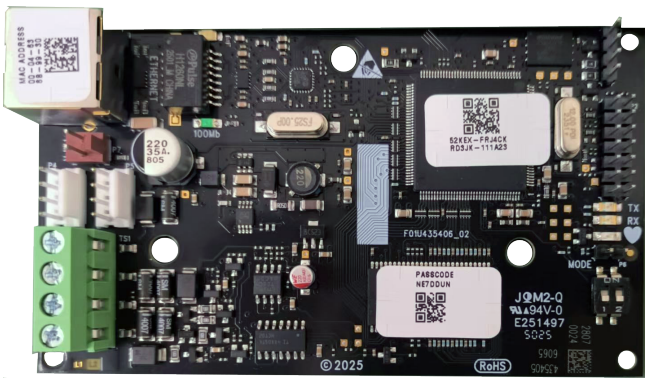
B428-M Ethernet module, Cloud
Solution Series



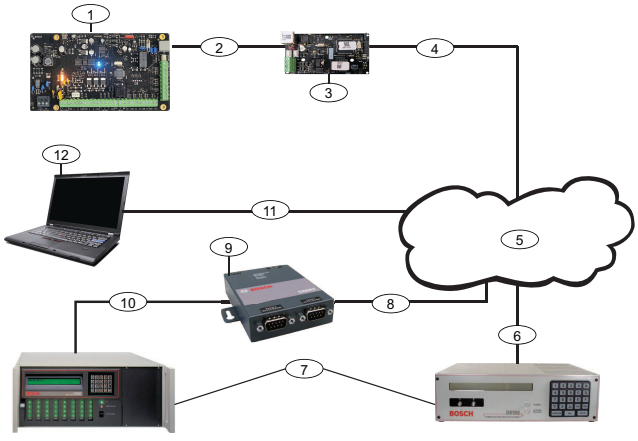
- Advanced configuration via B428-M Interface or A-Link Plus
- Full two-way IP event reporting with remote control panel programming support
- 10/100 Base-T Ethernet communication for IPv6 and IPv4 networks
- NIST-FIPS197 compliant for 128-bit to 256-bit AES Encrypted Line Security
- Plug and Play installation, including UPnP service to enable remote programming behind firewalls

The B428-M Ethernet module is a four-wire powered SDI2 bus device 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 A-Link Plus.
- Connection to building automation and integration applications.

System overview

The module is 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 module desirable for high security and fire monitoring applications. Use the module as stand-alone path or with another communication technology.



1	Compatible control panel
2	Data bus connection between the control panel and the module
3	B428-M
4	Ethernet connection between the module and the Ethernet network
5	Ethernet network, Local Area Network (LAN), Metropolitan Area Network (MAN), Wide Area Network (WAN), or Internet
6	Ethernet network connection to the D6100i Communications Receiver (D6100i/D6100IPv6)
7	Conettix D6100i Communications Receiver/Gateway and/or Conettix D6600 Communications Receiver/Gateway (Conettix D6600 Communications Receiver/Gateway requires 8, 9, and 10)
8	Ethernet network connection to the Ethernet adapter (D6680/ITS-D6682/ITS-D6686) (ITS-D6682 shown) Ethernet Network Adapter
9	Conettix Ethernet Network Adapter (ITS-D6682 shown)
10	Connection from ITS-D6682 to the COM4 Port on the Conettix D6600 Communications Receiver/Gateway
11	Ethernet network connection between the host computer Ethernet network interface card (NIC) and the Ethernet network
12	Host PC running Remote Programming Software (RSC+ or Solution Connect), or the Conettix D6200 Programming/Administration Software

Functions

Easy configuration

For most installations, the default module settings allow installation with no computer required. 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.

Webpage configuration via B428-M Interface

Through B428-M Interface, you can do configuration for the control panel, check control panel status, and upgrade the firmware for the control panel or B428-M module.

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 DIP switch to easily assign a bus address.

IP network support

The module supports 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.

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

Regulatory information

Region	Regulatory compliance/quality marks	
Australia	CTICK	C-Tick
	RCM	ACMA

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	ICP-SOL2100-P ICP-SOL3100-P ICP-SOL4100-P
Applications	A-Link Plus RSC+ Solution Connect
Browsers	Google Chrome Microsoft Edge Safari

Parts included

Quantity	Component
1	Module
1	Hardware pack
1	Interconnect cable wiring
1	Literature pack

Technical specifications

Mechanical

Dimensions (H x W x D) (mm)	63 mm x 108 mm x 16 mm
Weight (g)	45 g

Environmental

Operating temperature (°C)	0 °C – 49 °C
Operating relative humidity, non-condensing (%)	5% – 93%

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

B428-M Ethernet module, Cloud
Provides two-way communication over Ethernet networks for compatible control panels, and provides webpage configuration via B428-M Interface.
Order number **B428-M | Z.01X.007.474**

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