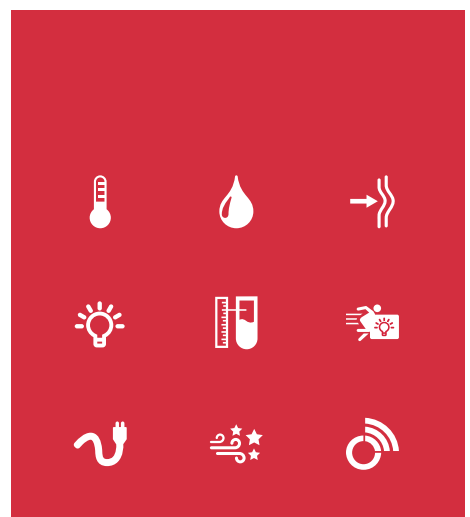




CREATING MEASUREMENT SOLUTIONS



Building Technology

**CERTIFICATIONS**



Certificate DIN EN ISO 9001 : 2015



ESD Certificate DIN EN 61340-5-1



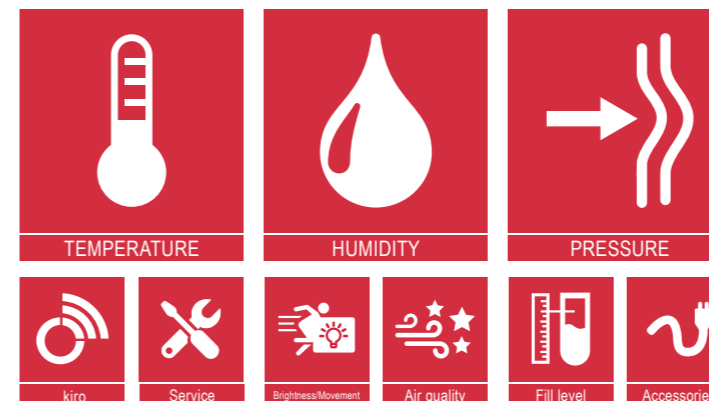
Accredited calibration laboratory  
nach DIN EN 17025

Deutsche  
Akkreditierungsstelle  
D-K-21102-01-00



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**DELIVERY PROGRAMME**



TEMPERATURE | HUMIDITY | PRESSURE  
EVERYTHIN FOR YOUR BUILDING  
TECHNOLOGY ASSORTMENT FROM A  
SINGLE SOURCE

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**B+B Thermo-Technik develops and manufactures innovative product and industry solutions with the highest quality expectations for your precise measuring tasks.**

**B+B Thermo-Technik** has been developing and manufacturing high quality temperature probes since 1984. Closely associated with temperature measurement are the fields of humidity and pressure. This resulted in the company's programme to be expanded in 2011 to include solutions for both these specialist fields.

Simply take advantage of B+B's extensive experience and professional knowledge. B+B Thermo-Technik is located at Donaueschingen in south west Germany, and from here, its increasingly reputable products are sold all over the world.

With the aid of the latest research, development and production technologies and coupled with the certifications in accordance to DIN EN ISO 9001 : 2015 and DIN EN 61340-5-1, we are able to manufacture our products to the highest possible standards. Of course, we also offer our customers the added service of issuing test certificates within our own calibration laboratory.

Both quality and working closely together with the customer are integral parts of B+B's corporate philosophy. This is why B+B temperature

probes, thermocouple connectors, Humidity probes and pressure sensors are predominantly manufactured in Germany or in 100% owned subsidiaries worldwide.

This assures continual quality control, flexible reactions to both the customer's requirements and modifications, and being able to deliver promptly.

**Customer - specific construction**

Please specify your application and we shall supply you the right product for measuring and controlling the temperature, pressure or humidity. Special emphasis is always placed on professional and close cooperation with you, thus allowing for the optimal development of your product. Our experience shows that this partnership also creates innovative concepts and fresh ideas, thereby providing new energy for the future, which is vital for both parties.



## Heating Technology

Intelligent use of energy is a matter of ever growing importance in today's world, as resources become more scarce and we examine the personal carbon footprint of individuals ever more closely.

Saving energy also makes for a clean conscience because it means sustainably caring for the environment and thus for future generations. Heating technology products from B+B Thermo-Technik GmbH can be used to check and control energy consumption in the house.



## Cable Probe with PVC insulation

### Description



A version with retaining spring for securing the cable probe is available on request.

### Performance features:

- Protection class IP65
- Protective sleeve stainless steel 1.4571
- Connection cable with PVC insulation
- Measuring range -10...+105 °C

### Areas of application:

- Boiler temperature
- Heating technology
- Air conditioning
- Refrigeration technology

### Technical data

Measured value recorder	Accuracy	Recom. measuring current
Pt100	Class F 0.3 (cl.B) DIN EN 60751	0.3 to 1 mA
Pt1000	Class F 0.3 (cl.B) DIN EN 60751	0.1 to 0.3 mA
Ni 1000	Class F 0.3 (cl.B) DIN EN 60751	
Ni 1000, TK 5000	TK 5000	
NTC 5 kΩ	±0.2 ° at 0...+70 °C	
NTC 10 kΩ	±0.2 ° at 0...+70 °C	
KTY 81-110	±1 % at 25 °C	
KTY 81-210	±1 % at 25 °C	
Measuring range		-10...+105 °C
Circuit type		2-conductor connection
Nom. length		50 mm
Diameter		6 mm
Material of protective sleeve		Stainless steel 1.4571
Electrical connection		Free ends 30 mm Wire end ferrules not insulated
Connection cable	Length	2000 mm
	Cross-section	2 x 0.25 mm <sup>2</sup>
	Insulation	PVC/PVC
Protection class		IP65

### Article

### Article number

Cable probe Pt100	0625 0514-100
Cable probe Pt1000	0625 0514-101
Cable probe Ni 1000	0625 5999-100
Cable probe Ni 1000, TK 5000	0625 5999-101
Cable probe NTC 5 kΩ	0625 6999-100
Cable probe NTC 10 kΩ	0625 6999-101
Cable probe KTY 81-110	0625 7999-100
Cable probe KTY 81-210	0625 7999-101
Heat-conducting paste (syringe, contents 20 g)	0554 0034

### Dimensions



## Cable Probe with silicone insulation

### Description



A version with retaining spring for securing the cable probe is available on request.

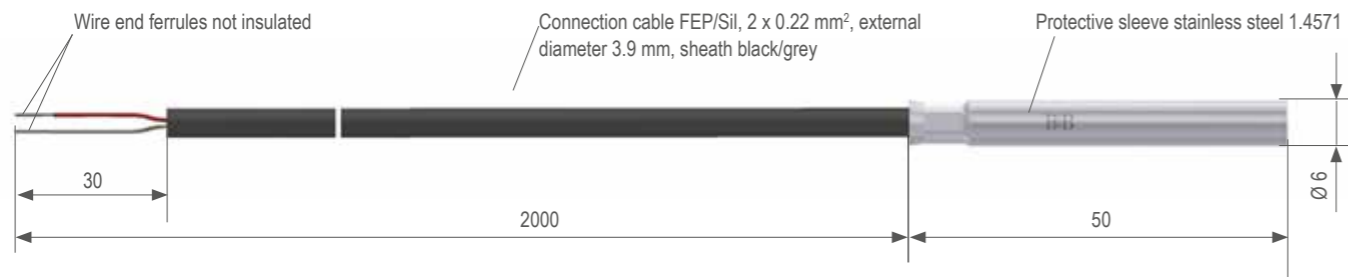
#### Performance features:

- Protection class IP65
- Protective sleeve stainless steel 1.4571
- Connection cable with silicone insulation

#### Areas of application:

- Boiler temperature
- Heating technology
- Air conditioning
- Refrigeration technology

### Dimensions



### Technical data

Measured value recorder	Accuracy	Recommended measuring current	Measuring range
Pt100	Class F 0.3 (cl.B) DIN EN 60751	0.3 to 1 mA	-40...+180 °C
Pt1000	Class F 0.3 (cl.B) DIN EN 60751	0.1 to 0.3 mA	-40...+180 °C
Ni 1000	Class F 0.3 (cl.B) DIN EN 60751		-30...+130 °C
Ni 1000, TK 5000	TK 5000		-40...+180 °C
NTC 5 kΩ	±0.2° at 0...+70 °C		-40...+150 °C
NTC 10 kΩ	±0.2° at 0...+70 °C		-40...+150 °C
KTY 81-110	±1 % at 25 °C		-40...+150 °C
KTY 81-210	±1 % at 25 °C		-40...+150 °C
Circuit type			2-conductor connection
Nom. length			50 mm
Diameter			6 mm
Material of protective sleeve			Stainless steel 1.4571
Electrical connection			Free ends 30 mm Wire end ferrules not insulated
Connection cable	Length Cross-section Insulation		2000 mm 2 x 0.22 mm <sup>2</sup> FEP/Sil
Protection class			IP65

### Article

### Article number

Cable probe Pt100	0625 0520-100
Cable probe Pt1000	0625 0520-101
Cable probe Ni 1000	0625 5999-102
Cable probe Ni 1000, TK 5000	0625 5999-103
Cable probe NTC 5 kΩ	0625 6999-102
Cable probe NTC 10 kΩ	0625 6999-103
Cable probe KTY 81-110	0625 7999-102
Cable probe KTY 81-210	0625 7999-103
Heat-conducting paste (syringe, contents 20 g)	0554 0034

## Cable Probe DS18S20 for long-term temperature measurements

### Description



### Technical data

Temperature measuring range	-20...+60 °C
Sensor	DS18S20
Accuracy	±0.5 °C to -10...+85 °C
Sleeve length	40 mm
Sleeve diameter	6 mm
Sleeve material	Stainless steel 1.4571/1.4404
Cable structure	LC variant: PVC flat cable, unshielded PUR variant: Cu cable, TPE, round, shielded
Cable length	2000 mm
Connection	Plug connector RJ11/RJ12
Special feature	With decoupling capacitor
Environmental data	RoHS 2002/95/EG-compliant

### Article

### Article number

Cable probe DS18S20	DS1820-LC-2M
Cable probe DS18S20	DS1820-PUR-2M

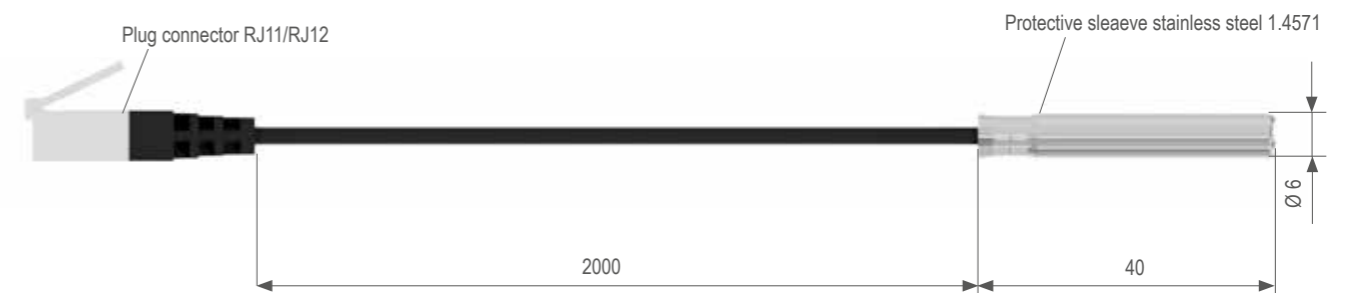
#### Performance features:

