

※ **ISC5810 SERIES**

Shaft diameter $\Phi 10$ mm, clamping flange, housing diameter $\Phi 58$ mm.

Made from encoder module, high stability, good anti-interference, long working life.

Connector:

Cable axial, Cable radial, Plug axial, Plug radial.

Applications:

Control of transport vehicles, print machines, fork truck, CNC- tooling- machines,

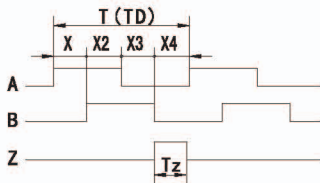


◆ **TECHNICAL SPECIFICATIONS**

ELECTRICAL SPECIFICATIONS	
Output wave	Square wave
Output signals	A, B, Z, (Line driver output A, A, B, B, Z, Z phase)
Current consumption	$\leq 180\text{mA}$
Response Frequency	0~120KHz
Output phase difference	$90^\circ \pm 45^\circ$
Supply voltage	5V DC, 5-12V DC, 12-24V DC
Signal level	$V_H \geq 85\%V_{CC}$, $V_L \leq 0.3V$
Number of pulses	100, 120, 125, 150, 180, 200, 250, 256, 300, 360, 400, 500, 512, 600, 900, 1000, 1024, 1200, 1800, 2000, 2048, 2400, 2500, 3000, 3600 (Other number of pulse available on request)
Output circuit	Open collector NPN, Push pull, Line driver, Voltage
MECHANICAL SPECIFICATIONS	
Speed without sealing	6000rpm
Rotor moment of inertia	Appr. $8.5 \times 10^{-6} \text{Kg} \cdot \text{m}^2$
Starting torque without sealing	$\leq 6.0 \times 10^{-3} \text{Nm}$ (+25°C)
Maximum load permitted on shaft	Radial 35N, Axial 10N
Shock resistance	980m/s ² , 6ms, 2 times each on XYZ
Vibration proof	50m/s ² , 10~200Hz, 2 hours each on XYZ
Working life	MTBF $\geq 30000\text{h}$ (+25°C, 2000rpm)
Weight	Appr. 240g (9 pin plug radial)
ENVIRONMENTAL SPECIFICATIONS	
Working humidity	30~85% (No condensation)
Storage temperature	-40°C~100°C
Working temperature	-25°C~85°C
Protection class	IP54

◆ **Output waveform**

90° Output phase difference, CW rotation (CW rotation as seen from fit surface)



Square-wave accuracy: $X_1 + X_2 = 1/2T \pm 1/12T$
 $X_3 + X_4 = 1/2T \pm 1/12T$

Pitch error of period: $\pm 0.01T$

Pitch error of phase position: $\leq 1/18T$

Z phase: $T_z = 1/4T$ (1T, 1/2T, 1/4T...)

Period of pulses: $T = 360^\circ / N$ (N : output pulses)

Signal accuracy: $X_n = 1/4T \pm 1/12T$ (n=1, 2, 3, 4)

A leads B clockwise when viewing the encoder shaft end, The position of Z phase against A, B phase is not specified.

◆ **Terminal assignment**

Signal	+5V	0V	SIG A	SIG \bar{A}	SIG B	SIG \bar{B}	SIG Z	SIG \bar{Z}	Shield
Cable Color	Red	Black	Green	Brown	White	Grey	Yellow	Orange	N.C
7 pin plug	1	4	3	-	5	-	2	-	6
9 pin plug	1	4	5	7	3	6	2	8	9

Note: Shield is attached to connector housing, One meter cable lengths (other cable lengths on order).

◆ **Ordering code**

ISC5810	—	401	C	1800	BZ1	—	12-24	F
Series		Sequence Number	Connection	Number of Pulses	Output Signals		Supply Voltage	Output Circuit

Series: ISC5806, Radial plug: C, Number of pulses: 1800 p/r, Output signals : ABZ, $T_z = 1T$, Supply voltage: 12-24V DC, Output circuit: Push pull, Record: ISC5810-401C1800BZ1-12-24F

◆ **Dimensions**

