

产品选型手册

Product selection guide



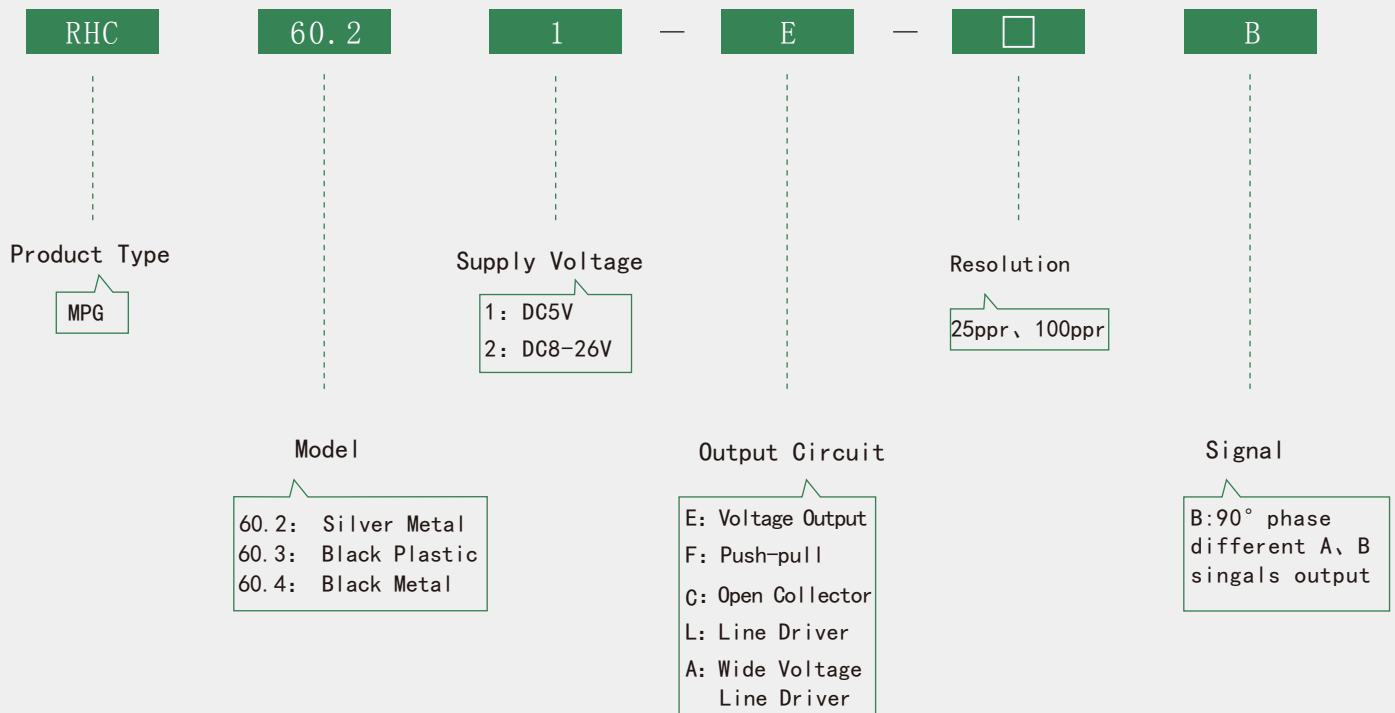
RHC60.2 Series

Applications & Features



All-metal housing design, durable, high reliability.
Metal gear, with good rotating hand feeling.
Line driver output ensures strong anti-jamming capability.
Used For CNC machine origin correction.
Black metal housing optional.

Part Number



Electrical Specifications

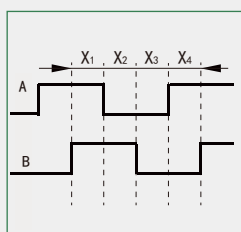
Output Circuit	Supply Voltage DC (V)	Current Requirement (mA)	Output Voltage (V)		Rise Time (ns)	Fall Time (ns)	Frequency Response (kHz)
			V _H	V _L			
E (Voltage)	5±0.25	≤80	>3.5	≤0.7	≤500	≤100	0-100
	8-26	≤120	>VCC-2.5	≤0.7	≤500	≤100	0-100
F (Push-pull)	5±0.25	≤80	>3.5	≤0.7	≤500	≤100	0-100
	8-26	≤120	>VCC-2.5	≤0.7	≤500	≤100	0-100

C (Open Collector)	5 ± 0.25	≤ 60	$> V_{CC} - 2.5$	≤ 0.7	≤ 500	≤ 100	0-100
	8-26						
L (Line Driver)	5 ± 0.25	≤ 100	> 3.5	≤ 0.7	≤ 200	≤ 200	0-100
A (Wide Voltage Line Driver)	8-26	≤ 60	$> V_{CC} - 2.5$	≤ 0.7	≤ 500	≤ 100	0-100

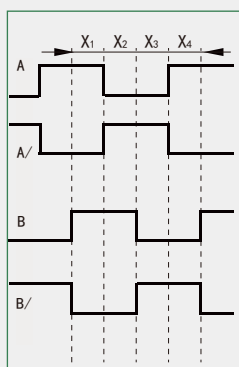
Output Circuit

E (Voltage)		F (Push-pull)		C (Open Collector)	L, A (Line Driver)
5V	8-26V	5V	8-26V		
					 L: 26C31 A: ET7272B

Output Waveform



Waveform for C, E, F output



Waveform for L, A output

Wave Ratio : $X1+X2=0.5T \pm 0.1T$
 $X2+X3=0.5T \pm 0.1T$

Phase Different : $Xn \geq 0.125T$ ($n=1, 2, 3, 4$)