- Use of a temperature sensor with 1-wire bus
- Direct connection to 1-wire bus coupler, 1-wire controller, 1-wire hub or other control units
- Waterproof encasing on the process side, protection class IP65
- Protective sleeve made of high-quality stainless steel (1.4571/1.4404)
- Additional cable lengths 5 m, 10 m, 15 m, 20 m on request

#### Areas of application:

- Heating technology
- Air conditioning
- Refrigeration technology
- Solar systems
- Heat pumps
- Household appliances
- Plant engineering

### Dimensions



## Cable probe / floors probe NTC

### Description



### Technical data

Temperature measuring range	0...+70 °C
Sensor	NTC 2 kΩ, NTC 10 kΩ
Tube length	28 mm
Tube diameter	7,7 mm
Tube material	PP (polypropylene), black
Cable construction	Copper cable PVC 2 x 0,5 mm <sup>2</sup>
Cable length	4000 mm
Connection	50 mm free ends, wire end sleeves tinned copper, uninsulated
Protection category	IP67
Environmental data	RoHs and REACH compliant

### Article

Article	Article number
Cable probe NTC 2 kΩ, floors probe	0625 6011-100
Cable probe NTC 10 kΩ, floors probe	0625 6011-101

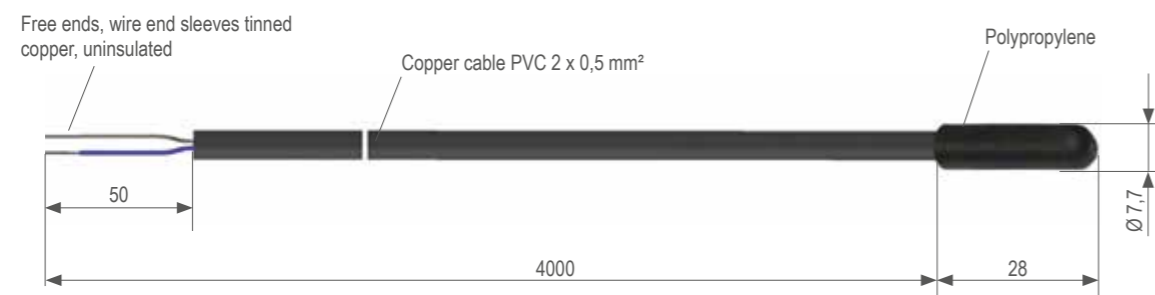
### Performance features:

- Design is particularly used in underfloor heatings
- Temperature sensor completely sealed
- Well protected against mechanical influence
- Halogen-free
- VDE H03VV-F approved

### Areas of application:

- Heating technology
- Temperature measurement in floors

### Dimensions



## Pipe-Mounted Probe with tension chain

### Description



A tension chain art. no. 0440 0006 is included with delivery



Application example: Pipe-mounted probe with tension chain secured onto a pipe.

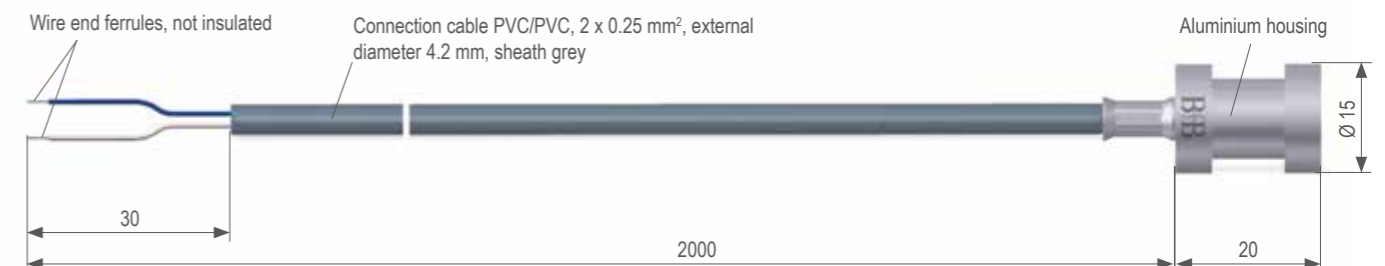
### Performance features:

- Protection class IP65
- Aluminium housing
- Measuring range -10...+105 °C
- Including tension chain for pipe diameters up to 100 mm

### Areas of application:

- Supply/return temperatures

### Dimensions



### Technical data

Measured value recorder	Accuracy	Recom. measuring current
Pt100	Class F 0.3 (cl.B) DIN EN 60751	0.3 to 1 mA
Pt1000	Class F 0.3 (cl.B) DIN EN 60751	0.1 to 0.3 mA
Ni 1000	Class F 0.3 (cl.B) DIN EN 60751	
Ni 1000, TK 5000	TK 5000	
NTC 5 kΩ	±0.2° at 0...+70 °C	
NTC 10 kΩ	±0.2° at 0...+70 °C	
KTY 81-110	±1 % at 25 °C	
KTY 81-210	±1 % at 25 °C	
Measuring range		-10...+105 °C
Circuit type		2-conductor connection
Nom. length		20 mm
Diameter		15 mm
Housing material		Aluminium
Electrical connection		Free ends 30 mm Wire end ferrules not insulated
Connection cable	Length Cross-section Insulation	2000 mm 2 x 0.25 mm <sup>2</sup> PVC
Protection class		IP65

### Article

Article	Article number
Pipe-mounted probes Pt100	0625 0516-100
Pipe-mounted probes Pt1000	0625 0516-101
Pipe-mounted probes Ni 1000	0625 5999-104
Pipe-mounted probes Ni 1000, TK 5000	0625 5999-105
Pipe-mounted probes NTC 5 kΩ	0625 6999-104
Pipe-mounted probes NTC 10 kΩ	0625 6999-105
Pipe-mounted probes KTY 81-110	0625 7999-104
Pipe-mounted probes KTY 81-210	0625 7999-105
Heat-conducting paste (syringe, contents 20 g)	0554 0034

## Pipe Clip Probe

### Description



### Performance features:

- Ergonomic haptics
- Easy to install
- Saves money due to less installation work
- Compact housing
- Fast response time
- Pipe clips for Ø16-19 mm, Ø20-22 mm, Ø25-27 mm, Ø28-35 mm

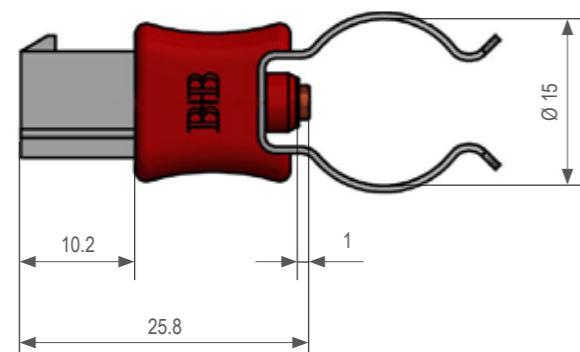
### Areas of application:

- Hot water boilers and compressors
- Heat exchangers and heat pumps
- Heating systems
- Air conditioning systems
- Cooling systems

Article	Article number
Pipe clip probe	0627 6113*
Heat-conducting paste (syringe, contents 20 g)	0554 0034

\*For diameter variants see overview of order numbers

### Dimensions



### Technical data

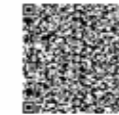
Measuring range	-20...+120 °C	
Sensors	NTC 12 kΩ, NTC 10 kΩ, Pt100, Pt1000	
Accuracy	NTC 12 kΩ NTC 10 kΩ Pt100/Pt1000	±1.8 °C at 0...100 °C ±0.2 °C at 0...+70 °C Class F 0.3 (cl.B) DIN EN 60751
Response time T63	< 20 s	
Electrical connection	Molex Minifit JR 5566-02 A	
Material	Pipe clip Housing	Stainless steel 1.4310 Polyamid PA6
Dimensions (LxWxH)	14,2 x 14,6 x 10 mm	
Spring clip	For different diameters see overview of order numbers	

Sensor	Spring clip	Article number
NTC 12 kΩ	For Ø 16...19 mm	0627 6113
NTC 12 kΩ	For Ø 20...22 mm	0627 6113-01
NTC 12 kΩ	For Ø 25...27 mm	0627 6113-02
NTC 12 kΩ	For Ø 28...35 mm	0627 6113-03
NTC 10 kΩ	For Ø 16...19 mm	0627 6113-04
NTC 10 kΩ	For Ø 20...22 mm	0627 6113-05
NTC 10 kΩ	For Ø 25...27 mm	0627 6113-06
NTC 10 kΩ	For Ø 28...35 mm	0627 6113-07
Pt100	For Ø 16...19 mm	0627 6113-08
Pt100	For Ø 20...22 mm	0627 6113-09
Pt100	For Ø 25...27 mm	0627 6113-10
Pt100	For Ø 28...35 mm	0627 6113-11
Pt1000	For Ø 16...19 mm	0627 6113-12
Pt1000	For Ø 20...22 mm	0627 6113-13
Pt1000	For Ø 25...27 mm	0627 6113-14
Pt1000	For Ø 28...35 mm	0627 6113-15

## Screw-In Probe

for measurements in gaseous and liquid media

### Description



### Performance features:

- Measuring range -10...+105 °C
- Stainless steel 1.4571
- Vibration-resistant
- Protection class IP65
- 2 different nominal lengths available: 50 or 100 mm

### Areas of application:

- Heating technology
- Air conditioning systems
- Ventilation technology
- Mechanical engineering
- Plant engineering
- Container construction
- Pipeline construction
- Apparatus construction
- Chemical and petrochemical industry

### Technical data

Measured value recorder	Pt100	
Measuring range	-10...+105 °C	
Accuracy	Class F 0.3 (cl.B) DIN EN 60751	
Measuring current	max. 1 mA	
Circuit type	2-conductor connection	
Nom. length	50 or 100 mm	
Diameter	6 mm	
Material	Stainless steel 1.4571	
Electrical connection	Free ends 50 mm Wire end ferrules not insulated	
Connection cable	Length Cross-section Insulation	2000 mm 2 x 0.25 mm <sup>2</sup> PVC/PVC
Process connection	G 1/2"	
Protection class	IP65	

### Article

Article	Article number
Screw-In probe Pt100, thread G1/2", nom. length 50 mm	0625 0071-18
Screw-In probe Pt100, thread G1/2", nom. length 100 mm	0625 0071-12

