



ExpertSystem XRF

Wireless signal transmission system for applications with high performance and design requirements



Quick, stable, safe

- Quick setup time – simply press the pressure-sensitive edge twice
- High interference immunity and long battery life of up to 7 years
- Safety level cat. 2, PLC or cat. 3, PLd available

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Next level of safety

Ever faster gates paired with a high need for security are placing exacting requirements on the safety equipment for gates and also on the signal transmission of tactile sensors. To achieve the highest possible level of safety automatically and at all times, BBC Bircher Smart Access combines safety category 2 (with test signal from controller) and safety category 3 (no test signal) in one device.

If your controller features integrated testing, the test signal is applied by ExpertSystem and the system is monitored in accordance with safety category 2, PLc. If the controller does not have a test signal or if the test input is not connected, XRF monitors the safety system itself in accordance with safety category 3, PLd, providing the highest possible safety in every situation.



Benefits

Quick

The wireless signal transmission system can be set up in a matter of seconds by pressing the pressure-sensitive edge twice. ExpertSystem XRF also enables signals to be transmitted quickly between transmitter and receiver.

Stable

All devices comply with protection class IP65 (except XRF-RD = IP20). Furthermore, individual components are installed in the pressure-sensitive edge or in the switch cabinet in order to provide protection from the weather. With a battery life of up to 7 years and high interference immunity (EMC), reliable wireless signal transmission is ensured at all times.

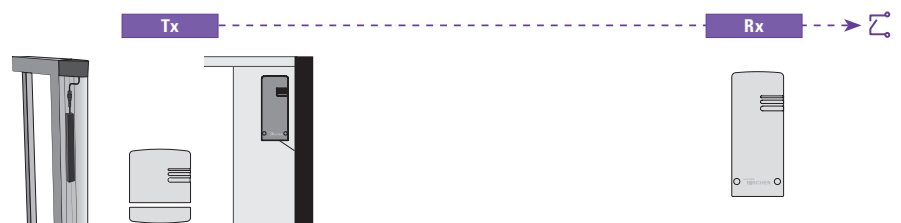
Safe

As a hybrid system, ExpertSystem XRF allows you to choose between safety level cat. 2, PLc and cat. 3, PLd. Compatibility with all standard controllers is guaranteed, and seamless integration into ExpertSystem XL results in an attractive appearance for the overall system.

System overview

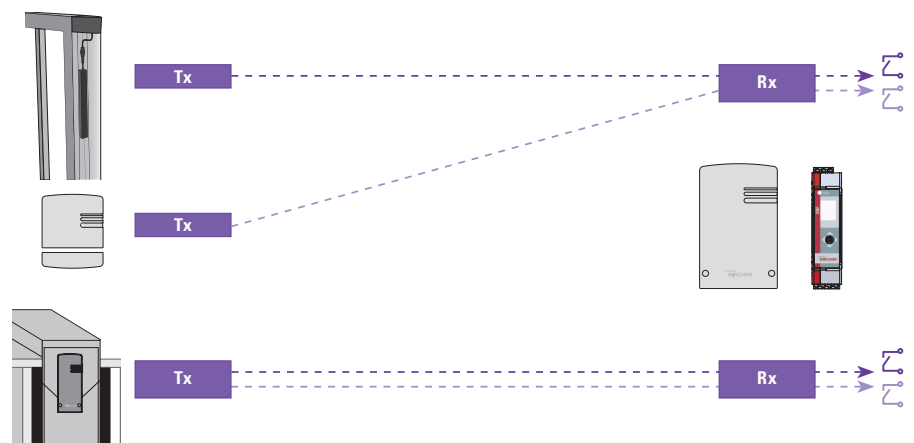
ExpertSystem XRF – one-channel

One-channel system: Receiver (Rx) with one output

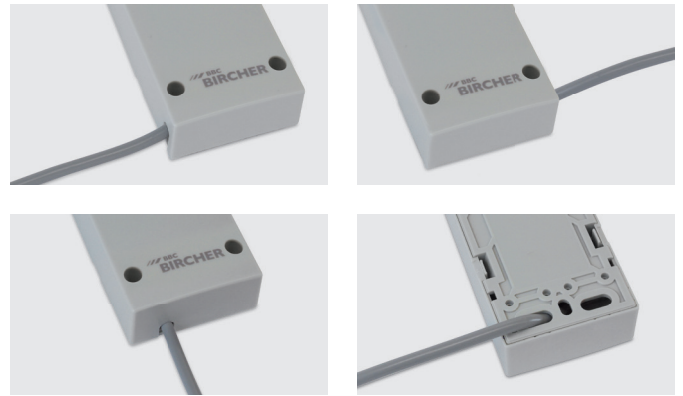


ExpertSystem XRF – two-channel

Two-channel system: Receiver (Rx) with two outputs



Cabling



Applications

Situation

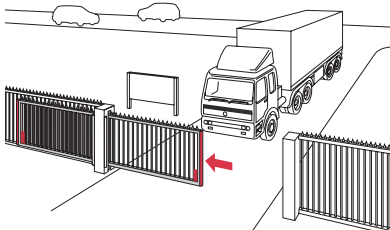
Sliding gate at site entrance, telescopic gate

Solution

XRF-RD, 2 x XRF-TI (Set XRF-D.II.2)

Benefits

- Wireless signal transmission for all pressure-sensitive edges
- Optional safety level: hybrid between cat. 2, PLc or cat. 3, PLd with a range of up to 100 m
- Up to 14 pressure-sensitive edges monitored by one receiver
- Stationary pressure-sensitive edges wired directly with receiver
- Battery life up to 7 years



