

# B450 Conettix Plug-in Communicator Interfaces

www.boschsecurity.com



**BOSCH**  
Invented for life

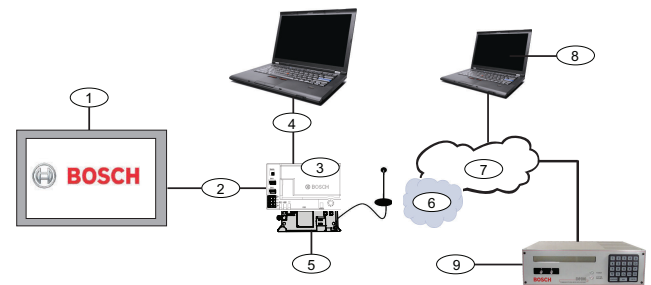


- ▶ Full two-way IP communication using Plug-in Cellular Communicators
- ▶ Plug and Play installation makes future radio technology changes easy
- ▶ Compatible with new and most deployed Bosch control panels
- ▶ Supports remote installation of cellular modules for improved signal

The Conettix Plug-in Communicator Interface is a four-wire powered SDI2, SDI, or option bus device that provides two-way communication with compatible control panels over commercial cellular networks using a plug-in communicator (available separately).

## System overview

Conettix Plug-in Communicator Interfaces (B450/ B450-M) work with plug-in communicators for primary or backup alarm communication, remote programming, and other remote applications. The plug-in communicator interface supports Conettix IP protocol with full authentication, 256-bit AES encryption, and resistance to Denial of Service attacks. The interface also supports compatible Bosch control panels with SIA DC-09, CSV-IP. The interface is a reliable way to add cellular network communications to existing or new commercial security and fire installations.



Callout – Description	Callout – Description
1 – Compatible control panel	6 – Cellular carrier network
2 – Panel data bus (SDI2, SDI, or option)	7 – Internet/LAN/WAN
3 – Module	8 – Remote Programming workstation
4 – USB connection for module configuration	9 – Compatible IP receiver (Bosch D6100IPv6 shown)
5 – B44x plug-in communicator (available separately)	

## Functions

### Conettix IP communication

The following features are supported with the plug-in communicator interface via BOSCH Conettix IP protocol and SIA DC-09 UDP, CSV-IP on supported control panels including:

- IP Alarm communication
- Remote programing
- Personal notification via text or email on supported panels

### Addressing

Use the address switch to easily assign a bus address or setup for USB or SMS configuration where required.

### Easy configuration

For most installations, the default plug-in communicator interface settings allow installation with no device programming required. An address switch allows easy bus address selection.

For customized network settings, the interfaces support a USB configuration menu, or configuration via SMS. The following control panels support RPS programming:

- B9512G/B9512G-E
- B8512G/B8512G-E
- B6512
- B5512/B5512E
- B4512/B4512E
- B3512/B3512E
- D9412GV4/D7412GV4/D7212GV4

### LEDs

Three LEDs provide status and troubleshooting information.

LED	Indication
Heartbeat	Plug-in communicator and control panel connection status
RX	An inbound packet is received on the bus
TX	An outbound packet is transmitted on the bus

## Certifications and approvals



### Notice

The B450-M has received certifications only as noted. If not noted, the certification applies to the B450 only.

Region	Regulatory compliance/quality marks	
Europe	CE	EMC, LVD, RoHS
Belgium	INCERT	ANPI-ID-0004-0001 ANPI-ID-0004-0001-2
USA	UL	UL 365 - Police Station Connected Burglar Alarm Units
	UL	UL 636 - Holdup Alarm Units and Systems

Region	Regulatory compliance/quality marks	
	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 985 - Household Fire Warning System Units (6th edition)
	UL	UL 864 - Standard for Control Units and Accessories for Fire Alarm Systems (10th edition)
	CSFM	California State Fire Marshal
	FCC	Part 15 Class B
	FDNY-CoA	6286 D7412GV4 D9412GV4 NYC COA 6286 2018-2021
	FDNY-CoA	6196
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	CAN/ULC S545 - Residential Fire Warning System Control Units
	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)
Brazil	ANATEL	2708-14-1855

## Installation/configuration notes

### Mounting considerations

Install in a location with acceptable wireless network signal strength. Mount the module into the interior of a compatible enclosure. Use the 3-hole mounting pattern. Use the supplied mounting screws.

### Wiring considerations

The interface connects to a control panel using a data bus connection via the module's terminal strip, or the module's interconnect wiring connectors. For data bus powered installations outside the compatible control panel enclosure, follow the maximum wiring distances in the technical specifications.