### Dimensions



## Probes with Plastic Housing

Pt1000 optionally with installed measuring transducer

### Description



### Technical data

Measured value recorder	Accuracy	Measuring current
Pt1000	Class F 0.3 (cl.B) DIN EN 60751	max. 1 mA
NTC 10 kΩ	±0.2° at 0...+70 °C	
Measuring range		-30...+120 °C
Cable gland		M16 x 1.5 mm
Electrical connection		Luster terminal 2.5 mm <sup>2</sup>
Nom. length (NL)		100 oder 200 mm
Diameter		6 mm
Material of protective sleeve		Stainless steel 1.4571
Protection class		IP65
Dimensions of plastic housing (L x W x H)		65 x 59 x 38 mm

### Article

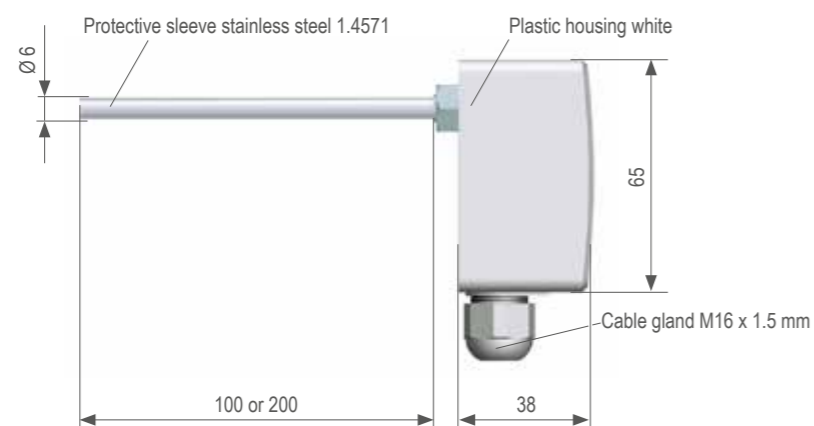
Article	Article number
Probe with plastic housing Pt1000, NL 100	0628 0525-100
Probe with plastic housing Pt1000, NL 200	0628 0525-101
Probe with plastic housing Pt1000, NL 100 Including measuring transducer 4 to 20 mA	0628 0525-112
Probe with plastic housing Pt1000, NL 200 Including measuring transducer 4 to 20 mA	0628 0525-111
Probe with plastic housing NTC 10 kΩ, NL 100	0628 6004-100
Probe with plastic housing NTC 10 kΩ, NL 200	0628 6004-101

Additional outputs are available on request.

### Performance features:

- Protection class IP65
- Protective sleeve stainless steel 1.4571
- Measuring range -30...+120 °C
- 2 different nominal lengths available, 100 or 200 mm

### Dimensions



## Temperature Probe MA1

with connection head MA

### Description



### Technical data

Measured value recorder	Pt100
Measuring range	-50...+400 °C
Accuracy	Class F 0.3 (cl.B) DIN EN 60751
Measuring current	max. 1 mA
Circuit type	2-conductor connection
Nom. length	100 or 250 mm
Diameter	6 mm
Material of protective sleeve	Stainless steel 1.4571
Cable gland	M16 x 1.5 mm
Protection class	IP65



### Article

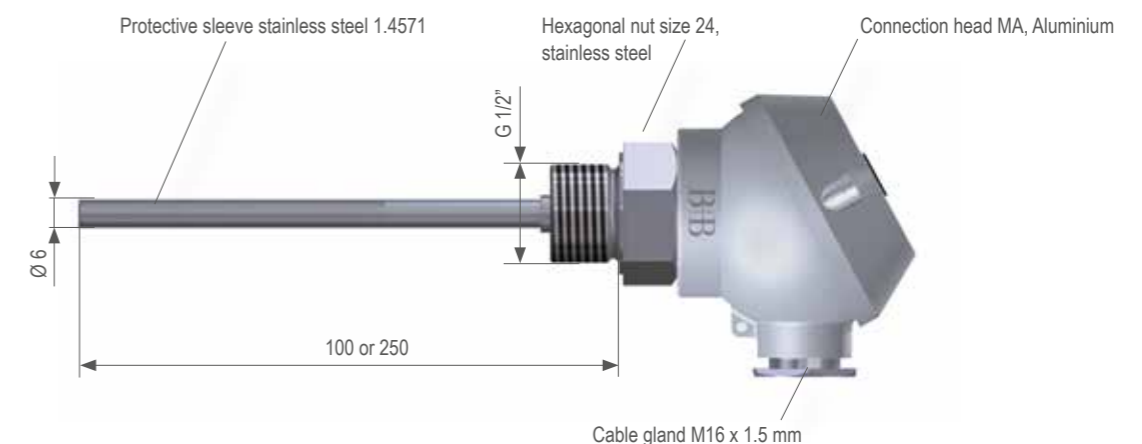
Article	Article number
Temperature probe Pt100, Nom. length 100 mm	MA1 P620 0100B-21
Temperature probe Pt100, Nom. length 250 mm	MA1 P620 0250B-21

Temperature probes with output 4...20 mA, 0...10 V and I<sup>2</sup>C available on request.

### Areas of application:

- Heating technology
- Air conditioning systems
- Ventilation technology
- Mechanical engineering
- Plant engineering
- Container construction
- Pipeline construction
- Apparatus construction
- Chemical and petrochemical industry

### Dimensions



## Temperature Probe MA2 with connection head MA

### Description



### Technical data

Measured value recorder	Pt100
Measuring range	-50...+400 °C
Accuracy	Class F 0.3 (cl.B) DIN EN 60751
Measuring current	max. 1 mA
Circuit type	2-conductor connection
Nom. length	100 or 250 mm
Diameter	6 mm
Material of protective sleeve	Stainless steel 1.4571
Cable gland	M16 x 1.5 mm
Protection class	IP65

### Article

### Article number

Temperature probe Pt100, Nom. length 100 mm	MA2 P620 0100B-21
Temperature probe Pt100, Nom. length 250 mm	MA2 P620 0250B-21

Temperature probes with output 4...20 mA, 0...10 V and I<sup>2</sup>C available on request.

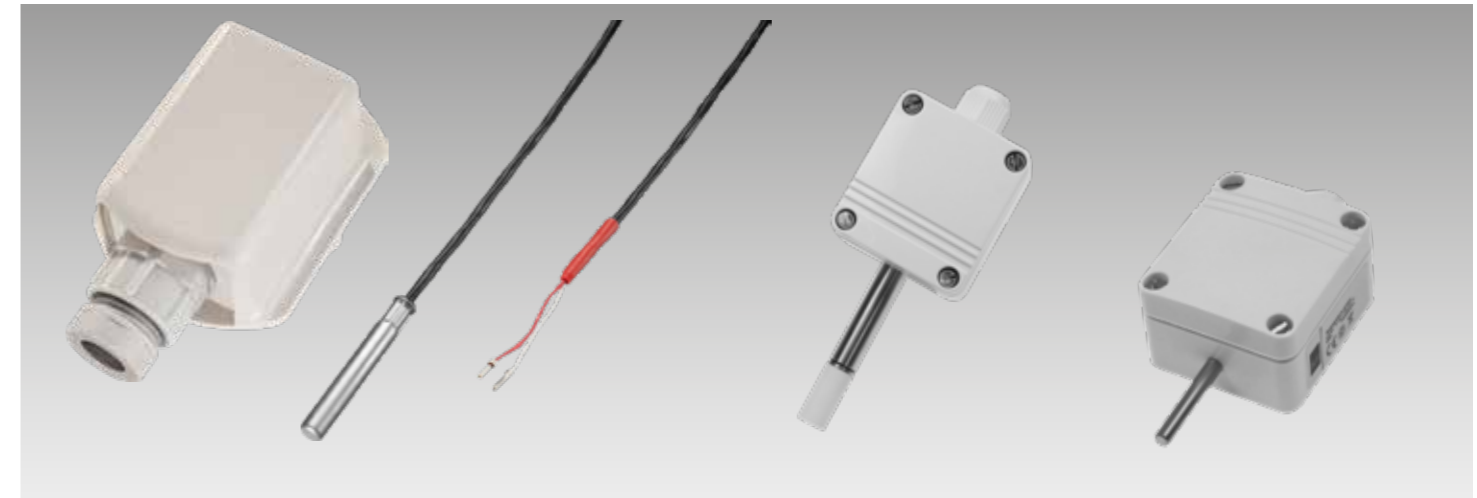
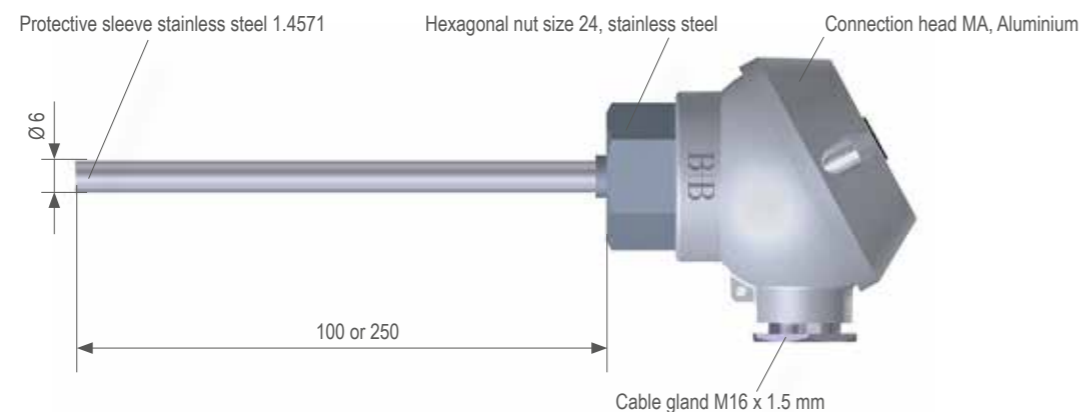
### Areas of application:

- Heating technology
- Air conditioning systems
- Ventilation technology
- Mechanical engineering
- Plant engineering
- Container construction
- Pipeline construction
- Apparatus construction
- Chemical and petrochemical industry

### Performance features:

- Protection class IP65
- Connection head MA made of aluminium with cable gland M16 x 1.5 mm
- Protective sleeve made of stainless steel 1.4571
- Measuring range -50...+400 °C
- 2 different nominal lengths available: 100 or 250 mm

### Dimensions



## Outdoor Probes

The term "building technology" includes monitoring, control, regulation and optimisation equipment both inside and outside of buildings. The main objective of this is to automate processes, run them according to the assigned parameters and also to simplify overall operation and monitoring.

Temperature and humidity also need to be recorded outdoors and the values have to be processed. The rugged outdoor products from B+B Thermo-Technik withstand wind and weather while providing precise measurement results for your building technology applications.





