

PrimeTec B PrimeScan B

Please keep for further use!

Combined detector AIR/Radar for opening and protecting automatically controlled sliding doors

Translation of the original instructions

General

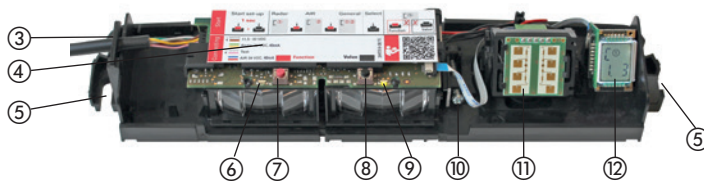
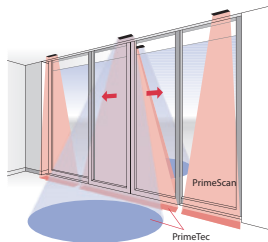
PrimeTec B



PrimeScan B



a) red LED b) green LED

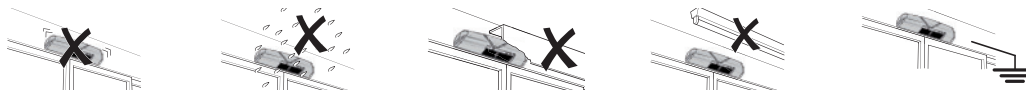


- ① Hood
- ② AIR light window
- ③ Cable bushing
- ④ Short Guide
- ⑤ Mounting holes
- ⑥ LED AIR: red (left)
- ⑦ Button function (red)
- ⑧ Button value (black)
- ⑨ LED radar: green (right)
- ⑩ AIR adjustment screw
- ⑪ Radar module
- ⑫ LCD display

1 Safety instructions



- Consider the national and international regulations on door safety.
- Only trained, qualified personnel may mount and start up the detector.
- The unit may only be opened and repaired by Bircher Reglomat.
- The unit may only be operated from a safety extra-low voltage (SELV) system with safe electrical separation.
- Always consider the safety functions of your application as a whole, never just in relation to one individual section of the system.
- The installer is responsible for carrying out a risk assessment and installing the detector and the door system correctly.
- Avoid touching any electronic components.
- The door drive and transom profile must be grounded correctly.



Start-up

Recommended start-up sequence: ① Mounting ② Connection ③ Initialisation

2 Mounting

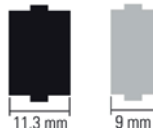
Mounting

1. Remove cover hood
2. Set AIR field width (see chapter 2.1)
3. Lay and connect cable
4. Mount detector

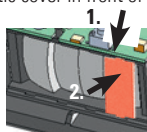
2.1 Setting the AIR field width (PrimeTec / PrimeScan)

The width of the AIR field can be set using the click-in plastic cover in front of the detector's lens.

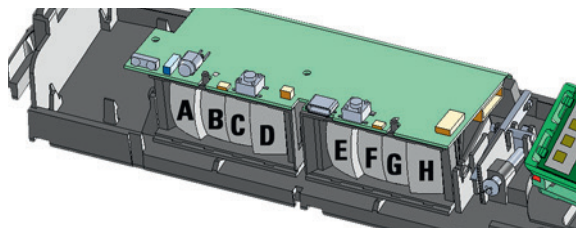
* Detector without cover:
All light beams are active



Field width:
2.3 m x 0.2 m
at 2.2 m



1. Slide
2. Push & click!

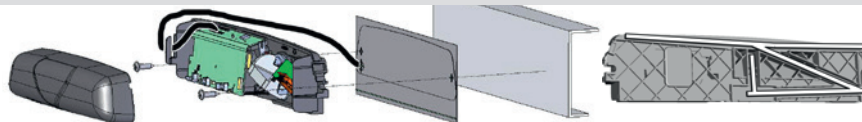


Possible settings (Dimensions at 2.2 m mounting height):

| | A, D covered | A, C, D covered | C, D covered | A, B, D covered | A, B covered |
|--------------------------|--------------|-----------------|--------------|-----------------|--------------|
| Field width: 1 x 0.2 m | | | | | |
| Field width: 0.5 x 0.2 m | | | | | |
| Field width: 1.2 x 0.2 m | | | | | |
| Field width: 0.5 x 0.2 m | | | | | |
| Field width: 1.2 x 0.2 m | | | | | |

