pGN0 / pGN1 / pGNE pCO 图形显示手操器 / *pCO Graphic Display*

阅读并保存这些用法说明
READ AND SAVE THESE INSTRUCTIONS

面板安装型手操器
Panel mounting terminal

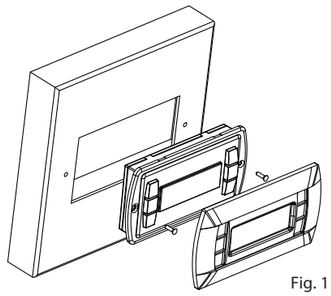


Fig. 1

墙面安装型手操器（电话连接头）
Wall mounting terminal (telephone connector)
PGN1*W*0**

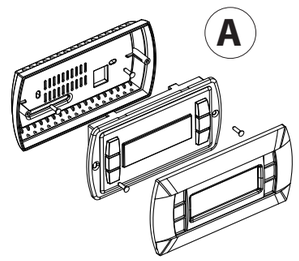


Fig. 2

墙面安装型手操器(线缆夹)
Wall-mounting version terminal (clamp connector)
PGN1*Y*0

Fig. 3

设置地址 / ***Configuring the address***

```
Display address
setting.........:nn

I/O Board address:xx
```

Fig. 4

```
Display Address
changed
```

Fig. 5

RC 感谢您选择卡乐产品。我们相信您会对该款手操器满意。

PGN图形手操器是一种电子设备，它完全兼容先前的*PGD/PCOI/PCOT*系列手操器；它允许完全通过图标显示（在应用软件程序开发阶段定义）进行图形管理，以及国际通用字体符号管理。有两种规格可供选择：5x7和11x15像素。应用程序驻存在pCO主板上，因此，运行时手操器不需要任何软件。另外，手操器运行温度范围很大（-20~60 °C），有内置手操器的版本可供选择，前面板有很高的防护等级（IP65）。

型号代码

	白色背光	白色背光带蜂鸣器
内置式或面板安装型	PGN****F00	PGN****FZ0
墙面安装型	PGN****W00	PGN****WZ0
用螺丝线缆夹进行固定的墙面安装型	PGN1**0Y*0	

Tab.1

面板安装型(代码PGN*000F*0)

这款手操器专为墙面安装而设计；安装开孔尺寸为127x69mm，有两个圆孔，直径为4mm，
如图8如所示，安装过程如下：

- 连接好电话线缆；
- 把移走前面板的手操器插入开口处，使用包装袋中提供的扁平螺钉把设备固定在面板上。
- 最后安装前面框。

墙面安装型(代码PGN*000W*0)

墙壁安装型手操器首先需要配置一个背部支柱盒来支撑手操器（如Fig. 2所示），使用标准三模开关盒。
安装过程如下：

- 使用包装袋中提供的圆头螺钉把背部盒固定在墙壁上；
- 连接好电话型电缆线；
- 移走手操器的前面板，使用包装袋中的扁平螺钉把手操器固定背部支撑盒上，如Fig. 2所示；
- 最后安装前面框。

墙面安装型(代码PGN1**0Y*0)

如图Fig. 3所示，也可以利用背板F安装PGN1**0Y*0手操器，背板F必须预先紧固在墙面上。

1. 将“墙面安装适配器”用螺丝固定到墙面上(A)
2. 去掉线缆外皮，留出大约12 cm(不要连接屏蔽层)
3. 用线缆夹固定线缆到背板(B)
4. 将双绞导线穿过背板的孔(D) (使用AWG24 2双绞线)
5. 用螺丝将背板与适配器固定(C)
6. 连接导线到PGN显示屏的螺接端子上：请小心操作，错误连接可能会损坏PGN, pCO和pLAN网络中的其它设备

请将收拢的导线保留在这个区域！

7. 最后，将PGN 固定到背板上，且将导线仅收拢在封盒的右侧（正视）

手操器地址设置

手操器地址只能在电源接通后才能设置，使用RJ12电话型接口（工厂默认值32）。
要进入配置模式，同时按压↓ ↑ ↵键（所有型号的图形显示手操器中都有这三个按键）至少5秒钟：显示屏将显示如Fig. 4的界面，光标会在显示屏的左上角闪烁。

- 要更改手操器地址（显示地址配置），按下 ↵ 键一次：光标会移到地址值区域（nn）。
- 使用 ↓ ↑ 键选择所需的地址，然后再次按下↵ 键确认。如果选择的值与之前保存的那个值不同，将显示如Fig. 5的界面，并且这个新值将被保存永久性存储器中。