## Collector Probe

with heat-resistant PTFE cable

### Description



### Technical data

Temperature measuring range	-50...+300 °C
Sensor	Pt1000, 2-conductor
Accuracy	Class F 0.3 (cl.B) DIN EN 60751
Sleeve length	40 mm
Sleeve diameter	6 mm
Sleeve material	Stainless steel 1.4404
Protection class	IP67
Cable structure	Copper cable PTFE/shielding/PTFE (Teflon®), black, 2 x 0.14 mm <sup>2</sup>
Cable length	2000 mm
Connection	Free ends, 30 mm, wire end ferrules tin-plated
Dielectric strength	2 kV
Environmental data	RoHS 2002/95/EG -compliant

Article	Article number
Collector probe	0625 0389

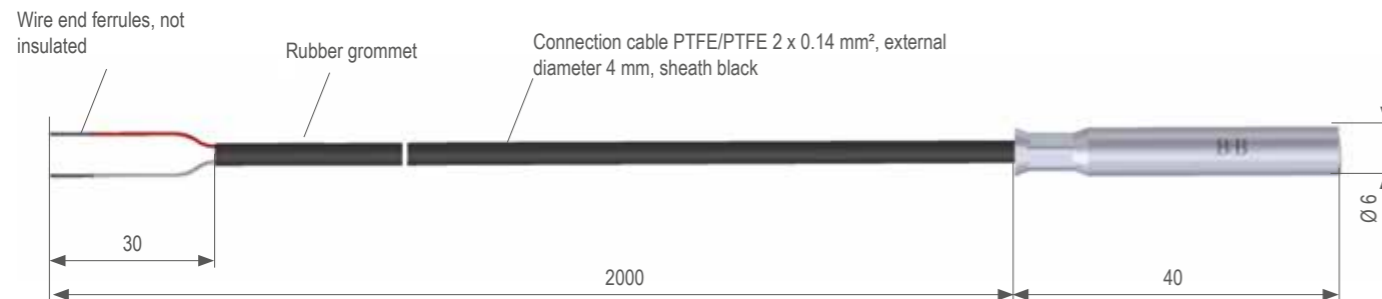
#### Performance features:

- Heat-resistant with PTFE-insulated cable
- Waterproof connection from sleeve to cable, protection class IP67
- Dielectric strength 2 kV
- UV-resistant
- Protective sleeve made of high-quality stainless steel 1.4404

#### Areas of application

- Heating technology
- Air conditioning
- Refrigeration technology
- Solar systems
- Heat pumps
- Household appliances
- Plant engineering

### Dimensions



## Outdoor Probe

with rugged, resistant housing

### Description



### Technical data

Measuring range	-50...+90 °C
Sensor	Pt100, 2-conductor
Accuracy	Class F 0.3 (cl.B) DIN EN 60751
Housing	Plastic, lightgrey
Dimensions (LxWxH)	64 x 46 x 30,5 mm
Connection	Cable gland connection PG9
Protection class	IP54
Scope of delivery	Screw pan-head 3.5 x 35-A2 and dowel S 5x25-PA
Environmental data	RoHS 2002/95/EG -compliant

Also available with other sensors, e.g. Pt1000, NTC 5kΩ and KTY81-210.

Article	Article number
Outdoor probe Pt100	0627 0900

#### Performance features:

- UV-resistant plastic housing for wall mounting
- Protection class IP54
- Cable gland for connection cable from Ø 4.5 to Ø 7.0 mm
- Impact and vibration-resistant

#### Areas of application:

- Building automation
- Heating
- Refrigeration and air conditioning

### Dimensions



## Outdoor probe with external sleeve

### Description



### Technical data

Temperature measuring range	-30...+70 °C
Sensor	Pt1000
Accuracy	Class F 0.3 (cl.B) DIN EN 60751
Output scaling	-30...+70 °C is equivalent to 0...10 V / 4...20 mA
Sleeve length	35 mm
Sleeve diameter	6 mm
Sleeve material	Stainless steel 1.4404
Housing	Plastic polyamide, UV-resistant
Housing dimensions (LxWxH)	65 x 59 x 38 mm
Housing cable gland	M16 x 1.5
Connection	Screw terminals 0.2...1.5 mm <sup>2</sup>
Operating voltage	12...24 V DC
Overvoltage protection	Varistor and RC filter

### Article

### Article number

Outdoor probe Pt1000, 10 V	TF-GLT-10V-AF-T1
Outdoor probe Pt1000, 20 mA	TF-GLT-20MA-AF-T1

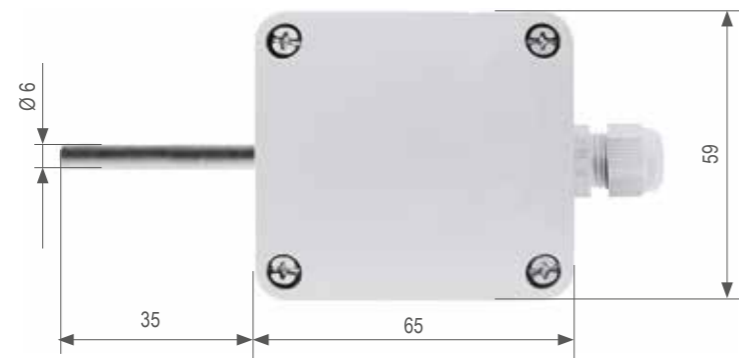
### Performance features:

- Standard output signal 0...10 V or 4...20 mA
- 3-point calibrated and linearised
- Probe in stainless steel housing
- High-quality plastic housing (IP65), suitable for wall mounting

### Areas of application

- Building automation
- Heating/air conditioning/refrigeration technology

### Dimensions



## Temperature and Humidity Probe for outdoor use

### Description



### Technical data

Humidity measuring range	0...100 % RH
Sensor	Capacitive humidity sensor
Accuracy	±2 % RH
Output scaling	0...100% RH is equivalent to 0...10 V / 4...20 mA
Temperature measuring range	-30...+70 °C
Sensor	Pt1000
Accuracy	±0.5 K (0...+50 °C)
Output scaling	-30...+70 °C is equivalent to 0...10 V / 4...20 mA
Response time T90	25 s with protective filter
Sleeve length	45 mm
Sleeve diameter	12 mm
Sleeve material	Stainless steel
Protective filter	PE sinter filter 25 µm, Ø 12x25.5 mm
Housing	Plastic polyamid, UV resistant
Housing dimensions (LxWxH)	65 x 59 x 38 mm
Connection via cable end piece	Screw terminal 0.2...1.5 mm <sup>2</sup>
Operating voltage	12...24 V DC

### Article

### Article number

Humidity and temperature probe for outdoor use, 10 V	FF-GLT-10V-AF-TE1
Humidity and temperature probe for outdoor use, 20 mA	FF-GLT-20MA-AF-TE1

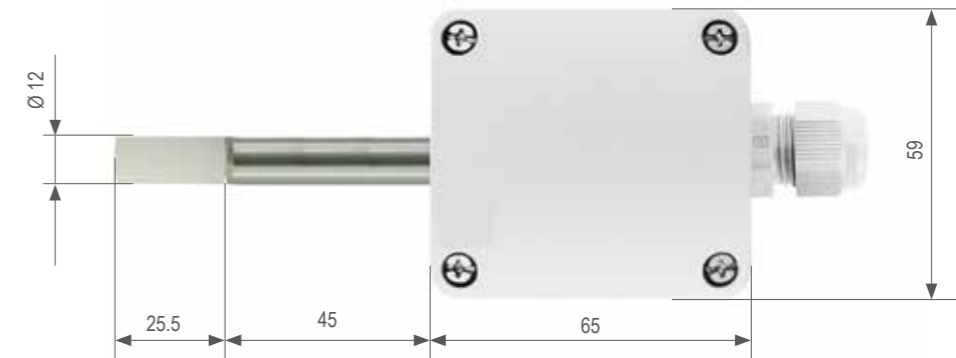
### Performance features:

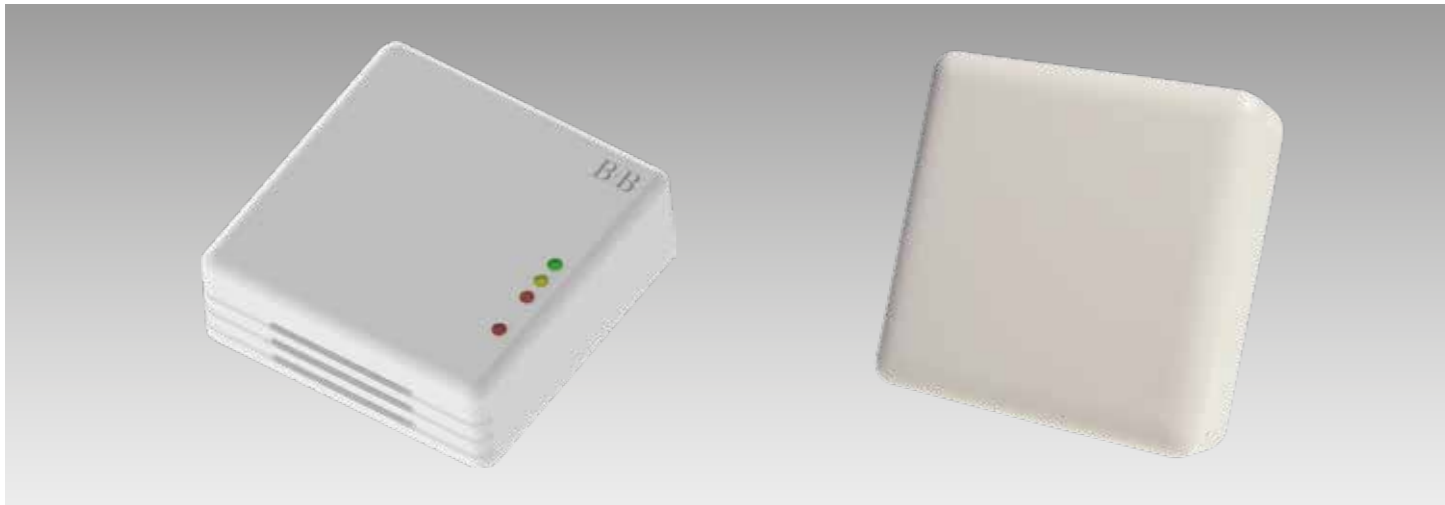
- Standard output signal 0...10 V or 4...20 mA
- 3-point calibrated and linearised
- Humidity measurement linearised and temperature-compensated
- Probe in stainless steel housing
- Probe head with hydrophobic PE sinter filter, 25 µm pore size
- High-quality plastic housing (IP65), suitable for wall mounting

### Areas of application

- Building automation
- Industrial instrumentation and control system
- Air conditioning recording
- Drying technology

### Dimensions





## Probes for Living Areas

More attention is being paid nowadays to the air quality in interior rooms. It contributes significantly to increasing physical and mental capacity and to a comfortable indoor environment. The composition of air changes as soon as people, plants or objects are in a room or an apartment. For example, people give off moisture and carbon dioxide into the inside air.