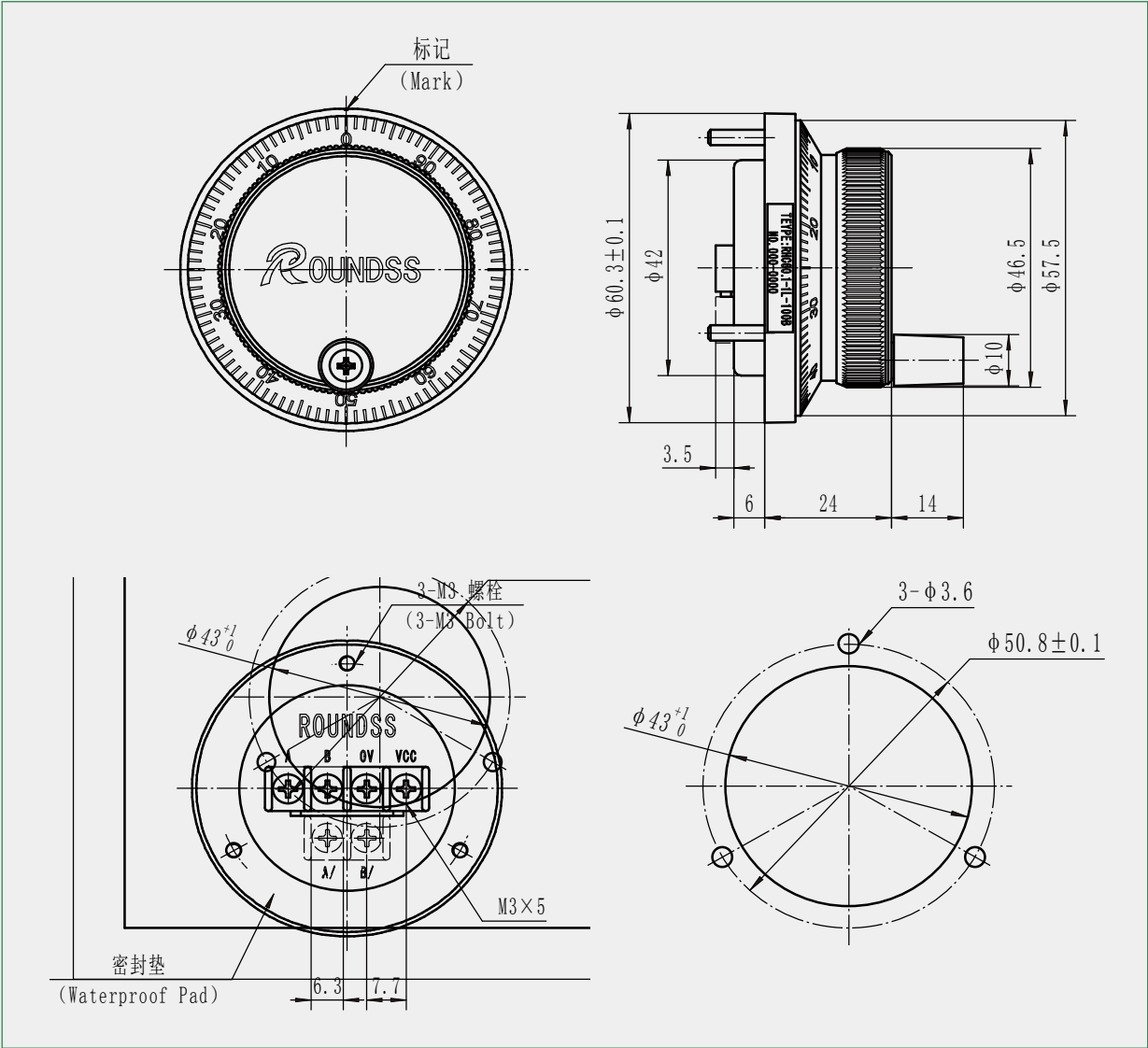
Absolute Angle Error: $\leq 0.2T$

Cycle Error : $\leq 0.05T$

$T=360^\circ / N$ (N =lines count per revolution)

Environmental Specifications

Max. Speed	600r/min
Operating Temp.	$-10 \sim +60^\circ\text{C}$
Store Temp.	$-20 \sim +70^\circ\text{C}$
Size	60mm
Weight	Approx. 0.135kg



China Rongde Optics Co., Ltd

www.roundssencoder.com



产品选型手册

Product selection guide



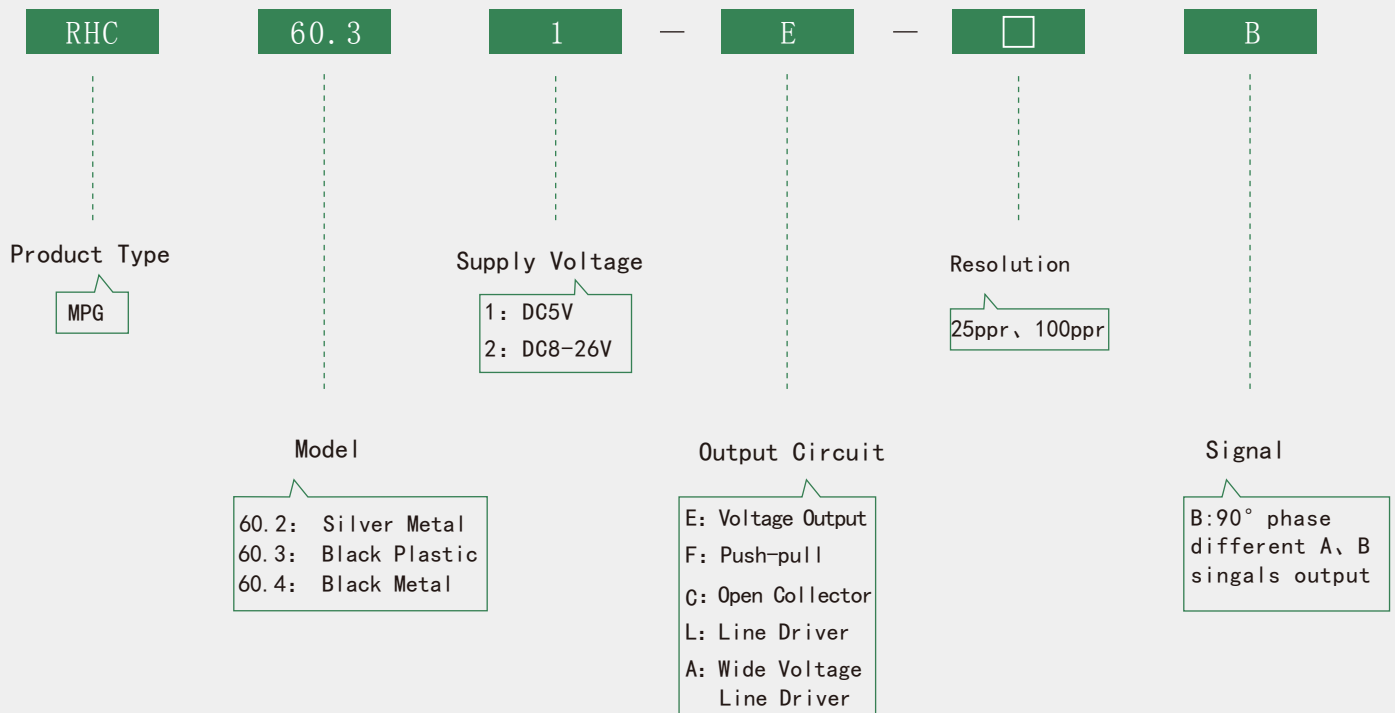
RHC60.3 Series

Applications & Features



All-plastic housing design, ultra-compact, weight 0.095kg.
Metal gear, with good rotating hand feeling.
Line driver output ensures strong anti-jamming capability.
Particularly suitable for the compact control panel design.
Metal housing optional.

Part Number



Electrical Specifications

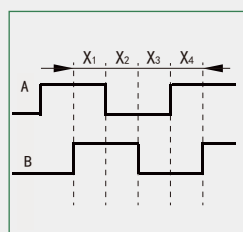
Output Circuit	Supply Voltage DC (V)	Current Requirement (mA)	Output Voltage (V)		Rise Time (ns)	Fall Time (ns)	Frequency Response (kHz)
			V _H	V _L			
E (Voltage)	5±0.25	≤80	>3.5	≤0.7	≤500	≤100	0-100
	8-26	≤120	>VCC-2.5	≤0.7	≤500	≤100	0-100
F (Push-pull)	5±0.25	≤80	>3.5	≤0.7	≤500	≤100	0-100
	8-26	≤120	>VCC-2.5	≤0.7	≤500	≤100	0-100

C (Open Collector)	5 ± 0.25	≤ 60	$> V_{CC} - 2.5$	≤ 0.7	≤ 500	≤ 100	0-100
	8-26						
L (Line Driver)	5 ± 0.25	≤ 100	> 3.5	≤ 0.7	≤ 200	≤ 200	0-100
A (Wide Voltage Line Driver)	8-26	≤ 60	$> V_{CC} - 2.5$	≤ 0.7	≤ 500	≤ 100	0-100

