
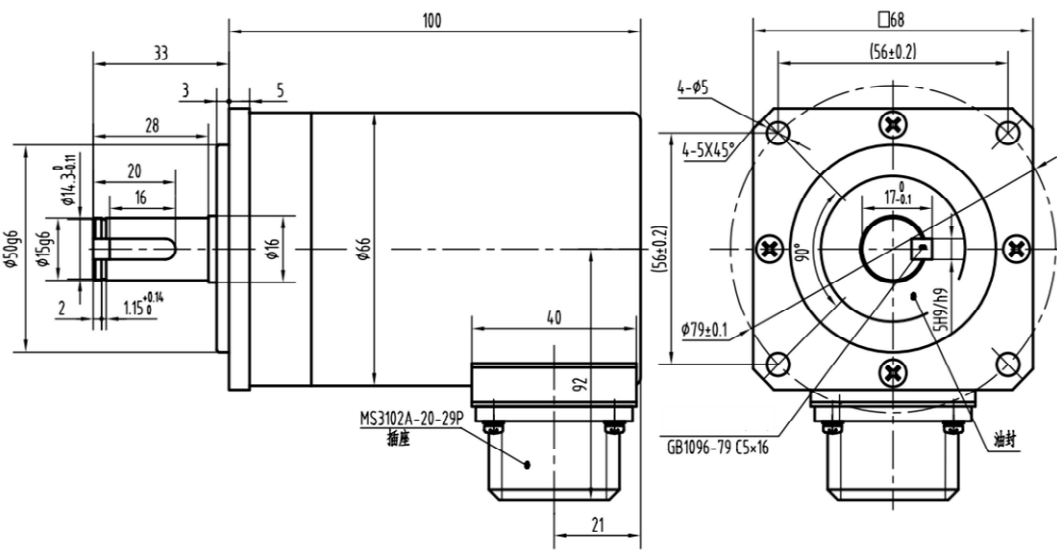
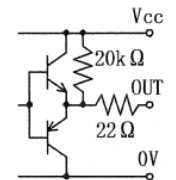
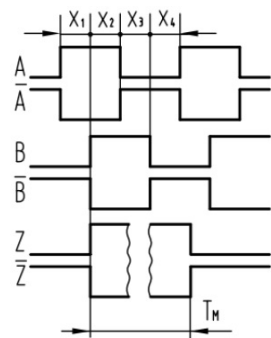


