



CWGP-F10无线电子手轮

CWGP-F10 Wireless electronic MPG handwheel

说 明 书

Manual



The Manual For Fully functional Wireless Handle for Engraving machine
使用本产品之前，请先阅读本手册，并妥善保存手册作日后参考。



典型应用：数控机床、数控雕铣机、加工中心

applications: CNC machine tools,CNC engraving and milling machine, machining center

该产品是数控机床上配套使用的手摇脉冲发生器(Manual Pulse Generator),已广泛应用于数控机床、数控车床、加工中心、数控雕铣机等领域。该产品采用无线传输技术,省去了传统的弹簧线连接,减少因电缆引起的设备故障,免去电缆拖动,粘上油等污染,操作更方便。该产品套装包括接收器和无线电子手轮。接收器通过16芯电缆线与设备连接,电子手轮(手摇脉冲发生器)通过无线传输技术与接收器进行连接通讯。操作者手持手轮,可摆脱弹簧线的连接束缚,自由走动。针对大型的龙门铣、数控车床、行走机床、切割等应用,更是带来极大的方便性,提高工作效率。

the product is CNC machine tools supporting the use of manual pulse generator, has been widely used in CNC machine tools, CNC lathes, machining centers, CNC engraving and milling machine, such as fields. The product uses wireless transmission technology, eliminating the need for the traditional spring line connection, reduce the cable caused by equipment failure, replacing the cable drag, sticky, mail and other pollution, more convenient operation. The package includes a receiver and a wireless electronic handwheel, through the receiver is connected to the 16 core cable and equipment, electronic handwheel through wireless transmission technology and the receiver of communication connection. Operator hand wheel, can get rid of the shackles of the spring line, freedom to move around. For large-scale Longmen milling. CNC lathe, machine tools, cutting and other applications, but also bring great convenience, improve work efficiency

● 产品系列 The product model

产品型号 : CWGP-F10

Model:CWGP-F10

● 支持系统 Support system

适用于德国西门子 (SIEMENS) 、日本三菱 (MITSUBISHI) 、法那科 (FANUC) , 西班牙发格 (FAGOR) 、法国NUM、台湾宝元、新代等数控系统

Apply to SIEMENS, MITSUBISHI, FANUC, FAGOR, NUM, SYNTech CNC.....
Numerical Control System

● 产品特点 Product features

- 支持五点碰数自动找正功能，可以计算工件偏移角度，计算工件中心点坐标
- 支持保存和返回工件中心点坐标,
- 支持按键控制轴快速移动,支持自动回分中点坐标(X.Y当前坐标1/2处).
- 无线ISM频段，433MHZ,10DB发射功率，-98DB接收灵敏度，无障碍距离50米
- 抗干扰设计，稳定可靠，同房间使用32套无线手轮，相互不影响
- 低功耗设计，2节AA电池，正常使用30天
- 具有轴选功能，倍率选择功能,具有LCD显示清零，分中功能，LCD能显示X,Y,Z , 4,5,6轴的增量坐值 (同时显示3个轴的坐标)
- 采用合金编码器，性能稳定可靠，手感好，齿位清晰
- Support five point touch number automatically find the positive, can calculate the workpiece offset angle, calculate the workpiece center point coordinates
- Support save and return to the coordinates of the center point of workpiece
- Support the button control shaft moving fast, Automatic go to $\frac{1}{2}$ coordinate
- Wireless ISM frequency band, 433 MHZ, 10DB Transmit power, -98DB Receiver sensitivity, interference free within 50m
- Anti-interference design, stable and reliable, up to 32 sets of wireless remote control MPG in use simultaneously
- Low-power design, 2 AA batteries lasting 30 days in normal operation
- Having a shaft selection function, magnification selection function
- With LCD display cleared, in function, LCD can display X, Y, Z, 4, 5, 6 axis coordinate value increment
- The alloy is stable and reliable, the performance of the encoder, feel good, clear teeth

采用无线传输技术，操作方便，省去了传统的弹簧线连接，减少了电缆故障率，免去电缆拖动，粘上油等污染。

Using wireless transmission technology, convenient operation, eliminating the traditional spring wire connection, reduce the failure rate of cable and remove cable drag viscous oil pollution



● 产品功能描述 The product function description



功能描述：显示屏同时显示3个轴的增量坐标，信号强度，电量信息，11个功能按键，合金编码器。

Function Description: display screen can display the 3 axis of the incremental coordinates, signal strength, power information, 10 function buttons, alloy encoder