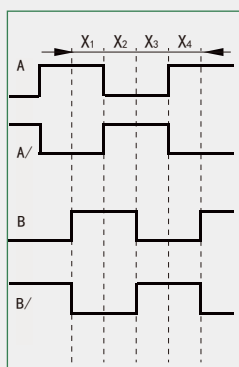
Output Circuit

E (Voltage)		F (Push-pull)		C (Open Collector)	L, A (Line Driver)
5V	8-26V	5V	8-26V		
					 L: 26C31 A: ET7272B

Output Waveform



Waveform for C, E, F output



Waveform for L, A output

Wave Ratio : $X_1 + X_2 = 0.5T \pm 0.1T$
 $X_2 + X_3 = 0.5T \pm 0.1T$

Phase Different : $X_n \geq 0.125T$ ($n=1, 2, 3, 4$)

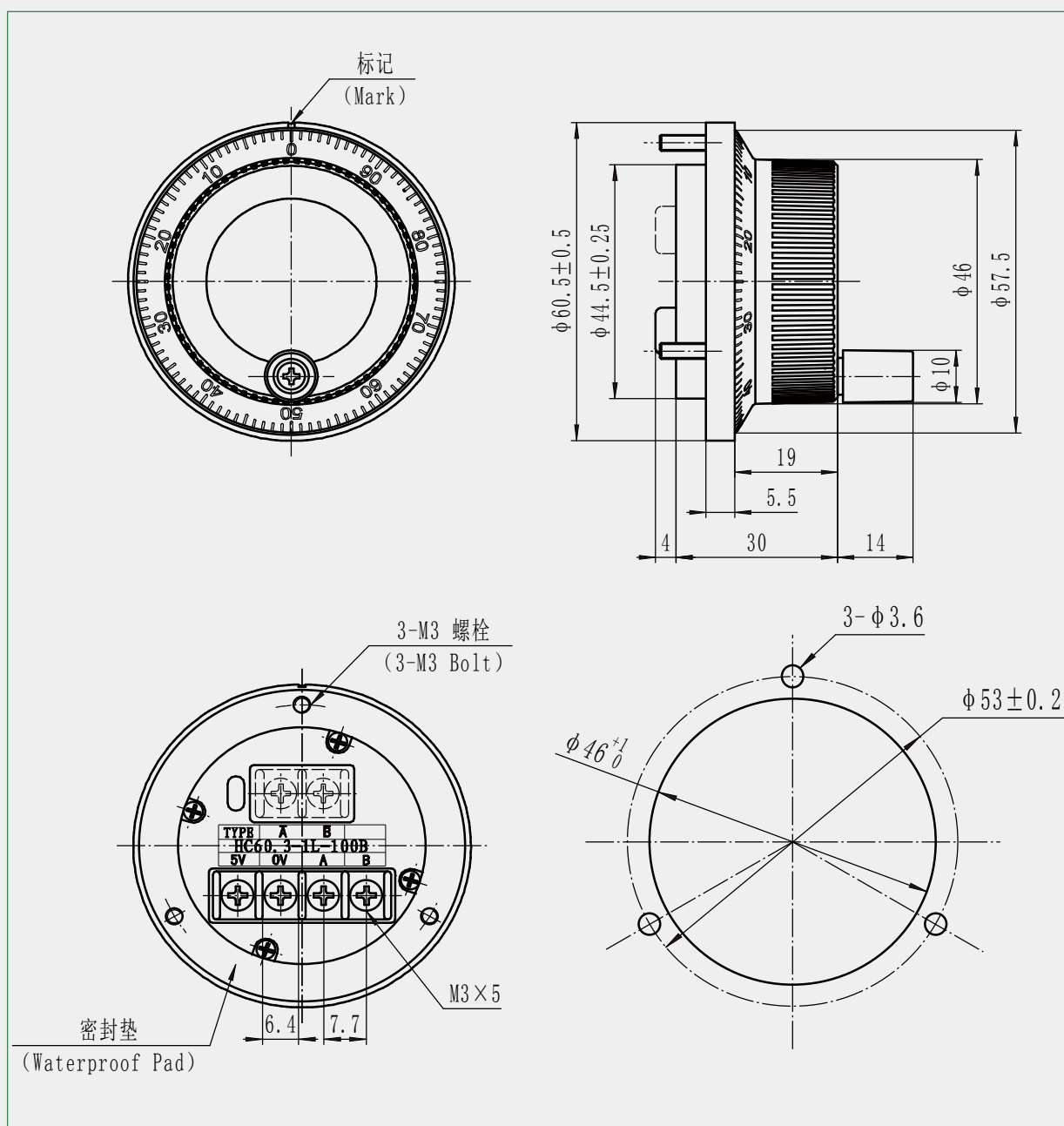
Absolute Angle Error: $\leq 0.2T$

Cycle Error : $\leq 0.05T$

$T = 360^\circ / N$ (N =lines count per revolution)

Environmental Specifications

Max. Speed	600r/min
Operating Temp.	$-10 \sim +60^\circ\text{C}$
Store Temp.	$-20 \sim +70^\circ\text{C}$
Size	60mm
Weight	Approx. 0.095kg



China Rongde Optics Co., Ltd

www.roundssencoder.com



产品选型手册

Product selection guide



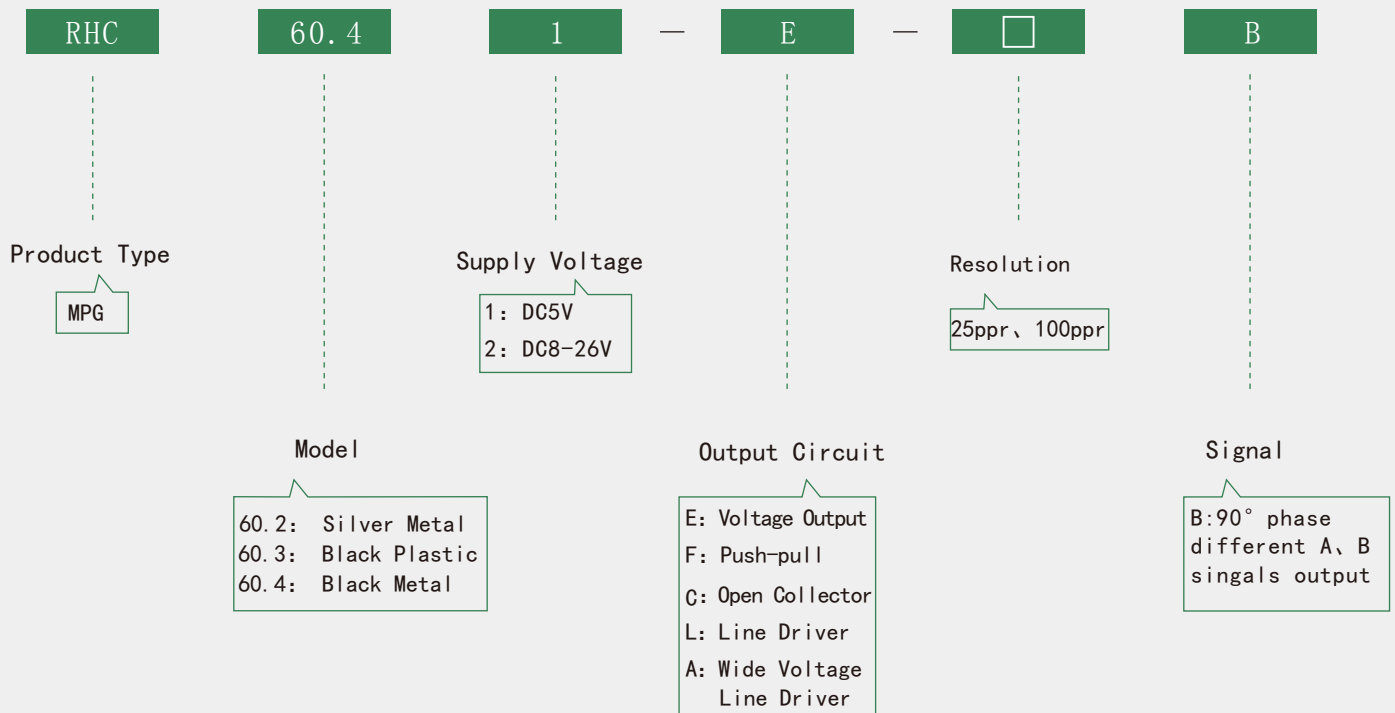
RHC60.4 Series

Applications & Features



All-metal housing design, durable, high reliability.
Metal gear, with good rotating hand feeling.
Line driver output ensures strong anti-jamming capability.
Used For CNC machine origin correction.
Silver metal housing optional.

