V1.2

PG 卡使用说明书

（PGV-C000 标准型）

技术参数

PGV-C000 标准型 PG 卡接收单端集电极开路输出及差分输出编码器信号，参数配置如下：

1）12V/200mA（最大）电压源；

2）增量式编码器三路 ABZ 差分输入标准接口；

3）信号频率：≤200KHz；

4）信号幅值：12V±20%。

接线端子

接线端子如下图所示。

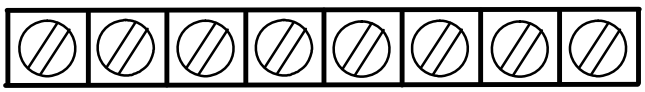


图 1　PG 卡的端子示意图

接线端子规格

类 型	名 称	规 格
辅助电源	+12V	向外部提供+12V/最大 200mA 电流
公 共 端	GD	电源参考地
差分输入	A+	编码器 A 相差分(+12V±20%)输入，最大频率≤200 KHz
	A-	
	B+	编码器 B 相差分(+12V±20%)输入，最大频率≤200 KHz
	B-	
	Z+	编码器 Z 相差分(+12V±20%)输入，最大频率≤200KHz
	Z-	

安装与拆卸

PG 卡的安装与拆卸方式如下：

◆ **安装**

① 将 PG 卡如图示方向放置，下按直至 PG 卡与控制板插座接触良好；

② PG 卡左侧的螺孔对齐后，锁紧三个 M3 螺钉。

♦ 拆卸

① 拆下 PG 卡左侧的三个螺钉；

② 将 PG 卡（如图 2）从控制板的插座中向上拔出。

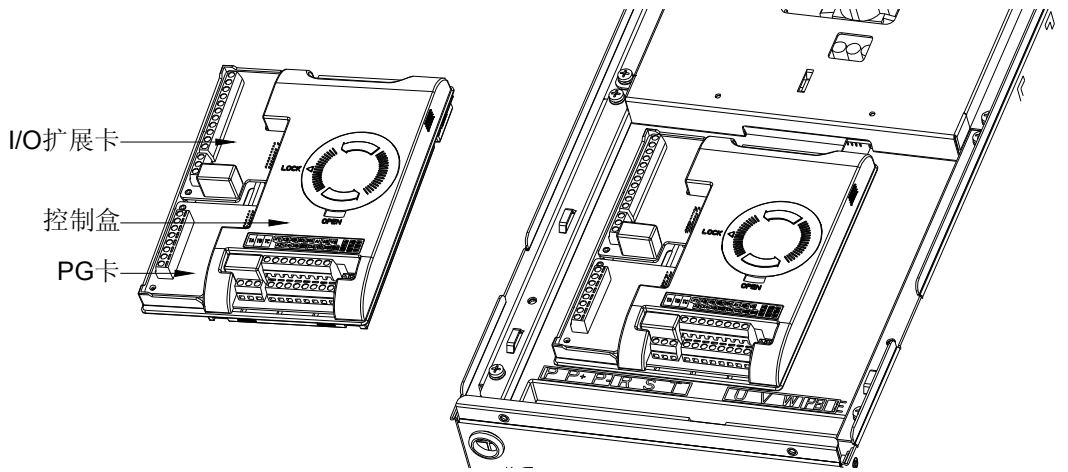


图 2　PG 卡的安装拆卸示意图

内部等效电路

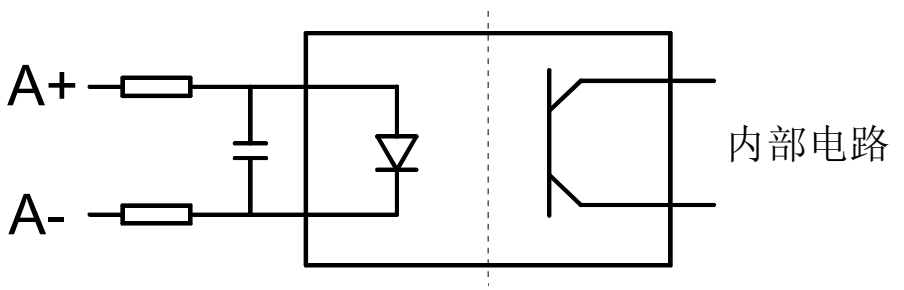


图 3　A 相内部结构等效图

应用连接

以 A 相为例

1）集电极开路输出信号（最大连线长度 50m）

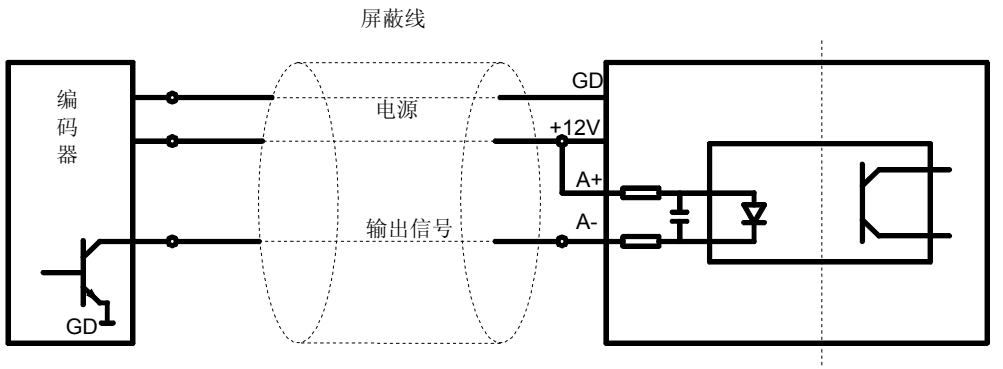


图 4　集电极开路输出

2）长线差分驱动输出（最大连接长度 1km）

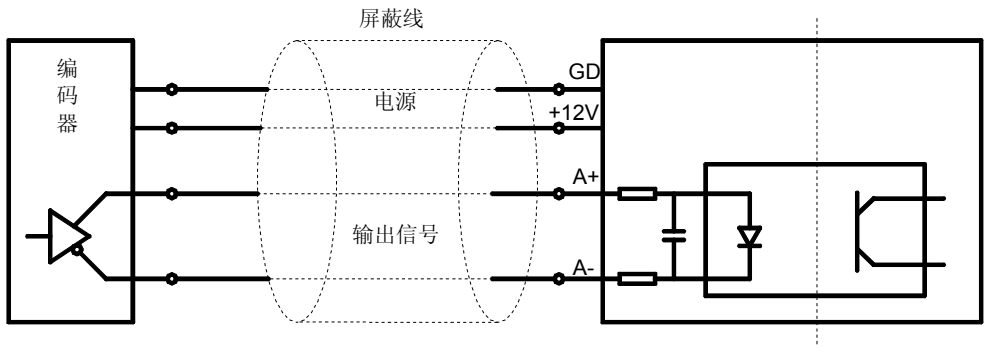


图 5　长线差分输出

注意事项

1）　请将 PG 卡信号线与动力线分开布置，禁止平行走线。

2）　请务必使用屏蔽电缆作为信号线。

3）　请将屏蔽线的屏蔽层单端接大地（如变频器的 E 端）。

USER MANUAL FOR PG CARD

(PGV-C000 STANDARD TYPE)

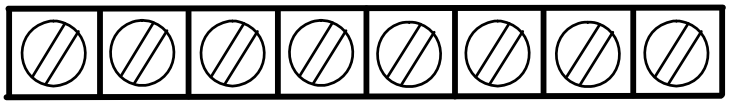
Technical Parameter

PGV-C000 standard PG card can receive signals from single-ended collector open-circuit output and differential output encoder, with the parameters as below:

- 12V/200mA (maximum) voltage source;
- Incremental encoder three-phase ABZ differential input standard port;
- Signal frequency: ≤200KHz;
- Signal amplitude: 12V±20%.

Interface

The connecting terminals are shown as following figure.



+12V GD A+ A- B+ B- Z+ Z-

Figure 1 Terminal Introduction of PG Card

Specification

Type	Name	Description
Power supply	+12V	+12V/200mA (max.) voltage source；
Common port	GD	Power supply reference point
Differential input	A+	Encoder A-phase differential input (+12V±20%)，max frequency≤200 KHz
	A-	
	B+	Encoder B-phase differential input (+12V±20%)，max frequency≤200 KHz
	B-	
	Z+	Encoder Z-phase differential input (+12V±20%)，max frequency≤200 KHz
	Z-	

Assembly & Disassembly

Please refer to Figure 2 for disassembly and assembly' of PG card.

- **Assembly**

1. Place PG card in direction as shown in figure, press down until good connection between PG card and socket of control panel;
2. Tighten the fastening screw M3 at the left upper corner of the PG card

- **Disassembly:**

1. Loosen the fastening screw M3 at the left upper corner of the PG card;
2. Pull PG card up (as shown in Figure 2) out from the socket of control panel.

