BBC BIRCHER
Smart Access

ENGLISH

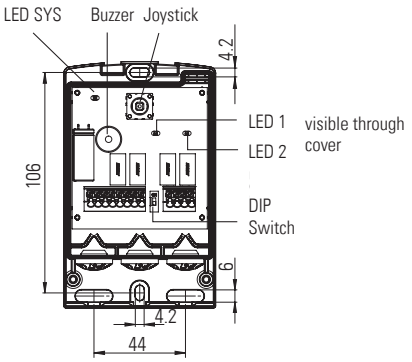
XRF-R.2

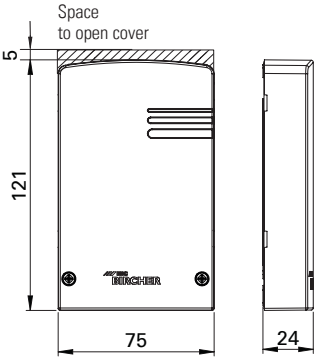
Dual channel receiver to XRF wireless transmission system

Original operating instructions

Intended use: Monitoring safety edges and switches on industrial doors and gates

Receiver (Rx)





1 Safety instructions

- Read these operating instructions thoroughly before putting the device into operation and keep them for future reference.
- Do not use this product other than for its specified application.
- Only trained and qualified personnel may install and initialize the device.
- Only authorized factory personnel may perform hardware/software changes or repairs to the product.
- Failure to follow these safety precautions may cause damage to sensor or objects, serious personal injury, or death.
- It is the responsibility of the equipment manufacturer to carry out a risk assessment and to install the system in compliance with applicable local, national and international regulations, safety standards, codes and laws as well as the Machinery Directive 2006/42/EC, should this apply.
- Always consider the safety functions of your applications as a whole, never just in relation to one individual section of the system.
- The installer is responsible for testing the system to ensure it meets all applicable safety standards.
- Safety devices that are classified as Category 2 according to EN ISO 13849-1 must be tested regularly – at least once per cycle.
- If the safety device is not requested operationally at least once a year, it must be checked manually by the operator at least once a year.
- During the operation of electrical components
  – e. g. in the case of a short circuit, hot and ionised gases can be emitted; protection covers must not be removed!
- The sensor should only be operated from a safety extra low voltage (SELV) system with safe electrical separation according to EN 61558. The wiring must be protected against mechanical damage.
- Check the voltage data on the label of the switching device.
- Pay attention to all local relevant electrical safety regulations.
- Ensure that the device/installations cannot be switched on.
- Ensure that the power supply is disconnected.
- Protect the device with a housing against contamination or harsh environments.
- Disconnect device from mains in the event of a fault.
- After accessing the inside of the device, ensure the cover/protection seal is closed tightly to achieve the designated protection rating.

2 Common application

Transmitter Tx1 (input 1) corresponds to receiver **output 1**
Transmitter Tx2 (input 1) corresponds to receiver **output 2**

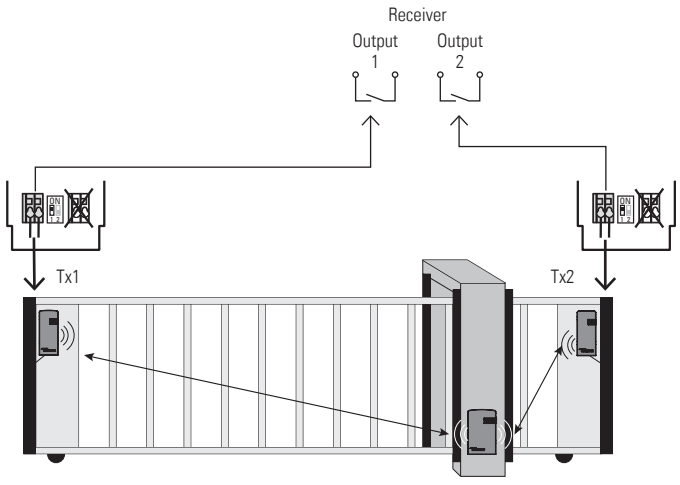


Figure **1.a**

Transmitter Tx1 (input 1) corresponds to receiver **output 1**
Transmitter Tx2 input 1 corresponds to receiver **output 1**
Transmitter Tx2 input 2 corresponds to receiver **output 2**