If the relative humidity is too low, the mucous membranes dry out, which makes it easier for bacteria to spread quickly, for example, causing colds. If the relative humidity is too high, it is quickly felt as oppressive. This can happen with infrequent ventilation.

With products from B+B Thermo-Technik you can provide a good and healthy indoor climate!



## Temperature Probe for living areas, offices and industrial areas

### Description



### Technical data

Temperature	
Temperature measuring range	-30...+70 °C
Accuracy	± 0.7 °K (0...+40 °C)
Output scaling	-30...+70 °C is equivalent to 0...10 V
General	
Housing	Wall housing made of plastic (ABS)
Dimensions (LxWxH)	71 x 71 x 27 mm
Connection	Screw terminals 0.75 mm <sup>2</sup>
Connection cable (-EXT)	1500 mm
Operating voltage	12...24 V AC/DC
Overvoltage protection	Varistor and RC filter

### Article

### Article number

Temperature probe in wall housing, 0...10 V	TF-GLT-10V
Temperature Probe via passive Pt1000 measuring resistor, potential-free	on request

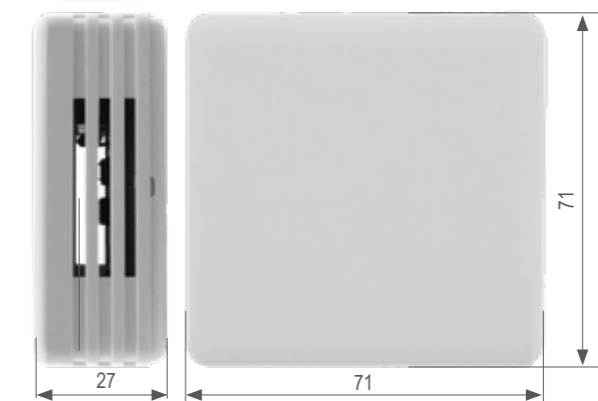
### Performance features:

- Temperature measurement
- Easy wall mounting
- Standard output signal 0...10 V
- Temperature measurement linearised
- Integrated sensor system
- High long-term stability

### Areas of application:

- Temperature measurement technology in indoor areas
- Building control technology
- Industrial instrumentation and control system
- Air conditioning recording
- Home automation

### Dimensions



## Temperature and Humidity Probe for living areas, offices and industrial areas

### Description



### Technical data

Temperature	
Temperature measuring range	-30...+70 °C
Sensor	Pt1000
Accuracy	± 0.7 °K (0...+40 °C)
Output scaling	-30...+70 °C is equivalent to 0...10 V
Humidity	
Humidity measuring range	0...100 % RH, non-condensing
Accuracy	±3 % RH (30...90 % RH)
Output scaling	0...100 % RH is equivalent to 0...10 V
General	
Response time T90	25 s
Housing	Wall housing made of plastic (ABS)
Dimensions (LxWxH)	71 x 71 x 27 mm
Connection	Screw terminals 0.75 mm <sup>2</sup>
Operating voltage	12...24 V AC/DC
Overvoltage protection	Varistor and RC filter

Article	Article number
Humidity probe in wall housing, 0...10V	FF-GLT-10V-TE0
Humidity and temperature probe in wall housing, 0...10V	FF-GLT-10V-TE1
Humidity and temperature probe via passive Pt1000 measuring resistor, potential-free	FF-GLT-10V-TEPT

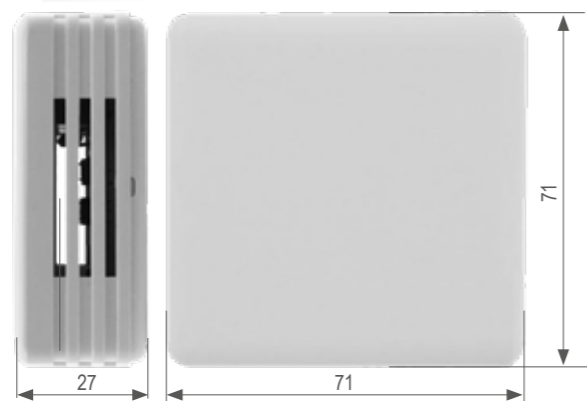
### Areas of application:

- Temperature measurement technology in indoor areas
- Industrial instrumentation and control system
- Air conditioning recording

### Performance features:

- Temperature and humidity measurement
- Easy wall mounting
- Standard output signal 0...10 V
- Temperature measurement linearised
- Integrated sensor system
- High long-term stability

### Dimensions



## Air Quality/Humidity/Temperature Probe with LED display

### Description



### Technical data

Air quality	
Measuring range	450...2000 ppm, VOC/CO <sub>2</sub> -equivalent
Accuracy	±100 ppm
Output scaling	450...2000 ppm is equivalent to 0...10 V
Air humidity	
Humidity measuring range	0...100 % RH
Accuracy	±3 % RH (20...80 % RH)
Output scaling	0...100 % RH is equivalent to 0...10 V
Temperature	
Temperature measuring range	0...+50 °C
Accuracy	±0.5 °C (20...40°C)
Output scaling	0...+50 °C is equivalent to 0...10 V
General	
Display	3 LEDs
Relay	Closable, 250 V AC, 8 A
Switching threshold	Relay 1200 ppm
Power supply	14...27 V DC
Power consumption	70 mA at 24 V DC
Housing	Wall housing made of plastic (ABS)
Dimensions (LxWxH)	71 x 71 x 27 mm
Connection	Screw terminals 0.2...1.5 mm <sup>2</sup>
Mounting	Wall mounting
Protection class	IP20

### Performance features:

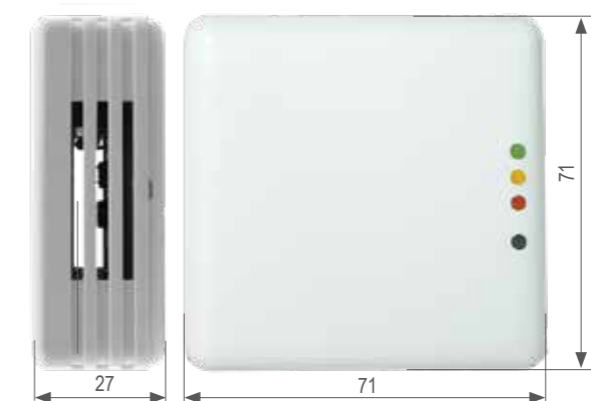
- Easy wall mounting, installed in wall housing
- Measuring range: 450 - 2000 ppm, VOC/CO<sub>2</sub> - equivalent
- Measurements of air quality, humidity and temperature
- Display for VOC concentration (traffic light)
- 3 outputs 0...10 V for VOC, temperature and relative humidity
- Switching relay, closable at 1200 ppm
- Easy retrofitting to unregulated ventilation systems possible

### Areas of application:

- Schoolrooms / classrooms
- Offices / meeting rooms / business areas
- Hotel rooms
- Lecture halls
- Living spaces

Article	Article number
VOC, humidity and temperature probe with relay	0565 0003
VOC probe with LED display of the VOC concentration	0565 0004

### Dimensions



## kiro air CO2 Traffic Light with integrated humidity and temperature measurement

### Description



### Performance features:

- Measured variables: CO2 concentration (VOC measurement method, display of the CO2 equivalent), temperature, humidity
- Display: Paper-white display with heartbeat function and LED traffic light
- Alarm: Acoustic signal when the CO2 concentration exceeds 1000 ppm (Acoustic signal can be switched off)
- Ready for use after a short warm-up time of 30 seconds
- Operating temperature: 0...50 °C
- Ambient humidity: 0...95 % RH
- Operating voltage: 5 V DC, micro USB port
- Protection class IP30
- Wall mounting

### Areas of applications:

- Living rooms, work and office spaces
- Schools, classrooms, seminar rooms
- Lounges, other closed rooms with a large number of people

### Dimensions



### Technical data

CO2	
Measuring range	400...2000 ppm
Measurement method	VOC, Calculation of the CO2 equivalent
Temperature	
Measuring range	0...+50 °C
Accuracy	±0,2 °C
Humidity	
Measuring range	0...100 % RH
Accuracy	±2 % RH
Output scaling	0...100 % RH equates to 0...10 V
General	
Operating voltage	5 V DC, max. 30 mA, connection via Micro-USB
Function check	During power up the traffic light flashes red for 30 sec
Paper-White-Display Dimensions	1,54", 200 x 200 pixels
Display	CO2 concentration, temperature, rel. humidity
Additional function	Heartbeat function
Traffic light, flashes	Warm-up phase of 30 sec. until the measured values are stable
Traffic light green	CO2 concentration up to 800 ppm
Traffic light yellow	CO2 concentration 800 up to 1000 ppm
Traffic light red	CO2 concentration more than 1000 ppm
Alarm signale	Active at CO2 concentrations above 1000 ppm
Casing	ABS
Protection class	IP30
Dimensions	78 x 122 x 27 mm (L x W x H)
Scope of delivery	kiro air, power adapter, operation manual, stand-up display

Article	Article number
B+B kiro air incl. power adapter and stand-up display	0560 9015
Power adapter	0554 0452



## Humidity Protection

Water damage occurs without advance warning. To prevent damage to buildings and valuable facilities, it is important to protect a house or apartment sufficiently.

B+B products for humidity protection help you to take countermeasures quickly to prevent mould, bad odours and lasting damage to building structures.



