

**digigard™ 85**  
(DG85)

Outdoor  
High-Security  
Motion Detector



Instructions

**P E C U R I T Y   S Y S T E M S**

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DG85-T100  
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1. Press and hold the **[0]** key.
2. Enter your **[INSTALLER CODE]**.
3. Enter section **[953]** (DGP-48) / **[4003]** (DGP-NE96).
4. Enter the detector's 8-digit **[SERIAL NUMBER]** (located on PCB cover).
5. Enter the 3-digit **[SECTION]** you wish to program.
6. Turn the desired option on/off or key in the required data.



The detector keeps the last settings in memory even after it has been powered down, regardless of whether its settings were modified via Module Programming Mode or the DIP switches and trim pot.

### Single or Dual Edge Processing

This option determines the DSP (Digital Signal Processing) of the detector. Single Edge Processing should be used in normal environments with minimal sources of interference. Dual Edge Processing provides better false alarm rejection if the detector is placed near sources of interference that can adversely affect it. Refer to table 1 on reverse.

### LED Setting

This option enables or disables the LED. The LED illuminates for 5 seconds when the unit detects a movement signal that reaches the required energy levels for an alarm and flashes if it detects a signal that does not match the characteristics of an alarm (non-movement signals). Refer to table 1 on reverse.

### Movement Signal Indication

When this option is enabled and the detector detects a signal that matches the characteristics of a movement signal, but does not reach the required energy levels for an alarm, the LED flashes once, indicating the signal was kept in memory. Refer to table 1 on reverse. This option is available only through DGP2 Mode.

### Tamper Recognition

When this option is enabled and the anti-tamper switch is open (cover removed), the detector sends a tamper message to the control panel via the communication bus. Refer to table 1 on reverse. This option is available only through DGP2 Mode.

### Sensitivity and Range Settings

The Digigard 85 features adjustable range and sensitivity options. Adjust this range from 0 to 10 where 1 is the lowest sensitivity setting and 10 the highest.



**Depending on the sensitivity setting, an alarm condition can be generated between 0.25 sec. (highest) and 2 sec. (lowest) after the actual movement.**

#### Adjusting Via Relay Mode

Remove the front cover and with a screwdriver, turn the trimpot clockwise to increase the detector's sensitivity or counter-clockwise to decrease it. You can turn the trimpot 360° in both directions.

#### Adjusting Via DGP2 Mode

In module programming mode, enter section **[002]** and use the arrow keys to scroll a 3-digit value between 000 and 010.

#### Viewing Sensitivity Settings

Remove the cover to view how many times the LED flashes, then adjust the setting accordingly. The LED flashes a consecutive amount of times to show the setting. Thus if the sensitivity is set to 6, the LED flashes 6 times. Refer to table 1 on reverse.

### Walk-testing

At 20°C (68°F), in Normal Shield mode and Single Edge Processing mode, you should not be able to cross more than one complete zone (consisting of 2 beams, left and right sensor detecting elements) in the coverage area with any kind of movement; slow/fast walking or running. In High Shield mode, the amount of movement required to generate an alarm is doubled. The approximate width of a full beam at 11m (35ft) from the detector is 1.8m (6ft). To walk-test, move across the detection path, not toward the detector.

## 中文

### 安装

建议安装高度为  $(2.1-2.7) \times (1\pm 10)\%$  m, DG85提供1.5 m到11 m全方位的防卫范围, 如图4. DG85提供一个专业的防水外壳以便室外安装。



避免把探测器安装在下列干扰源附近: 阳光直射、反光的表面(水面)和公路旁边(避免车辆行走引起误报)。

若需要其它安装高度, 请将PCB板移动到相应的刻度标志。根据防卫范围需要进行微调, 最后需通过步行测试来检验所需的防卫范围是否有误。



不要触摸传感器的表面, 否则有可能引起故障。如有需要, 用湿了稀酒精的软布清洗传感器的表面。

选好探测器的安装位置, 如图3所示打螺丝孔。

### 工作模式

DG85有两种不同的工作模式: DGP2模式(总线模式)或继电器模式。模式的选择可通过DIP上开关设置。

#### 继电器模式(DIP上的开关1=OFF)

当设置成继电器模式时, DG85与标准的移动探测器一样通过继电器传输报警和防拆信号。如图2所示: 可通过控制主机的“AUX+”和“AUX-”分别连接DG85探测器的“RED”和“BLK”端子为探测器供电。GRN和YEL接线端子悬空不用。在继电器模式下, 只可通过DIP开关和微调电位器修改设置。