Part Number



Electrical Specifications

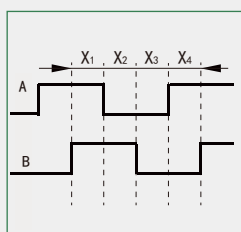
Output Circuit	Supply Voltage DC (V)	Current Requirement (mA)	Output Voltage (V)		Rise Time (ns)	Fall Time (ns)	Frequency Response (kHz)
			V _H	V _L			
E (Voltage)	5±0.25	≤80	>3.5	≤0.7	≤500	≤100	0-100
	8-26	≤120	>VCC-2.5	≤0.7	≤500	≤100	0-100
F (Push-pull)	5±0.25	≤80	>3.5	≤0.7	≤500	≤100	0-100
	8-26	≤120	>VCC-2.5	≤0.7	≤500	≤100	0-100

C (Open Collector)	5 ± 0.25	≤ 60	$> V_{CC} - 2.5$	≤ 0.7	≤ 500	≤ 100	0-100
	8-26						
L (Line Driver)	5 ± 0.25	≤ 100	> 3.5	≤ 0.7	≤ 200	≤ 200	0-100
A (Wide Voltage Line Driver)	8-26	≤ 60	$> V_{CC} - 2.5$	≤ 0.7	≤ 500	≤ 100	0-100

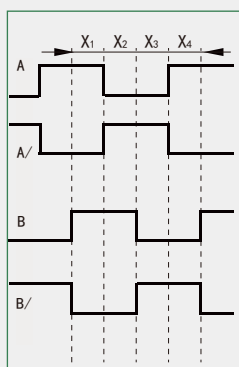
Output Circuit

E (Voltage)		F (Push-pull)		C (Open Collector)	L, A (Line Driver)
5V	8-26V	5V	8-26V		
					 L: 26C31 A: ET7272B

Output Waveform



Waveform for C, E, F output



Waveform for L, A output

Wave Ratio : $X1 + X2 = 0.5T \pm 0.1T$
 $X2 + X3 = 0.5T \pm 0.1T$

Phase Different : $Xn \geq 0.125T$ ($n=1, 2, 3, 4$)

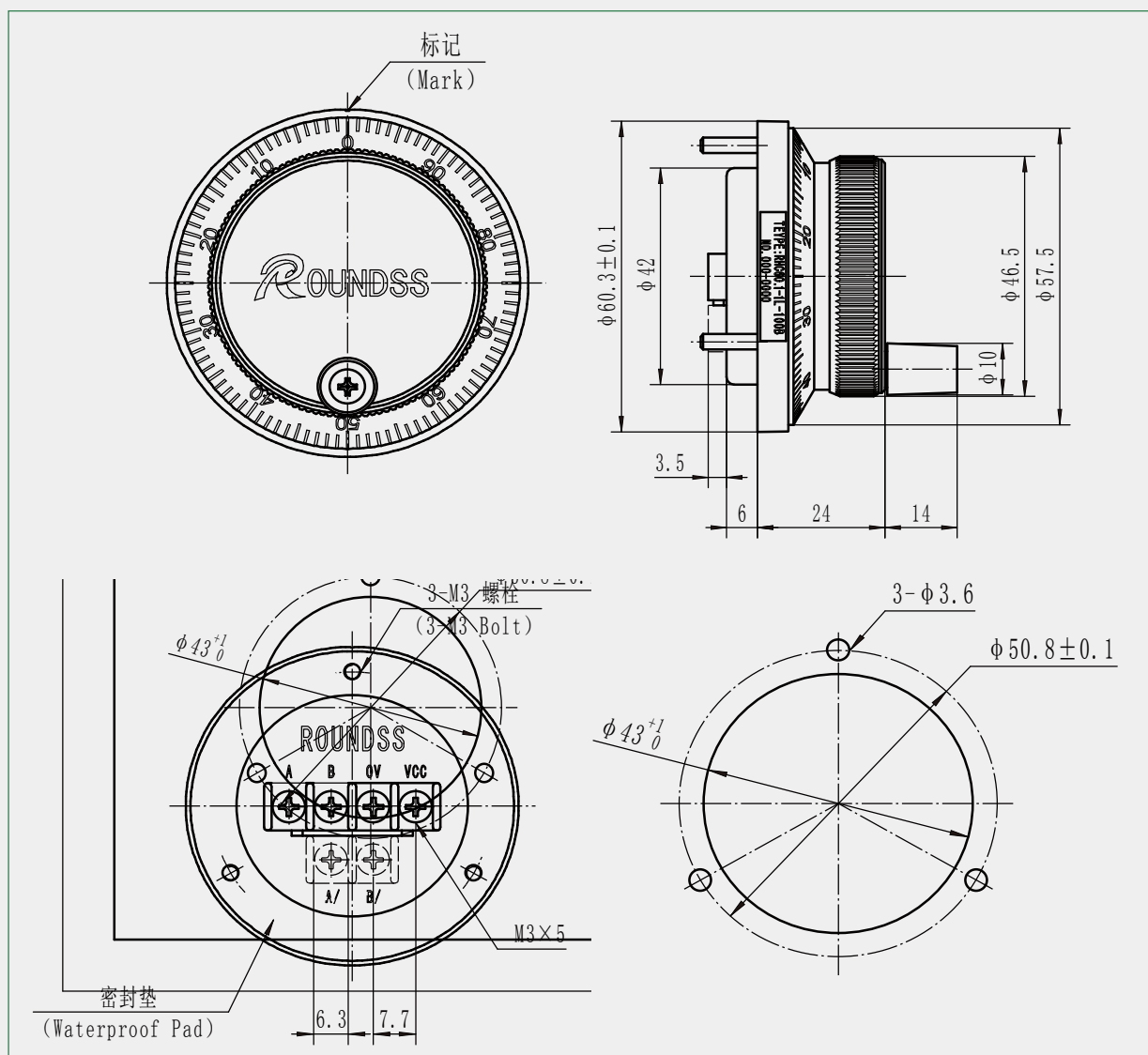
Absolute Angle Error: $\leq 0.2T$

Cycle Error : $\leq 0.05T$

$T = 360^\circ / N$ (N =lines count per revolution)

Environmental Specifications

Max. Speed	600r/min
Operating Temp.	$-10 \sim +60^\circ\text{C}$
Store Temp.	$-20 \sim +70^\circ\text{C}$
Size	60mm
Weight	Approx. 0.135kg



