Intrusion Alarm Systems | B426 Ethernet Communication Module

B426 Ethernet Communication Module

www.boschsecurity.com

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.

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**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)
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:
- B8512G/B8512G-E
- B8512G/B8512G-E

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

LEDs
Three LEDs provide status and troubleshooting information.

<table>
<thead>
<tr>
<th>LED</th>
<th>Indication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heartbeat</td>
<td>Module and control panel connection status</td>
</tr>
<tr>
<td>RX</td>
<td>An inbound packet is received on the bus</td>
</tr>
<tr>
<td>TX</td>
<td>An outbound packet is transmitted on the bus</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Region</th>
<th>Regulatory compliance/quality marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>RCM ACMA</td>
</tr>
<tr>
<td>Europe</td>
<td>CE EMC, RoHS</td>
</tr>
<tr>
<td>Belgium</td>
<td>INCERT [B426 / B426-M]</td>
</tr>
<tr>
<td>USA</td>
<td>UL UL 365 - Police Station Connected Burglar Alarm Units</td>
</tr>
<tr>
<td></td>
<td>UL UL 609 - Standard for Local Burglar Alarm Units and Systems</td>
</tr>
<tr>
<td></td>
<td>UL UL 864 - Standard for Control Units and Accessories for Fire Alarm Systems (10th edition)</td>
</tr>
<tr>
<td></td>
<td>UL UL 985 - Household Fire Warning System Units (6th edition)</td>
</tr>
<tr>
<td></td>
<td>UL UL 1023 - Household Burglar Alarm System Units</td>
</tr>
<tr>
<td></td>
<td>UL UL 1076 - Proprietary Burglar Alarm Units and Systems</td>
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<td></td>
<td>UL UL 1610 - Central Station Burglar Alarm Units</td>
</tr>
<tr>
<td>CSFM</td>
<td>California State Fire Marshal</td>
</tr>
<tr>
<td>FCC</td>
<td>Part 15 Class B</td>
</tr>
</tbody>
</table>
### 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  
DS7400XV4 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  

### 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)  

### Parts included

- Microsoft Internet Explorer (Microsoft Windows 7 and higher)
- Mozilla Firefox

### Regulatory compliance/quality marks

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| FDNY- CoA | 6286 D7412GV4 D9412GV4 NYC COA 6286 2018-2021  
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)  

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Ordering information

B426 Ethernet Communication Module

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