

NEW


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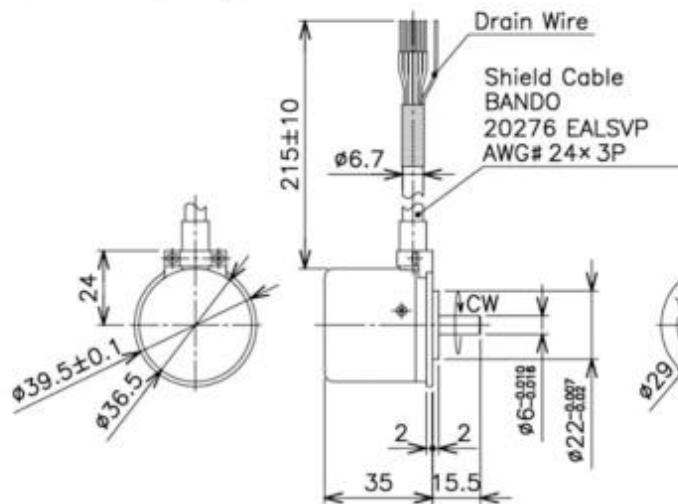
CE36M series

Absolute Encoder

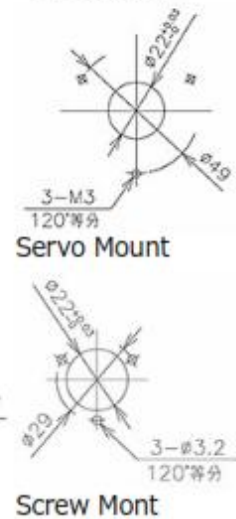
CE36M is Rotary Magnetic Absolute Encoder, provides High Accuracy to minimize the system error with MIDORI interpolation error compensation method.

- High Accuracy : Resolution 13 bit. Accuracy 11 bit.
- Excellent Repeatability : ± 1 LSB
- High Speed Update Period : 12KHz
- Various Serial Data Output : RS-422 compatible, supports serial interface, ASI, SPI, SSI.
- Extreme Environment Resistance: High vibration & shock, High operating Temp., EMC and IP67.

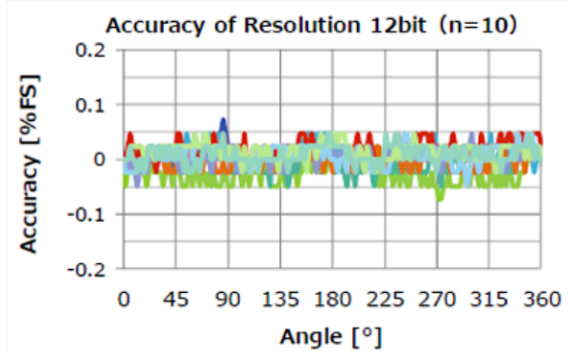
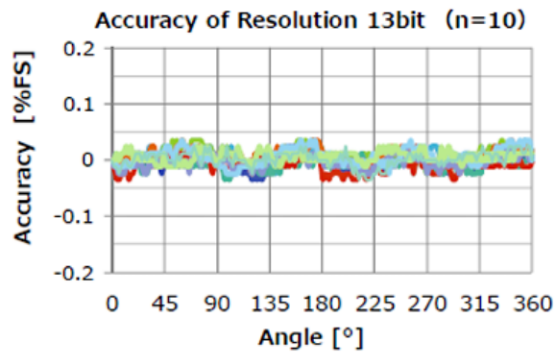
【Dimension (mm)】



【Mounting】



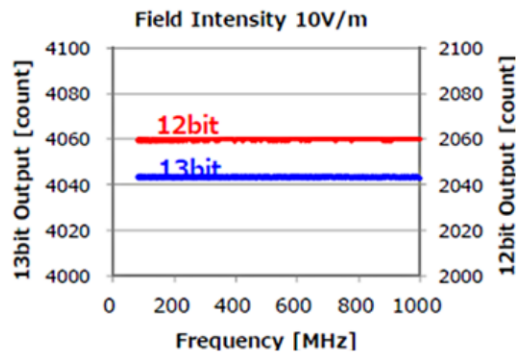
【High Accuracy】



【Environmental Performance】

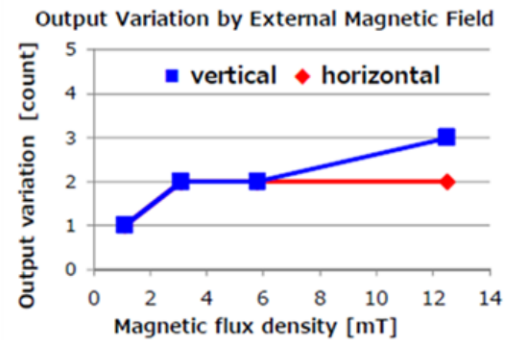
RF immunity (IEC61000-4-3)

→ Less influenced by electromagnetic wave



Influence of External Magnetic Field (Static Magnetic Field 0-12mT)

