B426 Ethernet Communication Module

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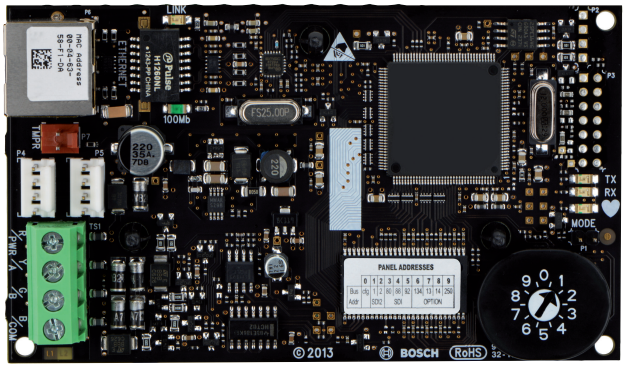


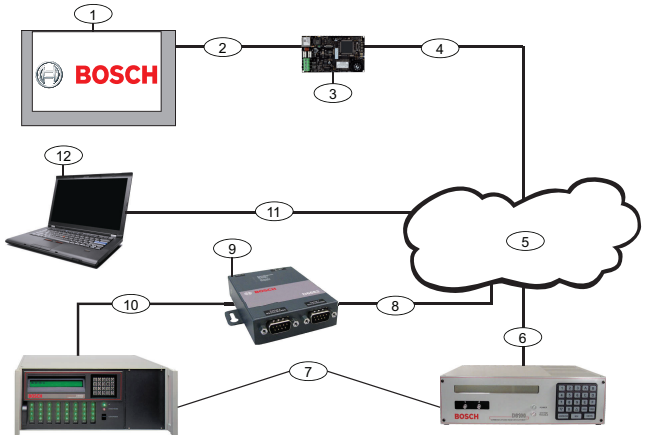
- Full two-way IP event reporting with remote control panel programming support
- 10/100 Base-T Ethernet communication for IPv6 and IPv4 networks
- NIST-FIPS197 Certified for 128-bit to 256-bit AES Encrypted Line Security
- Plug and Play installation, including UPnP service to enable remote programming behind firewalls
- Advanced configuration by browser, RPS, or A-Link

The Conettix Ethernet Communication Modules are four-wire powered SDI, SDI2, and Option bus devices that provides two-way communication with compatible control panels over IPv4 or IPv6 Ethernet networks. Typical applications include:

- Reporting and path supervision to a Conettix Communications Receiver/Gateway.
- Remote administration and control with Remote Programming Software or A-Link.
- Connection to building automation and integration applications.

System overview

The modules (B426/B426-M) are built for a wide variety of secure commercial and industrial applications. Flexible end-to-end path supervision, AES encryption, and anti-substitution features make the modules desirable for high security and fire monitoring applications. Use the modules as stand-alone paths or with another communication technology.



Callout — Description	Callout — Description
1 — Compatible Bosch control panel	7 — Conettix D6100i Communications Receiver/ Gateway and/or Conettix D6600 Communications Receiver/ Gateway (Conettix D6600 Communications Receiver/ Gateway requires 8, 9, and 10)

2 — Data bus connection between the control panel and the module	8 — Ethernet network connection to the Ethernet adapter (D6680/ ITS-D6682/ITS-D6686) (ITS-D6682 shown) Ethernet Network Adapter
3 —B426/B426-M	9 — Conettix Ethernet Network Adapter (ITS-D6682 shown)
4 — Ethernet connection between the module and the Ethernet network	10 — Connection from ITS-D6682 to the COM4 Port on the Conettix D6600 Communications Receiver/ Gateway
5 — Ethernet network, Local Area Network (LAN), Metropolitan Area Network (MAN), Wide Area Network (WAN), or Internet	11 — Ethernet network connection between the host computer Ethernet network interface card (NIC) and the Ethernet network
6 — Ethernet network connection to the D6100i Communications Receiver (D6100i/D6100IPv6)	12 — Host PC running Remote Programming Software, Automation, or the Conettix D6200 Programming/Administration Software

Functions

Conettix IP communication

The module uses Conettix IP protocol which supports:

- Full event code reporting and administration
- Flexible supervision intervals
- Resistance to Denial of Service attacks
- 128, 192, or 256-bit AES encryption
- Anti-replay and anti-substitution

Addressing

Use the address switch to easily assign a bus address or setup for web configuration.

IP network support

The modules support DHCP, UPnP, and Auto IP addressing by default, but can also be configured for Static IP networks. The module is compatible with IPv6 or IPv4 networks. With compatible control panels, it supports reporting to receivers with Domain Name System (DNS) hostnames for automatic disaster recovery.

