OMRON

型 E6C4-CWZ5G

旋转编码器

使用说明书

感谢您使用欧姆龙产品。以下主要记载安装和使用本产品过

使用本产品前, 请仔细阅读本说明书, 充分了解产品。 为了您的方便,请妥善保管好本说明书。

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安全上的注意

●警告表示的意思

⚠ 注意

如果不正确使用的话,有可能引起轻伤、中等 程度的伤害还有可能带来同样重大的物质损害。

●警告表示

通电状态下请勿拆开本产品。如触及内部会造成触电伤亡

安全上的要点

- (1) 使用时请不要超过额定电压范围。如施加额定电 压以上的电压时,会引起破裂和烧损。
- (2) 高压线和动力线并行连线时,会因感应而发生误 动作或破损, 所以请分开连线。
- (3)使用电源如发生浪涌,请在电源间接上浪涌吸收 器。为了避免干扰,请尽量在短距离之内连线。
- (4) 在接通电源或切断电源时,容易发生错误脉冲, 所以请在接通电源0.1秒后、及切断电源0.1秒前 使用。

正确使用方法

- (1) 旋转式编码器是由紧密部件构成的, 因此使用时 要非常小心,不能跌落,以免损伤功能。
- (2)使用时请不要让水和油滴落在主体上。
- (3) 需注意电源极性等,不能错误连线,以免引起破
- (4)连线时要在电源切断的状态下进行。
- (5)固定本体、进行导线连线时,请注意导线的拉伸 力度不要超过29.4N。
- (6) 用螺丝固定本体时,紧固扭距0.49N·m以下。
- (7)请勿往轴上施加过大的载荷,以免引起产品破损。 用链条、传送带及齿轮连接时, 先通过其他轴承, 再用耦合器与编码器结合。
- (8)如果安装误差大(偏心、偏角),就会有过大的 负载加在轴上,从而造成损坏或者缩短其使用年 限。安装时请小心。
- (9) 当耦合器插入轴时,请不要用锤子敲击等增加撞
- (10) 安装、拆卸耦合器时,请勿进行不必要的弯曲、 压缩和拉伸。

E6C4-CWZ5G

DC12 \sim 24V ($^{+15\%}_{-10\%}$)

100mA以下

互补输出

输出电压: VH=Vcc-3V(Io=30mA)

100kHz

A相、B相位差 90±45°

10mN·m以下

1.5×10⁻⁶ kg・m²以下

5000r/min

径向·····120N

-10~+70°C

 $35{\sim}85\%RH$

IEC 60529规格

公司内部标准

输出电流: ±30mA

VL=2V以下 (Io=-30mA)

■ 类型和规格

电源电压

消费电流

输出状态

输出容量

最高响应频率

输出相位差

起动转矩

惯性力矩

允许最高转速

轴允许力

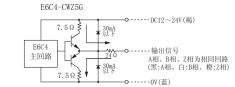
环境温度

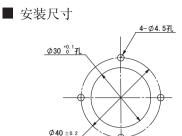
环境湿度

保护结构

规格

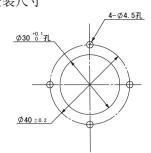
■ 输出回路图





PVC耐油Ø5导线

■ 外形尺寸图



■接线

外部接线时,请注意不要错误连线。

规格	E6C4-CWZ5G
线色	端子名
褐	电源(+Vcc)
黑	输出A相
白	输出B相
橙	输出Z相
蓝	OV

- ①为了确保安全,请勿将本产品直接或间接用于人体检测。需要 使用该用途时,请选用本公司传感器综合样本中刊登的安全传
- ②使用于下列用途时,请与本公司营业担当商谈、并根据规格书等确认后,采用相对于额定性能留有一定余裕度的使用方法或 者采取即使出现故障也能使危险度降低到最小的安全电路的对
- a) 屋外使用、用于有潜在的化学污染或者有电气妨害时,或者
- 是产品手册、使用说明书等没有记载的条件或环境中使用时b)用于原子能控制设备、焚烧设备、铁路·航空·车辆设备、 医疗设备、娱乐器械、安全装置以及按照行政机关或个别业 界规定制造的设备时
- c) 用于可能危及生命、财产的系统・机械・装置时
- d) 用于煤气、水道、电力供给系统或者24小时连续运转系统等
- e) 用于其他,以上述a) ~d) 为基准,需要高度安全性的用途时 *上述内容是适用条件的一部分。请参阅本公司综合产品手册• 数据等最新版商品目录、手册中记载的保证•免责事项内容后



OMRON

Model E6C4-CWZ5G

ROTARY ENCODER

INSTRUCTION SHEET

Thank for you selecting OMRON product. This sheet primarily describes precautions required in installing and operating the product.

Before operating the product, read the sheet thoroughly to acquire sufficient knowledge of the product. For your convenience,keep the sheet at your disposal.

