



**security devices**  
systems for safety edges

Applicable to doors  
roller · folding · sliding · swing  
sectional · guillotine · fast · posts

# RADIOBAND2G

radio-communications system  
for safety edges



**jcmtechnologies**  
be a step ahead with technology and imagination

Multifrequency communication system  
by radio for security safety edge  
(resistive and optical) that offers an  
868 MHz bidirectional link with  
autotest between the transmitter part  
and the receiver.

**RADIOBANDUMS · RADIOBANDCSM**  
**RADIOBANDOC · RADIOBANDOS**  
**RADIOBANDOCS · RADIOBANDB**  
**RADIOBANDBC**



## Versatility

- Multi-technology system capable of working with 8k2 resistive safety edges, with electro-mechanical edges and with those using low-consumption optical technologies.
- Multi-frequency system for improved communications between the system devices and to avoid interference, the system includes 4 user-selectable communication channels and 1 back-up channel. The latter is enabled automatically when interference is detected in the selected 868 frequency
- The RadioBand system allows for up to 6 transmitters to be stored in one receiver: 3 per relay, with the possibility of simultaneous activation. The second relay can be used as a low battery warning.
- 2 independent inlets on the RADIOBAND/OS transmitter to connect the safety edge and the auxiliary inlet independently. The receiver will enable relay 1 or 2 depending on the inlet activated.
- The transmitter power supply is capable of operating under outdoor conditions. The transmitter equipment is supplied with two types of battery to suit application requirements. For applications operating at very low temperatures, the RadioBand transmitter can be purchased with special batteries capable of withstanding temperatures of down to -40°C. For all other applications they are supplied with standard AA-type batteries.
- The auto-test signal is not necessary to activate the low consumption, optical safety edge when the RADIOBAND/SC (current detector) is used.

## Convenience

- The system requires no wiring, it uses wireless technology.
- Battery-free RADIOBAND/BC and RADIOBAND/OCS.

## Security

- 868 MHz two-way radio link with auto-test and automatic checking of the range between the transmitter and the receiver.
- Real-time status verification of all system equipment, making it capable of instantly detecting a fault in any of the transmitters.
- In external RadioBand receivers connected by cable to any operating panel, 2 auto-test inputs are enabled to verify system status before any door movement. Those connected to the operating panels by card also have this function.
- Certificate of conformity with safety regulations for doors by the laboratory TUV SÜD and CE and CC product certificates.

## Saving

- Saving of time and costs in the safety edge installation and maintenance process.

## Reliability

- Intelligent communication system. The signal level is maintained between the transmitter and the receiver and the transmission power level is automatically adapted to improve transmission reliability and reduce consumption in situations with high communication quality.
- 10 m operating distance between the transmitter and the receiver. Although there is often up to 40 m between devices, optimum levels of the operating parameters are guaranteed at 10 m.
- The system includes the CHECK function for permanent information on communications quality via an LED.
- IP65 airtight boxes. The boxes containing the RadioBand system transmitters are fitted with 6 cover fastening points, packing glands and a seal to give an IP65 protection rating.
- This prevents any door movement in the event of a fault being detected.



- In applications where the system has high communication quality, the maximum working life of the batteries will be approximately 2 years.
- In the optical version, the working life of the batteries will also depend on the level of door usage
- Battery status control. Acoustic low battery indicator that triggers the relay in the receiver to trip a signal previously wired up to it.

Frequency (MHz)	Use
868,000 - 868,600	Chanel 1
868,700 - 869,200	Chanel 2
869,400 - 890,650	Chanel 3
869,700 - 870,000	Chanel 4
433,050 - 434,790	security channel

## TRANSMITTERS



### RADIOBANDOS

- 2G transmitter for optical and resistive safety edge.
- 4-channel 4 868 MHz multi-frequency system + 433 MHz back-up.
- 8k2Ω inlet for resistant safety edge or low consumption optical safety edge.
- Selection of the type of edge connected and its behaviour as an inlet for NC contact can be made using a jumper.
- Where operating with a resistive or low consumption optical safety edge, 1 auxiliary contact inlet is enabled.
- 10-metre range (guaranteed).
- Power: Two AA-type 1.5Vdc batteries.
- 10mA operating consumption.
- Batteries last for approximately 2 years. With optical edge, this will also depend on the number of door movements.
- Operating temperature -20 °C - +85 °C (version up to -40 °C).
- IP65 airtightness.
- Batteries last for approximately 2 years.
- Box dimensions: 171 x 60 x 23 mm.

### RADIOBANDOSCS

- As for the RADIOBAND/OS with capacitor and charger inlet.
- Battery-free.
- Capacitor autonomy (approximately) 9 h.

### RADIOBANDOSB

- As for the RADIOBAND/OS with external battery pack outlet.
- Batteries last for approximately 3 years.
- With optical edge, this will also depend on the number of door movements.

### RADIOBANDB

- 2G transmitter for resistive safety edge.
- Sistema multifrecuencia: 4 canales a 868 MHz + Backup a 433 MHz.
- 8k2Ω inlet for resistant safety edge.
- Selection of the type of edge connected and its behaviour as an inlet for NC contact can be made using a jumper.
- 10-metre range (guaranteed).
- Power: Two AA-type 1.5Vdc batteries.
- 10mA operating consumption.
- Batteries last for approximately 2 years.
- Operating temperature -20 °C - +85 °C (version up to -40 °C).
- IP65 airtightness.
- Box dimensions: 171 x 60 x 23 mm.

### RADIOBANDBC

- As for the RADIOBAND/B with capacitor and charger inlet.
- Battery-free.
- Capacitor autonomy (approximately): 30 h.

## RECEIVERS



### RADIOBANDUMS

- 2G receiver in box for resistive and optical safety edges.
- 4-channel 4 868 MHz multi-frequency system + 433 MHz back-up.
- Outlets. 2 relays with selectable operating mode.
- Can behave like a Safety Edge or a closed Safety Contact.
- 10-metre range (guaranteed).
- 6-transmitter memory (3 on relay 1, 3 on relay 2). Any 2G model can be programmed in the same receiver.
- A transmitter can be programmed to activate the 2 relays at the same time.
- Relay 2 can optionally be selected as a low battery warning.

- Power: 12/24Vac/dc.
- Stand-by consumption / max 255mA.
- 2 x 0/12/24Vac/dc inlet auto-test input with selectable polarity.
- Operating temperature -20 °C - +85 °C.
- IP54 airtightness (with IP65 packing gland).
- Box dimensions: 82 x 190 x 40 mm.

## CARDS



### RADIOBANDCSM

- 2G receiver card for optical and resistive safety edge.
- 4-channel 4 868 MHz multi-frequency system + 433 MHz back-up.
- 2 polarised outlets.
- 10-metre range (guaranteed).
- 6-transmitter memory (3 on relay 1, 3 on relay 2). Any 2G model can be programmed in the same receiver.

- A transmitter can be programmed to activate the 2 relays at the same time.
- Plug-in power supply.
- Stand-by consumption / max 20mA.
- Built-in auto-test inlet.
- Operating temperature -40 °C - +85 °C.
- IP20 airtightness.
- Dimensions: 50 x 47 x 14 mm.

## ACCESSORIES

Resistive Safety edge, optical safety edge, low consumption optical sensors for safety edge