如果这一区域值nn设为0，手操器和pCO之间使用“点对点”通讯协议（不是PLAN），“O/I板地址区域：xx”将不再显示，因为没有意义。

pCO：设置专用和共享手操器

如果与每个单独的pCO主板关联的手操器需要修改，请按如下方式进行：

- 使用 ↓↑↵键，进入配置模式，与前一节的说明相同；
- 按下 ↵ 键直到光标移动到xx区域（I/O地址），如Fig. 4；
- 使用 ↓↑ 键选择pCO主板，可用的值对应有效的在线pCO主板。如果pLAN网络工作不正确，或者如果pCO主板不存在，这个区域则不能修改，显示“—”符号。
- 再次按下 ↵ 键，依次将显示如Fig. 6的内容；
- 在这里，同样使用 ↵ 键，光标会从一个区域移到另一个区域，使用 ↓↑ 键改变当前区域的值。这一区域P:xx显示的是所选择的主板的地址值；在如下面的范例所示，12这个数值已经被选择了。
- 要退出配置程序并保存数值，选择“OK？”区域，选择YES并按下 ↵键确定。

在这个区域中“Adr”栏表示，与pCO主板相关联的手操器地址值为12，而“Priv/shared”栏表示手操器的类型。
注意：PGN手操器不能被配置为“Sp”(共享打印机)，因为它没有打印机接口。
如果手操器上的按键超过30秒钟没有被按压，配置程序会自动退出，不会保存任何改变。

ENG *Thank you for your choice. We trust you will be satisfied with your purchase.*

The pGN graphic display is an electronic device that is compatible with the previous pGD0/pGD1/pGDE line terminals; it allows complete management of graphics by the display of icons (defined at an application software development level), as well as the management of international fonts, in two sizes: 5x7 and 11x15 pixels.The application software resides on the pCO board, and therefore the terminal does not require any additional software for operation. Furthermore, the terminals feature a wide operating temperature range (-20T60 °C) and in the built-in version, the front panel ensures a high index of protection (IP65).

Model codes

	White Backlight	*White Backlight with buzzer*
Built-in or panel-mounted version	*PGN****F00*	*PGN****FZ0*
Wall-mounted version	*PGN****W00*	*PGN****WZ0*
Wall-mounting version with screw clamps connector	*PGN1**0Y*0*	

Tab.1

*Panel-mounted version (code PGN*000F*0)*

These terminals have been designed for panel installation; the drilling template measures 127x69 mm and has 2 circular holes, 4 mm in diameter, as shown in Fig. 9. For installation, proceed as follows:

- *Connect the telephone cable;*
- *Insert the terminal, with the front frame removed, into the opening, and fasten the device to the panel using the flush-head screws, supplied in the packaging, as shown in Fig. 1;*
- *Finally, fit the click-on frame.*

*Wall-mounted version (code PGN*000W*0)*

The wall-mounting of the terminal first requires the back piece of the container A (Fig. 2) to be fitted, using a standard three-module switch box.

- *Fasten the back piece to the box using the rounded-head screws supplied in the packaging;*
- *Connect the telephone cable (code S90CONN00*) from the pCO board to the connector provided (RJ12) on the rear of the terminal;*
- *Rest the front panel on the back piece and fasten the parts together using the flush-head screws supplied in the packaging, as shown in Fig. 2;*
- *Finally, fit the click-on frame.*

*Wall-mounting version (code PGN1**0Y*0)*

*It is also possible to mount terminal PGN1**0Y*0 with “visible” cabling using back piece F, which must be secured to the wall (fig.3) beforehand.*

1. *Fix the “wall mounting adapter” to the wall by screws (A)*
2. *Remove cable jacket and shield for about 12 cm (shield must be not connected)*
3. *Fix the cable to the back piece by the clamp (B)*
4. *Pass the the twisted pair conductor through the hole (D) of back piece (use AWG24 2 pair twisted cable)*
5. *Fix the back piece to the adapter by screws (C)*
6. *Connect the conductor pairs to the screw terminal of PGN display: be careful, wrong connections may damage PGN, pCO and other devices on pLAN network*

Keep the folded conductors in this area!

