B820 Inovonics SDI2 bus interface
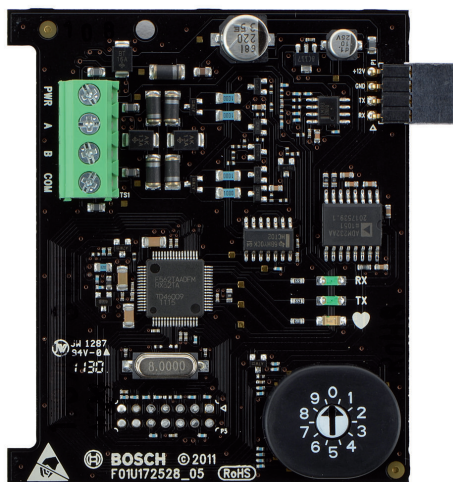
www.boschsecurity.com

BOSCH
Invented for life

▶ Provides connectivity to Inovonics EchoStream EN4200 Serial Receiver

▶ May be installed up to 1000 ft from the control panel, allowing for optimal wireless reception

▶ Capacity to store any combination of point and keyfob ID's for a total of 350 wireless devices (combined types) and up to 8 repeater ID's

▶ Mounts directly inside the EN4200 Receiver housing, no separate enclosure required

▶ UL and CSFM Listed

The B820 Inovonics Interface Module is a fully supervised, addressable SDI2 bus device that allows communication between Bosch control panels and an Inovonics EN4200 EchoStream Serial Receiver with EchoStream Wireless transmitters.
Industrial, commercial, and institutional facilities are typical installations for the B820 module. Paired with an Inovonics EchoStream EN4200 Receiver, the B820 Inovonics Interface Module provides a wireless security solution when connected to the control panel's SDI2 bus. The B820 switch provides for simple, visual addressing.

System overview

Powered by Inovonics
The Inovonics EchoStream platform, powered by Inovonics wireless mesh network technology, ensures superior range, reliability, and scalability for commercial applications. Using a wide range of transmitters and repeaters, this proven technology provides flexibility and performance to meet the most stringent requirements. This exclusive protocol is available only on Inovonics EchoStream products.

The B820 is supervised and communicates back to the control panel all point status changes. The module's wireless expansion points operate the same as the hard-wired points on the control panel.
Keyfob and wireless point programming, as well as diagnostic data is available at your fingertips directly via any control panel keypad, or through the use of Remote Programming Software (RPS).

Functions

Supervision monitoring
The software monitors and communicates status information over the data bus for the following:
• Operational power (Heartbeat)
• Transmit data (TX)
• Receive data (RX)

Indicators
• Heartbeat LED: Blue LED blinks on and off when system is operational. A steady On or Off LED indicates a system error of operation.
• TX (transmit) LED: Green steady On LED indicates data transmission to the receiver.
• RX (receive) LED: Green steady On LED indicates the data receiving from the receiver. The RX LED flashes 3 quick flashes when the module learns a wireless device is present.

Certifications and approvals

Region	Regulatory compliance/quality marks	
USA	UL	
	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 1023 - Household Burglar Alarm System Units
	UL	UL 1076 - Proprietary Burglar Alarm Units and Systems
	UL	UL 1610 - Central Station Burglar Alarm Units
	CSFM	California State Fire Marshal
	FCC	Part 15 Class B
Canada	ULC	CAN/ULC S303 - Local Burglar Alarm Units and Systems
	ULC	CAN/ULC S304 - Standard for Signal Receiving Center and Premise Burglar Alarm
	ULC	ULC-ORD C1023 - Household Burglar Alarm System Units
	ULC	ULC-ORD C1076 - Proprietary Burglar Alarm Units and Systems
	IC	ICES-003 - Information Technology Equipment (ITE)

Installation/configuration notes

Mounting considerations
Mount the B820 Interface Module inside the Inovonics EchoStream Serial Receiver by using the supplied Velcro strips contained inside the B820 packaging. Refer to the *EN4200 EchoStream Serial Receiver Installation Instructions* and the *SDI2 Inovonics Interface Module B820 Installation Guide* for mounting and wiring instructions.

Wiring considerations
The B820 connects to a control panel using the PWR, A, B, COM terminals on the control panel using the screw terminal strip. Use 12 AWG to 22 AWG (1.5 mm to 0.6 mm) wires from the module to the control panel.
The B820 connects to the EN4200 via the serial data port.

Compatibility

Control panels	B9512G/B9512G-E
	B8512G/B8512G-E
	B6512
	B5512/B5512E
	B4512/B4512E
	B3512/B3512E

	D9412GV4/D7412GV4
Receivers	Inovonics EchoStream EN4200 Serial Receiver
Repeaters	Inovonics EchoStream EN5040-T High-Power Repeater
Transmitters	All Inovonics EchoStream transmitters

Trademarks
All hardware and software product names used in this document are likely to be registered trademarks and must be treated accordingly.

Parts included

Quantity	Component
1	B820 Inovonics Interface Module
1	Hardware pack including Velcro adhesive
1	Literature pack

Technical specifications

Properties

Dimensions	3.2 in x 2.8 in x 0.60 in (82.5 mm x 70.0 mm x 15.0 mm)
Weight	1.5 oz (.04 kg)

Environmental considerations

Relative humidity	5% to 93% at +32°C (+90°F)
Temperature (operating)	0°C to +49°C (+32°F to +120°F)

Power requirements

Current	110 mA total for B820 module and the EN4200 receiver
Voltage (operating)	12 VDC nominal

Wiring

Terminal wire size	12 AWG to 22 AWG (2 mm to 0.65 mm)
SDI2 wiring	Maximum distance – Wire size (unshielded wire only): 600 ft (183 m)/22 AWG (0.65 mm) 1000 ft (305 m)/18 AWG (1.02 mm)

Ordering information

B820 Inovonics SDI2 bus interface
Provides communication between a control panel and an Inovonics EN4200 EchoStream Serial Receiver.
Order number **B820**

Accessories

ENKIT-SDI2 Kit B820/EN4200

Kit containing B820 and EN4200 for use on SDI2 bus panels.

Order number **ENKIT-SDI2**