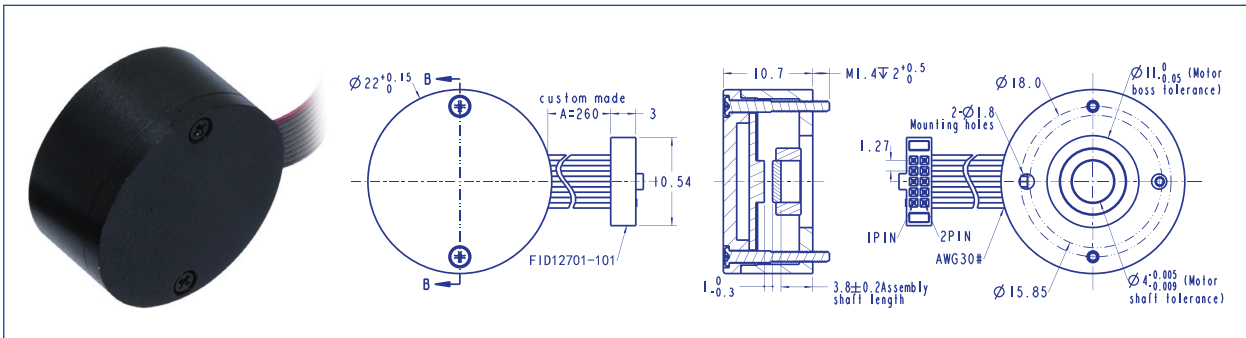


## AM-EN2211S113 SERIES



### Electromagnetic Encoder

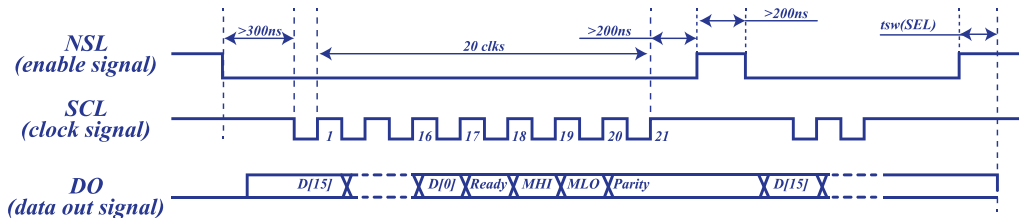
1) Basic parameters		2) Specification		3) Suitable for motor size		4) Pin definition	
Encoder type	absolute	Power Vcc	5V±5%	Suitable for shaft diameter	4.0;5.0;8.0	1. NC	2. Vcc
Multiple circles/bits	NC	Highest clock rate	10MHz	Suitable for shaft length	3.7~4.0	3. GND	4. NC
Angle/bit	16	Operating Temperature	-40~125°C	Suitable for boss diameter	10.95~11.0	5. SCL +	6. SCL -
protocol	SSI	Inertia	0.015g.cm <sup>2</sup>	Suitable for boss thickness	Max 1.0	7. NSL +	8. NSL -
Number of channels	3	Output Current, each channel	20mA(max)	Code wheel spacing	0.7~1.0	9. DO +	10. DO -
Differential signal	Yes			Other fixed size	Drawing		

#### 4) SSI READ Data Format:



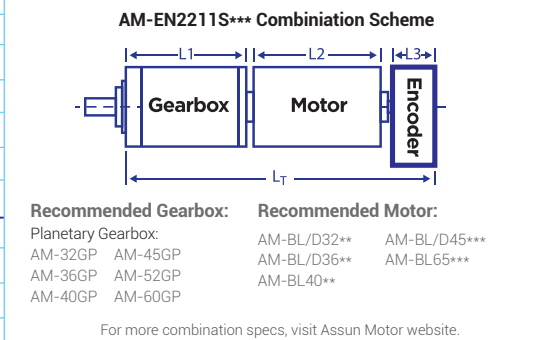
#### 5) Timing diagram annotation:

NSL must held high for at least 3 ms after power ON. NSL = 1 means it is in load mode and is used to obtain the position of the magnet, NSL = 0 is shift mode of the registers and with the SCL (clock) pin, the register will be clocked.



#### 6) Recommended Combination

Total Length of Geared Motor System: L <sub>T</sub> =L <sub>1</sub> +L <sub>2</sub> +L <sub>3</sub> (=10.7mm)					
L1: 32P	L1: 36P	L2: BL32	L1: 36P	L1: 40GP	L2: BL36
27.4	39.6	60.0	39.6	46.8	60.5
35.9	48.6	70.0	48.6	58.3	
44.4	57.6		57.6	69.8	
L1: 45GP	L1: 52GP	L2: BL45	L1: 60GP		L2: BL65
62.8	81.0	100.0	73.5		108.5
74.8					



Remarks: Clients can choose gearbox and motor to match with this encoder. Some combinations are listed here for reference.

Please tell us if there is vibration in application. Client should pay attention to the integrity and reliability of the transmitted signal.

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