China Rongde Optics Co., Ltd

www.roundssencoder.com



产品选型手册

Product selection guide



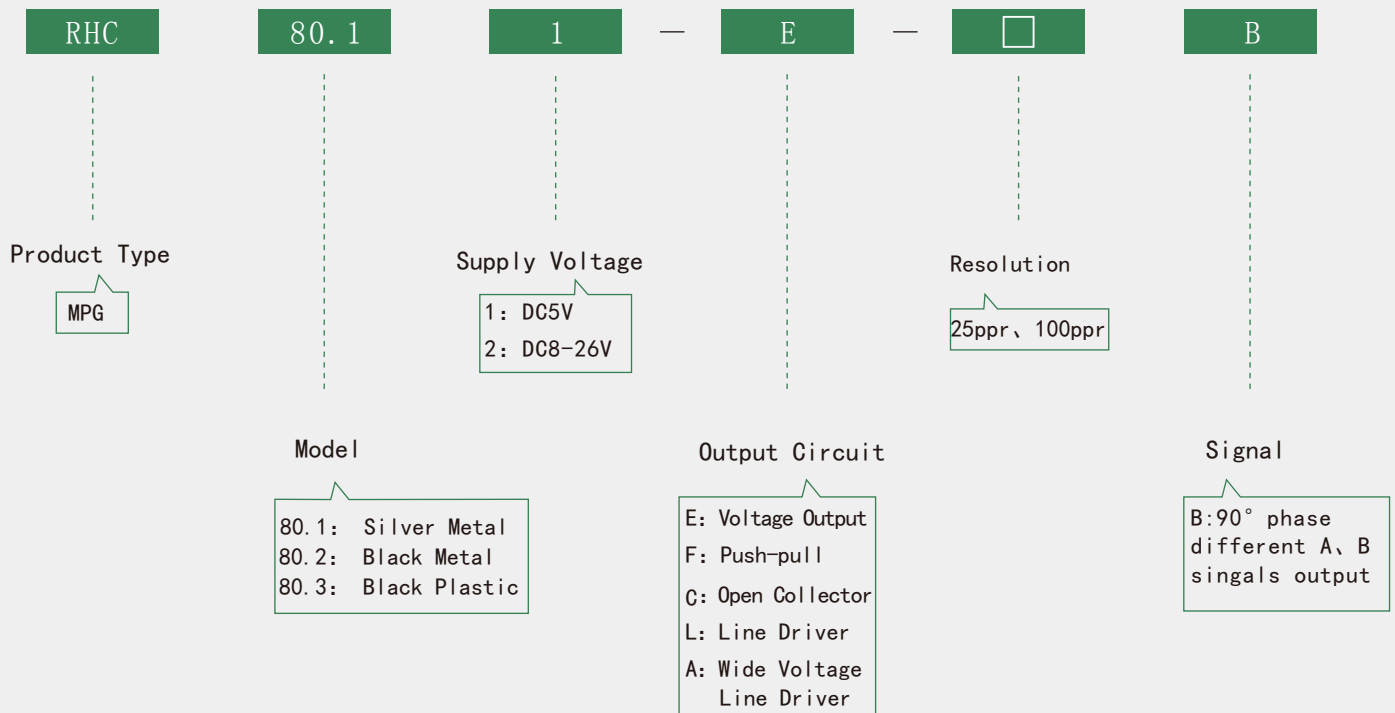
RHC80.1 Series

Applications & Features



All-metal housing design, durable, high reliability.
Metal gear, with good rotating hand feeling.
Line driver output ensures strong anti-jamming capability.
Used For CNC machine origin correction.
Black metal housing optional.

Part Number



Electrical Specifications

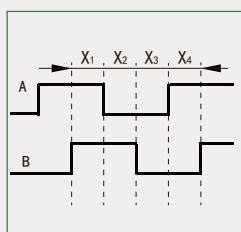
Output Circuit	Supply Voltage DC (V)	Current Requirement (mA)	Output Voltage (V)		Rise Time (ns)	Fall Time (ns)	Frequency Response (kHz)
			V _H	V _L			
E (Voltage)	5±0.25	≤80	>3.5	≤0.7	≤500	≤100	0-100
	8-26	≤120	>VCC-2.5	≤0.7	≤500	≤100	0-100
F (Push-pull)	5±0.25	≤80	>3.5	≤0.7	≤500	≤100	0-100
	8-26	≤120	>VCC-2.5	≤0.7	≤500	≤100	0-100

C (Open Collector)	5 ± 0.25	≤ 60	$> V_{CC} - 2.5$	≤ 0.7	≤ 500	≤ 100	0-100
	8-26						
L (Line Driver)	5 ± 0.25	≤ 100	> 3.5	≤ 0.7	≤ 200	≤ 200	0-100
A (Wide Voltage Line Driver)	8-26	≤ 60	$> V_{CC} - 2.5$	≤ 0.7	≤ 500	≤ 100	0-100

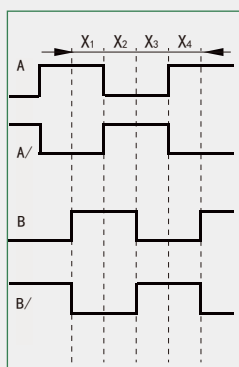
Output Circuit

E (Voltage)		F (Push-pull)		C (Open Collector)	L, A (Line Driver)
5V	8-26V	5V	8-26V		
					 L: 26C31 A: ET7272B

Output Waveform



Waveform for C, E, F output



Waveform for L, A output

Wave Ratio : $X_1 + X_2 = 0.5T \pm 0.1T$
 $X_2 + X_3 = 0.5T \pm 0.1T$

Phase Different : $X_n \geq 0.125T$ ($n=1, 2, 3, 4$)

