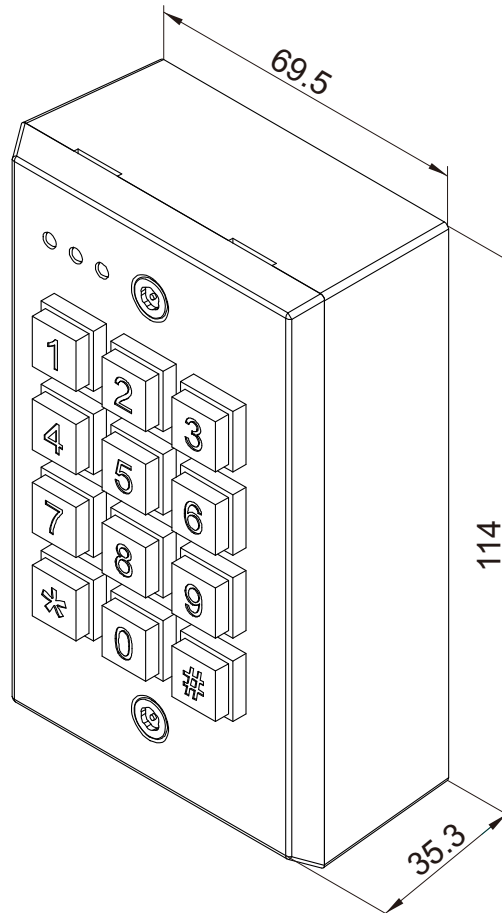


DG-20 Digital Keypad

Operation Manual



Unit: mm

I. Features:

1. Allows up to 99 access PINs.
2. 3 LED indicators & buzzer for status indication . Keypad with beep sound.
3. Maximum 20-digit-code password anti-trailing design or lockout for 30 seconds after entering 5 times invalid PINs (The keypad without beep sound during the period time).
4. Non-volatile memory due to power failure.
5. Built-in tamper switch.
6. AUX signal outputs : In-built additional outputs for contact with other access control devices.

II. Specifications:

Operating Voltage	12VDC/AC
Current Draw	Holding: 50mA/12VDC ; Pull-in: 130 mA/12VDC
Keypad	4X3 matrix 12-digit (0~9, *, #)
Input	1 contact for Request-To-Exit button
Output	1 relay (N.O./N.C./Com. Dry contacts)
Optional PIN length	4~8 digit (master code & PINs must be same length)
Relay Electric Rating	Max.12A/14VDC
Memory Volume	99 PINs
Relay Strike Time	01~99 seconds , Toggle mode (00)
LED Status Indication	3 LED indicators display (Red & Yellow/ Green / Yellow)
Ambient Humidity	5%~95% (Non-condensing)
Operating Temperature	-20°C~+70°C

III. Status Indication & Default Setting Parameters:

	Mode	Status
LED	Green	Relay active
	Yellow	AUX Output active
	Red	Normal (Power On)
Beep	1 Short Beep	Key in
	1 Long Beep	Valid PINs
	3 Beeps (Da, Da, Da)	Enter programming mode, completed setting
	1 Long Beep (Da)	Incorrect input
	1 Longer Beep	Reset

IV. Factory Default Setting:

Master Code	1234 (4 digit)
Relay Strike Time (Time Delay Setting)	5 seconds
Pressed Key Time Delay	60 seconds (Fixed)
Programming Mode Time Delay	90 seconds (Fixed)

V. Operation Instruction:

1. Enter programming mode:

Press the master code twice 1234 1234 to enter programming mode (1 beep, yellow LED on).

2. Exit programming mode:

Press # , back to stand by mode (Red LED on).

3. Change Master Code(default 4-digit , 1234)

1. Enter programming mode
2. Press*00
3. Select length of digit and reset PINs (4 digit ~ 8 digit)
4. Exit programming mode.

(All setting must contain same length of digit with the master PINs).

4. Adding / Change Master Code

a.

1. Enter programming mode
2. Press*(01~19)
3. (4 digit ~ 8 digit)
4. Exit programming mode.

b.

1. Enter programming mode
2. Press * 6(20~99)
3. (4 digit ~ 8 digit)
4. Exit programming mode

5. Clear user's PINs

1. Clear individual user's PINs : Enter programming mode, press *50 - (01~99), exit programming mode.
2. Clear all users' PINs : Enter programming mode, press *50 - 00, exit programming mode.

6. Enter Relay programming mode (default : 5 seconds)

(Press 00 to Toggle mode, Press 05 = 5 seconds, etc.)

Enter programming mode, press *20 - (00~99), exit programming mode.

7. Keypad Lockout Function (default : cancel)

Enter keypad lockout function : Enter programming mode, press *51, exit programming mode. (Repeat the setting once = cancel the function).

8. Change programming mode (default : 0)

1. 20 PINs mode : Enter programming mode, press *53 - 0, exit programming mode.
(Press upto 20 PINs and will lockout 30 seconds in the absence of valid PINs).

2. Individual PINs set : Enter programming mode, press *53 - 0, exit programming mode.
(Alarm sound for any invalid PINs, or lockout 30 seconds in case of continue 5 sets of invalid PINs).