### Compatibilities

Control panels - B450	B9512G/B8512G B6512/B5512/B4512/B3512 (B5512E/B4512E/B3512E with firmware v2.03 and higher) D9412GV4/D7412GV4/D7212GV4 (v1.00.0xx+) D9412GV3/D7412GV3/D7212GV3 D9412GV2/D7412GV2/D7212GV2 (v7.06+) FPD-7024 (v1.03+) CMS 6/8 CMS 40 Easy Series (v3+) AMAX 2100/3000/4000 Solution 2000/3000*
Control panels - B450-M	*AMAX 2000/2100/3000/4000/ *Solution 2000/3000
Cellular communicators	B442 (3G GPRS GSM) B443 (3G/4G HSPA+ GSM) B444 (4G VZW LTE)
Enclosures	B10 B11 D8103 D203
Applications	Tera Term (for USB B450 configuration) Hyper Terminal (for USB B450 configuration) RPS version 5.16 or higher Remote Security Control (Supported on GV4, B9512G/B8512G, B9512G-G/B8512G-E, B6512/B5512/B4512/B3512, B5512E/B4512E/B3512E, and Solution 2000/3000 Remote Security Control+ (Supported on AMAX and Solution Series control panel)

\*The B450-M is compatible with AMAX and Solution control panels only.

Function	Option/SDI bus	SDI2 bus	Details
IP Event Reporting	Y	Y	TCP protocols only supported on SDI2
Remote Program (RPS or A-link)	Y	Y	Requires Bosch Cellular service or other cellular network access
Configure B450 from control panel (RPS, A-link)	N	Y	GV4/B Series v2.03+, AMAX vX.X, Solution vX.X

Function	Option/SDI bus	SDI2 bus	Details
Personal Notification via SMS or Email	N	Y	Requires compatible control panel and cellular plan
Remote Security Control App	N	Y*	Requires Bosch Cellular service or other cellular network access

### Cellular technology compatibility

Device	Cellular networks				
	2G (CDMA)	3G (CDMA)	GPRS (GSM)	HSPA+ (GSM)	4G (LTE)
B440/ B440- C*	X	X			
B441/ B441- C*	X				
B442*			X		
B443*			X	X	
B444*					X

\*Check for availability in your region.

### Technical specifications

#### Environmental

Relative humidity	Up to 93% at +32°C (+90°F) non-condensing
Operating temperature	0°C to +50°C (+32°F to +122°F)

#### Mechanical

Dimensions	79 mm x 128 mm x 38 mm (3.11 in x 5.03 in x 1.50 in)
------------	--

#### Electrical

Current (operating)	<b>Standby:</b> With cellular communicator = 60 mA <b>Alarm:</b> With cellular communicator = 180 mA
Voltage (operating)	(Bus operation): 12 VDC nominal

#### Wiring

Data bus wire gauge	12 AWG to 22 AWG (2.0 mm to .06 mm)
USB cable	USB cable (Type A to A male-to-male) – not supplied
Data bus wire length	<p>Maximum Distance – wire size</p> <p>22 AWG (0.6 mm) - 12 m (40 ft)</p> <p>18 AWG (1.0 mm) - 30 m (100 ft)</p> <p>16 AWG (1.3 mm) - 48 m (158 ft)</p> <p>12 AWG (2.0 mm) - 122 m (400 ft)</p> <p>You can extend the wire distances 300 m (1000 ft). Use a separate power supply, such as the B520 Auxiliary Power Supply Module.</p>

### Ordering information

#### B450 Plug-in Communicator Interface

Supports two-way IP communications using plug-in cellular communicators for compatible control panels  
Order number **B450**

#### B450-CHI Plug-in Communicator Interface

Supports two-way IP communications using plug-in cellular communicators for Bosch 8500 and 5500 Series Control Panels  
Order number **B450-CHI**

#### B450-M Plug-in communicator interface, mobile

Supports cellular communication for remote programming and mobile apps on AMAX and Solution Series control panels  
Order number **B450-M**

#### B442 Plug-in cellular module, GPRS

Multi-function cellular communicator that provides IP communication over a (GPRS) cellular network  
Order number **B442**

#### B443 Plug-in Cellular, HSPA+ (3G+)

Multi-function 3G/4G cellular communicator providing IP communication over a GPRS/EDGE/UMTS/HSPA+ cellular network  
Order number **B443**

#### Accessories

#### B442 Plug-in cellular module, GPRS

Multi-function cellular communicator that provides IP communication over a (GPRS) cellular network  
Order number **B442**

#### B443 Plug-in Cellular, HSPA+ (3G+)

Multi-function 3G/4G cellular communicator providing IP communication over a GPRS/EDGE/UMTS/HSPA+ cellular network  
Order number **B443**

#### B444 Plug-in cellular module, VZW LTE, hot

Pre-activated 4G LTE cellular communicator for secure two-way IP communication on the Verizon Wireless LTE network.  
Order number **B444**

#### 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, LLC  
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