7. *Finally, fix the PGN to the back piece folding the conductor only on the right side of the enclosure (front view)*

Address configuration

The address of the terminal can be configured only after having connected the power supply, using the RJ12 telephone jack (the factory default value is 32).
To access configuration mode, press the ↓↑↵ buttons (present on all versions) together and hold them for at least 5 seconds; the screen shown in Fig. 4 will be displayed, with the cursor flashing in the top left corner:

- *To change the address of the terminal (display address setting), press the ↵ button once: the cursor will move to the address field (nn).*
- *Use the ↓↑ buttons to select the desired value, and confirm by pressing ↵ again. If the value selected is not the same as the one saved previously, the screen shown in Fig. 5 will be displayed, and the new value will be saved to the permanent memory.*

If the field nn is set to 0, the terminal will communicate with the pCO board using “point-to-point” protocol (not pLAN) and the field “I/O Board address: xx” will not be displayed, as it has no meaning.

pCO: assigning the list of private and shared terminals

At this point, if the list of terminals associated with each individual pCO board needs to be modified, proceed as follows:

- *access configuration mode using the ↓↑↵ buttons, as described in the previous paragraph;*
- *press the ↵ button until the cursor moves to the field xx (I/O board address) Fig. 4;*
- *use the ↓↑ buttons to select the pCO board in question. The values available correspond to the pCO boards that are effectively on line. If the pLAN network is not working correctly, or if no pCO board is present, the field cannot be modified, and the symbol “—” will be displayed;*
- *pressing ↵ again displays the screens shown in Fig. 6, in sequence;*
- *here too, the ↵ button moves the cursor from one field to the next, and the ↓↑ buttons change the value of the current field. The field P:xx shows the address of the board selected; in the example shown in the figure, the value 12 has been selected;*
- *to exit the configuration procedure and save the data, select the field “OK ?”, choose Yes and confirm by pressing ↵.*

The fields in the “Adr” column represent the addresses of the terminals associated with the pCO board that has address 12, while the Priv/Shared column indicates the type of terminal.

Note: the PGN terminals cannot be configured as “Sp” (shared printer), as they have no printer port.
If the terminal remains inactive (no button is pressed) for more than 30 seconds, the configuration procedure is exited automatically, without saving any changes.

设置专用和共享手操器 /*Assigning the list of private and shared terminals*

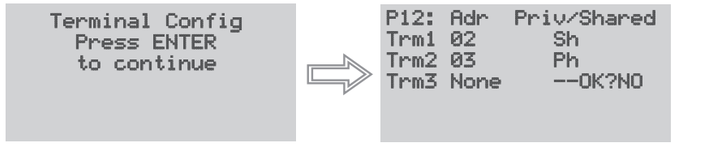


Fig. 6

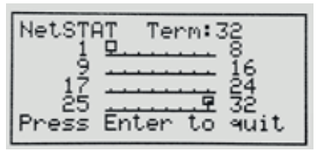


Fig. 7

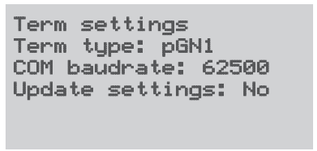


Fig. 8

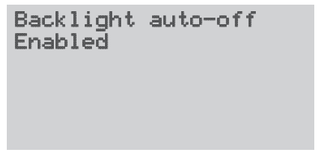


Fig. 9

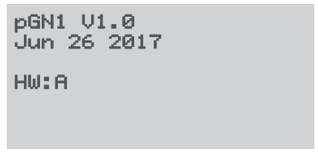


Fig.10

尺寸 / *Dimensions*

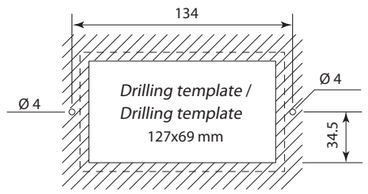
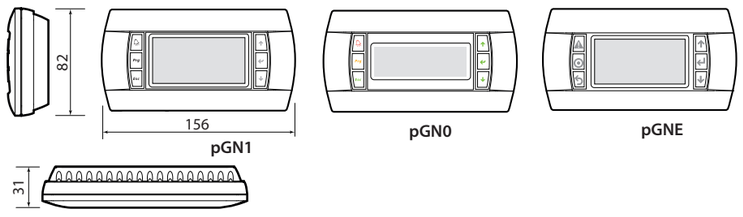