# SPECIFICATIONS OF INCREMENTAL SHAFT ENCODER

<b>型號</b> <b>MODEL</b>	<b>ERC - 1024 - S14-00</b>	<b>脈波數 Output Pulse[P/R]</b> 100,200,300,360,400,500,600,900,1000,1024 1200,1500,1800,2000,2048,2500,3000, 4096,5000,6000,10000 (細分倍頻後,玻璃光柵行最大脈波數為 80000 P/R)																																																						
<b>機械參數 MACHINE SPECIFICATIONS</b> <table border="1" style="width: 100%;"> <tr> <td>軸徑</td> <td>Shaft Diameter</td> <td>15 mm</td> </tr> <tr> <td>最高迴轉速度</td> <td>Mechanical Perm. Speed</td> <td>6000 r/min</td> </tr> <tr> <td>啟動力矩</td> <td>Starting Torque</td> <td><math>\cong 5 \times 10^{-2} \text{ N}\cdot\text{m}</math> at 25°C</td> </tr> <tr> <td>允許角加速度</td> <td>Maximum Accel. Speed</td> <td>10000 rad/s<sup>2</sup></td> </tr> <tr> <td>轉動慣量</td> <td>Moment of Inertia</td> <td><math>1.3 \times 10^{-5} \text{ kg}\cdot\text{m}^2</math></td> </tr> <tr> <td>軸負載(徑向)</td> <td>Shaft Loading (Radial)</td> <td><math>\cong 50 \text{ N}</math></td> </tr> <tr> <td>軸負載(軸向)</td> <td>Shaft Loading (Axial)</td> <td><math>\cong 50 \text{ N}</math></td> </tr> <tr> <td>重量</td> <td>Mass</td> <td>0.7 kg</td> </tr> </table>		軸徑		Shaft Diameter	15 mm	最高迴轉速度	Mechanical Perm. Speed	6000 r/min	啟動力矩	Starting Torque	$\cong 5 \times 10^{-2} \text{ N}\cdot\text{m}$ at 25°C	允許角加速度	Maximum Accel. Speed	10000 rad/s <sup>2</sup>	轉動慣量	Moment of Inertia	$1.3 \times 10^{-5} \text{ kg}\cdot\text{m}^2$	軸負載(徑向)	Shaft Loading (Radial)	$\cong 50 \text{ N}$	軸負載(軸向)	Shaft Loading (Axial)	$\cong 50 \text{ N}$	重量	Mass	0.7 kg	<b>連接方式 CONNECTION</b> <table border="1" style="width: 100%;"> <thead> <tr> <th>Pin No.</th> <th>Signal</th> <th></th> </tr> </thead> <tbody> <tr> <td>A</td> <td>A</td> <td></td> </tr> <tr> <td>B</td> <td>Z</td> <td></td> </tr> <tr> <td>C</td> <td>B</td> <td></td> </tr> <tr> <td>H</td> <td>Vcc</td> <td>DC+5V</td> </tr> <tr> <td>K</td> <td>0V</td> <td>0V Common</td> </tr> <tr> <td>N</td> <td><math>\bar{A}</math></td> <td></td> </tr> <tr> <td>P</td> <td><math>\bar{Z}</math></td> <td></td> </tr> <tr> <td>R</td> <td><math>\bar{B}</math></td> <td></td> </tr> <tr> <td>E</td> <td>Body</td> <td>FG</td> </tr> </tbody> </table>	Pin No.	Signal		A	A		B	Z		C	B		H	Vcc	DC+5V	K	0V	0V Common	N	$\bar{A}$		P	$\bar{Z}$		R	$\bar{B}$		E	Body
軸徑	Shaft Diameter	15 mm																																																						
最高迴轉速度	Mechanical Perm. Speed	6000 r/min																																																						
啟動力矩	Starting Torque	$\cong 5 \times 10^{-2} \text{ N}\cdot\text{m}$ at 25°C																																																						
允許角加速度	Maximum Accel. Speed	10000 rad/s <sup>2</sup>																																																						
轉動慣量	Moment of Inertia	$1.3 \times 10^{-5} \text{ kg}\cdot\text{m}^2$																																																						
軸負載(徑向)	Shaft Loading (Radial)	$\cong 50 \text{ N}$																																																						
軸負載(軸向)	Shaft Loading (Axial)	$\cong 50 \text{ N}$																																																						
重量	Mass	0.7 kg																																																						
Pin No.	Signal																																																							
A	A																																																							
B	Z																																																							
C	B																																																							
H	Vcc	DC+5V																																																						
K	0V	0V Common																																																						
N	$\bar{A}$																																																							
P	$\bar{Z}$																																																							
R	$\bar{B}$																																																							
E	Body	FG																																																						
<b>環境參數 ENVIRONMENTAL SPECIFICATIONS</b> <table border="1" style="width: 100%;"> <tr> <td>工作溫度</td> <td>Operating Temperature [*1]</td> <td>-5~+70 °C</td> <td></td> </tr> <tr> <td>保存溫度</td> <td>Storage Temperature</td> <td>-30~+80 °C</td> <td></td> </tr> <tr> <td>抗振動</td> <td>Vibration [*2, 3]</td> <td>100 m/s<sup>2</sup></td> <td>25~2000Hz.X.Y.Z_Each direction 2h</td> </tr> <tr> <td>抗衝擊</td> <td>Shock [*2]</td> <td>980 m/s<sup>2</sup></td> <td>6ms.Half Sine Plus.X.Y.Z_Each 2 Times</td> </tr> <tr> <td>防護等級</td> <td>Protection Grade</td> <td>IP65</td> <td></td> </tr> </table>				工作溫度	Operating Temperature [*1]	-5~+70 °C		保存溫度	Storage Temperature	-30~+80 °C		抗振動	Vibration [*2, 3]	100 m/s <sup>2</sup>	25~2000Hz.X.Y.Z_Each direction 2h	抗衝擊	Shock [*2]	980 m/s <sup>2</sup>	6ms.Half Sine Plus.X.Y.Z_Each 2 Times	防護等級	Protection Grade	IP65																																		