Easy configuration

For most installations, the default module settings allow installation with no computer required. An address switch allows easy bus address selection. Universal Plug and Play (UPnP) supports automatic UDP port mapping for remote programming systems when behind a firewall, as well as HTTP port mapping for module web configuration. Auto IP enables a direct PC connection without changing any PC network settings.

For customized network settings, the modules support a full web configuration menu. 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	Module and control panel connection status
RX	An inbound packet is received on the bus
TX	An outbound packet is transmitted on the bus

Fire monitoring applications

The B426 meets UL864 and NFPA72 standards for Single Communication Technology with approved Bosch control panels.

Certifications and approvals

The modules have NIST FIPS-197 AES Certification (IP Communications).

Notice

The B426-M has received certifications only as noted. If not noted, the certification applies to the B426 only.

Region	Regulatory compliance/quality marks	
Australia	RCM	ACMA
Europe	CE	EMC, RoHS
	EN50131	EN-ST-000127 [B426 / B426-M]
Belgium	INCERT	B-509-0065
	INCERT	B-B09-1004
USA	UL	UL 365 - Police Station Connected Burglar Alarm Units
	UL	UL 609 - Standard for Local Burglar Alarm Units and Systems
	UL	UL 864 - Standard for Control Units and Accessories for Fire Alarm Systems (10th edition)
	UL	UL 985 - Household Fire Warning System Units (6th edition)
	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

Region	Regulatory compliance/quality marks	
	FDNY-CoA	6286 D7412GV4 D9412GV4 NYC COA 6286 2018-2021
	FDNY-CoA	6196
Australia	CTICK	C-Tick
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 S559 - Fire Signal Receiving Centres and Systems
	ULC	ULC-ORD C1023 - Household Burglar Alarm System Units
	IC	ICES-003 - Information Technology Equipment (ITE)

Installation/configuration notes

Mounting considerations

Mount the module into the enclosure's 3-hole mounting pattern using the supplied mounting screws and mounting bracket.

Wiring considerations

The module connects to a control panel using a data bus connection and to an Ethernet network using a standard Category 5 or above Ethernet cable with an RJ-45 plug.

Compatibility

Control panels - B426	B9512G/B9512G-E B8512G/B8512G-E B6512 B5512/B5512E B4512/B4512E B3512/B3512E D9412GV4/D7412GV4/D7212GV4 D9412GV3/D7412GV3/D7212GV3 D9412GV2/D7412GV2/D7212GV2 Version 7.06 or higher DS7220 Version 2.10 or higher DS7240 Version 2.10 or higher DS7400XiV4 Version 4.10 or higher Easy Series V3+ FPD-7024 AMAX 2100/3000/4000 * Solution 2000/3000* *The B426-M is recommended for AMAX and Solution Series control panels.
Control panels - B426-M	AMAX 2100/3000/4000 v2.00+ Solution 2000/3000
Applications	A-Link Plus RPS/RPS Lite PC9000 (Supported on D9412GV2/D7412GV2/D7212GV2 v7.06 and higher, and D9412GV3/D7412GV3/D7212GV3 v8.05 and v8.13 and higher only) IS2000 (Supported on D9412GV2/D7412GV2/D7212GV2 v7.06 and higher, and D9412GV3/D7412GV3/D7212GV3 v8.05 and v8.13 and higher only) Remote Security Control (Supported on GV4, B9512G/B8512G, B9512G-E/B8512G-E, B6512/B5512/B4512/B3512, B5512E/B4512E/B3512E, and Solution 2000/3000) Remote Security Control+ (Supported on AMAX and Solution Series control panel)
Browsers	Microsoft Internet Explorer (Microsoft Windows 7 and higher) Mozilla Firefox

Parts included

Technical specifications

Environmental considerations

Relative humidity	Up to 93% non-condensing
Temperature (operating)	0° - +49°C (+32° - +120°F)

Properties

Board dimensions	59.5 mm x 108 mm x 16 mm (2.19 in x 4.25 in x 0.629 in)

Power requirements

Current (maximum)	100 mA max
Current (standby)	80 mA
Voltage	12 VDC nominal

Connectors

LAN/WAN	RJ-45 modular port (Ethernet)

Cabling

Ethernet cable	Category 5 or better unshielded twisted pair
Ethernet cable length	100 m (328 ft) max length

Wiring

Data bus wire gauge	18 AWG or 22 AWG
Data bus wire length	Maximum distance – Wire size : 150 m (500 ft) - 0.65 mm (22 AWG) 300 m (1000 ft) - 1.02 mm (18 AWG)

Ordering information

B426 Ethernet Communication Module

Supports two-way communications over Ethernet networks for compatible control panels
Order number **B426**

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