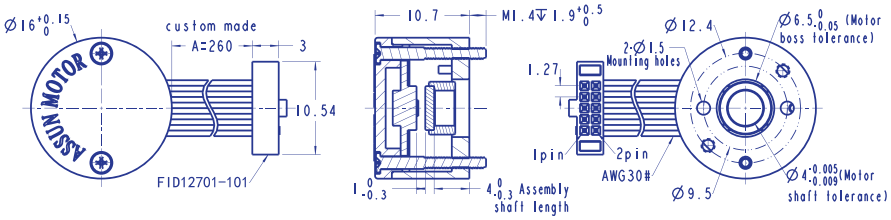
ASSUN
DRIVING THE FUTURE

AM-EN1611S113 SERIES



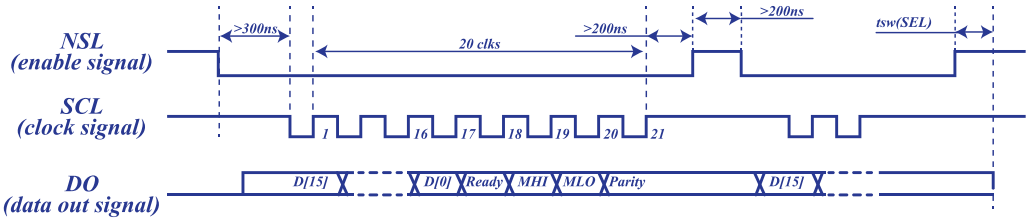
Electromagnetic Encoder

1) Basic parameters		2) Specification		3) Suitable for motor size		4) Pin definition	
Encoder type	absolute	Power Vcc	5V±5%	Suitable for shaft diameter	2.0;3.0;4.0	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℃	Suitable for boss diameter	6.45~6.5	5. SCL +	6. SCL -
protocol	SSI	Inertia	0.015g.cm^2	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	Weight	6.5 g	Other fixed size	Drawing		

5) SSI READ Data Format:

6) Timing diagram annotation:

NSL must held high for at least 3 ms after power up. 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.

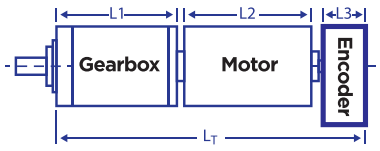


7) Recommended Combination

Total Length of Geared Motor System: L_T=L1+L2+L3(=10.7mm)

L1:16GP	L1:19GP	L2:BL16	L1:19GP	L1:24GP	L2:BL20
15.9	18.8	40.0	18.8	24	40.0
23.3	23.6		23.6	34.3	
27	28.4		28.4	42.8	
L1:24GP	L1:28GP	L2:BL24	L1:28GP	L1:32GP	L2:BL28
24	26.1	53.0	26.1	27.4	45.0
34.3	33.3		33.3	35.9	
42.8	40.5		40.5	44.4	

AM-EN1611S* Combiniation Scheme**



Recommended Gearbox:
Planetary Gearbox:
AM-16GP AM-28GP
AM-19GP AM-32GP
AM-24GP

Recommended Motor:
AM-BL16** AM-BL20***
AM-BL/D24**
AM-BL/D28**

For more combination specs, visit Assun Motor website.

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.

Download datasheet: https://assunmotor.com/documents-download

2023-A Edition. Specifications are subject to change without notice. Copyright Assun Motor Pte Ltd. All Rights Reserved.