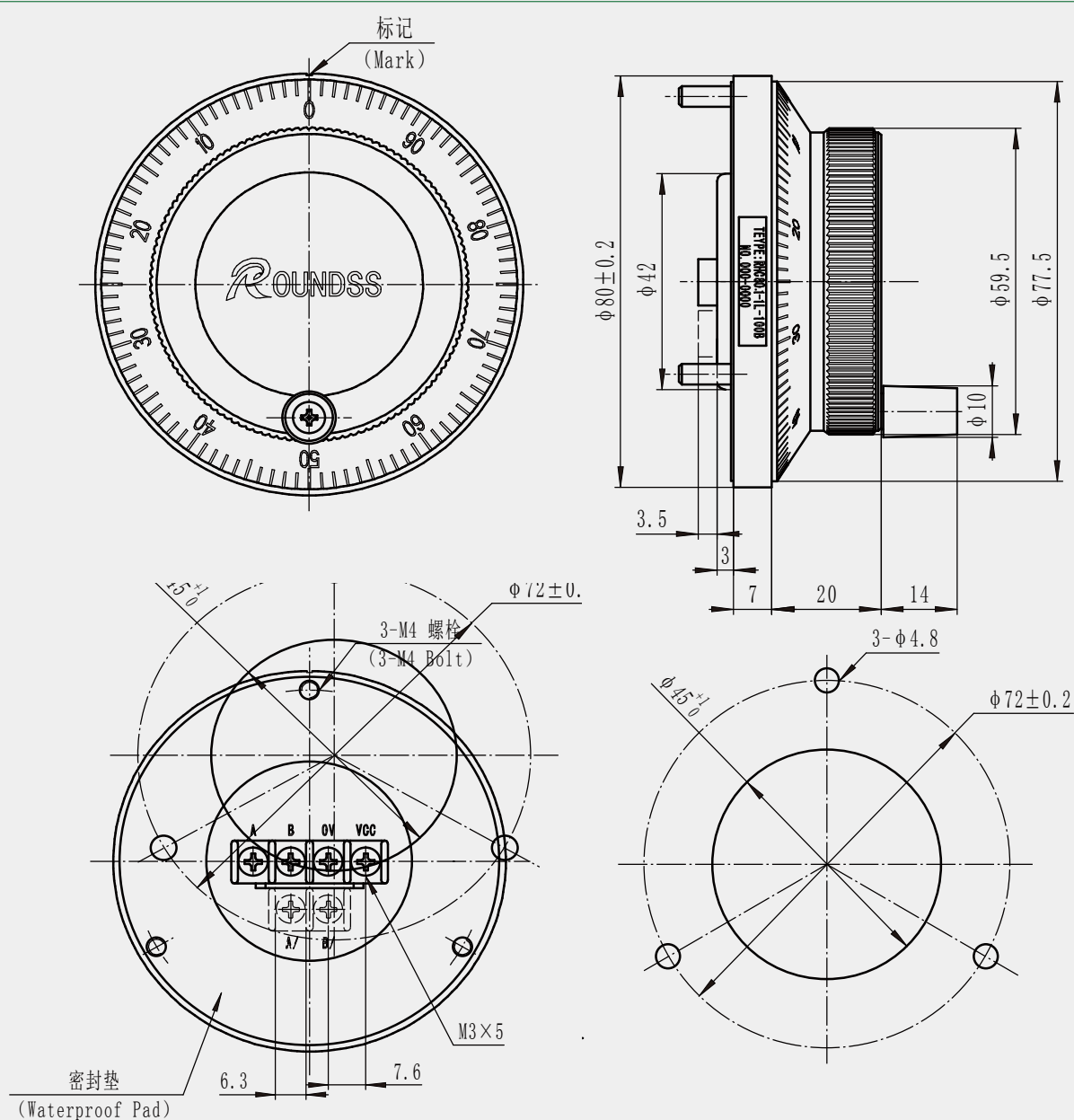
Absolute Angle Error: $\leq 0.2T$

Cycle Error : $\leq 0.05T$

$T = 360^\circ / N$ (N =lines count per revolution)

Environmental Specifications

Max. Speed	600r/min
Operating Temp.	$-10 \sim +60^\circ\text{C}$
Store Temp.	$-20 \sim +70^\circ\text{C}$
Size	80mm
Weight	Approx. 0.215kg



China Rongde Optics Co., Ltd

www.roundssencoder.com



产品选型手册

Product selection guide



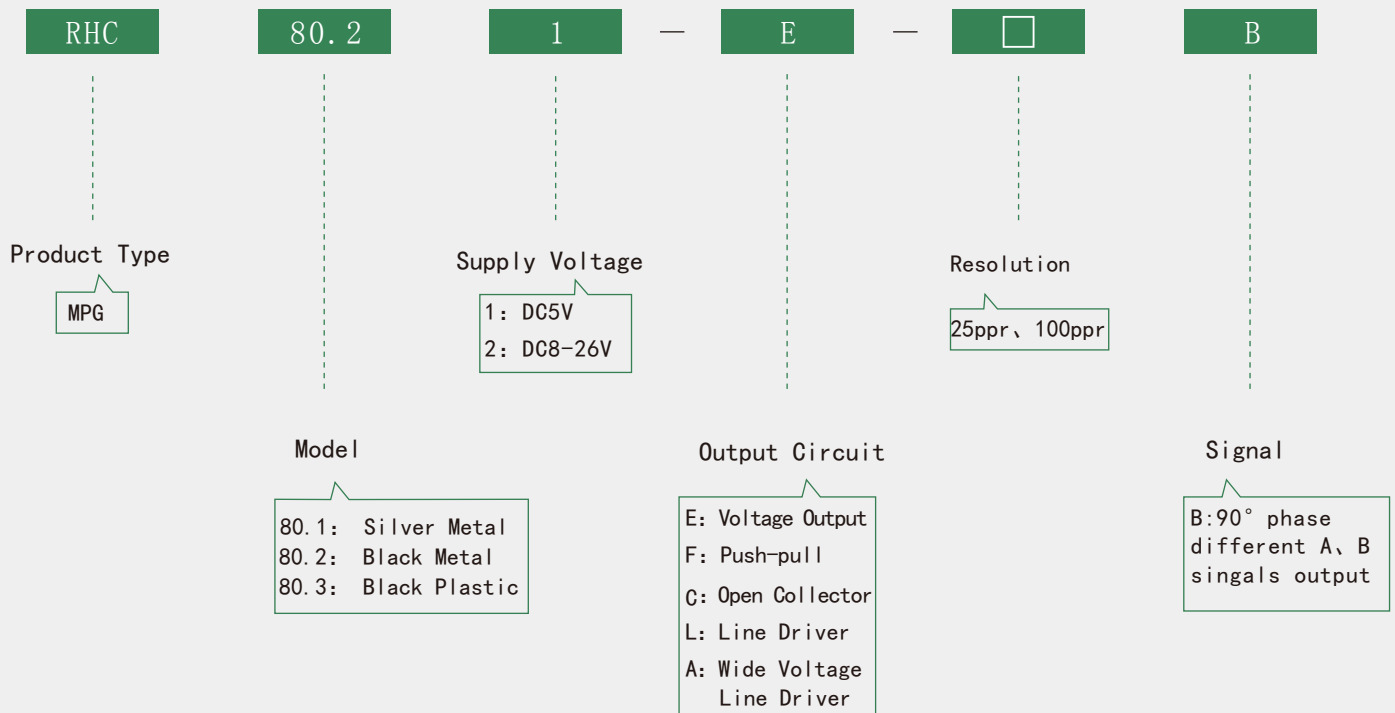
RHC80.2 Series

Applications & Features



All-metal housing design, durable, high reliability.
Metal gear, with good rotating hand feeling.
Line driver output ensures strong anti-jamming capability.
Used For CNC machine origin correction.
Silver metal housing optional.

Part Number



Electrical Specifications

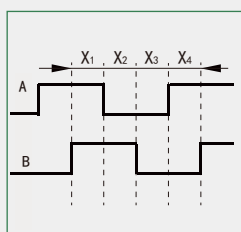
Output Circuit	Supply Voltage DC (V)	Current Requirement (mA)	Output Voltage (V)		Rise Time (ns)	Fall Time (ns)	Frequency Response (kHz)
			V _H	V _L			
E (Voltage)	5±0.25	≤80	>3.5	≤0.7	≤500	≤100	0-100
	8-26	≤120	>VCC-2.5	≤0.7	≤500	≤100	0-100
F (Push-pull)	5±0.25	≤80	>3.5	≤0.7	≤500	≤100	0-100
	8-26	≤120	>VCC-2.5	≤0.7	≤500	≤100	0-100

C (Open Collector)	5 ± 0.25	≤ 60	$> V_{CC} - 2.5$	≤ 0.7	≤ 500	≤ 100	0-100
	8-26						
L (Line Driver)	5 ± 0.25	≤ 100	> 3.5	≤ 0.7	≤ 200	≤ 200	0-100
A (Wide Voltage Line Driver)	8-26	≤ 60	$> V_{CC} - 2.5$	≤ 0.7	≤ 500	≤ 100	0-100

