

# B810 Wireless SDI2 bus interface

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**BOSCH**

Invented for life



- ▶ Dual internal antennas provide spatial and polar RF signal reception for high reliability
- ▶ Cover and wall tamper protection
- ▶ Multiple device enrollment options as well as RF diagnostics ensure efficient and effective installation
- ▶ Supports supervision of wireless points (504), keyfobs (1000), and repeaters (8)
- ▶ External status LEDs

RADION wireless security solution from Bosch provides the range, scalability and exceptional battery life required to ensure reliable performance and superior quality. Advanced diagnostics and multiple device enrollment options make installation and maintenance simple and cost effective. With a complete line of peripherals, RADION provides the flexibility for virtually any application requirement.

## System overview

The B810 is a wireless receiver that connects RADION wireless peripherals such as the motion and specialty detectors, keyfobs, panic buttons, door window contacts, repeaters, and more, to supported Bosch control panels using the SDI2 Bus connection. The receiver supports RF communication at 433.42 MHz. This frequency features improved penetration, reflection, and refraction of signal for superior range, and reliability. The receiver also features dual antennas to achieve spatial and polar diversity to further improve RF communication reliability. Enclosed within the receiver housing for higher security, the receiver is equipped with tamper protection, and

detects and reports radio frequency interferences. The receiver supports supervision of wireless points (504), key fobs (1000), and repeaters (8). The receiver can be easily accessed and configured for a compatible control panel using the address switch on the back of the receiver housing. The receiver address switch provides a single-digit setting for the receiver's address, allowing for ease of installation.

## Functions

The receiver uses the RADION wireless protocol which supports:

- SDI2 bus communication
- Tamper input processing
- RF interference (jamming) detection and reporting
- Signal strength and margin reporting
- Enroll Device Database management

### Address switch addressing

Use the address switch to easily assign a bus address or setup during installation.

### Easy installation

The sliding self-locking enclosure has an integrated bubble level and a custom gap-free, lift gate style terminal block to make installation easier, faster, and more reliable.

**LED display**

The LED provides status and troubleshooting information about the receiver and its connection.

**RF interference (jamming) detection and reporting**

The receiver detects and reports interference jamming when the ambient noise level is above jamming thresholds for a continuous period of 20 seconds.

**Communications**

RF packet information is received through the use of two spatial and polar diversity antennas. The receiver then transmits a 4-bit sequence of information back to the control panel for status changes.

**Wall and cover tamper switch**

The receiver transmits a tamper signal when someone removes the device from its base, or pulls it away from the wall.

**Certifications and approvals**

Region	Regulatory compliance/quality marks	
Australia	RCM	[B810]
USA	ANSI-SIA	CP-01-2010-Control Panel Standard - Features for False Alarm Reduction
Europe	CE	EMC, LVD, R&TTE, RoHS [B810]
USA	UL	[B810, RFRP-A]
	UL	UL 1023 - Household Burglar Alarm System Units
	UL	UL 1076 - Proprietary Burglar Alarm Units and Systems
	UL	UL 1610 - Central Station Burglar Alarm Units
	UL	UL 365 - Police Station Connected Burglar Alarm Units
	UL	UL 609 - Standard for Local Burglar Alarm Units and Systems
	UL	UL 636 - Holdup Alarm Units and Systems
	UL	UL 985 - Household Fire Warning System Units
	CSFM	see the Bosch website ( <a href="http://www.boschsecurity.com">www.boschsecurity.com</a> )
	FCC	Part 15 Class B

**Installation/configuration notes****Mounting considerations**

You can mount the wireless receiver in residential, commercial or industrial locations in which a compatible control panel is already installed. The installation of the wireless receiver should be at a distance no greater than 243 m (800 ft) from the control panel.

**Wiring considerations**

The wireless receiver connects to a control panel using the SDI2 connections (PWR, A, B, COM). Use appropriate gauge wires from the receiver to the control panel when connecting the wiring to the terminal block of the receiver.

**Compatibility**

B9512G/B8512G  
 B6512/B5512/B4512/B3512  
 GV4 Series (D9412GV4, D7412GV4 v2.xx or higher)  
 control panels  
 RFDL-11-A/RFDL-11 motion detector  
 RFDW-SM-A/RFDW-SM standard door/window contact  
 RFDW-RM-A/RRDW-RM recessed door/window contact  
 RFRP-A/RFRP repeater  
 RFPR-12-A/RFPR-12 motion detector  
 RFPR-C12-A/RFPR-C12 motion detector (curtain)  
 RFUN-A/RFUN universal transmitter  
 RFKF-FB-A /RFKF-FBS-A/RFKF-FB/RFKF-FBS 4-button keyfob  
 RFKF-TB-A /RFKF-TBS-A/RFKF-TB/RFKF-TBS 2-button keyfob  
 RFPB-TB-A/RFPB-TB 2-button panic  
 RFPB-SB-A/RFPB-SB single button panic  
 RFGB-A/RFGB glass break  
 RFSM-A/RFSM smoke detector

**Parts included**

Quantity	Component
1	Wireless receiver
1	Hardware pack
1	Installation guide

**Technical specifications****Properties**

Dimensions	139.70 mm x 209.60 mm x 31.80 mm (5.50 in x 8.25 in x 1.25 in)
Wiring distance	243 m (800 ft)
Wiring gauge	0.65 mm (22 AWG) to 2.0 mm (18 AWG)
Tamper detection	Transmits a tamper switch signal when the unit is removed from its base, or the mounting surface.

**Power**

Power/voltage	10-14 VDC, 12 VDC nominal
Maximum current draw	70 mA
Frequency	433.42 MHz

### Environmental Considerations

Operating Environment	0 ° C to +49° C (+32° F to +120° F)
Relative humidity	Up to 93% non-condensing
Use	Intended for indoor use.

### Ordering information

#### **B810 Wireless SDI2 bus interface**

Receives RF signals from RADION transmitters, repeaters, and glassbreaks. Operates at 433.42 MHz. For use with compatible SDI2 bus control panels. Order number **B810**

#### Represented by:

**Europe, Middle East, Africa:**  
Bosch Security Systems B.V.  
P.O. Box 80002  
5600 JB Eindhoven, The Netherlands  
Phone: + 31 40 2577 284  
emea.securitysystems@bosch.com  
emea.boschsecurity.com

**Germany:**  
Bosch Sicherheitssysteme GmbH  
Robert-Bosch-Ring 5  
85630 Grasbrunn  
Germany  
www.boschsecurity.com

**North America:**  
Bosch Security Systems, Inc.  
130 Perinton Parkway  
Fairport, New York, 14450, USA  
Phone: +1 800 289 0096  
Fax: +1 585 223 9180  
onlinehelp@us.bosch.com  
www.boschsecurity.us

**Asia-Pacific:**  
Robert Bosch (SEA) Pte Ltd, Security Systems  
11 Bishan Street 21  
Singapore 573943  
Phone: +65 6571 2808  
Fax: +65 6571 2699  
apr.securitysystems@bosch.com  
www.boschsecurity.asia