TRACEABILITY INFORMATION Omron Europe B.V. Wegalaan 67-69 2132 JD Hoofddorp, The Netherlands

Manufacturer:
Omron Corporation,
Shiokoji Horikawa, Shimogyo-ku,
Kyoto 600-8530 JAPAN
Shanghai Factory
No.789 Jinji Road,
Jinqiao Export Processing District,
Pudong New Area, Shanghai, 201206 CHINA

The following notice applies only to products that carry the CE mark

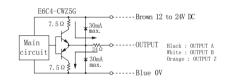
Notice:
This is a class A product. In residential areas it may cause radio interference, in which case the user may be required to take adequate neasures to reduce interference

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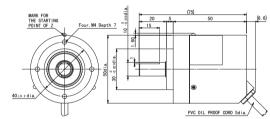
Precautions for Correct Use

- (1) Since the product consists of high-precision components, handle it with utmost care.
- (2) Be careful not to expose the product to water or oil.
- (3) Be careful when wiring, such as being careful with the polarities of the power supply. Incorrect wiring may break or burn the
- (4) Be sure to turn off the power supply before wiring.
- (5) If the product is mounted and wired with a cord, do not pull the cord with force greater than 29.4N.
- (6) If securing the product with screws, tighten the screws to a torque of less than 0.49N · m.
- (7) Be careful not to apply excessive load to the shaft. Excessive load may cause the product break. Especially when linking with a chain, timing belt, or gears,
- connect a separate bearing before the coupling to the product.
- (8) If an installation error such as misalignment is too large, (in case using the coupling or without coupling) the shaft will be subjected to an excessive load which will damage it or shorten its service life. Be careful when installing
- (9) When inserting the shaft in the coupling, do not use excessive force (by striking it with hammer, for example).
- (10) When installing or removing the coupling, do not apply an excessive being, compressing, or tensile force.

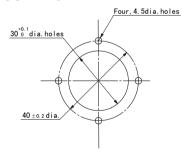
OUTPUT CIRCUIT DIAGRAM



OUTLINE DRAWING



MOUNTING



RATING

<u>Item</u> Type	E6C4-CWZ5G	
Supply voltage	12 to 24V DC (+15%)	
Current consumption	100mA max.	
Output circuit configuration	Complementary output	
Output capacity	Output resistance: "H"level output voltage: "L"level output voltage: 2V max. (at output current:-30mA) Output cerrent: ±30mA max.	
Maximum response frequency	100kHz	
Phase different of output	90±45° between output A and output B	
Starting torque	10mN⋅m max.	
Moment of inertia	$1.5 \times 10^{-6} \mathrm{kg} \cdot \mathrm{m}^2\mathrm{max}$.	
Slewing speed	5000r/min	
Shaft loading	Radial: 120N max. Axial: 50N max.	
Ambient temperature	$-10 \text{ to } +70^{\circ}\text{C}$	
Ambient humidity	35 to 85%RH	
Degree of protection	IEC 60529 : IP65	

Suitability for Use

THE PRODUCTS CONTAINED IN THIS SHEET ARE NOT SAFETY RATED. THEY ARE NOT DESIGNED OR RATED FOR ENSURING SAFETY OF PERSONS, AND SHOULD NOT BE RELIED UPON AS A SAFETY COMPONENT OR PROTECTIVE DEVICE FOR SUCH

Please refer to separate catalogs for OMRON's safety rated products

OMRON shall not be responsible for conformity with any standards, codes, or regulations that apply to the combination of the products in the customer's application or use of the product.

Take all necessary steps to determine the suitability of the product for the systems, machines, and equipment with which it will be us Know and observe all prohibitions of use applicable to this product

NEVER USE THE PRODUCTS FOR AN APPLICATION INVOLVING NEVER USE THE PRODUCT IS FOR AN APPLICATION INVOLVING SERIOUS RISK TO LIFE OR PROPERTY WITHOUT ENSURING THAT THE SYSTEM AS A WHOLE HAS BEEN DESIGNED TO ADDRESS THE RISKS, AND THAT THE OMRON PRODUCT IS PROPERLY RATED AND INSTALLED FOR THE INTENDED USE WITHIN THE OVERALL

EQUIPMENT OR SYSTEM. See also Product catalog for Warranty and Limitation of Liability.



■ ASIA-PACIFIC PTE. LTD. No. 438A Alexandra Road #05-05-08(Lobby 2), Alexandra Technopark, Singapore 119967 Phone: 65-6835-2011 Fax: 65-6835-2711

□ CHINA
 □ CHINA

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seconds before or after the power is turned on or off

Meaning of Signal Words

/_CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury or in property damage.

•Alert statements

the product to breakor burn.

Do not attempt to take ant unit apart while the power is being supplied. Doing so may result in electric shock

Precautions for Safe Use

1)Do not use the product in excess of the rated voltage. Applying voltages beyond the rated voltage range may cause

2) Avoid wiring the product's cables parallel to power lines or high-voltage lines. Doing so may cause the priduct to malfunction due to induction or may cause the damage the product.

3)If surge occurs in the power supply, connect a surge absorber between the power supply terminals to absorb the surge Minimize the wiring length to prevent the product from being affected by noise,etc.

4)Since improper pulses may occur when the power is turned on or off,use the devices connected to this product at least 1.0