BOSCH

B812 Wireless SDI2 bus interface
RADION receiver SDI2

▶ 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 LED

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

This device 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
- LED trouble status indication

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 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 jamming interference detection and reporting
The receiver reports jamming if the ambient noise is high and interferes with the successful reception of RF communication from the devices.

Supervision
The transmitter with a suffix of -A (for example RFDW-SM-A) sends a check-in every 65 minutes at a reduced (3 dB) signal level below the event signal. The Non -A

transmitters (for example RFDW-SM) send a check-in every 13 minutes at the same signal level as the event signal.

Communications
RF communication from devices is received through the use of two special and polar diversity antennas. The receiver transmits the device status to the control panel over the SDI2 bus.

Wall and cover tamper switch
The receiver transmits a tamper signal when someone removes the device from it's base, or pulls it away from the wall.

Regulatory information

Region	Agency	Certification
USA	FCC	FCC Part 15 Class B ID: T3X-B812
	UL	UL 985 Household Fire Warning System Units (6th edition) UL 1023 Household Burglar Alarm System Units UL 2610 Commercial Premises Security Alarm Units and Systems (2nd Edition)
	ANSI	ANSI-SIA CP-01-2010-Control Panel Standard - Features for False Alarm Reduction
	CSFM	California State Fire Marshall
Canada	ISED	ISED ID: 1249A-B812
Europe	CE	Directive 93/68/EEC Compliance
	EMC	2014/30/EU
	LVD	2014/35/EU
	RE-D	Radio Equipment Directive 2014/53/EU
	RoHS	REACH

Region	Regulatory compliance/quality marks	
Europe	CE	B812; RFRC-STR3
USA	FCC	FCC Rule Parts 15.231
Canada	NEMKO	IC: 1249A-B812 CER214824

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 1000 ft (304.8 m) from the control panel.
It is recommended that the receiver be installed closer to the devices for overall better RF performance, taking advantage of the 1000 ft (304.8 m) wire length supported for 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 motion detector
RFDW-SM /-A standard door/window contact
RRDW-RM /-A recessed door/window contact
RFRP /-A repeater
RFRP2 repeater
RFPR-12 /-A motion detector
RFPR-C12 /-A motion detector (curtain)
RFUN /-A universal transmitter
RFKF-FB/RFKF-FBS /-A 4-button keyfob
RFKF-TB/RFKF-TBS /-A 2-button keyfob
RFPB-TB-A/RFPB-TB /-A 2-button panic
RFPB-SB /-A single button panic
RFGB /-A glass break
RFSM /-A smoke detector
RFBT/-A bill trap
RFPB-FP-A Fixed Position Panic Button
RFSM2-A smoke detector
RFCO-A CO detector
RFHT-A heat detector

Parts included

Quantity	Component
1	Wireless receiver
1	Hardware pack
1	Installation guide

Technical specifications

Mechanical

Dimensions (H x W x D) (in)	8.25 in x 5.50 in x 1.25 in
Dimensions (H x W x D) (mm)	209.60 mm x 139.70 mm x 31.80 mm
Material	Plastic (ABS)
LED color	Red
Wiring distance	1000 ft (304.8 m)
Wiring gauge	0.65 mm (22 AWG) - 2.0 mm (18 AWG)
Tamper detection	Transmits a tamper switch signal when the unit is removed from its base, or the mounting surface.

Environmental

Operating temperature (℉)	-4 ℉ – 131 ℉
Operating temperature (℃)	-20 ℃ – 55 ℃
Operating relative humidity, non-condensing (%)	0% – 93%
IP rating	IP41
Usage	Indoor

Electrical

Operating voltage (VDC)	10 VDC – 14 VDC
Current consumption (mA)	40 mA
Receiver (RF) frequency range (MHz)	433.42 MHz

Ordering information

B812 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 **B812 | F.01U.426.400**

https://www.boschsecurity.com