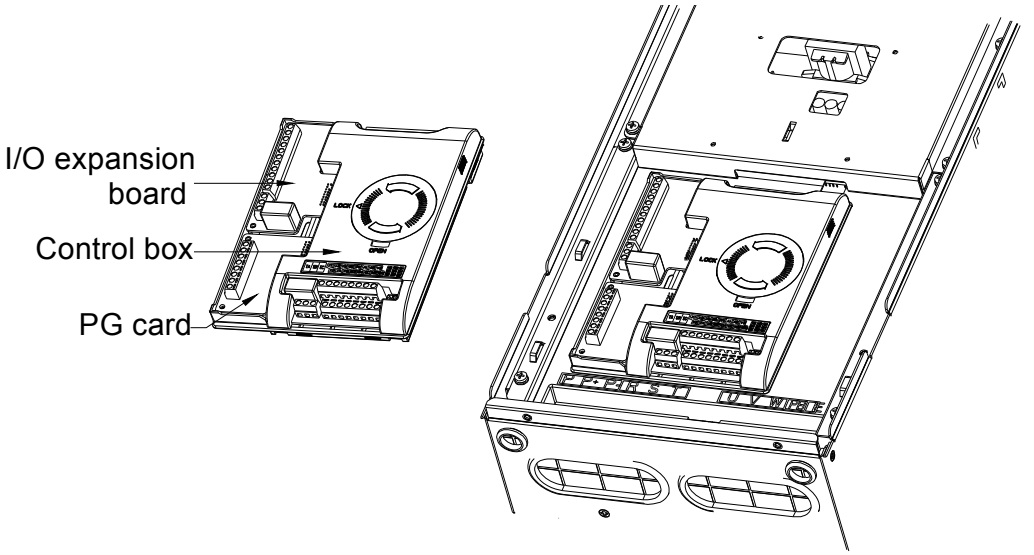


Figure 2 Schematic Diagram Of Assembly & Disassembly Of PG Card

Internal Equivalent Circuit

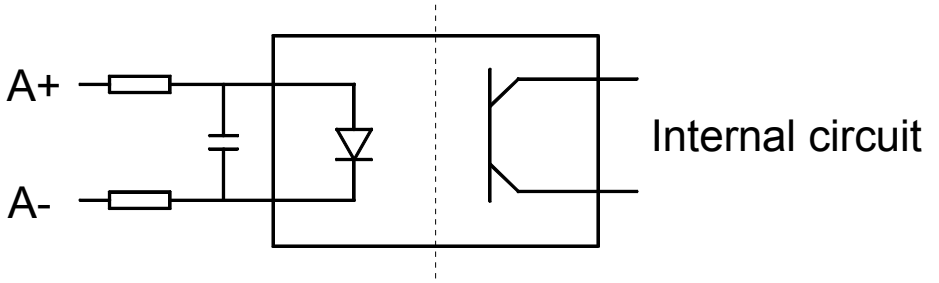


Figure 3 A-phase Internal Structure Equivalent Figure

Connection for Application

Taking A-phase as an example,

1）Collector open-circuit output signal (maximum connection length 50m)

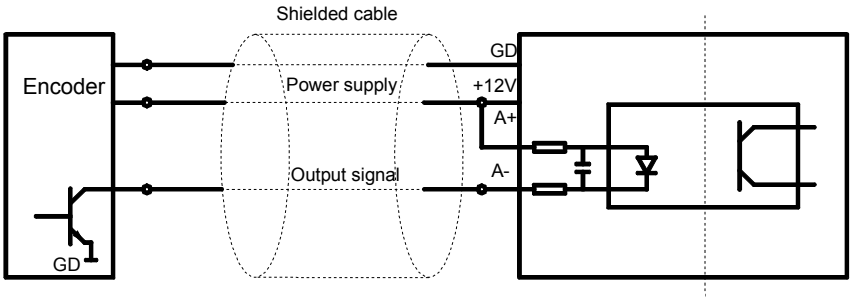


Figure 4　Collector Open-Circuit Output

2）Long-circuit differential drive output (maximum connection length 1km)

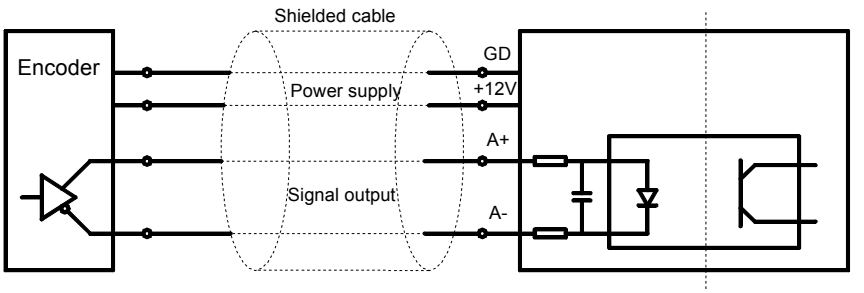


Figure 5　Long-Circuit Differential Output

Precautions

1) The signal and power wire for PG card shall be separated and must not parallel with each other.

2) Be sure to use shielded cable for the signal wire.

3) The single end of the shielding layer of the shielded cable shall be grounded (e.g. E terminal of the inverter).