D8229

Security Systems

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1.0   D8229 Overview

- Easy Installation

- Full Two-Year Limited Warranty

- Wiegand 26-Bit Format

- Weatherproof and Vandal Resistant

- Selectable for 5 or 12 VDC Operation

The D8229 is a stainless steel keypad that can be used with the Bosch Security System's control panels, D9412GV2, D7412GV2, D9412G, D7412G, D9412, and D7412 with a D9210B Wiegand Interface and the D8112A Access Control/Communicator equipped with a D8210 Wiegand Interface. The D8229 keypad's Wiegand 26-bit format allows customers to use a PIN entry instead of a card to obtain access. There are twelve keys on the D8229, numbered [0] through [9], plus a [#] key and a [*] key. The [*] key is not used.

The D8229 is weatherproof, vandal, and impact resistant. It can tolerate virtually any environment, including extreme climate conditions, and has a two-year limited warranty.

1.1   D8229 Operation

The D8229 has two LEDs to indicate keypad status. The green LED indicates an "Access Granted" condition. The red LED indicates locked status.

Additionally, the red LED flashes and an annunciator beeps with each key press.

1.2   Items Included with the D8229

- One wire harness

- One seven wire 0.6 mm (22 AWG) color-coded connector

- Two machine screws

- Two Lexan adhesive labels are included.

1.3   Connector Wiring

Connect the D9210B Wiegand Interface as described in the *D9210B Operation and Installation Guide* (P/N: 32206).

Connect the D8210 Wiegand Interface Module as described in the *D8210 Wiegand Interface Module Operation and Installation Manual* (P/N: 74-05344-000). Use five wires to connect the D8229 to the D8210.

2.0   Programming

Program the control panel for compatibility with the D8229 using the D5200 Programmer or D5300 Remote Account Manager. Refer to the *D9210B Program Entry Guide* (P/N: 32207) or the *D8112 Program Entry Guide* (P/N: 74-04501-000).

> ✓ Do not program your control panel to accept code number 65535 or greater. Code number 65535 is an error code and sends all binary 1s to your panel. This is also true of code numbers above 65535. Bosch Security Systems recommends using a four-digit PIN code.

2.1   The Command Center Controls the System

For the 9000, GV2, and G series refer to the *Security System Owner's Manual Supplement* (P/N: 33267) to control levels, add, or delete PINs.

For the D8112A refer to the D1252A Command Center to control levels, add, or delete PINs. Refer to Command 53 of the *D1252A User Guide* (P/N: 71-04415-000).

2.2   Select Which Door is Unlocked

The D8229 unlocks one of the doors controlled by the 9000, GV2, or G series control panels. Select which door by connecting the keypad's wiring to specific terminals on the D9210B Wiegand Interface. Refer to the *D9210B Program Entry Guide* (P/N: 32207).

The D8229 unlocks one of the doors controlled by the D8112A. Select which door by connecting the keypad's wiring to specific terminals on the D8210 Wiegand Interface Module. Refer to the *D8210 Wiegand Interface Module Operation and Installation Manual* (P/N: 74-05344-000).

3.0   Installation

3.1   Choose the Best Mounting Location for the User

The normal mounting height for the keypad is approximately 122 cm (48 in.) from the floor. Check local regulations regarding proper mounting locations for disabled or handicapped persons.

Mount the keypad directly on a standard single-gang electrical box or surface mount on a firm flat surface. Avoid mounting the keypad on rough, textured surfaces.

When mounting the keypad outside, use a suitable weatherproof back box.

3.2   Running the Cable

Install the D8229 up to 152 m (500 ft) from the D9210B or 61 m (200 ft) from the D8210 using 0.6 mm (22 AWG) wire or up to 152 m (500 ft) from the D8210 using 1.2 mm (18 AWG) wire. Run a six-wire cable from the D8210 to the D8229 mounting location. The D9201B can be installed 762 m (2500 ft) using 0.6 mm (22 AWG) wire from the control panel or 1524 m (5000 ft) using 1.2 mm (18 AWG) wire.

3.3   Splicing the Cable to the Wiring Harness

Using solder or an equivalent means, splice the six-wire harness, provided with the D8229, to the end of the cable at the mounting location. Ensure each spliced wire is properly covered with tape, or insulation, so the conductors can not short to one another, or to any grounded object.

3.4   Plugging the Keypad into the Cable Connector

The cable connector only plugs in one way. Plug the cable connector assembly into the back of the keypad before mounting the keypad.

3.5   Attaching the Keypad to the Mounting Surface

Use the two #6 screws provided to attach the keypad base to the back box. Tighten the mounting screws.

Apply the Lexan labels.

4.0   System Startup

When programming the control panel is completed, and all wiring is connected, power up the D8229. Using the keypad, enter the four-digit PIN number followed by the [#] key. If programming and wiring are correct, access is granted.

Refer to *Table 1* to wire the unit.

Table 1: Unit Wiring	
Input	Red
Ground	Black
Data 0	Green
Data 1	White
LED input	Brown – Controls green LED when switched to ground
	Blue – Sink ground when any key is pressed
	Case Gnd Tan – Local earth ground, to prevent static discharge
Site Selection	Yellow*
No Connections	Orange, pink
*If the yellow wire is connected to ground, the site code value = 1. If disconnected, the site code =0. Bosch Security Systems recommends leaving the yellow wire disconnected and using a site code value of 0.	

5.0   Specifications

Table 2: Specifications	
Operating Voltage	5 VDC +/- 0.1 V 20 mA
Current Requirement	20 mA idle (nominal)
	120 mA maximum (LED, illuminated)
Wiring	5 conductors (Data 1, Data 0, LED, Common, +5 or +12 VDC)
	0.6 mm (22 AWG) = 152 m (500 ft) D9210B, 61 m (200 ft) D8210
	1.2 mm (18 AWG) = 152 m (500 ft) D9210B, 152 m (500 ft) D8210
Dimensions (H x W x D)	13.0 cm x 8.6 cm x 1.1 cm (5.1 in. x 3.4 in. x 0.4 in.)
	Weight = 0.7 kg (1.5 lb), ships at 0.9 kg (2 lb)
Finish	Stainless Steel
Operating Temperature	-40°C to +70°C (-40°F to +160°F)
Humidity	100% Relative Humidity

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