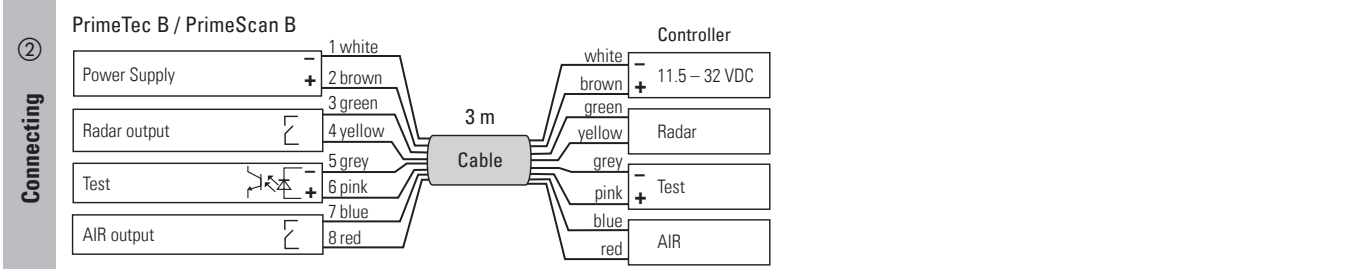
2.2 Mounting the detector

1. Position drill template
2. Drill the holes, remove drill template
3. Lay cable and mount detector



* Factory setting

3 Electrical connections



4 Initialisation

③ Initialisation

Remove all objects that do not form part of the usual door system environment from the door area BEFORE switching on the power supply. Ensure that no people are in the door area, otherwise correct startup will not be possible.

The alternate flashing shows the initialisation (teaching) of the detector. (Duration 20 - 25 seconds). During startup, the firmware version FXXX is displayed.

Following initialisation, the red/green LED only illuminates when a detection has occurred.

The door system is now operational at this point. If any further settings are required, proceed as described in the following sections.

5 Mechanical fine tuning

5.1 AIR field (PrimeTec / PrimeScan)

Settings of the inclination angle on the adjustment screw:

Inclination :
- 5° ... +7° continuously adjustable

5.2 Radar field (PrimeTec)

Manual settings of the inclination angle
0° ... +90° in 5° steps

Manual settings of the pivot angle
- 20° ... +20° in 5° steps

Wide radar field

Inclination angle: 35°

min. = 0.5 m x 0.25 m (WxD)
max. = 4 m x 2 m (WxD)

turn 90°

Narrow radar field






Inclination angle: 35°

min. = 0.16 m x 0.8 m (WxD)
max. = 2 m x 4 m (WxD)





6 Configuration using programming buttons (Operator buttons)





| | Automatic | Config. mode | Choose Radar | Choose AIR | Funct./Parameter | Back to choice | Back to autom. |
|--|---|---|--|-----------------------------|---|--------------------|---|
| | A ①② | [①② | [①② | [①② | [① 1.3 | [①② | A ①② |
| | A: Automatic mode t: Test active ① Radar output on ② AIR output on | Press shortly both buttons simultaneously | Red button: switch between Radar, AIR and general | Black button: choose | Red button: Choose parameter * Black button: Choose value of the parameter | Press both buttons | Press both buttons <i>Switches to automatic mode (A) automatically after 1 min</i> |