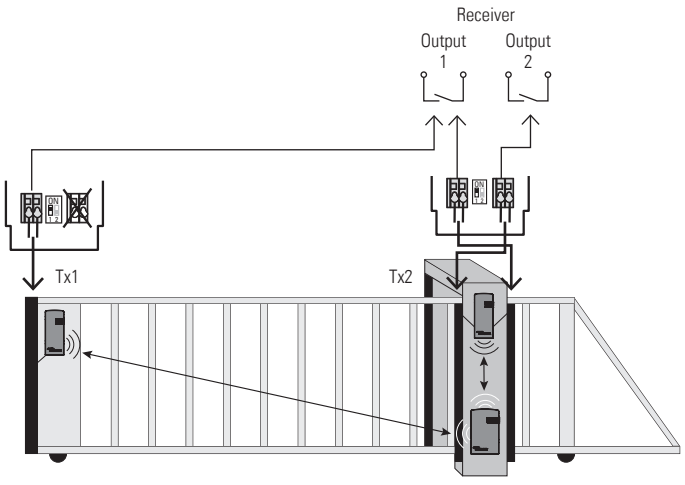


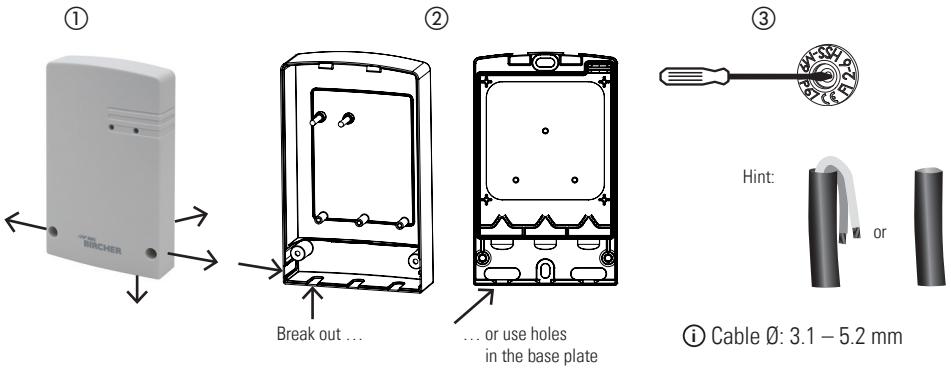
Figure **1.b**

3 Installation

According to the application, e.g. figure 1.a or 1.b

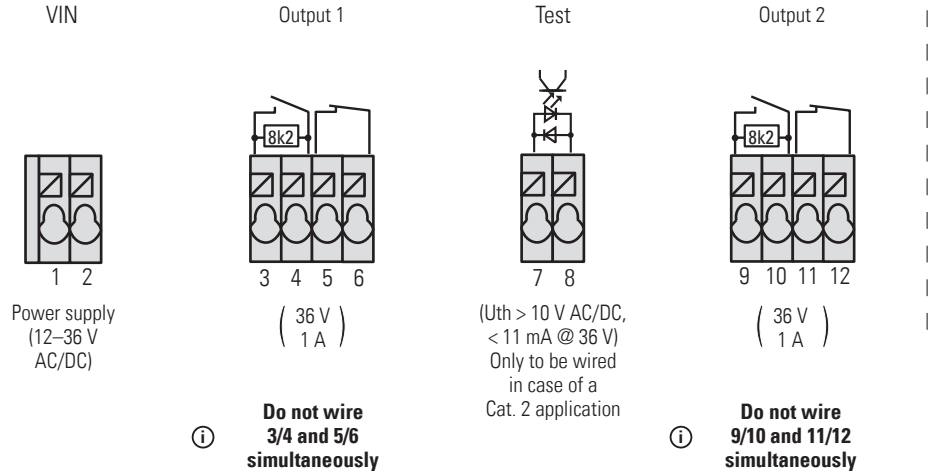
3.1 Cable routing, strain relief

① Determine the cable routing
② Break out the respective part of the cover if necessary
③ Punch hole into the grommet
④ Insert cable



