RFGate 2

Wireless signal transmission system for industrial doors with safety edges and wicket doors

Simple, safe, low-maintenance

- **Fast and easy installation and short start-up time**

- **Varied applications**

- **High safety standard through PLc, cat. 2 in accordance with EN ISO 13849-1**

- **Long service life and low operating costs thanks to the wear-free signal transmission**

www.bircher.com

RFGate 2

Wireless signal transmission system for safety edges on rolling, sectional and folding doors, sliding gates and telescopic gates

Safety in an instant
RFGate 2 systems securely transmit wirelessly the status of pressure-sensitive safety edges mounted on the mobile part of the gate to the switching device. Install, configure, switch on, quick program and it's ready to go.

One and two-channel
Depending on application and needs, select the one-channel (RFGate 2.1) or one of the two-channel variants (RFGate 2.2).

Also with wicket door switch
In addition, we also provide a complete solution for the parallel evaluation of wicket doors and safety edges with our compact wicket door transmitter RFGate 2.1.W2.S.

Your benefits

- Up to seven transmitters can be evaluated in parallel per channel
- Long battery life (> 2 years)
- Compatible with safety edges with 8.2 kOhm (factory setting) or sensors with NC or NO switch
- Option of automatic frequency changeover in environments with high interferences
- RFGate 2.2: two outputs to distinguish between OPEN and CLOSED direction or between safety edge and wicket door
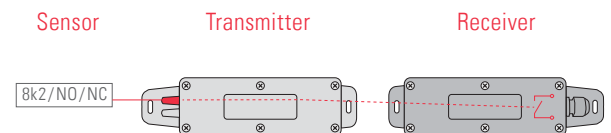- A slim version of the transmitter is now available, perfect for tight spaces (RFGate 2.2.S.F)

Robust housing
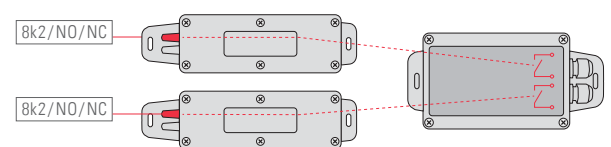The robust housing of the RFGate 2.2.R.A receiver satisfies IP65.
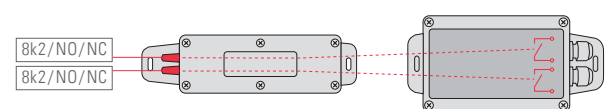

System overview

Sensor · Transmitter · Receiver

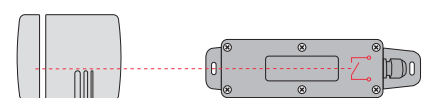**RFGate 2.1** (one-channel)
1 transmitter
1 receiver

8k2/NO/NC

RFGate 2.2 (two-channel)
2 transmitter
1 receiver

8k2/NO/NC
8k2/NO/NC

RFGate 2.2.NG (two-channel)
1 transmitter
1 receiver

8k2/NO/NC
8k2/NO/NC

RFGate 2.1.W2 (one-channel)
1 transmitter with wicket door switch
1 receiver

RFGate 2.2.W2.F.A (two-channel)
1 transmitter
1 transmitter with wicket door switch
1 receiver

8k2/NO/NC
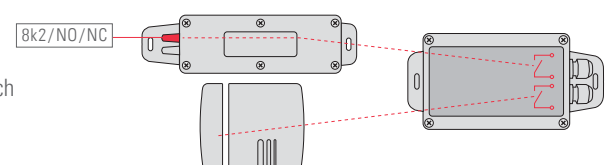
Note: Up to seven transmitters (RFGate 2.1: up to ten transmitters) per channel can communicate with one receiver.

Approvals

Combined with Bircher safety edges such as CoverLine, ClickLine, etc., the RFGate 2 signal transmission systems are type tested.
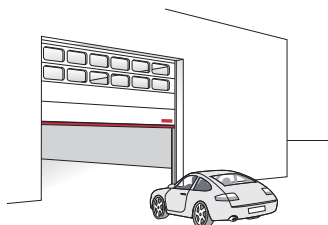

Safe in every application

Situation
Rolling door, sectional door

Solution
- RFGate 2.1.F

Advantage
- Wear-free signal transmission even with high use gates or doors
- Slim transmitter can be easily mounted into the door construction

Situation
Sectional door with wicket door and safety edge

Solution
- RFGate 2.2.W2.F.A / RFGate 2.2.NG

Advantage
- Receiver with two channels for parallel signal evaluation of safety edge and wicket door switch
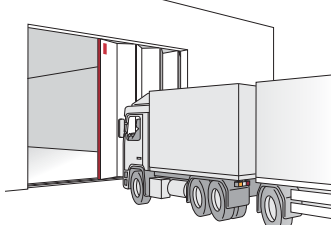- Slim transmitter can be easily mounted into the door construction

Situation
Folding door

Solution
- RFGate 2.1 / RFGate 2.2.A

Advantage
- Wear-free signal transmission for all safety edges
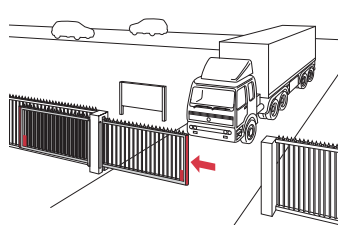
Situation
Sliding gate at site entrance, telescopic gate

