

# D125B Powered loop interface

www.boschsecurity.com



**BOSCH**  
Invented for life



- ▶ Two separate powered detector loops
- ▶ Suitable for 12 VDC or 24 VDC, two-wire or four-wire detectors
- ▶ Up to 50 two-wire 12 VDC glass break detectors
- ▶ Reports individual loop alarm, individual loop trouble, and ground fault
- ▶ Manually resets latching devices from control panel or remote central station

The D125B has two separate NFPA Class B powered loops. The module supervises each of the loops for opens, shorts, or ground faults. Both loops can be powered with either 12 VDC or 24 VDC to connect compatible two-wire detectors or other two- or four-wire devices such as retarded waterflow switches, manual stations, heat detectors, or glass break detectors.

The D125B is suitable for connecting fire or burglary devices in commercial, industrial, and institutional applications. Schools, offices, and health care facilities are typical commercial applications.

## Functions

### Loop Supervision

The D125B needs to be electrically connected to earth ground and to the control panel's common. The D125B has a supervisory output terminal for each of its loops. All terminal designations are clearly marked on the module circuit board.

To supervise the loops, install an end-of-line (EOL) resistor beyond the last detector of each protective loop. If you are installing a D125B in a new system or are adding additional devices to an existing system, use the 1.8 kΩ resistor (P/N: F01U009011) supplied with the module.

The D125B shorts the protective loop on the control panel when the high (+) and low (-) side of either module loop is shorted together or when a smoke detector activates. The D125B opens the protective loop on the control panel during the following conditions:

- Either of the module protective loops are opened.
- The D125B Interface module is unpowered.
- Either the high (+) side of the loop or the low (-) side of the loop is shorted to ground.

With the G Series Control Panels (see **Compatible Products**), a short to ground causes a ground fault condition when ground fault detect is enabled.

When programming for fire applications, refer to the appropriate control panel's operation and installation guide.

	<b>Warning</b>
	Do not mix 12 VDC and 24 VDC detectors on the same D125B Module.

## 24 VDC Applications

An auxiliary power supply is used in 24 VDC applications. The auxiliary power supply provides power for the module and all devices connected to the two loops.



### Notice

The power supply is not provided with the unit. Any power supply installed must be UL listed for use with Bosch fire products.

The D130 Relay Module is used for 24 VDC applications. CMD 47 is used to reset 24 VDC smoke detectors. Refer to the control panel's operation and installation guide.

Unpowered initiating devices such as waterflow switches, manual stations, and heat detectors are installed without the D130 Relay Module.

## Certifications and approvals

Region	Regulatory compliance/quality marks	
USA	UL	AMCX: Central Station Alarm Units (UL1610, UL1635), AMCX7: Central Station Alarm Units Certified for Canada (ANSI/UL 1635), AOTX: Local Alarm Units (UL464, UL609), S525), APAW: Police Station Alarm Units (UL365, UL464), APAW7: Police-station-connected Alarm Units Certified for Canada (CAN/ULC-S303, CAN/ULC-S304, CAN/ULC-S525), APOU: Proprietary Alarm Units (UL1076), NBSX: Household Burglar Alarm System Units (UL1023), UOJZ: Control Units, System (UL864, 9th edition), UTOU: Control Units and Accessories - Household System Type (UL985)
	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)
	FM	D125B
	CSFM	California State Fire Marshal
	FDNY-CoA	6286 D7412GV4 D9412GV4 NYC COA 6286 2018-2021
	NYC-MEA	12-92-E, Vol. XV

## Installation/configuration notes

### Compatible Products

The following products are compatible with the D125B Dual Class B Initiating Module:

Category	Product ID	Product Description
Control Panels	New G panels <sup>1</sup>	Control panels
	G-series <sup>2</sup>	Control panels

B-series<sup>3</sup> Control panels

D9412<sup>4</sup>,  
D7412<sup>4</sup>,  
D7212<sup>4</sup> Control panels

D9112B1<sup>4</sup>,  
D7212B1<sup>4</sup> Control panels

D8112<sup>4</sup> Control panel

Detectors For a list of compatible two-wire detectors, refer to the *D125B Installation Guide*.

Enclosures B8103 universal enclosure (white)

D8108A Attack-resistant enclosure (gray)

D8109 Fire enclosure (red)

Modules For a list of compatible modules, refer to the *D125B Installation Guide*.

<sup>1</sup> New G panels = B9512G, B8512G, B9512G-E, B8512G-E

<sup>2</sup> G Series = D9412GV4, D7412GV4, D7212GV4\*, D9412GV3, D7412GV3, D7212GV3\*, D9412GV2, D7412GV2, D7212GV2\*, D9412G<sup>3</sup>, D7412G<sup>3</sup>, D7212G<sup>3\*</sup>

<sup>3</sup> B Series = B6512, B5512, B5512E, B4512, B4512E, B3512 and B3512E

<sup>4</sup> Legacy products have **not** been investigated to comply with the latest UL864 edition.

\* The D7212 models are not listed for commercial fire applications.

### Mounting Considerations

The D125B module mounts in the Bosch control panel enclosure using screws included with the unit. Use a D137 Mounting Bracket to install additional modules in the same enclosure, or when installing the D125B in an approved adjacent enclosure. Separate enclosures must be within 20 ft (6.1 m) of the control panel enclosure and connected by conduit.

### Wiring Considerations

The D125B needs to be electrically connected to the control panel's common terminal.

## Parts included

Quantity	Component
1	D125B module
2	1.8 kΩ EOL resistors (P/N: F01U009011)
1	Hardware pack
1	Literature pack

## Technical specifications

### Mechanical Properties

Dimensions (H x W x D):	5 in. x 3 in. x 0.8 in. (12.7 cm x 7.6 cm x 2.0 cm)
-------------------------	--

**Power Requirements (12 VDC Circuits)**

Current (alarm)	1 loop only: 75 mA maximum Both loops: 145 mA maximum
Current (standby)	1 loop only: 12 mA maximum Both loops: 24 mA maximum
Voltage (nominal)	12 VDC supplied by control panel or by UL864 or UL1481 Listed 12 V power supply

**Power Requirements (24 VDC Circuits)**

Current (alarm)	1 loop only: 168 mA maximum Both loops: 300 mA maximum
Current (standby)	1 loop only: 25 mA maximum Both loops: 50 mA maximum
Voltage (nominal)	24 VDC supplied by UL864 or UL1481 Listed 24 V power supply

**Two-wire Loop (Class B) Characteristics**

Current (alarm)	12 VDC: >11.8 mA 24 VDC: >24.1 mA
Current (trouble)	12 VDC: <3.5 mA 24 VDC: <7.5 mA

Detector current	12 VDC: 3 mA maximum 24 VDC: 7 mA maximum
Wiring Impedance	50 $\Omega$ maximum

**Ordering information****D125B Powered loop interface**

The module provides 2 Class B powered loops for connecting 12 or 24 VDC, two- or four-wire fire or burglary devices or up to 50 two-wire 12 VDC glass break detectors. It reports individual loop alarm or trouble and ground fault; and allows latching device reset from panel or central station.

Order number **D125B**

**Accessories****D137 Accessory mounting bracket for enclosure**

Used to mount accessory modules in B8103, D8108A, and D8109 enclosures.

Order number **D137**

**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, Inc.  
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