4 Wiring

ⓘ Wire cross section 0.25 – 0.75 mm²



DIP switch test input	
ON 1	Low-active
ON 1	* High-active

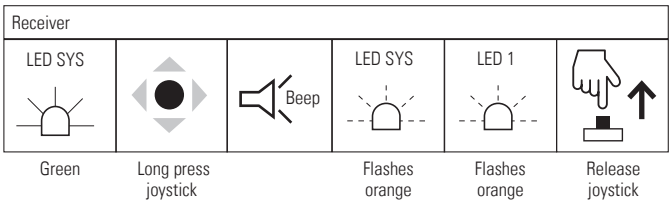
* = factory setting

Note: When using the NC outputs (5/6, 11/12) in Cat. 3 set-up, the wiring with the control must be permanently installed and protected against external damage according to EN ISO 13849-2 Tab.D.4 or else Cat. 2 applies and a test signal is needed.

5 Configuration

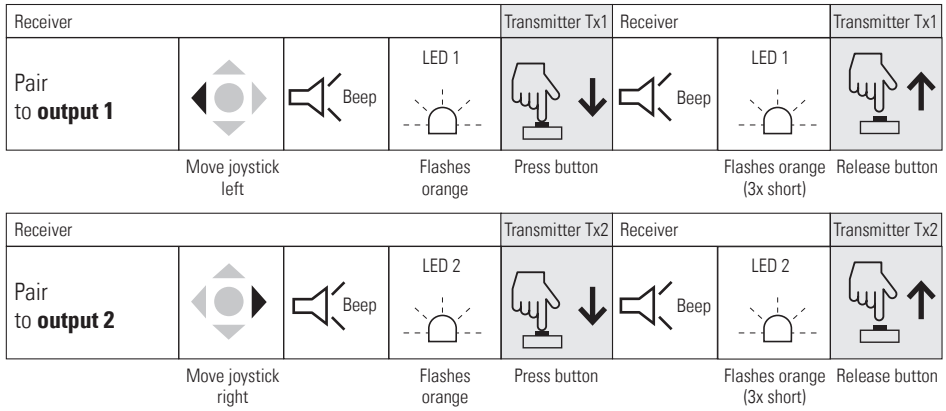
5.1 Pairing transmitter with receiver

(see also manual of transmitter)



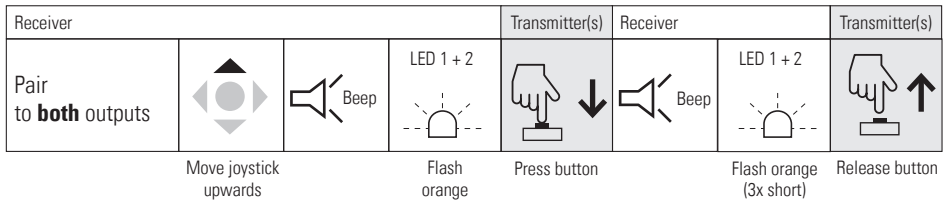
5.1.a Using the first inputs of different transmitters

See figure **1.a**

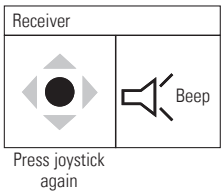


5.1.b Using both inputs of the transmitter (only available with XRF-T.2)