* Value is going to be saved by switching to other parameters

| | | OPERATION OF THE BUTTONS ¹ | | DESCRIPTION |
|---------------------------------------|---|---------------------------------------|---------------|--|
| | | Function (red) | Value (black) | |
| Radar functions (Prime Tec) ① | | | LCD | |
| Field size |  | 1 | 1-5 | ① = Smallest radar field, ② ③* = Medium radar field, ④ ⑤ = Largest radar field |
| Direction recognition |  | 2 | 1-2 | ① = both directions ②* = forward |
| Cross Traffic Optimisation CTO |  | 4 | 1-2 | ①* = Off ② = On (recommended only at narrow field) |
| Door filter |  | 6 | 1-2 | ①* = Filter off, ② = Door and interference filter on (EMV flows, e.g. fluorescence tube) |
| Radar output |  | 7 | 1-2 | ①* = active (NO) ② = passive (NC) |

The Slow Motion Detection (SMD) is a factory setting. The SMD recognises slow motions after the detector has been activated.

| | | OPERATION OF THE BUTTONS ¹ | | DESCRIPTION |
|---|---|---------------------------------------|---------------|--|
| | | Function (red) | Value (black) | |
| AIR functions (PrimeTec / PrimeScan) ② | | | LCD | |
| Set sensitivity |  | 1 | 1-5 | ① = high sensitivity (acc. to EN16005 ≤ 3m, only indoors) ② = medium sensitivity (acc. to EN16005 ≤ 3m) ④ = low sensitivity (acc. to EN16005 ≤ 2.3m) ③* = normal sensitivity (acc. to EN16005 ≤ 2.6m) ⑤ = very low sensitivity |
| Set teach-in time |  | 2 | 1-5 | ① = 10 s ②* = 30 s ③ = 60 s ④ = 180 s ⑤ = 15 min |
| AIR output contact logic |  | 3 | 1-4 | ① I = active (NO) no detection contact open ②* I = passive (NC) no detection contact closed Series connection Settings Master ① → Slave ③ Master ② → Slave ④ Wiring: See series connection diagram: reglomat.bircher.com/en/products-technologies/primefamily-b |
| AIR output |  | 4 | 1-2 | ①* = On ② = Off (AIR is going to be reactivated automatically after 15 minutes) |

| | | OPERATION OF THE BUTTONS ¹ | | DESCRIPTION |
|---|---|---------------------------------------|--|---|
| | | Function (red) | Value (black) | |
| General functions (PrimeTec / PrimeScan) ① ② | | | LCD | |
| Reset |  | | | Initialisation and teaching of the background |
| Presetting (After presetting and leaving config. a reset will be done automatically) |  | 1 | 1-8 Press value for 1 second to change the presetting | ① = Standard, ② = footpath, ③ = home for the aged, ④ = wind screen, ⑤ = high door, ⑥ = narrow door, ⑦ = wide door, ⑧ = factory settings For all values set, parameter 0 is displayed |
| Combined outputs activated / not activated |  | 2 | 1-2 | ① = activated (radar and AIR actuate the radar output) ②* = not activated |
| AIR-frequency (In the case of overlapping AIR fields consider the addressing order: → odd nr. 1 → even nr. 2 → odd nr. 3) |  | 3 | 1-6 | ①* = Frequency 1, ② = Frequency 2, ③ = Frequency 3, ④ = Frequency 4, ⑤ = Frequency 5, ⑥ = Frequency 6 |