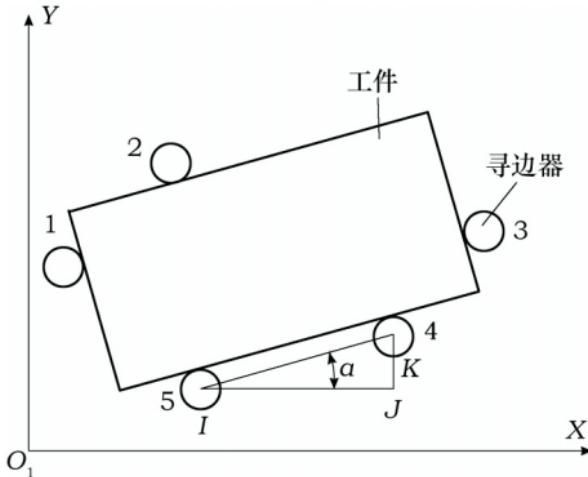


五点碰数自动找正

利用寻边器在工件四周碰上五点，利用无线电子手轮的功能，通过五个测试点的坐标，计算工件偏移角度和工件中心点坐标

Five point touch a few

Using the edge finder in the workpiece around five points, the use of wireless electronic hand wheel function, through five Coordinate of test points, calculate the offset angle of the workpiece and the workpiece center coordinates



操作步骤：

1. 将寻边器的信号接到接收器的停止信号输入端口；
2. 使用无线电子手轮移动机床，在工件的四周触碰第一个测试点，

按下保存按键  ,保存测试点1的坐标.按照此方法,寻找五个测

试点，并保存五个测试点的坐标.按下加载按键  ,可以显示保存的五个测试点的坐标.

3.按下按键  ,电子手轮自动计算出工件偏移角度并显示,按下

● 产品功能描述 The product function description

保存按键保存此数据。



4.按下按键 ,电子手轮自动计算出工件的中心点坐标并显示,

按下保存按键保存此数据。



5.按下返回中心点按键 ,机床回到所保存的工件中心点坐标处。



6.将倍率开关扭到 ,显示保存的工件偏移角度.扭到 ,显示



保存的工件中心点坐标.

Operation steps:

1. Connect the edge finder and the stop signal input port of wireless handwheel receiver.

2. The use of wireless electronic hand wheel mobile machine, around the workpiece to touch the first test point, press the

Save button

to save the coordinates of the test point 1.

In accordance with this method, look for five test points, and save the coordinates of the five test points. Press the load



button , displays the coordinates of the five test points

saved



3. Press the button , electronic handwheel automatically

calculates the workpiece deviation angle and display. Press the Save button to save the data.



4. Press the button , electronic handwheel automatically



calculates the coordinates of the center point of the workpiece and display,Press the Save button to save the data.

5.Press the button  ,The machine back to the workpiece center point coordinate position has been saved.

6.Turn the Rate switch to  ,display the workpiece offset angle has been saved.Turn to  ,displays the coordinates of the center point of the workpiece that have been saved.

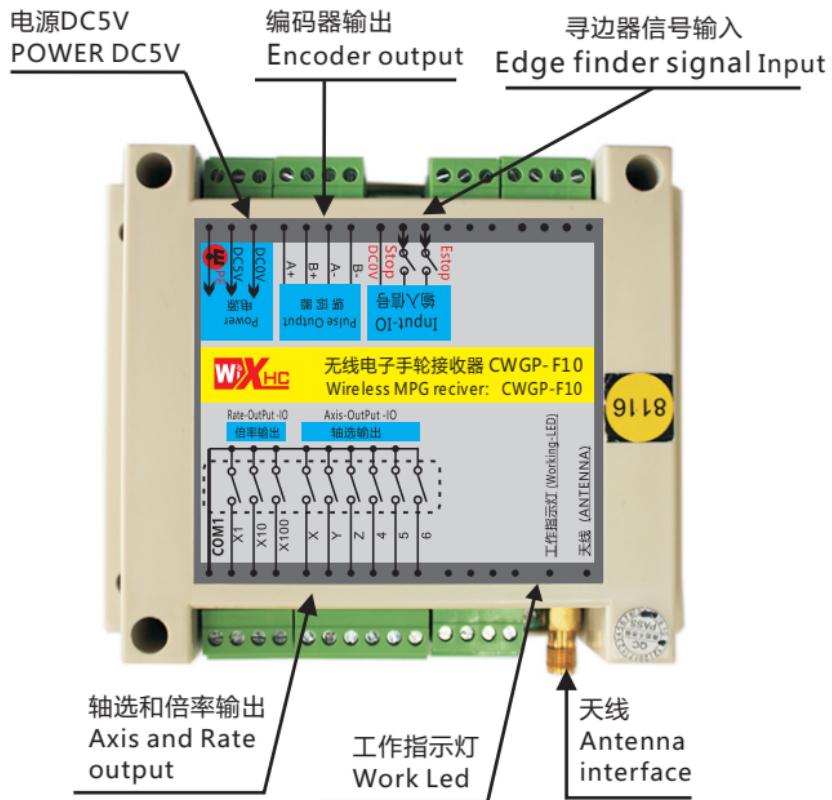
● 按键功能描述 The buttons function description