Fig.11

墙面安装/ *Wall mounting*



面板安装/ *Panel mounting*

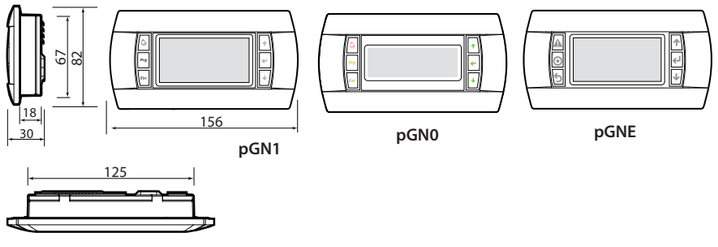
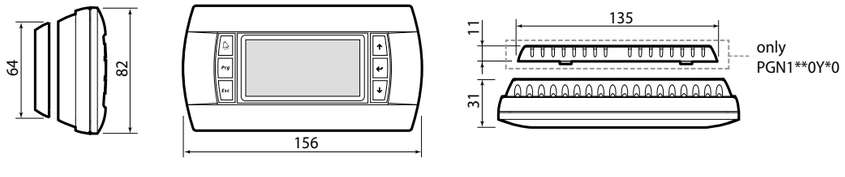


Fig.12

型号 PGN1**0Y*0 / PGN1**0Y*0 *Model*



故障信号

如果手操器检测到自身所连接的pCO主板掉线，将会显示如下信息：

`I/O Board xx fault.`

另一方面，如果手操器没有接收到来自网络的信号，显示屏将显示如下信息：***NO LINK***

显示网络状态和固件版本

同时按压配置键(↓↑⌟)至少10秒钟(仅在pLAN模式下)，显示屏显示如Fig. 7所示的界面。

Fig. 7中显示的是pLAN网络状态的一个示例，显示连接了哪些设备和连接了多少设备，

Legenda:

: 在网络中有效的pCO控制器 : 在网络中有效的手操器 : 没有连接设备

Fig. 7中的示例表示：
在网络中有效的pCO控制器，地址：1
在网络中有效的手操器：地址：32

↓↑⌟ 键可以用于显示驻存在手操器上的固件版本如(Fig. 10)。

要退出netstat程序，按下⌟ 键。

LCD 对比度调节

使用 + ***Prg*** + ↓↑ 按键调节对比度。

手操器设置

在设置模式，按↓键到如图 Fig. 8. 使用⌟ 修改pGN 类型0/1和波特率。
使用↓↑键修改需要的值，按⌟键确认，选择"Yes" 更新设置
不要随意修改波特率(默认值为62500)，除非pCO内程序需要115200的波特率。

背光灯自动关闭

在设置模式，按↓ 键到如图Fig. 9。如果pCO不管理背光灯并且背光灯自动关闭的功能被使能，那么背光灯会在30分钟后自动关闭。

技术规格

显示	
类型	FSTN图形
背景光	白色LED(由应用软件控制)
图形分辨率	132x64像素
文本模式	8行x22列(字体大小 5x7和11x15像素)PGN1/PGNE
	4行x20列(字体大小 5x7和11x15像素)PGN0
	4行x11列(字体大小 11x15像素)PGN1/PGNE
	2行x10列(字体大小 11x15像素)PGN0
	或者混合模式
字高	3.5 mm(字体大小 5x7像素)
	7.5 mm(字体大小 11x15像素)
显示区有效面积	66x32 mm
显示区域面积	72x36 mm

软键盘LED灯/蜂鸣器	
2个是可编程的(由应用程序决定)，红色和黄色(Prg和Alarm键)	
6个蓝色LED，作为键盘背景光	
蜂鸣器(可选-型号*Z0)	

电源	
电压	电源可通过电话线型电缆接到pCO主板提供；或来自外部电源 18/30Vdc，由250mAT保险丝保护
最大输入功率	0.9 W

最大距离	
pLAN 的最大长度	500 m，AWG22型双绞屏蔽电缆
pCO手操器连接距离	2 m，电话线型电缆
	500 m米， AWG22型双绞屏蔽电缆和TCONN6J000
	注意：为了达到最大距离，可使用总线结构布线(bus layout)，最大距离不超过5米

材质	
透明前面板	透明聚碳酸酯
灰色后盖盒(墙面安装/嵌入式)	聚碳酸酯 +ABS
软键盘	硅胶
透明封盖/边框	透明聚碳酸酯
自熄灭等级	透明前面板和后盖盒为V0
	硅胶按键和其它部件为HB