¹ Press both buttons shortly for configuration mode



*Factory setting

7 Remediating malfunctions

7.1 Remediating false tripping

| red LED | green LED | Fault | Remedy |
|------------------|------------------|--|---|
| not illuminated | continuously lit | Radar tripping when door is closing | 1. Set angle of radar further away from the door. 2. Adjust radar field size. |
| | | Radar false tripping without apparent external influence | 1. Avoid light sources (e.g. fluorescent tubes) in the immediate vicinity of the detector. 2. No moving objects (plants, advertising posters, etc.) in the vicinity of the detector. 3. Avoid strong vibration at the radar detector 4. Possible influence from a second radar detector in the vicinity (very unlikely) |
| continuously lit | not illuminated | AIR tripping when door is closing | 1. Set angle of AIR detector further away from the door |
| | | AIR false tripping without apparent external influence | 1. Avoid light sources (e.g. fluorescent tubes) in the immediate vicinity of the detector. 2. Avoid puddles of water on the ground. 3. Avoid strong vibration at the AIR detector. 4. Influence of overlapping AIR field from another detector. Set new Reglobeam address or CAN bus address. 5. Reduce sensitivity of the AIR (increase value). |
| not illuminated | not illuminated | Door stays open | 1. Switch AIR exit contact logic to other value |

7.2 Remediating detector malfunctions

| red LED | green LED | Fault | Remedy |
|----------|-----------------|---|--|
| flashing | flashing |  1: Self test (RAM/ROM) 2: Watchdog | 1. Disconnect device from supply voltage 2. Restart device 3. If device displays fault again or does not start → renew device |
| flashing | not illuminated |  5: AIR fault 6: AIR output fault | 1. Disconnect device from supply voltage 2. Clean optics-cover and check for scratches 3. Restart device 4. If device displays fault again or does not start → renew device |

8 Technical data

| | |
|------------------------------|---|
| Technology | Active infrared (wavelength: 880nm), radar double field module → PrimeTec (24.125 GHz) |
| Number of IR spots | 24 |
| IR spot dimensions | 3 cm x 3 cm (at 2.2 m mounting height) |
| Response time | < 200 ms |
| Mounting height | 1.8 - 4 m |
| Angle setting of IR spots | - 5° ... + 7° continuously adjustable |
| Power Supply | ≤ 120 mA @ 11.5 ... 32 VDC |
| Power consumption | < 4 Watt |
| Making current | ≤ 240 mA |
| Output (AIR / Radar) | Semiconductor relay: max. contact voltage 24 VAC / 34 VDC, max. contact resistance: 10 Ω max. load current 40 mA, max switching capacity: 500 mW (AC) / 500 mW (DC) |
| Protection type | Suitable for use acc. to IP54 |
| Operating temperature | -20° ... 60° C |
| Dimensionsn | PrimeTec: 260 x 60 x 48.5mm (LxWxD), PrimeScan: 216 x 60 x 47.5mm (LxWxD) |
| Weight | PrimeTec: 250g, PrimeScan: 180g |
| Estimated economic life-time | 20 years |

9 Declaration of conformity, identification of the year of manufacture by means of the serial number

9.1 Declaration of conformity

| | |
|---|--|
| Manufacturer: | Bircher Reglomat AG, Wiesengasse 20, CH-8222 Beringen |
| Authorised rep: | Bircher Reglomat GmbH, Robert Bosch Strasse 3, D-71088 Holzgerlingen |
| Following directives have been observed: | Manchinery directive 2006/42/EC, RoHS-Directive 2011/65/EU, R&TTE-Directive 1999/5/EC until 12.06.2016, RED 2014/53/EU starting 13.06.2016, EMC-Directive 2004/108/EC until 19.04.2016, EMC-Directive 2014/30/EU starting 20.04.2016 |
| Following standards have been taken into account: | EN16005:2012, BS7036-1:1996, BS7036-2:1996, EN ISO 13849-1:2008, EN12978:2003+A1:2009 |
| EC type-examination certificate: | 44/205/12/403013-003 |
| Notified inspection centre: | TÜV NORD CERT, NB 0044 |
| Signee: | Head of Sales & Marketing Damian Grand / Head of Operations Daniel Nef |
| Product variant: | PrimeTec B ES, PrimeTec B ES/01, PrimeTec B ES/02, PrimeScan B |

9.2 Identification of the year of manufacture



Week _____

Year of manufacture _____

10 Contact

Manufacturer

Bircher Reglomat AG
Wiesengasse 20
CH-8222 Beringen
www.bircher-reglomat.com