9. Change operation mode (default : 0)

1. Ordinary mode : Enter programming mode, press *52 - 0, exit programming mode.
2. Bypass mode : Enter programming mode, press *52 - 1, exit programming mode.
(Bypass mode equal to Toggle mode)

10. Adding Bypass mode PINs

Enter programming mode, press *54 - (4 digit ~ 8 digit), exit programming mode.

11. AUX Output mode (default : 7)

1. Cancel AUX function : Enter programming mode, press *57 - 0, exit programming mode.
2. Invalid PINs output signal : Enter programming mode, press *57 - 2, exit programming mode.
3. Bell sound for * key : Enter programming mode, press *57 - 3, exit programming mode.
4. Contact push-button output signal : Enter programming mode, press *57 - 6, exit programming mode.
5. Set AUX PINs as output signal : Enter programming mode, press *57 - 7, exit programming mode. (e.g. Be compelled or for emergency purpose)

12. AUX output time delay (default : 000)

(Press 000 = toggle mode, press 005 = 5 seconds, etc.)

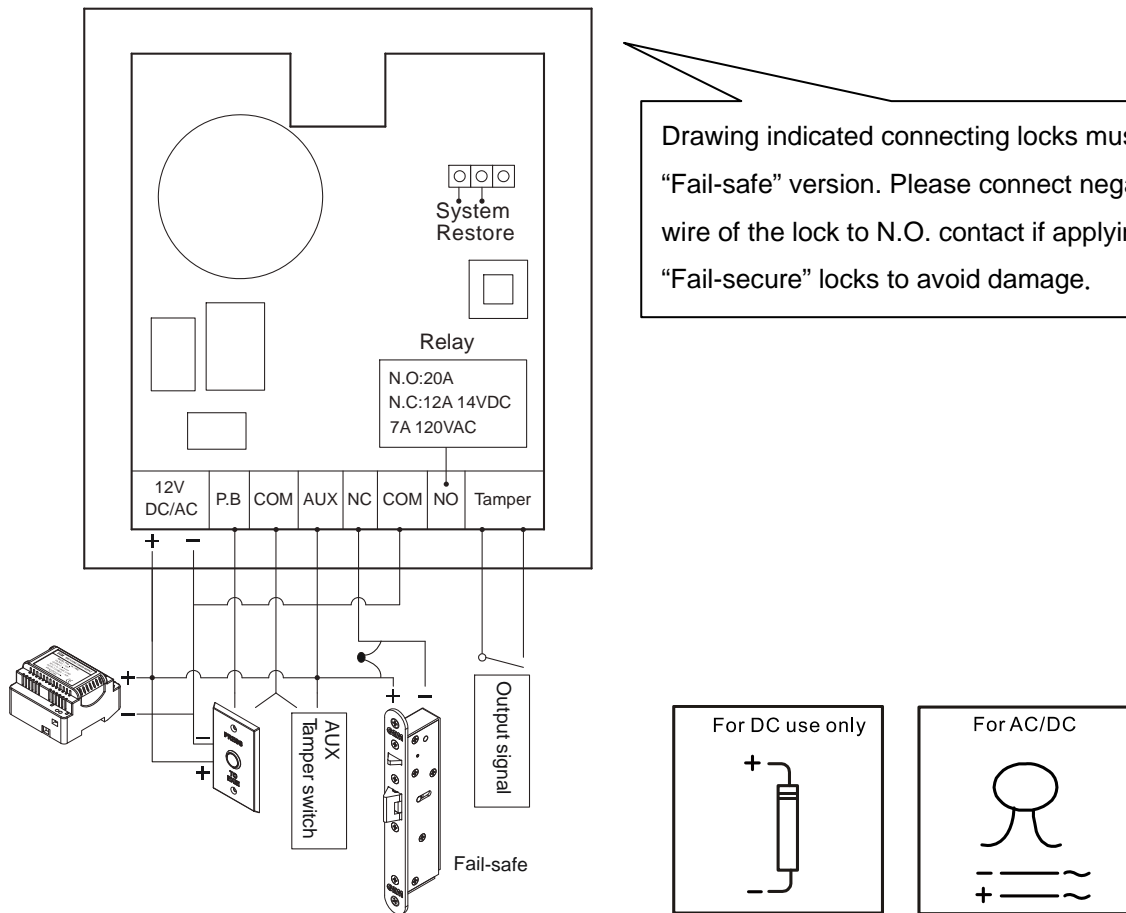
Enter programming mode, press *58 - (000~999), exit programming mode.

(When apply 11-2 and 11-3 can not allow 000 for time delay setting).

13. Adding AUX output PINs

Enter programming mode, press *40 - (4 digit ~ 8 digit) - exit programming mode.

IV. Wiring Diagram:



Note :

1. Recommend to apply single voltage power supply unit and beware of AC or DC version of the connecting locks.
2. It is suggested to use # 22~26 AWG insulation wire.
3. Exit button is at N.O. contact.
4. With CE qualification EMC specification.
5. The door locks or relay must have a varistor or a diode across the door locks terminals to suppress the back EMF of the locks-failure to do so will damage the relay contacts and electronic components , or even burns the controller.

Warranty:

The product is warranted against defects in material and workmanship while used in normal service for a period of 1 year from the date of sale to the original customer. The GEM policy is one of continual development and improvement ; therefore GEM reserves the right to change specifications without notice.