Situation

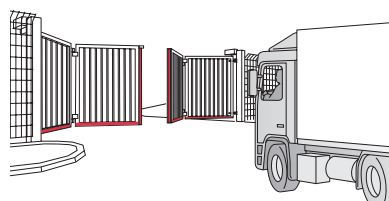
Swing gate at site entrance, fast folding door

Solution

XRF-R.2, 2 x XRF-TI (Set XRF-II.2)

Benefits

- Wear-free signal transmission for all pressure-sensitive edges
- Quick and simple pairing by pressing the pressure-sensitive edges twice
- Slim XRF-TI transmitters, harmonious appearance as they are integrated and concealed in the safety edge
- Distinction between OPEN and CLOSED direction thanks to two transmitters and two-channel receiver



Situation

Sectional or folding door

Solution

XRF-R.2, XRF-T.2, XRF-TW (Set XRF-TW.2)

Benefits

- Wear-free signal transmission for all pressure-sensitive edges
- Receiver with two channels for parallel monitoring of pressure-sensitive edge and wicket door
- Quick reaction time for entire sensor system with a battery life of up to 1.2 years



Technical data

Device dimensions (W × L × D)

XRF-T.2 (transmitter)	50 × 121 × 23 mm
XRF-TI (transmitter)	18 × 194 × 18 mm
XRF-R.1 (receiver)	50 × 121 × 23 mm
XRF-R.2 (receiver)	75 × 121 × 24 mm
XRF-RD (receiver)	22.5 × 94 × 91 mm
XRF-TW (transmitter)	66 × 58 × 16 mm
XRF-TW (magnet)	66 × 17 × 16 mm

Electrical data

Frequency	868 MHz
Transmitter	XRF-T.2, XRF-TW
Operating voltage	Lithium battery 3 V (CR2450N)
Battery life	Typ. 1.2 years
Transmitter	XRF-TI
Operating voltage	Inorganic lithium battery 3.6 V
Battery life	Typ. 7 years
Receiver	XRF-R.1, XRF-R.2, XRF-RD
Operating voltage	12–36 V AC / 48–62 Hz 12–36 V DC
Power consumption	Max. 1 W
Outputs (redundant) as option	Relay 24 V ACDC, 1 A with 8.2 kOhm parallel resistor

General data

Range	100 m under optimum conditions
Protection class	IP65 (except XRF-RD = IP20)
Approvals	EN ISO 13849-1 (PLd, cat. 3) EN 300 220, EN 301 489

The ExpertSystem XRF signal transmission systems have been type-tested in combination with Bircher pressure-sensitive edges.

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.

Ordering information

Article no.	Components ExpertSystem XRF	Article no.	Sets ExpertSystem XRF
407666	XRF-T.2 Transmitter	410975	Set XRF-1
407680	XRF-T.2 bk Transmitter, anthracite	433315	Set XRF-1 bk bk (Receiver / Transmitter anthracite) 1 Receiver XRF-R.1, 1 Transmitter XRF-T.2
407683	XRF-TI Transmitter, built-in version	410976	Set XRF-2
407688	XRF-R.1 Receiver, one-channel	423558	Set XRF-2 bk (Transmitters anthracite) 1 Receiver XRF-R.2, 2 Transmitters XRF-T.2
430311	XRF-R.1 bk Receiver, one-channel, anthracite	423567	Set XRF-2.1
407692	XRF-R.2 Receiver, two-channel	423570	Set XRF-2.1 bk (Transmitter anthracite) 1 Receiver XRF-R.2, 1 Transmitter XRF-T.2
407684	XRF-RD Receiver, two-channel, DIN housing	410978	Set XRF-I
410957	XRF-RD.A Receiver, two-channel, DIN-housing, with antenna connector	433316	Set XRF-I bk (Receiver anthracite) 1 Receiver XRF-R.1, 1 Transmitter, built-in version XRF-TI
407690	XRF-TW Transmitter with integrated wicket door switch	422991	Set XRF-II.2 1 Receiver XRF-R.2, 2 Transmitters, built-in version XRF-TI
423984	Antenna Set (antenna, cable 2 m, ball joint, screws)	424043	Set XRF-TW.1 1 Receiver XRF-R.1, 1 Transm. with integr. wicket door switch XRF-TW
420078	Spare battery 3.6 V for integrated transmitter XRF-TI	410979	Set XRF-TW.2 1 Receiver XRF-R.2, 1 Transmitter XRF-T.2, 1 Transmitter with integrated wicket door switch XRF-TW
401930	Replacement battery Lithium 3 V CR2450N (Renata) for XRF-T.2 and XRF-TW transmitters	423579	Set XRF-IW.2 1 Receiver XRF-R.2, 1 Transmitter, built-in version XRF-TI, 1 Transmitter with integrated wicket door switch XRF-TW
411871	XL-CCT11 connection cable , one connecting plug (f), one open cable end, length 1 m	410977	Set XRF-D.2
421222	ENEH-K05XRF connection cable XRF-TI to ClickLine/CoverLine/StandardLine	423895	Set XRF-D.2 bk (Transmitters anthracite) 1 Receiver XRF-RD, 2 Transmitters XRF-T.2
		433318	Set XRF-D.2.A
		433317	Set XRF-D.2.A bk (Transmitters anthracite) 1 Receiver XRF-RD.A, 2 Transmitters XRF-T.2, 1 Antenna
		423897	Set XRF-D.II.2 1 Receiver XRF-RD, 2 Transmitters, built-in version XRF-TI
		433319	Set XRF-D.II.2.A 1 Receiver XRF-RD.A, 2 Transmitters, built-in version XRF-TI, 1 Antenna

BBC Bircher Smart Access

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