	<p>按下按钮,当前坐标清零 Press the button, the current coordinates are cleared</p>
	<p>按下按钮,当前坐标减半 Press the button, The current coordinates halved</p>
	<p>按下按钮,机床负方向移动 , 松开停止移动 ; 同时按下使能键和此键 , 则快速移动 Press the button, the machine in the negative direction of movement, loosen the stop moving; at the same time by pressing the enable key and the key, the machine will move quickly</p>
	<p>按下按钮,机床正方向移动 , 松开停止移动 ; 同时按下使能键和此键 , 则快速移动 Press the button, the machine in the positive direction of movement, loosen the stop moving; at the same time by pressing the enable key and the key, the machine will move quickly</p>
	<p>按下按钮,保存当前显示的测试点坐标 Press the button to save the current display of the test point coordinates</p>
	<p>一直按下按钮,机床回到中心点位置 Continue to press the button, the machine back to the center position</p>
	<p>按下按钮,计算工件偏移角度,并显示 Press the button, Calculate the deviation angle of the workpiece, and display it</p>

The buttons function description 按键功能描述

	按下按钮,删除保存的测试点坐标 Press the button, delete the saved test point coordinates
	按下按钮,加载显示存储的坐标 Press the button, Load display saved coordinates
	按下按钮,计算工件中心坐标并显示 Press the button, calculate the workpiece center coordinates and display
	按下按钮,机器移动到X.Y轴当前坐标1/2的位置 Press the button, the machine go to the X.Y axis current coordinate 1/2 position
	按下使能按键 , 轴选开关输出有效 ; 脉冲输出有效 ; Press the enable button, the axis selection switch output is valid; pulse output is valid
	<p>轴选择 : OFF : 关闭轴选功能 X: X轴 Y: Y轴 Z: Z轴 4: 4轴 5: 5轴 6: 6轴</p> <p>Axis selection : OFF: Close axis function X:X axis Y:Y axis Z:Z axis 4:4 axis 5:5 axis 6:6 axis</p>
	<p>1X: 0.01mm 10X: 0.1mm 100X: 1mm</p> <p> 显示保存的工件偏移量 Display saved workpiece offset</p> <p> 显示保存的工件中心坐标 Display saved workpiece center coordinates</p>

● 接收器描述 Receiver description



工作指示灯：空闲时，指示灯闪烁；

工作时，指示灯常亮

Work Led: When not working, the light flashing
When working, the light is always bright

脉冲输出选型指南

Pulse Output Selection Guide

型号 Model	参数描述 parameter description	适合系统 suitable systems
GP01	电源DC5V,输出脉冲100PPR,相位输出为A,B 两路脉冲序列A和B相差90 开路集电极电路 , 内装200欧5V的上拉电阻 DC5Vpower supply, 100PPR pulse output, phase output A, B phase difference 90 degrees between A and B open collector circuit with 200 ohm 5v pull-up resistor	日本法那科FANUC系统 台湾中达电通TNC 台湾亿图(HUST)系列 国内如航天数控,华中数控,广州诺信 凯恩帝KND等系列 FAUNC system made in Japan TNC system made in Taiwan HUST series made in Taiwan Aerospace CNC, Huazhong CNC, Guangzhou Nordson, KND etc
GP02	电源DC12V,输出脉冲25PPR,相位输出为A,B 两路脉冲序列A和B相差90 开路集电极电路 , 内装2K欧5V的上拉电阻 DC12Vpower supply, 25PPR pulse output, phase output A, B phase difference 90 degrees between A and B open collector circuit with 2Kohm 5 v pull-up resistor	日本三菱MELDAS电子手轮 (MELDAS M64;M65;E60等系统 为电源DC12V, 输出为DC5V) MELDAS handwheel made in Japan (MELDAS M64;M65;E60) SELCA systems made in Italy

脉冲输出选型指南

Pulse Output Selection Guide

型号 Model	参数描述 parameter description	适合系统 suitable systems
GP03	电源DC5V,输出脉冲100PPR,相位输出为A,/A,B,/B采用差分驱动输出 DC5V power supply, 100PPR pulse output, phase output A,/A, B,/B differential driving output	适合PC_BASE系统，典型系统如：台湾宝元POUYUEN M600 M500 M520i T300 ELC-1000系列，台湾新代SYNTEC系统，德国PA系统 典型如：海德盟 Higerman，海那克HANUC，广州数控 GSK，开通数控 等数控系统国外系统： 西门子，NUM，西班牙法格FAGOR (NEW, 8055I)等。 PC_BASE systems, eg.: Taiwan POUYUEN M600 M500 M520i T300 ELC-1000 SERIES Taiwan new generation SYNTEC systems Germany PA systems such as Higerman, HANUC, GSK, Kaitong CNC Other systems such as Siemens, NUM, FAGOR (new, 8055I)



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