工作溫度	Operating Temperature [*1]	-5~+70 °C																																																						
保存溫度	Storage Temperature	-30~+80 °C																																																						
抗振動	Vibration [*2, 3]	100 m/s <sup>2</sup>	25~2000Hz.X.Y.Z_Each direction 2h																																																					
抗衝擊	Shock [*2]	980 m/s <sup>2</sup>	6ms.Half Sine Plus.X.Y.Z_Each 2 Times																																																					
防護等級	Protection Grade	IP65																																																						
<b>電氣參數 ELECTRICAL SPECIFICATIONS</b> <table border="1" style="width: 100%;"> <tr> <td>出力方式</td> <td>Output</td> <td>Line driver</td> <td></td> </tr> <tr> <td>供給電壓</td> <td>Supply Voltage (Vcc)</td> <td>DC 5±0.25 V</td> <td>Ripple less than 5% with Noise</td> </tr> <tr> <td>供給電流</td> <td>Supply Current</td> <td><math>\cong 150 \text{ mA}</math></td> <td>No Load</td> </tr> <tr> <td>輸出電壓(H)</td> <td>Output Voltage (H)</td> <td><math>\cong 2.5 \text{ V}</math></td> <td>Load 1kΩ</td> </tr> <tr> <td>輸出電壓(L)</td> <td>Output Voltage (L)</td> <td><math>\cong 0.5 \text{ V}</math></td> <td>Vcc=12V.Load 10kΩ. Cable 1m End</td> </tr> <tr> <td>上升時間(Typ.)</td> <td>Rise time (Typ.)</td> <td><math>\cong 500 \text{ ns}</math></td> <td>Cable 1m End. Load 1kΩ</td> </tr> <tr> <td>下降時間(Typ.)</td> <td>Fall time (Typ.)</td> <td><math>\cong 300 \text{ ns}</math></td> <td>Cable 1m End. Load 1kΩ</td> </tr> <tr> <td>響應頻率</td> <td>Response Frequency</td> <td>0~300 kHz</td> <td>A,B signals</td> </tr> <tr> <td>絕緣阻抗</td> <td>Insulation resistance</td> <td><math>\cong 20 \text{ M}\Omega</math></td> <td>at DC250V megger (Circuit-Body)</td> </tr> </table>				出力方式	Output	Line driver		供給電壓	Supply Voltage (Vcc)	DC 5±0.25 V	Ripple less than 5% with Noise	供給電流	Supply Current	$\cong 150 \text{ mA}$	No Load	輸出電壓(H)	Output Voltage (H)	$\cong 2.5 \text{ V}$	Load 1kΩ	輸出電壓(L)	Output Voltage (L)	$\cong 0.5 \text{ V}$	Vcc=12V.Load 10kΩ. Cable 1m End	上升時間(Typ.)	Rise time (Typ.)	$\cong 500 \text{ ns}$	Cable 1m End. Load 1kΩ	下降時間(Typ.)	Fall time (Typ.)	$\cong 300 \text{ ns}$	Cable 1m End. Load 1kΩ	響應頻率	Response Frequency	0~300 kHz	A,B signals	絕緣阻抗	Insulation resistance	$\cong 20 \text{ M}\Omega$	at DC250V megger (Circuit-Body)																	
出力方式	Output	Line driver																																																						
供給電壓	Supply Voltage (Vcc)	DC 5±0.25 V	Ripple less than 5% with Noise																																																					
供給電流	Supply Current	$\cong 150 \text{ mA}$	No Load																																																					
輸出電壓(H)	Output Voltage (H)	$\cong 2.5 \text{ V}$	Load 1kΩ																																																					
輸出電壓(L)	Output Voltage (L)	$\cong 0.5 \text{ V}$	Vcc=12V.Load 10kΩ. Cable 1m End																																																					
上升時間(Typ.)	Rise time (Typ.)	$\cong 500 \text{ ns}$	Cable 1m End. Load 1kΩ																																																					
下降時間(Typ.)	Fall time (Typ.)	$\cong 300 \text{ ns}$	Cable 1m End. Load 1kΩ																																																					
響應頻率	Response Frequency	0~300 kHz	A,B signals																																																					
絕緣阻抗	Insulation resistance	$\cong 20 \text{ M}\Omega$	at DC250V megger (Circuit-Body)																																																					
<b>外型尺寸 Dimensions</b> 		<b>輸出電路 OUTPUT CIRCUIT</b> 																																																						
		<b>輸出信號 Output Signals</b>  <p>                     波形比 : <math>X_1+X_2=0.5T \pm 0.1T</math>  <math>X_2+X_3=0.5T \pm 0.1T</math>                      相位差: <math>X_n \geq 0.125T</math> (n=1,2,3,4)                      絕對角度誤差 <math>\leq 0.2T</math>                      Z路信號寬度: <math>T_M = 1T \pm 0.5T</math>                      Z路信號與A,B路信號相位關係不做規定  <math>T = 360^\circ / N</math> (N為每轉輸出脈衝數)                 </p>																																																						



HUI-JING ELECTRON CO.,LTD

peter@huijing.com.tw

TEL:+ 886-4-26999859 FAX:+886-4-26997006 http://www.hui-jing.com.tw