Solution
- RFGate 2.2.A

Advantage
- Wear-free signal transmission for all safety edges, even with large gates
- Distinction between OPEN and CLOSED direction

Order details

Article no.	Description
Sets RFGate 2.1 (one-channel)	
299769	**RFGate 2.1.F** 1 transmitter RFGate 2.2.S.F and 1 receiver RFGate 2.1.R
250948	**RFGate 2.1** 1 transmitter RFGate 2.2.S and 1 receiver RFGate 2.1.R
365398	**RFGate 2.1.W2** 1 transmitter for wicket door RFGate 2.1.W2.S 1 receiver RFGate 2.1.R
Sets RFGate 2.2.A (two-channel)	
306921	**RFGate 2.2.F.A** 2 transmitter RFGate 2.2.S.F and 1 receiver RFGate 2.2.R.A
306920	**RFGate 2.2.A** 2 transmitter RFGate 2.2.S and 1 receiver RFGate 2.2.R.A
336806	**RFGate 2.2.NG.F** 1 transmitter RFGate 2.2.S.F and 1 receiver RFGate 2.2.R.A
336804	**RFGate 2.2.NG** 1 transmitter RFGate 2.2.S and 1 receiver RFGate 2.2.R.A
365399	**RFGate 2.2.W2.F.A** 1 transmitter RFGate 2.2.S.F, 1 transmitter for wicket door RFGate 2.1.W2.S, 1 receiver RFGate 2.2.R.A
Components	
340871	**RFGate 2.2.S.F** Transmitter (slim)
340870	**RFGate 2.2.S** Transmitter
361143	**RFGate 2.1.W2.S** Transmitter with integrated wicket door switch
250951	**RFGate 2.1.R** Receiver (one-channel)
306923	**RFGate 2.2.R.A** Receiver (two-channel)

Supplementary products

ClickLine
Electrical safety edge,
rubber profiles with click-foot

CoverLine
Electrical safety edge,
rubber profiles for sidewise clicking

EsGate 2/3
Cat. 2/3 switching devices for
sensors such as electrical safety edges

AirMission 1.T
Transmitter with integrated pressure wave switch

Note
Technical details and recommendations concerning our products are based on experience and are an aid for the orientation of the user. Details stated in our brochures and data sheets do not guarantee special properties of the products. This does not apply to special product properties confirmed by us in writing or individually.
Subject to technical alterations.

Technical data

Device dimensions (W x H x D)

RFGate 2.2.S.F (Transmitter slim)	190 × 51 × 23 mm
RFGate 2.2.S (Transmitter)	190 × 51 × 36 mm
RFGate 2.1.W2.S (Transmitter)	66 × 58 × 16 mm
RFGate 2.1.W2.S (Magnet)	66 × 17 × 16 mm
RFGate 2.1.R (Receiver)	190 × 51 × 36 mm
RFGate 2.2.R.A (Receiver)	178 × 80 × 45 mm

Electrical data

Transmitter	**RFGate 2.2.S.F / RFGate 2.2.S**	
Supply voltage	2 lithium batteries 3 V (CR2032)	
Battery life	Typ. 2 years	
Current consumption	Transmitting: 17 mA in "sleep mode": 16 µA	
Resistance values of the safety edges	8.2 kOhm or NC/NO switch	
Frequency bands	868.95 MHz / 869.85 MHz	
Wicket door switch	**RFGate 2.1.W2.S**	
Supply voltage	2 lithium batteries 3 V (CR2032)	
Battery life	Typ. 2 years	
Receiver, switching device	**RFGate 2.1.R**	**RFGate 2.2.R.A**
Supply voltage	12–24 VAC/DC −10% /+20%	
Power consumption	0.5 W at 12 V / 1.2 W at 24 V	
Transmitter memory	10	7 per channel
Outputs	1	2
Relay	24 VDC, 1 A, NO, with 8k2 parallel resistor as option	
Displays: LED red (safety edges not actuated)	1	2
Test input for RFGate 2.1.R	Non-electrically isolated NC or NO (adjustable with DIP switch)	
Test input for RFGate 2.2.R.A	Electrically isolated NC or NO (adjustable with DIP switch)	

Ambient conditions

Protection category	IP55
Protection category **(RFGate 2.1.W2.S)**	IP65
Operating temperature	−20°C to +55°C
Storage temperature	−40°C to +80°C
Air humidity	< 95%, non-condensing

General data

Range	100 m under optimum conditions
Communication	Bidirectional
Radiated power	< 5 dbm / 3 mW
In environments with high interferences	Option of automatic frequency changeover (DIP switch)
Low battery indication	Acoustic and optical (LED)
Approvals	EN 300 220, EN 301 489 EN ISO 13849-1

Note
Additional technical data can be found on our data sheets.

BBC Bircher Smart Access
Wiesengasse 20
8222 Beringen
Switzerland
Phone +41 52 687 11 11
info@bircher.com
www.bircher.com