#### DP2模式(总线模式, DIP 开关1=ON)

当设置成DGP2模式, DG85和总线式DGP2探测器一样通过通讯总线传送报警信号, 防拆信号, 数据和进行探测器的设置。在DP2模式下, 探测器的继电器输出保持激活状态。DG85通过4芯总线直接连接到Digiplex 或 Digiplex NE主机。如图2所示将RED, BLK, GRN和YEL连接到控制主机相应的接线端子。

通过DIP开关和微调电位器来修改DG85的设置, 或通过系统键盘(须与系统兼容)进入模块编程模式。进入编程模式:

- 1、 长按 **[0]** 键
- 2、 输入安装者密码
- 3、 输入段号 **[953]** (DGP-48) / **[4003]** (DGP-NE96)
- 4、 输入8位数字序列号(写在PCB板上的纸标签上)
- 5、 输入你需编程的3位数的段号
- 6、 输入相关数据或把所需的选项设置成ON/OFF。



探测器断电后仍在记忆体中保存着最后一次设置, 不管它的设置是否被模块编程模式或DIP开关和微调电位器修改。

### 单边沿或双边沿处理一出/入分析

该设置指示探测器的DSP(数字信号处理)工作模式。单边沿模式用在干涉很小的正常环境, 双边沿处理(出/入分析)模式可以有有效的减少误报, 故当探测器安装在干涉源附近时此工作模式可有效减少误报。请参看表1。

### LED设置

该选项用于设置LED灯的有效或无效。当探测器探测到一移动信号的能量强度足以产生一报警时, LED灯亮5秒; 当探测器探测到一非报警特征的信号(无移动信号), LED灯闪。请参看表1。

### 移动探测信号指示

当该选项设置成有效并且探测器探测到与移动特征信号匹配的信号, 但该信号没有达到触发报警的所需能量时, LED闪一次, 该指示信号被保存到记忆体里。请参看表1。该选项只适用DGP2模式。

### 防拆辨认

当该选项设置成有效并且防拆开关断开(移开盖子), 探测器通过通讯总线往控制主机发送一个防拆信号。请参看表1。该选项只适用DGP2模式。

### 灵敏度设置

DG85的特征是灵敏度连续可调。可调范围为0到10, 1为灵敏度最低, 10为灵敏度最高。



根据灵敏度的设置, 一个真实的移动可以在0.25秒(高灵敏度)到2秒(低灵敏度)形成一个报警信号。

#### 通过继电器模式调整

移开前壳, 用螺丝刀顺时针拧微调电位器可提高探测器的灵敏度, 反时针拧微调电位器则减低其灵敏度。可顺时针或反时针360°拧微调电位器。

#### 通过DGP2模式调整

在模块编程模式, 输入段号 **[002]**, 然后用箭头键在000到010里选择3位数的值。

#### 查看灵敏度设置

移开盖子, 查看LED闪了多少次, 然后作相应的设置。LED连续闪的总次数指示相应的设置。如果灵敏度设置为6, LED闪6次。参看表1。

### 步行测试

在20°C工作温度下, 探测器的工作模式是正常Shield模式和单边沿处理模式, 你无需穿越一个完整的出入分析区域(包括2个防卫区域, 即感应器的左和右探测源); 以下各种移动: 慢步、快步和奔跑均不需通过完整的出入分析区域。在高风险Shield模式, 产生一报警信号所需的移动信号次数是双倍的。一个全方位的防卫范围为约1.8 m到11 m。步行测试通常是横穿探测的方向而不是对着探测器进行步行测试。

Figure 1 (图1)

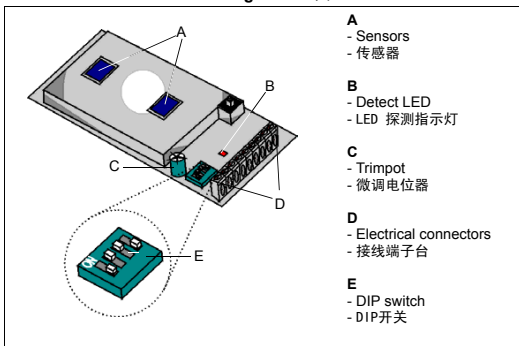


Figure 2 (图2)

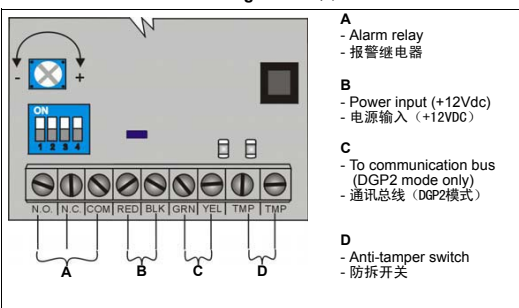


Figure 3 (图3)