## Leakage Detector for electrically conductive media

### Description



### Technical data

Measurement procedure	Electrolytic conductivity measurement
Measuring medium	Conductive liquids, building materials
Switching point	2...60 kΩ, (typ. 15 kΩ, 67 μS)
Operating voltage	12 V AC/24 V AC ± 10 %, max. 80 mA 12 V DC/24 V DC ± 10 %, max. 80 mA
Relay contact	Potential-free switching contact max. 36 V / 5 A
Operating display	LED is lit green when operating voltage is applied
Switch indicator	LED lit red when relay contact is energised
Housing	ABS, light grey RAL 7035
Cable gland	M16 x 1,5
Electrical connection	Screw terminals 0.2...4 mm <sup>2</sup>
Dimensions (LxWxH)	82 x 80 x 65 mm
Protection class	IP54

### Article

Article	Article number
Leakage detector for electrically conductive media	LEME-24V
Leakage detector for electrically conductive media	LEME-12V

### Accessories

Accessories	Article number
Leakage detector	0636 0015

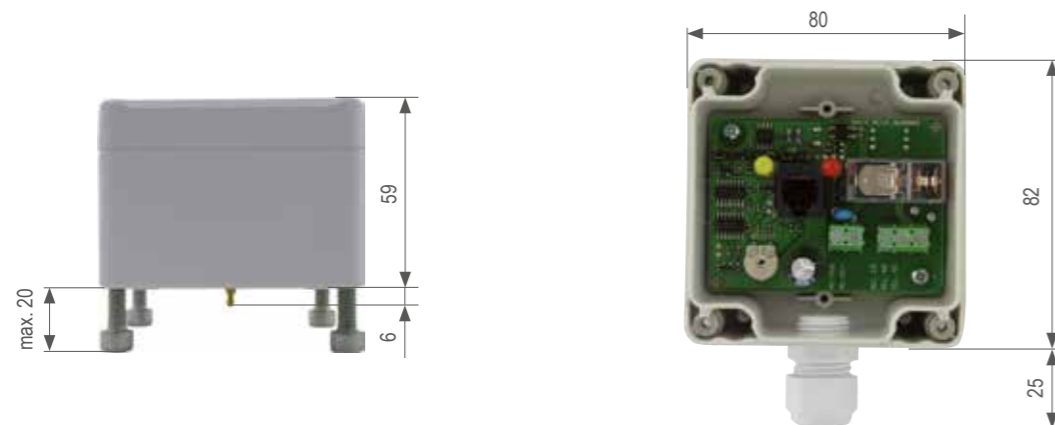
### Areas of application:

- Sanitary facilities
- Water installation
- Monitoring cooling systems
- Condensate switch for collecting pans
- Building control technology
- Air conditioning

### Performance features:

- Reliable conductivity measurement
- Operating voltage 12 V AC/DC or 24 V AC/DC
- 2 integrated, gold-plated measuring tips
- Potential-free switching output (relay) 30 V / 4 A
- Adjustable sensitivity and switching characteristics
- Adjustable measuring level 0...15 mm
- Easy to install
- Optionally available with acoustic signalling device and leakage probe

### Dimensions



## Humidity Controller for Sanitary Facilities including probe

### Description



### Technical data

Measurement procedure	Capacitive humidity sensor
Humidity measuring range	0...100 % RH
Operating temperature	0...+40 °C
Switching point	70% RH or strong increase in humidity
Sleeve length	115 mm with grommet
Sleeve diameter	12 mm
Sleeve material	Plastic black
Controller dimensions (LxWxH)	99 x 88 x 31 mm
Controller housing material	Plastic black
Cable structure	Copper cable PVC
Cable length	3000 mm
Connection	Plug connector RJ12
Switching-on delay	40 s
Switching-off delay	300 s
Switching output	230 V AC / 1A (Triac switching output)
Switching input humidity off	230 V AC/ ca. 1 mA
Switching input light	230 V AC/ ca. 1 mA
Operating voltage	230 V AC ±20 % / 3 VA / 50 Hz
Overvoltage protection	Varistors at mains input and switching output

### Article

Article	Article number
Humidity controller for sanitary facilities	FREG-BAD

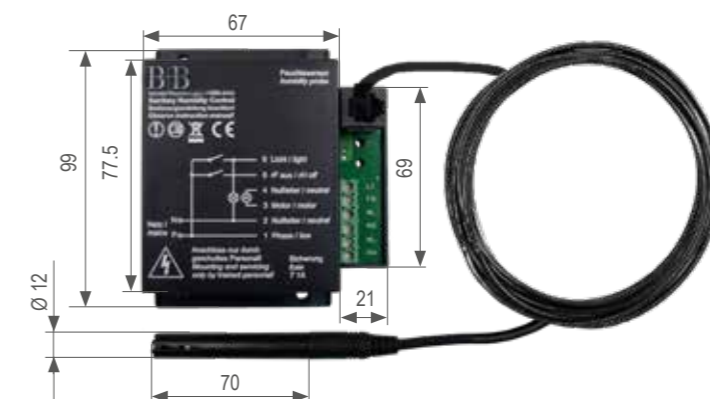
### Areas of application:

- Humidity control for inside bathrooms
- Bathrooms and showers, other sanitary facilities
- Kitchens, kitchenettes

### Performance features:

- Automatic humidity control for bathrooms, sanitary rooms and kitchens
- Direct activation of the room fan
- Control of the room climate
- High-quality humidity probe with long-term stability
- Switching-on delay and off-delay timer
- Switching input for light
- Switching input for humidity OFF can be deactivated

### Dimensions



## Temperature Probe for use in sauna areas

### Description



### Technical data

Temperature measuring range	0...+120 °C
Sensor	Pt1000
Accuracy	±0.3 °K (0...+50 °C)
Output scaling	-30...+70 °C is equivalent to 0...10 V
Sleeve length	40 mm
Sleeve diameter	6 mm
Sleeve material	Stainless steel 1.4571/1.4404
Cable structure	Copper cable TPE/shielding/TPE, 3 x 0.14 mm <sup>2</sup>
Cable length	1500 mm
Process connection	Cable gland with kink protection spirals M12x1.5
Housing	Plastic polyamid, UV-resistant
Dimensions (LxWxH)	65 x 59 x 38 mm
Connection	Screw terminals 0.2...1.5 mm <sup>2</sup>
Operating voltage	12...24 V DC
Overvoltage protection	Varistor and RC filter
Environmental data	RoHS 2002/95/EG -compliant

### Article

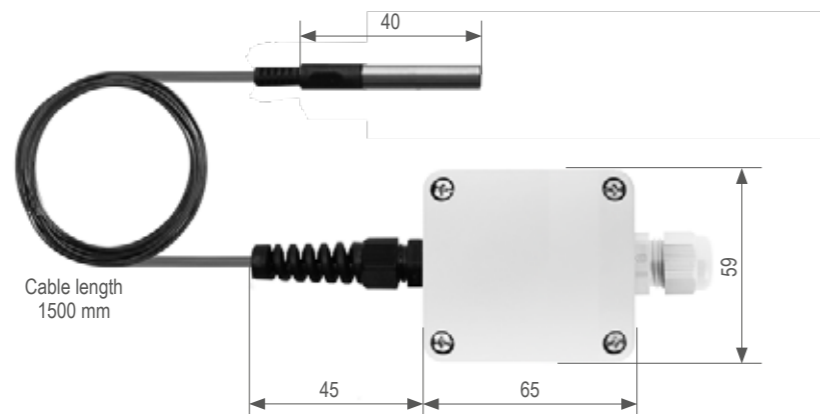
### Article number

Temperature probe for use in sauna areas	TF-10V-SF
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### Performance features:

- Standard output signal 0...10 V
- 3-point calibrated and linearised
- High long-term stability
- Sensor in stainless steel protective pipe
- High-quality housing IP65

### Dimensions



## Dew Point Controller for flat surfaces or pipes

### Description



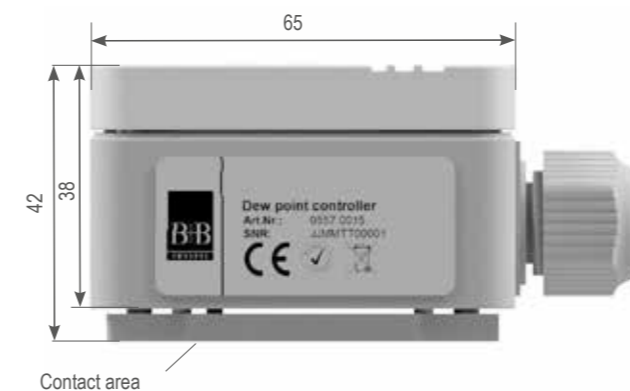
### Performance features:

- Relay output up to 24 V AC
- Visual condensation LED display
- Operating temperature from 0 to +60 °C
- Operating voltage 24 V AC/DC ± 10%
- Defined response to dew and condensation
- Humidity-resistant sensor with dust filter
- Overvoltage protection
- Protection class IP65
- Minimum mounting work

### Areas of application:

- Condensation monitor for store windows, switch cabinets, cooling ceilings, etc.

### Dimensions



### Technical data

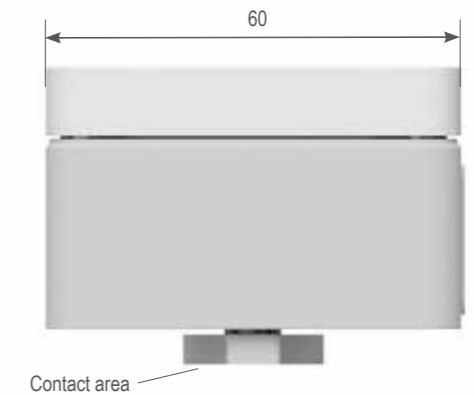
Sensor	Resistive condensation sensor
Switching point	90 % RH, ±4 % factory adjusted
Humidity measuring range	0...100% RH
Switching hysteresis	ca. 4 %
Operating temperature	0...+60 °C
Condensation	Permissible
Measuring medium	Clean ambient air
Response time	ca. 30 s
Output	Switching relay
Switching capacity	Potential-free switching output (relay) 24 V AC, optionally N/O or N/C contact
Contact voltage	24 V AC
Contact resistance	Closed: 100 mΩ, open: >1 MΩ
Switch indicator	LED lit red (condensation) LED not lit (dry) LED lit green (power)
Operating voltage	24 V AC ± 10 %, 50 Hz or 24 V DC ± 10 %
Operating current	Typ. 5 mA, max. 7 mA
Functional check	LED is lit green when during operation
Protective filter	Polyethylene sinter material
Dimensions (LxWxH)	65 x 60 x 42 mm (without fastening plate, without cable)
Protection class	IP20

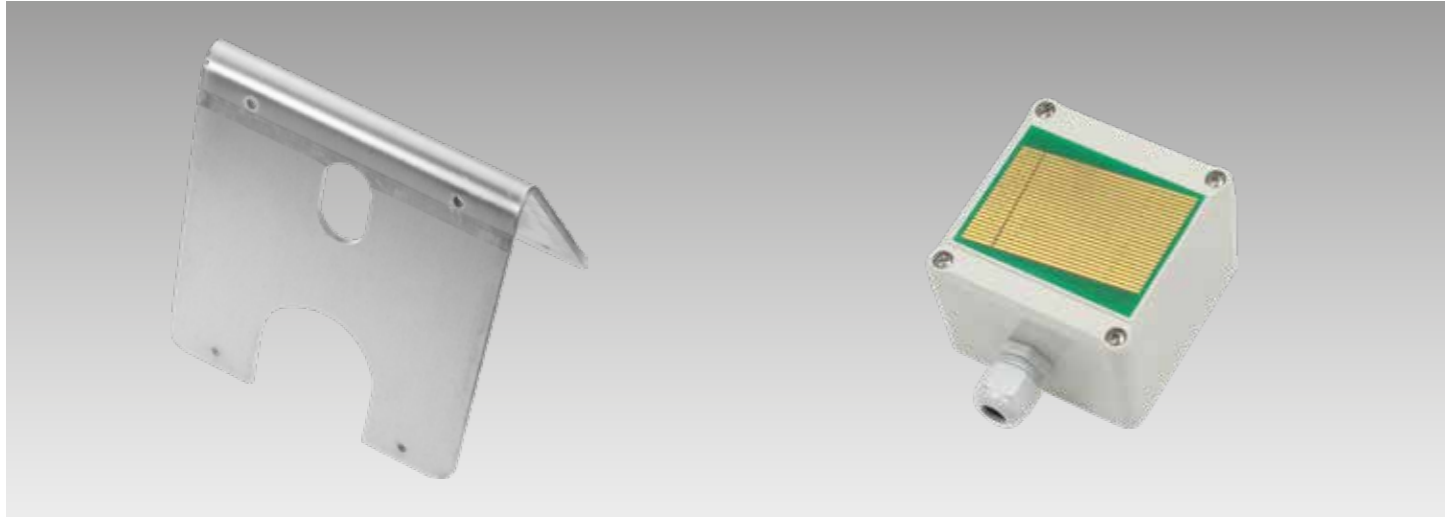
### Article

### Article number

Dew point controller for surfaces	0557 0015
Dew point controller for pipes Ø 16 - 19 mm	0557 0015-02
Dew point controller for pipes Ø 20 - 22 mm	0557 0015-03
Dew point controller for pipes Ø 25 - 27 mm	0557 0015-04
Dew point controller for pipes Ø 28 - 35 mm	0557 0015-05
Dew point controller for pipes Ø 50 - 150 mm	0557 0015-06

Clamp or larger pipe diameter on request





## Sensors for Protection against Precipitation

With an awning you can turn your terrace into a living room. It also offers protection against the sun – not just in summer – and you can sit outside comfortably and enjoy the fresh air.

