+125 °C
A110	NTC 10 kOhm	R25 = 10 kOhm ±1 %	-40 °C	+125 °C
A120	NTC 20 kOhm	R25 = 20 kOhm ±1 %	-40 °C	+125 °C
A210	Ni1000	-60 °C to 0 °C: dT = ±(0,4 °C + 0,028 · T) 0 °C to +150 °C: dT = ±(0,4 °C + 0,007 · T)	-60 °C	+150 °C
A323	LM235Z	typical ±1 °C	-40 °C	+125 °C
A421	KTY 81-210	R25 = 2 kOhm ±1 %	-50 °C	+150 °C
A411	KTY 81-110	R25 = 1 kOhm ±1 %	-50 °C	+150 °C
A520	DS18B20	-10 °C to +85 °C: ±0,5 °C -30 °C to +100 °C: ±1 °C -55 °C to +125 °C: ±2 °C	-55 °C	+125 °C
A334	LM34	typical ±0,5 °F at 77 °F ±1,5 °F at -50 °F to +300 °F	-50 °F	+300 °F

¹⁾according to IEC 751 / EN 60751 | ²⁾ Perm. range °C | A334 only on request | The permissible measuring range depends on the measuring element and the housing. | Detailed information and the characteristics can be found in our download area.

B - Connection Type	
Code	Conn. Type
B2	2-Wire (2W)
B3	3-Wire (3W)
B4	4-Wire (4W)

Possible connections			
Sensor	2W	3W	4W
Pt	✓	✓	✓
NTC	✓		
Ni	✓	✓	✓
LM235Z	✓		
KTY	✓		
DS18B20		✓	
LM34		✓	



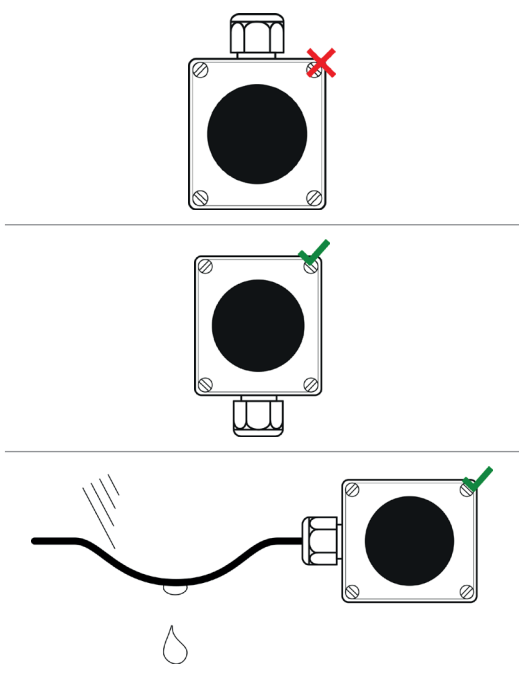
Housing	
Material	Polyamide
Dimension (L/W/H) (mm)	64 x 58 x 35
Color	white similar RAL 9010
Cable entry	with strain relief
Clamping range (mm)	5 to 9
Electrical connection	Screw terminals max. 1,5 mm ²
Radiation sensor	
Material	Aluminium
Dimension (L/W/H)	See technical drawing
Color	Black

Delivery and Assembly	
Assembly instructions	Screw mounting by means of a hole in the housing
Delivery and Packaging	Probe, 2 x screw & dowels, separately packaged in PE bag

Your order code		
Article no.	Measuring element	Connection Type
801211 1011	A_____	B_____

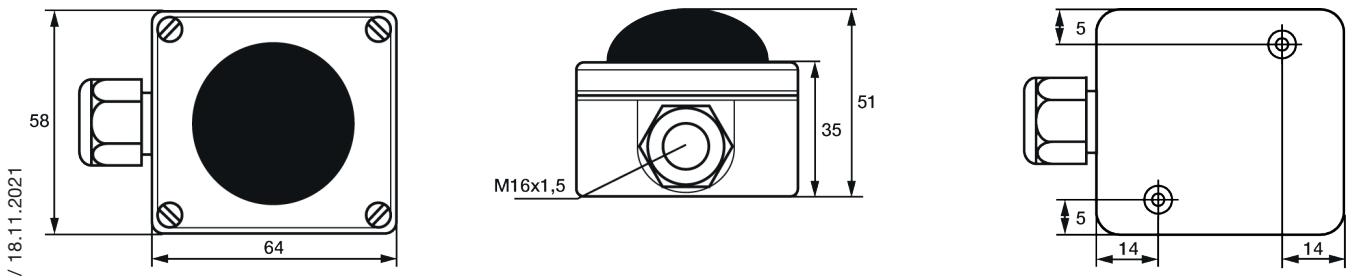
Important assembly advices

Mount your outdoor probe with sufficient distance to vents, windows or doors and preferably on the north wall, alternatively on west or east wall of the building. Avoid direct sunlight and rain. Use a sunshade if necessary. Please lay the cables downwards so that rainwater can drip off in a defined way. Please consider the permissible ambient conditions during installation.



Technical drawing

Customizable options
 A - Measuring element
 B - Connection Type



All dimensions in mm



RL / KS / 18.11.2021

Matching accessories

Details of accessories can be found on our website.

Connection cable

Please select your desired cable first.

Picture	Code	Connection Type	Color	IP	From (°C) ¹⁾	To (°C) ¹⁾	Outside material	Material strand	Ø (mm) ²⁾	Q (mm ²) ³⁾	Color strand	Ω / m ⁴⁾
	809200 0	2-Wire	black	IP67	-30	+105	PVC	PVC	4,8	0,22	rd, wt	0,07
	809200 1	3-Wire	black	IP67	-30	+105	PVC	PVC	4,8	0,22	rd, wt, rd	0,07
	809200 2	4-Wire	black	IP67	-30	+105	PVC	PVC	4,8	0,22	rd, wt, rd, wt	0,07
	809210 0	2-Wire	red-brown	IP67	-50	+180	Silicone	Silicone	4,7	0,22	rd, wt	0,08
	809210 1	3-Wire	red-brown	IP67	-50	+180	Silicone	Silicone	4,9	0,22	rd, wt, rd	0,08
	809210 3 ⁵⁾	3-Wire	red-brown	IP67	-50	+180	Silicone	Silicone	4,4	0,22	br, gn, wt	0,08
	809210 2	4-Wire	red-brown	IP67	-50	+180	Silicone	Silicone	4,9	0,22	rd, wt, rd, wt	0,08

Insulation resistance: ≥ 100 MOhm at min. 100 VDC | ¹⁾Perm. range °C | ²⁾Tolerance ± 0,2 mm | ³⁾Tolerance ± 0,03 mm² | ⁴⁾per single strand | ⁵⁾We use this cable only when using a DS18B20 or LM34 sensor. Litz color brown, green, white | Please also note the connection Type of your selected temperature sensor.

Now please select the length and add the code to the article no. of the cable.

Length (m)	1	2	5	10	20
Code	010	020	050	100	200

Please append these digits to the part number of your desired cable.