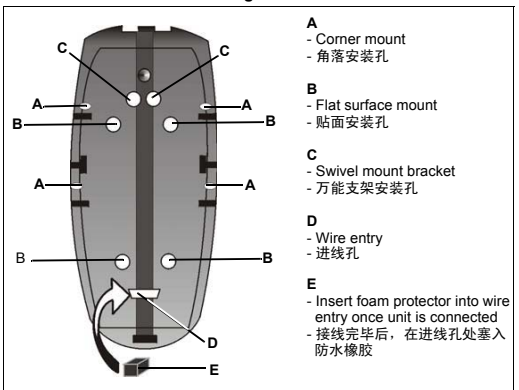


Figure 4 (图4)

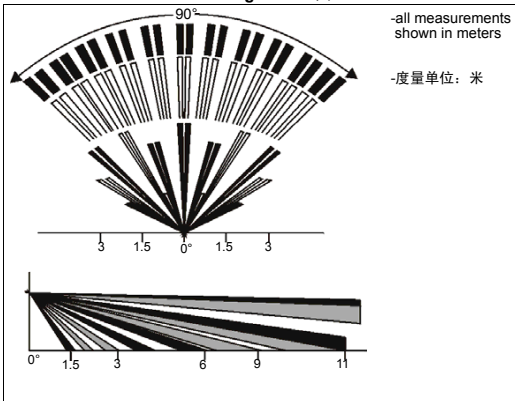


Table 1

Feature		DGP2 Mode	Relay / DGP2 Mode
Operational mode	Relay	N/A	DIP switch 1 = OFF
	DGP2	N/A	DIP switch 1 = ON
Signal processing mode	Dual	[001] → [1] = ON	DIP switch 2 = ON
	Single	[001] → [1] = OFF	DIP switch 2 = OFF
LED	Disabled	[001] → [2] = OFF	DIP switch 3 = OFF
	Enabled	[001] → [2] = ON	DIP switch 3 = ON
Movement Signal Indication	Disabled	[001] → [3] = OFF	N/A
	Enabled	[001] → [3] = ON	N/A
Tamper recognition	Disabled	[001] → [5] = OFF	N/A
	Enabled	[001] → [5] = ON	N/A
Sensitivity		[002] → 001 - 010	Trimpot → 0 - 10

Modify the detector's settings using the DIP switch and trim pot or by entering Module Programming Mode (DGP2 Mode only) via any system keypad.

**TECHNICAL SPECIFICATIONS**

Sensor type	Two Dual Element Infrared
Sensor geometry	Rectangular
Coverage: 90° (standard)	11m x 11m (35ft x 35ft)
Installation height	2m to 2.7m (7ft to 9ft)
Operating temperature	-20°C to +50°C (-4°F to +122°F)
Voltage input	10 to 16Vdc
Current consumption	30mA Maximum
Lens	2nd generation Fresnel lens, LODIFF®, segments
Alarm output	Form A relay 100mA/28Vdc, N.C. or optional form C relay 5A/28Vdc, N.C./N.O.
Anti-tamper switch	150mA/28Vdc, N.C.
RFI / EMI rejection	10V/m
Detection speed	0.2m/s to 3.5m/s (0.6ft/s to 11.5ft/s)

Specifications may change without prior notice.

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表1

功能	DGP2模式	继电器/DGP2模式
工作模式	继电器	未使用 DIP 开关1= OFF
	DGP2	未使用 DIP 开关1 = ON
数字信号处理	双边沿	[001] → [1] = ON DIP 开关2 =ON
	单边沿	[001] → [1] = OFF DIP 开关2=OFF
LED	无效	[001] → [2] = OFF DIP 开关3=OFF
	有效	[001] → [2] = ON DIP 开关3=ON
移动信号指示	无效	[001] → [3] = OFF 未使用
	有效	[001] → [3] = ON 未使用
防拆辨认	无效	[1] → [5] = OFF 未使用
	有效	[001] → [5] = ON 未使用
灵敏度	[002] → 001 - 010	微调电位器 → 0 - 10

通过DIP开关和微调电位器或系统键盘进入模块编程状态编程修改设置 (DGP2模式)

**技术参数**

传感器类型	两个独立的双元红外
感应的几何光束	矩形
防卫范围 (标准)	90 度, 11 m x 11 m
安装高度	2 m 到2.7 m
工作温度	-20 °C 到 +50 °C
电压输入	10 到16 VDC
电流消耗	最大30 mA
透镜	第2 代非涅耳镜片, LODIFF®, 分段式
报警输出	A型继电器 (100mA/28VDC) , N. C.
防拆报警输出	150mA/28VDC, N. C.
抗RFI / EMI	10 V/m
探测速度	0. 2m/s到3. 5m/s

Spécifications sujettes à changement sans préavis.

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