Even when it cools off in the evening, it is an inviting spot for you to wind down from your day because the awning prevents your outside area from cooling off quickly.

Awnings and other forms of sun protection are connected with building technology products from B+B for control. If it starts to rain, the shading or sun protection is retracted.

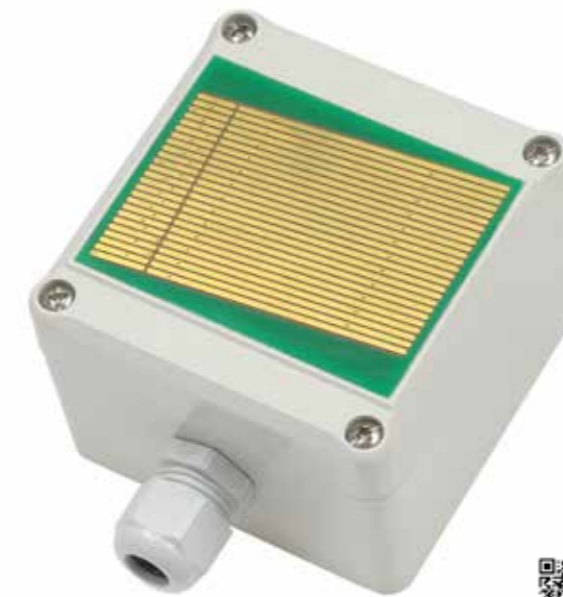
Windows can also be controlled by the B+B rain detector so your living area is protected against rain, even when you yourself are out and about.



## Rain Detector

operating voltage optionally 12 V or 24 V

### Description



### Technical data

Measurement procedure	Electrolytic conductivity measurement
Sensor surface	Gold-plated
Power consumption	12 V: 60 mA, 80 - 300 mA (PTC) 24 V: 50 mA, heater 40 - 180 mA (PTC)
Operating voltage	12 V / 24 V AC/DC ± 10 %
Output	Potential-free switching output (relay) 30 V / 4 A, optionally N/O or N/C contact
Housing	ABS, lightgrey (RAL 7035)
Cable gland	M16 x 1,5
Electrical connection	Screw terminals 0.2...4 mm <sup>2</sup>
Dimensions (LxWxH)	80 x 82 x 59 mm
Protection class	IP54

Article	Article number
Rain detector 12 V	REGME-12V
Rain detector 24 V	REGME24V

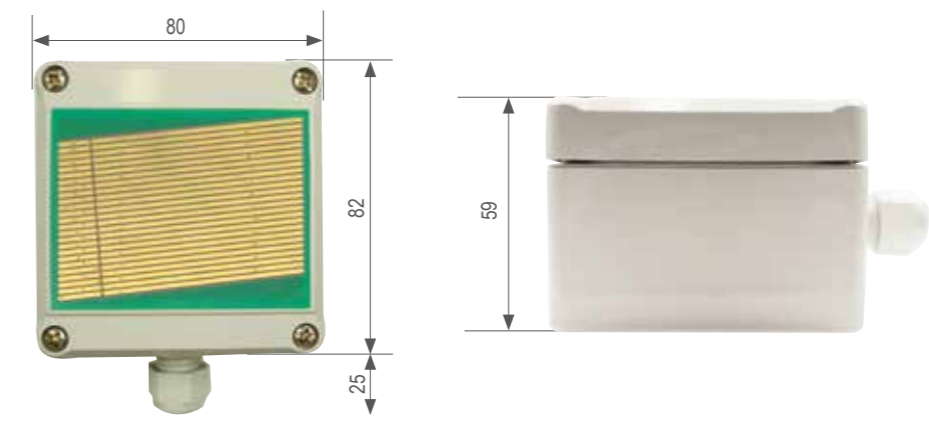
Article	Article number
Mounting set for B+B rain detector including all mounting parts and mounting instructions	REGME-WAHA

### Performance features:

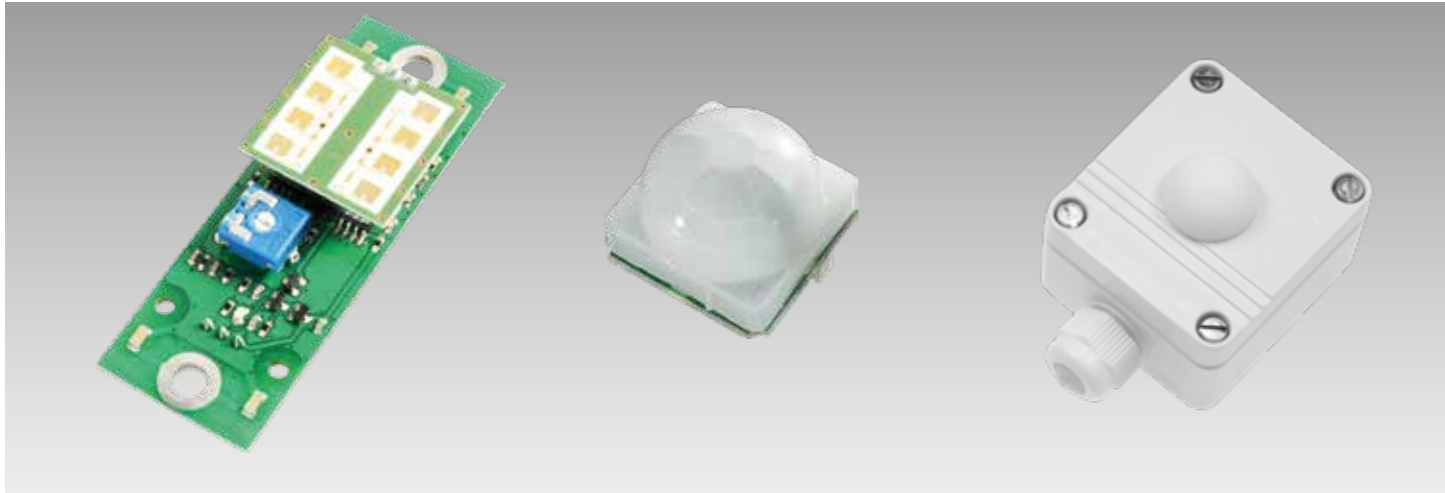
- Reliable electrolytic measurement principle
- Detects precipitation, rain or snow
- Large, heated sensor surface for faster drying off and winter operation
- Potential-free switching output (relay) 30 V / 4 A
- Adjustable sensitivity and switching characteristics
- Universal wall and pole mounting bracket as accessories
- Easy, time-saving installation
- Reliable, stable construction
- Corrosion-resistant aluminium



### Dimensions







## Products for Lighting and Alarms

Measuring motion and brightness is an important aspect of building technology. Whether it is an animal or a person, B+B motion detectors record every movement in their range and trigger a signal! This way our reliable and durable products ensure peace of mind.



## Brightness Sensor for indoors and outdoors

### Description



### Technical data

Measuring range	0...1000 Lux...100000 Lux
Sensor	Photo diode
Accuracy	< ±30 %
Operating temperature	-20...+75 °C
Power supply	12...24 V DC
Output voltage	0...10 V DC
Overvoltage protection	Varistor and RC filter
Protection class	IP54
Dimensions (LxWxH)	65 x 59 x 50 mm

### Article

### Article number

Brightness sensor 100000 Lux	0555 3001
Brightness sensor 1000 Lux	0555 3002
Brightness sensor 10000 Lux	0555 3004

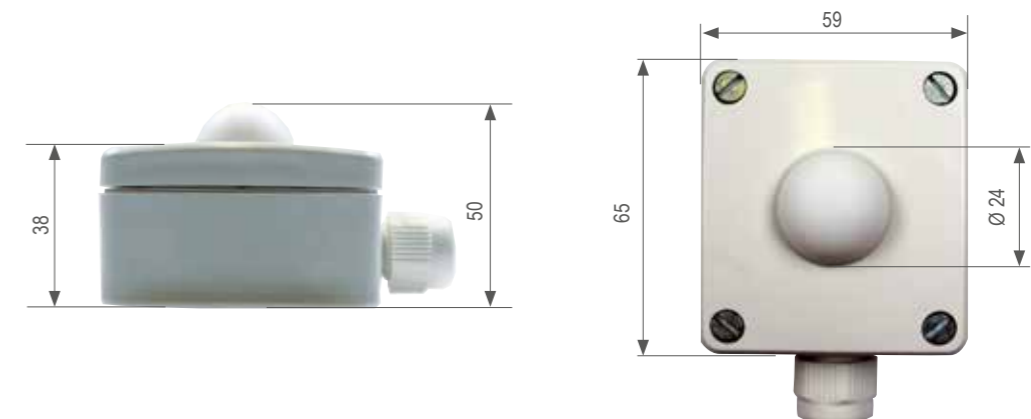
### Performance features:

- Standard output signal 0...10 V
- Measuring ranges 0...1000 Lux (for inside) / 0...10000 Lux (for lamps and lighting control) / 0...100000 Lux (for outside)
- 3-point calibrated and linearised
- High long-term stability
- Light sensor and measuring transducer combined compactly in one housing
- High-quality plastic housing (IP54)
- Protection class IP67 on request

### Areas of application:

- Building automation, dark/light switching processes
- Sun sensor
- Brightness sensor for rain-protected weather stations
- Brightness sensor for switching consumers in applications with solar modules
- Brightness sensor for use with strong sunlight as well