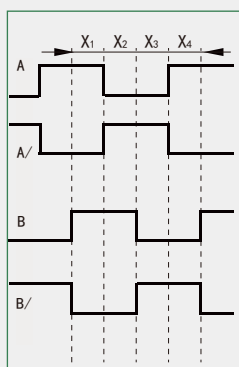
Output Circuit

E (Voltage)		F (Push-pull)		C (Open Collector)	L, A (Line Driver)
5V	8-26V	5V	8-26V		
					 L: 26C31 A: ET7272B

Output Waveform



Waveform for C, E, F output



Waveform for L, A output

Wave Ratio : $X1+X2=0.5T \pm 0.1T$
 $X2+X3=0.5T \pm 0.1T$

Phase Different : $Xn \geq 0.125T$ ($n=1, 2, 3, 4$)

Absolute Angle Error: $\leq 0.2T$

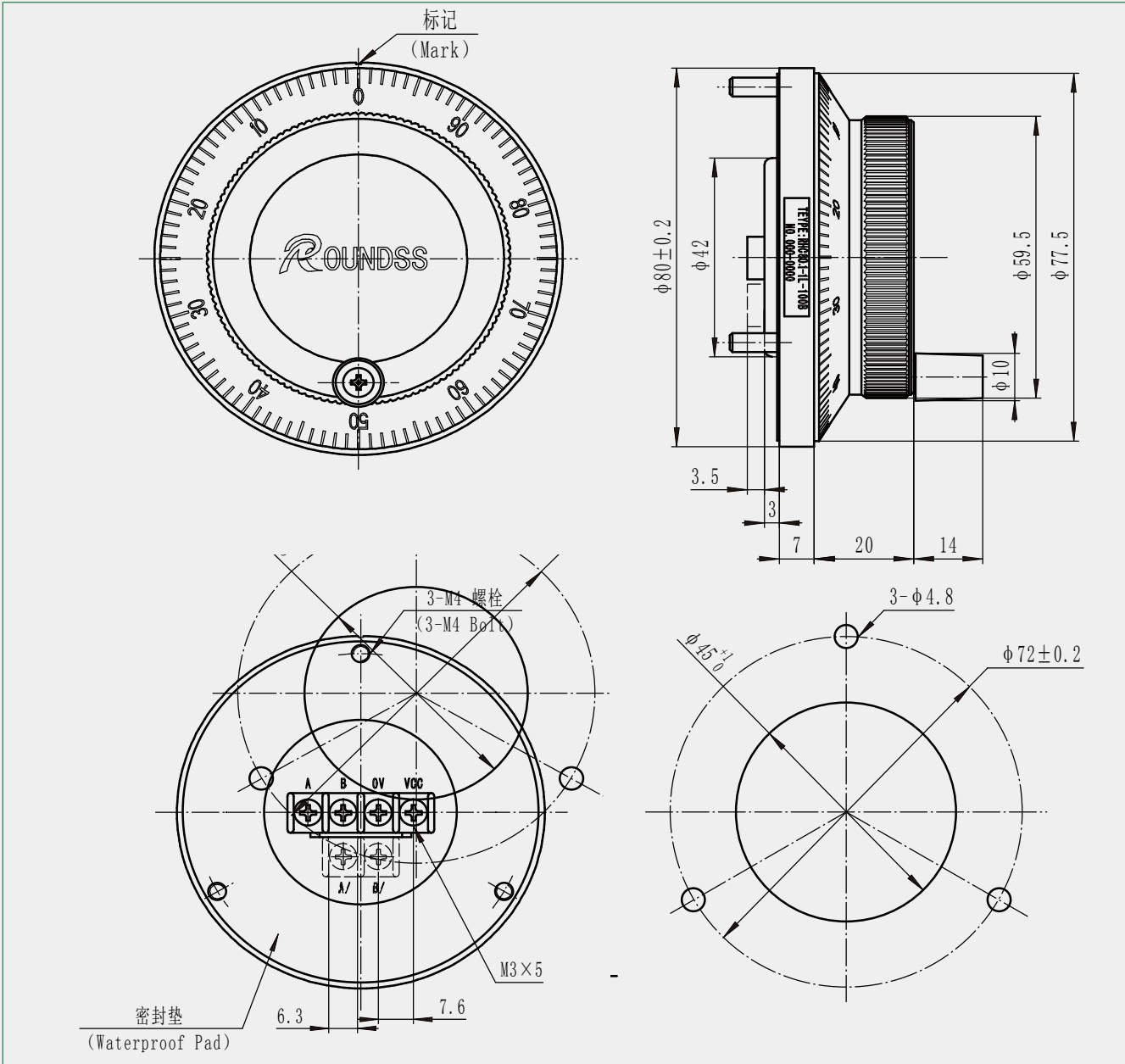
Cycle Error : $\leq 0.05T$

$T=360^\circ / N$ (N =lines count per revolution)

Environmental Specifications

Max. Speed	600r/min
Operating Temp.	$-10 \sim +60^\circ\text{C}$
Store Temp.	$-20 \sim +70^\circ\text{C}$
Size	80mm
Weight	Approx. 0.215kg

