

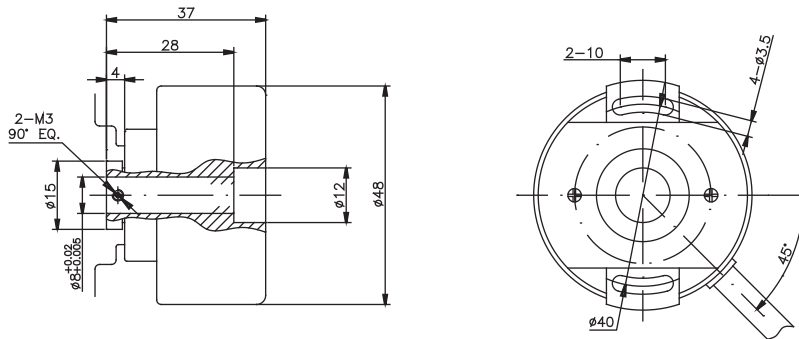
MEH 4808 Commutation Encoder



General information

- High Performance
- Easy Installation
- Multiple shaft hub available
- Application: Servo system , textile machine

Mechanical



Specifications

ELECTRICAL SPECIFICATIONS

Output wave	Square wave
Output signals	A B Z U V W (Line driver output A \bar{A} B \bar{B} Z \bar{Z} U \bar{U} V \bar{V} W \bar{W} phase)
Current consumption	$\leq 160\text{mA}$
Response Frequency	0~120KHz
Output phase difference	$90^\circ \pm 45^\circ$
Supply voltage	5V DC
Signal level	$V_H \geq 85\%V_{CC}, V_L \leq 0.3V$
Number of pulses	1000, 1024, 2048 (2P, 3P, 4P); 2000 (2P, 3P, 4P, 6P); 2500 (2P, 3P, 4P, 5P, 6P) (Other number or pulse available on request)
Output circuit	Line driver

MECHANICAL SPECIFICATIONS

Speed without sealing	6000rpm
Rotor moment of inertia	Appr. $4.0 \times 10^{-6} \text{ Kg m}^2$
Starting torque without sealing	$2.5 \times 10^{-3} 10\text{Nm}$ (+25°C)
Shock resistance	980 m / s^2 , 6ms, 2times each on XYZ
Vibration proof	50 m / s^2 10~200Hz, 2 hours each on XYZ
Working life	MTBF $\geq 50000\text{h}$ (+25°C 2000rpm)
Weight	Appr. 140g (with 1 meter cable)

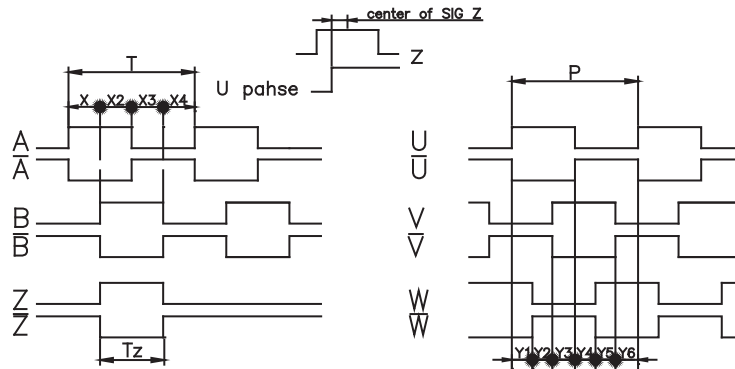
ENVIRONMENTAL SPECIFICATIONS

Working humidity	30~85% (No condensation)
Storage temperature	-40°C~110°C
Working temperature	-25°C~100°C
Protection class	IP54

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Output waveform

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



Square-wave accuracy: $X1 + X2 = 1/2T + 1/12T$ $X3 + X4 = 1/2T + 1/12T$

Pitch error of period: $\pm 0.01T$

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

Z phase: $Tz = 1/4T$ ($1T, 1/2T, 1/4T \dots$)

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

Signal accuracy: $Xn = 1/4T + 1/12T$ ($n=1, 2, 3, 4$)

A leads B clockwise when viewing the encoder shaft end,

The position of Z phase against A, B phase is not specified.

Period of UVW phase: $P = 360^\circ / \pm 1.5^\circ$ ($= 2P, 3P, 4P \dots$)

Phase difference: $= P/6 \pm 1.5^\circ$ ($n=1, 2, 3, 4, 5, 6$)

Difference of phase Z and phase U: $C \leq \pm 1^\circ$

Positional relationship of A&B phase and U,V&W phases are not specified.

Terminal assignment

Signal	+5V	0V	SIGA	SIGĀ	SIGB	SIGĒ	SIGZ	SIGZ̄	SIGU	SIGŪ	SIGV	SIGV̄	SIGW	SIGW̄	Shield
Cable Color	Red	BLK	GRN	BLK/GRN	WHT	BLK/WHT	YEL	BLK/YEL	BRN	BLK/BRN	GRY	BLK/GRY	ORG	BLK/ORG	N.C

Note: Shield is attached to connector housing, 0.35 meter cable lengths (other cable lengths on order)

Ordering code

MEH4808	—	001	G	2500	BZ1	—	6P	5	L
Series		Sequence Number	Connection	Number of Pulses	Output Signals		Period of UVW Phase	Supply Voltage	Output Circuit

Series: MEH4808, Radial cable: G, Number of pulses: 2500 p/r, Output signals: AABZZUUVVWW, $Tz = 1T$, Period of UVW phase: 6P,

Supply voltage: 5V DC, Output circuit: Line driver, Record: MEH4808-001G2500BZ1-6P5L