### Dimensions



## PIR Motion Detector

Passive infrared motion detector

### Description



### Technical data

Sensor	Infrared detector with fresnel lens
Range	Up to 12 m, adjustable in 4 steps
Noise	0,4...10 Hz
Opening angle	Horizontal $\pm 50^\circ$ , vertical $\pm 30^\circ$
Output digital	Open Collector max. 12 V (PIR-STD), 5 V (PIR-STD-LP), 20 mA
Output analog	0 V... $V_{CC}$ -0,5 V
Operating temperature	-20...+60 °C
Ambient humidity	0...90 % RH, condensation is not permissible
Power supply	3...12 V DC / 3...5 V DC
Operating current	PIR-STD: Idle output "H" - 1.0 mA/ Active output "L" - 1.4 mA PIR-STD-LP: Idle output "H" 40 $\mu$ A / Active output "L" 400 $\mu$ A
Dimensions (LxWxH)	25 x 25 x 26 mm

### Article

### Article number

Passive infrared motion detector, 3...12 V DC	PIR-STD
Passive infrared motion detector with low power consumption, 3...5 V DC	PIR-STD-LP

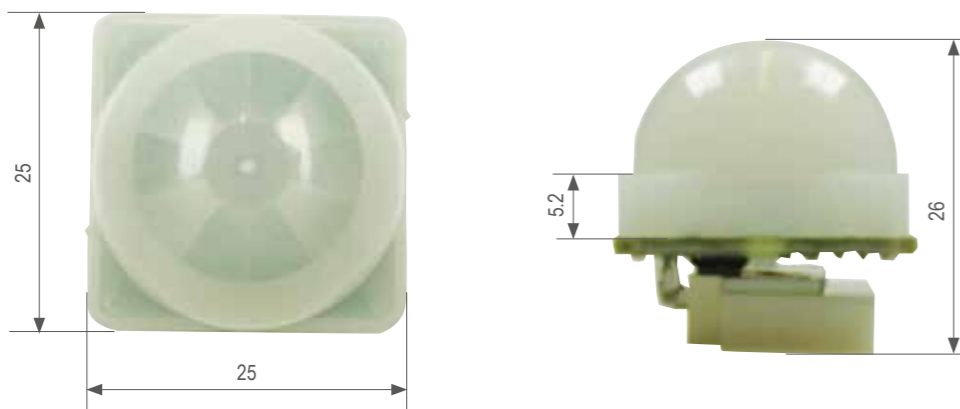
### Performance features:

- Motion detector with high sensitivity
- Very small dimensions
- Horizontal preference characteristics
- Sensitivity adjustable in 4 steps
- Analogue and digital output
- Wide opening angle
- Fail-safe switching concept
- Easy to install
- PIR-STD-LP: Low power consumption, ideal for battery operation

### Areas of application:

- Automatic lighting control
- Alarm and security technology
- Presence detection, person counting
- Contact-free hygienic switches
- Sanitary technology, water fittings
- Building control technology
- OEM applications
- PIR-STD-LP: in battery-operated devices

### Dimensions



## Radar Motion Detector Module

with signal evaluation

### Description



### Technical data

Range	4...15 m
Noise	6...600 Hz
Opening angle	Horizontal $\pm 80^\circ$ , vertical $\pm 32^\circ$
Transmission frequency	24.0...24.25 GHz
Transmission power /EIRP)	16 dBm
Output	Open collector switching output with free-wheeling diode, switches actively against ground
Operating temperature	-20...+60 °C
Ambient humidity	0..90% RH, condensation not permissible
Power supply	8...15 V DC
Operating current	Type 30 mA (max. 40 mA)
Dimensions (LxWxH)	73 x 26 x 16 mm

### Article

### Article number

Radar motion detector module with signal evaluation	RAD-MOD
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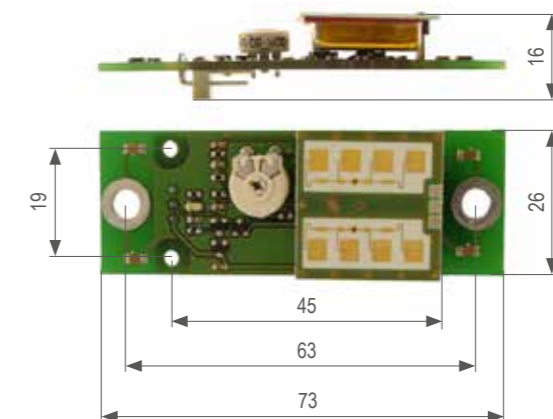
### Performance features:

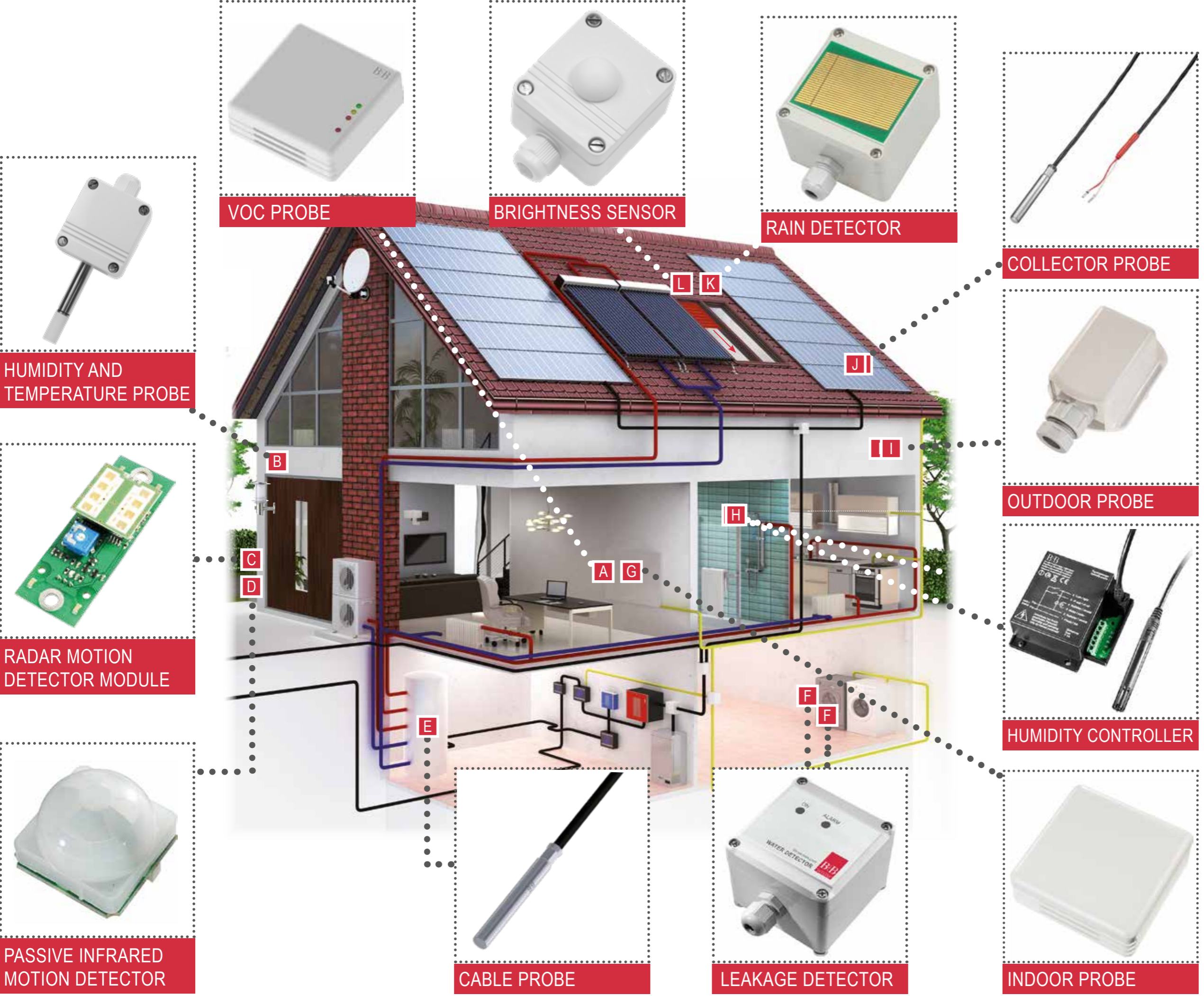
- Innovative radar operating principle
- High sensitivity to the slightest movements
- Hidden, invisible installation possible
- Hidden installation provides protection against vandalism
- Adjustable sensitivity
- Universal open collector output
- LED switch indicator

### Areas of application:

- Lighting control
- 12 V operation, automotive technology, mobile homes
- Hygienic switches for sanitary facilities
- Alarm and security technology
- Presence detector, building control technology
- OEM applications

### Dimensions

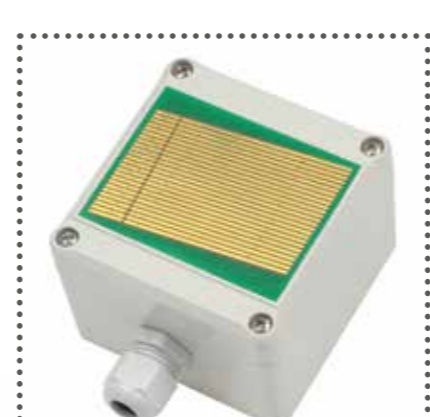




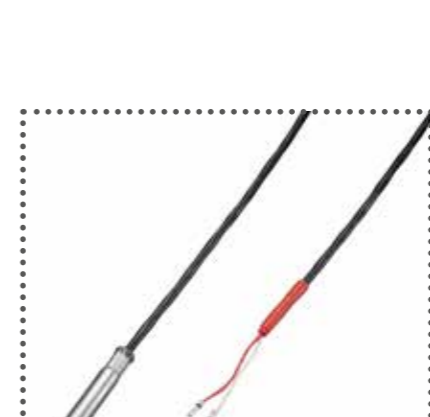
VOC PROBE



BRIGHTNESS SENSOR



RAIN DETECTOR



COLLECTOR PROBE



HUMIDITY AND TEMPERATURE PROBE



RADAR MOTION DETECTOR MODULE



PASSIVE INFRARED MOTION DETECTOR



OUTDOOR PROBE



HUMIDITY CONTROLLER



CABLE PROBE



LEAKAGE DETECTOR



INDOOR PROBE

- A** VOC AIR QUALITY/ HUMIDITY/ TEMPERATURE PROBE
- B** HUMIDITY AND TEMPERATURE PROBE for outdoor use
- C** RADAR MOTION DETECTOR MODULE with signal evaluation
- D** PASSIVE INFRARED MOTION DETECTOR
- E** CABLE PROBE for long-term temperature measurements
- F** LEAKAGE DETECTOR for electrically conductive media
- G** HUMIDITY AND TEMPERATURE PROBE for living areas
- H** HUMIDITY CONTROLLER for sanitary facilities
- I** OUTDOOR PROBE
- J** COLLECTOR PROBE Pt1000/2
- K** RAIN DETECTOR
- L** BRIGHTNESS SENSOR 100.000 Lux

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