Dimension



China Rongde Optics Co., Ltd

www.roundssencoder.com



产品选型手册

Product selection guide



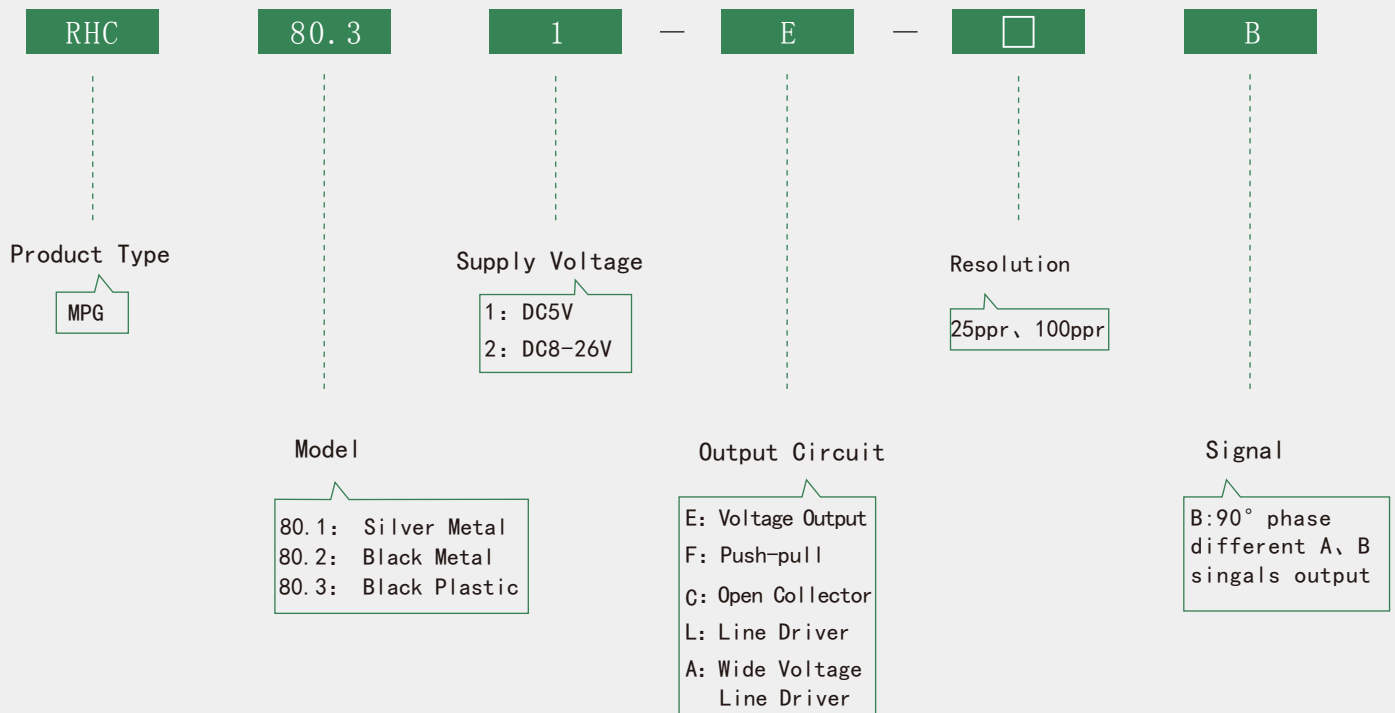
RHC80.3 Series

Applications & Features



All-plastic housing design, ultra-compact, weight 0.145kg.
Metal gear, with good rotating hand feeling.
Line driver output ensures strong anti-jamming capability.
Particularly suitable for the compact control panel design.
Metal housing optional.

Part Number



Electrical Specifications

Output Circuit	Supply Voltage DC (V)	Current Requirement (mA)	Output Voltage (V)		Rise Time (ns)	Fall Time (ns)	Frequency Response (kHz)
			V _H	V _L			
E (Voltage)	5±0.25	≤80	>3.5	≤0.7	≤500	≤100	0-100
	8-26	≤120	>VCC-2.5	≤0.7	≤500	≤100	0-100
F (Push-pull)	5±0.25	≤80	>3.5	≤0.7	≤500	≤100	0-100
	8-26	≤120	>VCC-2.5	≤0.7	≤500	≤100	0-100

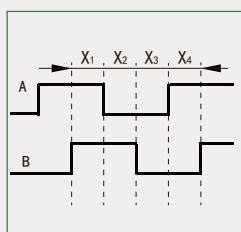
C (Open Collector)	5 ± 0.25	≤ 60	$> V_{CC} - 2.5$	≤ 0.7	≤ 500	≤ 100	0-100
	8-26						
L (Line Driver)	5 ± 0.25	≤ 100	> 3.5	≤ 0.7	≤ 200	≤ 200	0-100
A (Wide Voltage Line Driver)	8-26	≤ 60	$> V_{CC} - 2.5$	≤ 0.7	≤ 500	≤ 100	0-100

Output Circuit

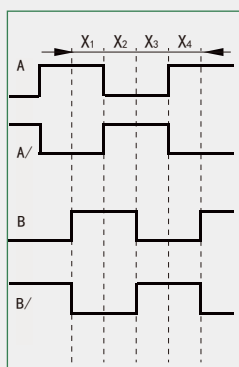
E (Voltage)		F (Push-pull)		C (Open Collector)	L, A (Line Driver)
5V	8-26V	5V	8-26V		

L: 26C31
A: ET7272B

Output Waveform



Waveform for C, E, F output



Waveform for L, A output

Wave Ratio : $X_1 + X_2 = 0.5T \pm 0.1T$
 $X_2 + X_3 = 0.5T \pm 0.1T$

Phase Different : $X_n \geq 0.125T$ ($n=1, 2, 3, 4$)

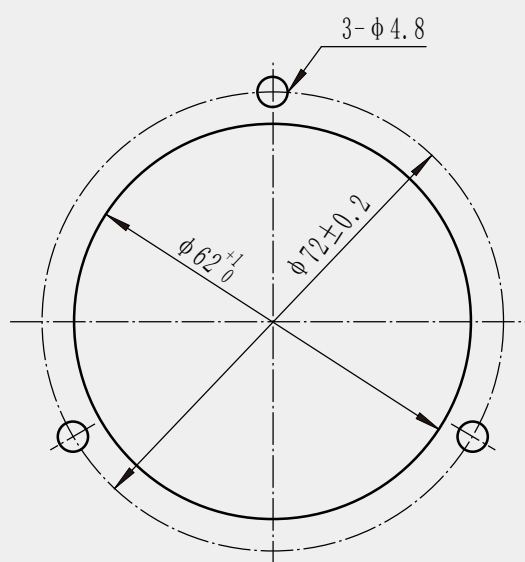
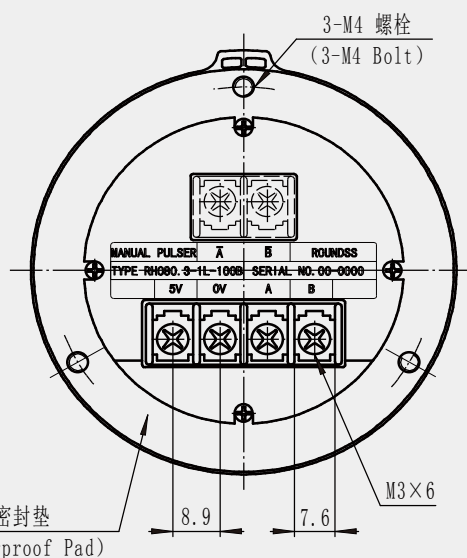
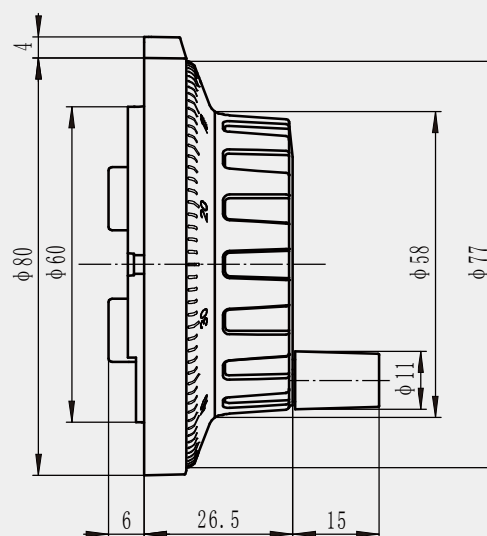
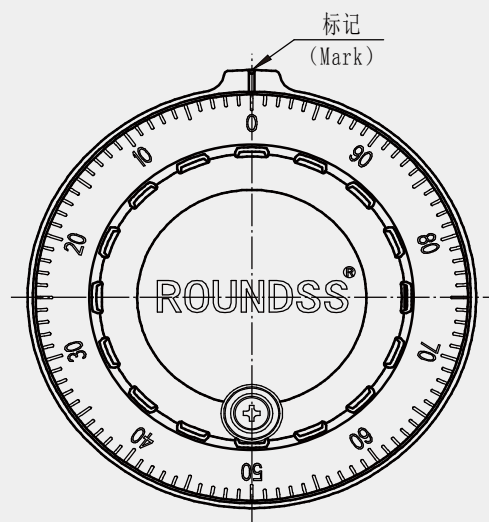
Absolute Angle Error: $\leq 0.2T$

Cycle Error : $\leq 0.05T$

$T = 360^\circ / N$ (N =lines count per revolution)

Environmental Specifications

Max. Speed	600r/min
Operating Temp.	$-10 \sim +60^\circ\text{C}$
Store Temp.	$-20 \sim +70^\circ\text{C}$
Size	80mm
Weight	Approx. 0.145kg



China Rongde Optics Co., Ltd

www.roundssencoder.com