See figure **1.b**

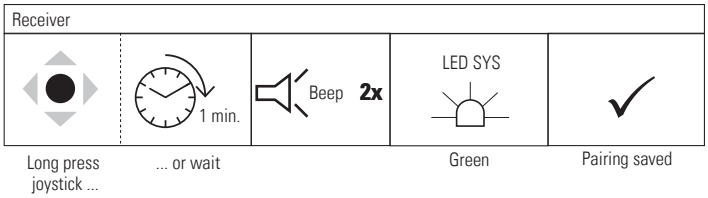


5.2 Bircher signal indicator (BSI) Details see supplementary sheet

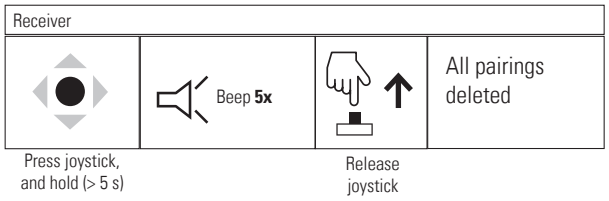


Buzzer + LED flashing green level of Bircher signal indicator

5.3 Leave configuration mode (always possible)

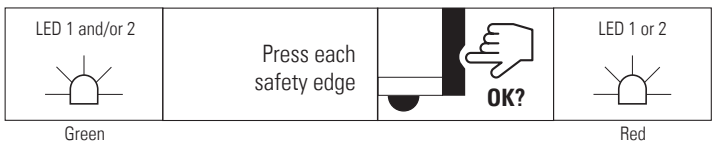


5.4 Clear pairings



Leave configuration mode: see 5.3

6 System test, mandatory after each set-up!



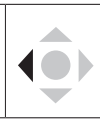
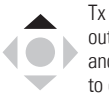
Does the door/gate stop when the sensing element is activated?

7 Receiver

7.1 Status outputs, LED

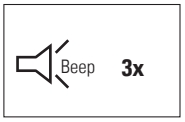
	LED SYS	**LED 1**	**Output 1** 3–4	**Output 1** 5–6	**LED 2**	**Output 2** 9–10	**Output 2** 11–12	**Buzzer**
No power supply	–	–	closed	open	–	closed	open	
Power up	red	red	closed	open	red	closed	open	ends with 4x beep
No sensor paired	green	red	closed	open	red	closed	open	
System ready, no sensor pressed	green	green	8k2	closed	green	8k2	closed	
Sensor 1 pressed (main closing edge)	orange	red	closed	open	green	8k2	closed	
Sensor 2 pressed (secondary closing edge)	orange	green	8k2	closed	red	closed	open	
Wicket door open (XRF-TW to output 2)	orange	green	8k2	closed	red	closed	open	
Configuration (Pairing)	orange flashing	orange flashing	closed	open	orange flashing	closed	open	upon action
Configuration, memory full			closed	open		closed	open	10x
Low battery	green flashing	green	8k2	closed	green	8k2	closed	3x every min.
Test input active	green	red	closed	open	red	closed	open	
Error a) Tx lost	1x red flashing	red	closed	open	red	closed	open	
Error b) Broken cable between edge and input, resistor out of range	2x red flashing							
Error c) Empty battery	3x red flashing							
Error d) System error	30 s red flashing							

7.2 Joystick

Pairing					
 Start Long press	 Tx input 1 to output 1	 Tx input 1 to output 2	 Tx input 1 to output 1 and Tx input 2 to output 2	 clear (> 5 sec.)	

8 Trouble shooting

8.1 Warning indicator for low battery voltage



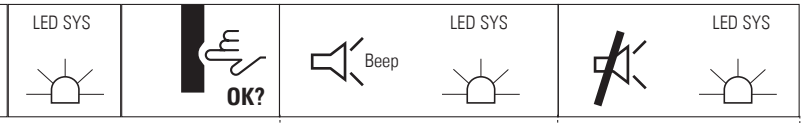
Every minute

To find out which transmitter has low battery voltage: Press each edge.

Battery good | Battery bad

8.2 Errors (Tx lost, broken cable, empty battery)

To find out which transmitter causes error indication:



Green | Orange | Stays green

Transmitter good | Transmitter with error

9 Technical data

Receiver	
Supply voltage	12–36 V DC; 12–36 V AC, 48–62 Hz
Power consumption	max. 0.8 W
Safety outputs (2 x 2 relays)	max. 36 V AC/DC; 1 A
Test input	max. 36 V DC; 36 V AC, 48–62 Hz max.11 mA Uth > 10 V AC/DC
Number of supported sensors	max. 14

System	
Operating frequency	868.3 MHz
Reaction time	Typ. 15 ms
Range	100 m (at optimal condition)
According to EN ISO 13849-1	PLd for Cat. 3 applications + test input for Cat. 2 applications
Protection class IEC 60529	IP65
Operating temperature	–20 °C to +60 °C

10 EU Declaration of Conformity

CE See attachment

11 WEEE

Devices with this symbol must be treated separately during disposal. This must be done in accordance with the laws of the respective countries for environmentally sound disposal, processing and recycling of electrical and electronic equipment.

12 Contact

BBC Bircher Smart Access, BBC Bircher AG, Wiesengasse 20, CH-8222 Beringen, www.bircher.com

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