

B810 Wireless SDI2 bus interface

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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 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 (6th edition)
	CSFM	California State Fire Marshal
	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**

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