→ Less influenced by Magnetic Field

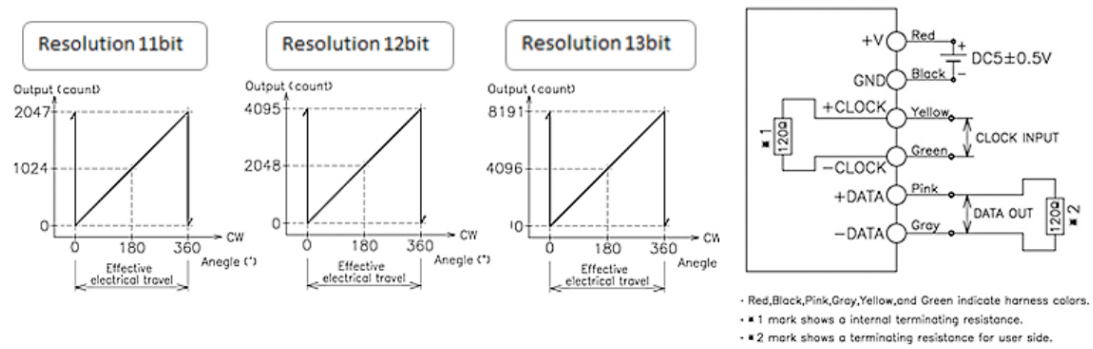


【Specifications】

Resolution		11bit per rev.	12bit per rev.	13bit per rev.
Accuracy over Full Scale		±0.2%FS (9bit equivalent)	±0.1%FS (10bit equivalent)	±0.05%FS (11bit equivalent)
Internal Position Update Period		24.4kHz	12.2kHz	6.1kHz
Power Supply		DC5±0.5 V		
Current Consumption		Max. 150mA		
Max. Physical Speed		10,000 rpm		
Operating Temp. Range		-20~+80℃		
Output	Interface	RS-422		
	Format	ASI、SSI		
Thrust Load Tolerance		Static:70N/Dynamic:3.5N		
Radial Load Tolerance		Static:70N/Dynamic:3.5N		
Life		10 Mil. cycle Min.		
Vibration		200 m/s ² (IEC60068-2-6)		
Shock		1,000 m/s ² (IEC60068-2-27)		
EMC		(EMI) IEC61000-6-4 (EMS) IEC61000-6-2		
IP Rating		IP50/IP67 (ISO60529)		
Mass		0.1 kg		

【Output Characteristics】

【Schematic】



【Signal and Connection】

Wire Color	Red	Black	Pink	Gray	Yellow	Green
ASI Format	+V	GND	+DATA	-DATA	N.C*1	N.C*1
SSI Format	+V	GND	+DATA	-DATA	+CLOCK	-CLOCK

*1 N.C: No Connect

【Serial Communication Format】

◆ Interface : RS-422

Format : ASI

Format mode	ASI1	ASI2	ASI3
Baud rate [kbps]	19.2	230.4	921.6
Frame rate [ms] Update Period : 6.1kHz	41.96	5.24	1.32
Frame rate [ms] Update Period : 2.2kHz	20.98	2.62	0.66
Frame rate [ms] Update Period : 24.4kHz	10.49	1.31	0.33
Start bit	1bit		
Data length	8bit		
Parity bit	Not available		
Stop bit	1bit		

◆ Interface : RS-422

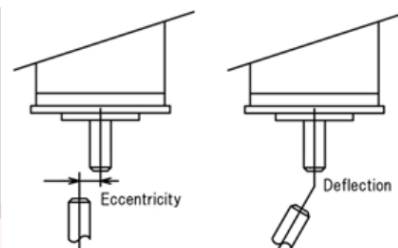
Format : SSI

Format mode	SSI1		SSI2		SSI3	
Data size[bit]	16		24		32	
Clock frequencies [kHz]	100	2000	100	2000	100	2000
Inter-message gap [ms]	0.021	0.021	0.021	0.021	0.021	0.021
Frame rate [ms]	0.18	0.03	0.26	0.03	0.34	0.04

【Allowable of shaft displacement】

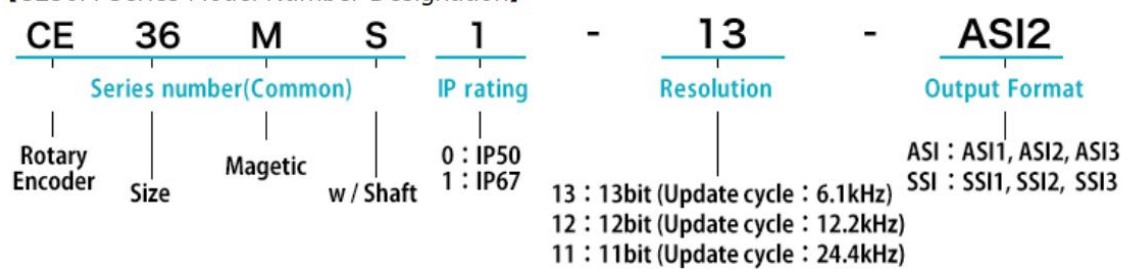
◆ Recommending coupling

Maker	Part No.	Dimension (mm)	Allowable error	
			Deflection (±deg.)	Eccentricity (±mm)
MIKI PULLEY	SFC-010DA2	Ø19	1	0.11
	SFC-020DA2	Ø26	1	0.15
	SFC-030DA2	Ø29	1	0.16



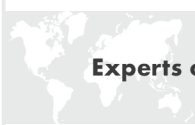
• Note: Please use flexible coupling for connecting with other side shaft.

【CE36M Series Model Number Designation】



※Handling Instruction

- Hall-IC sensor is impossible to measure resistance value as a variable resistor.
- This product may be influenced from external magnetic field.
- Use this sensor in the place where is protected from ESD.
- Please use flexible coupling for connecting with other side shaft. Mounting error of both shafts would be cause of life reduction. Do not connect rigidly both shafts. It may apply excessive load on encoder shaft and would be cause of damage to encoder bearing.



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