其它	
防护等级	面板安装型为IP65
	墙壁安装型为IP40
	UL type 1
运行条件	-20~60 °C, 90% r.H. 无凝露
储存条件	20~70 °C, 90% r.H. 无凝露
软件等级和结构	A
抗电击等级	可用于I类或II类设备
绝缘材质的PTI	PCB: PTI 250; 绝缘材料 PTI 175
绝缘件耐压周期	长
耐火和耐热等级	D
抗浪涌等级	II类
环境污染	2类

Fault signals

If the terminal detects the off-line status of the pCO board it is associated with, the display shows the message: `I/O Board xx fault.`
On the other hand, if the terminal receives no signal from the network, the display shows the following message: ***NO LINK****.*

Displaying the status of the network and firmware version

Pressing the configuration buttons (↓↑⌟) together for at least 10 seconds (in pLAN mode only), displays the screen shown in Fig. 7. The screen shown in Fig. 7 provides an example of the status of the pLAN, displaying which and how many devices are connected, and the corresponding addresses.

Key:
: *pCO controllers active in network* : *terminals active in network* : *no device connected*

The example in Fig. 7 represents:
pCO controllers active in network, addresses: 1
terminals active in network, addresses: 32

The ↓↑⌟ buttons can be used to display the version of the firmware resident in the terminal (Fig. 10).
To exit the NetSTAT procedure, press ⌟.

Contrast adjustment

Use + Prg + ↓↑ buttons to adjust the contrast.

Terminal settings

In configuration mode, press ↓ button to the screen shown in Fig.8. Use ⌟ to change the pGN type 0/1 or baudrate.
Use the ↓↑ buttons to select the desired value, and confirm by pressing ⌟ button and conform "Yes" to update settings.
Don't change the baudrate(default value is 62500) only if different application in pCO requires 115200 baudrate.

Backlight Automatic off

In configuration mode, press ↓ button to the screen shown in Fig.9. If pCO doesn't manage the backlight, backlight will switch off in 30 minutes if Backlight auto-off is Enabled.

Technical specifications

Display	
Type:	*FSTN graphic*
Backlighting:	*white LEDs (controlled by "application software")*
Graphic resolution:	*132x64 pixels*
Text mode:	*8 rows x 22 columns (font sizes 5x7 and 11x15 pixel) PGN1/PGNE*
	4 rows x 20 columns (font sizes 5x7 and 11x15 pixel) PGN0
	4 rows x 11 columns (font sizes 11x15 pixel) PGN1/PGNE
	2 rows x 10 columns (font sizes 11x15 pixel) PGN0
	or mixed modes
Character height:	*3.5 mm (font size 5x7 pixels)*
	7.5 mm (font size 11x15 pixels)
Size of active area:	*66x32 mm*
Size of display area:	*72x36 mm*

Keypad LEDs / Buzzer	
2 programmable by "application software", red and orange (Prg and Alarm buttons)	
6 Blue LEDs, used as backlighting for keypad buttons	
*Buzzer (optional - models *Z0)*	

Power supply	
Voltage:	*power supply from pCO through telephone cable or external source 18/30 Vdc protected with 250 mAT external fuse*
Maximum power input:	*0.9 W*

Maximum distances	
Maximum pLAN length:	*500 m with AWG22 twisted pair cable*
pCO terminal distance:	*2 m with telephone cable*
	500 m with AWG22 twisted pair cable and TCONN6J000
	Note: to reach the maximum length, use a bus layout, with branches not exceeding 5 m.

Materials	
Transparent front panel:	*transparent polycarbonate*
Charcoal grey container back piece (wall/ built-in):	*polycarbonate +ABS*
Keypad:	*silicon rubber*
Transparent cover glass/frame:	*transparent polycarbonate*
Self-extinguishing classification:	*V0 for transparent front panel and back piece*
	HB for silicon keypad and remaining parts

Others	
Index of protection:	*IP65 for panel mounting*
	IP40 for wall mounting
	UL type 1
Operating conditions:	*-20T60 °C, 90% r.H. non-condensing*
Storage conditions:	*-20T70 °C, 90% r.H. non-condensing*
Software class and structure:	*A*
Classification according to protection against electric shock:	*To be integrated into class 1 or 2 devices*
PTI of insulating materials:	*PCB: PTI 250; insulation material PTI 175*
Period of electric stress across insulat. parts:	*long*
Category of resistance to fire and heat:	*D*
Immunity against voltage surges:	*Category II*
Environmental pollution:	*2*

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cod. +05C001425 rel. 1.2 - 28.06.2018