

PG 卡使用说明书

(PGA-A000 标准型)

技术参数

PG 卡 PGA-A000 标准型可以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：

- ◆ 12V / 200mA（最大）电压源；
- ◆ 增量式编码器三相 ABZ 差分输入标准接口；
- ◆ 信号频率：≤200 KHz；
- ◆ 信号幅值：12V±20%。

接线端子

接线端子如下图所示：

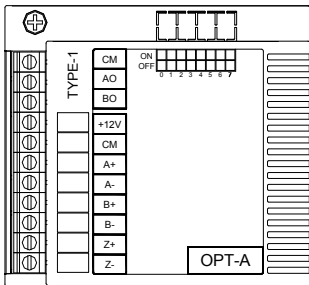


图 1 PG 卡的端子图

端子规格

类 型	名 称	功 能
辅助电源	+ 12V	向外部提供+12V 最大 200mA 电流
公共端	GD	+12V 电源参考地
输出端	AO	预留
	BO	
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≤200 KHz
	Z-	

安装与拆卸

PG 卡的安装与拆卸请参照图 2。

◆ 注意

扩展卡和托盘上的对应的插座分大小两种，相同大小插座的扩展卡可互换位置。

◆ 安装

- ① 将 PG 卡按如图示方向水平放置，使卡上的插座对准 PG 卡托盘上的插座 1，下按直至 PG 卡紧贴托盘；
- ② 将 PG 卡左上角的 M3 固定螺钉锁紧。

◆ 拆卸

- ① 将 PG 卡左上角的 M3 固定螺钉拧松；
- ② 将 PG 卡从 PG 卡托盘中向上拔出。

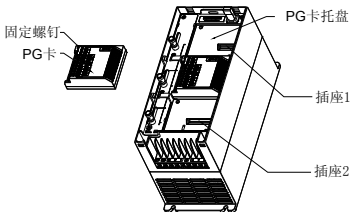


图 2 PG 卡的拆卸安装示意图

配线

以 A 相为例：

1. 集电极开路输出信号（最大连线长度 50m）

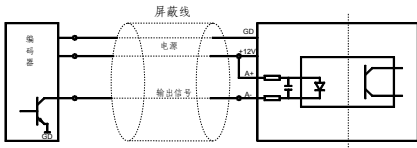


图 3 集电极开路输出配线图

2. 长线差分驱动输出（最大连接长度 1km）

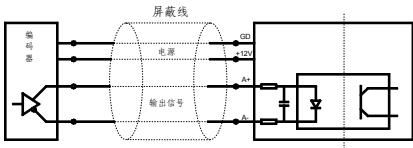


图 4 长线差分输出配线图

注意事项

- 1) PG 卡信号线与动力线要分开布置，禁止平行走线。
- 2) 请务必使用屏蔽电缆作为信号线。
- 3) 屏蔽线的屏蔽层单端接大地（如变频器的 E 端）。

USER MANUAL FOR PG CARD

(PGA-A000 Standard)

Technical Parameters

PGA-A000 standard PG card receives signals from single-terminal open collector output and differential output encoder. Parameters are shown below:

- ◆ 12V/200mA (maximum) voltage source;
- ◆ Incremental encoder 3-phase ABZ differential input standard interface;
- ◆ Signal frequency: $\leq 200\text{KHz}$;
- ◆ Signal amplitude: $12\text{V} \pm 20\%$.

Interface

Wiring terminals are shown in Figure-1:

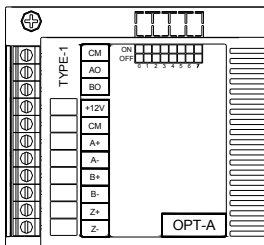


Figure-1 Terminals of PG Card

Terminals & Functions

Terminal type	Name	Function
Auxiliary power	+12V	Supply +12V maximum 200mA external power
Common terminal	GD	+12V power reference ground
Output terminal	AO	Reserved
	BO	
Differential input	A+	Encoder A-phase differential (+12V±20%) input, maximum frequency ≤ 200 KHz
	A-	
	B+	Encoder B-phase differential (+12V±20%) input, maximum frequency ≤ 200 KHz
	B-	
	Z+	Encoder Z-phase differential (+12V±20%) input, maximum frequency ≤ 200 KHz
	Z-	

Assembly & Disassembly

The PG card is assembled and disassembled as shown in Figure-2.

NOTE: There're two sizes of jackets on the pallet and card sockets. The expansion card may be inserted in either jacket of the same size on the pallet.

◆ Assembly

1. Place the PG card horizontally in the direction as shown in the figure and align the socket of the card with the jacket 1 of card pallet, and press until the PG card hug the pallet closely;
2. Tighten the M3 fixing screw at top left corn of the card.

◆ Disassembly

1. Loosen the M3 fixing screw at top left corner of the card;
2. Pull the PG card upward from card pallet.

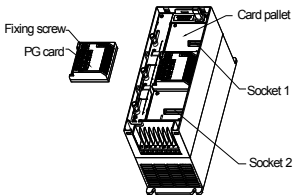


Figure-2 Assembly and Disassembly of PG Card

Wiring

Taking A-phase as example:

1. Open collector output signal (Max. length of long line: 50m)

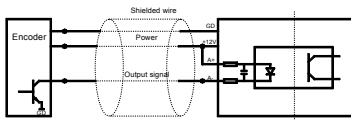


Figure-3 Wiring for Open Collector Output

2. Long line driver output (Max. length of long line: 1km)

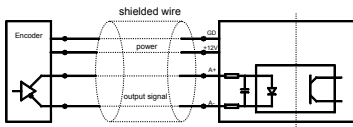


Figure 4 Wiring for Long Line Differential Input

Precautions

- 1) PG card signal wire is separately laid with power line. Parallel wiring is not allowed.
- 2) Make sure using shielded cable as the signal wire.
- 3) Single terminal of shielding layer for the shielded wire should be grounded (such as E terminal of frequency converter).