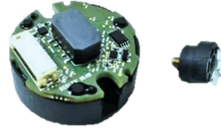


NEMICON
ABSOLUTE TYPE

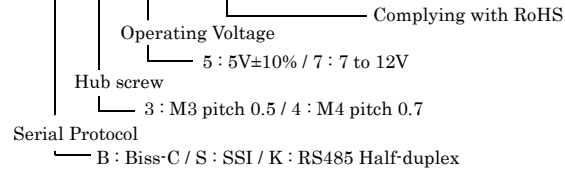
N33MA Series



- Battery less
42bit Multi turn
- Module type
- Full Magnetic

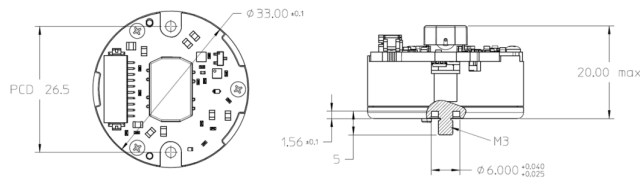
Model

N33MA-M42 □ - □ □ - **00E**

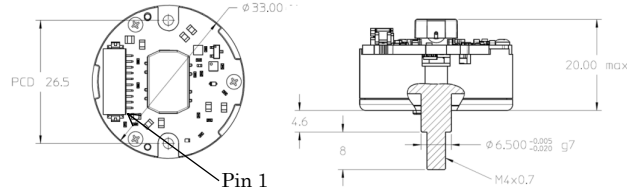


Dimension

M3 Hub screw



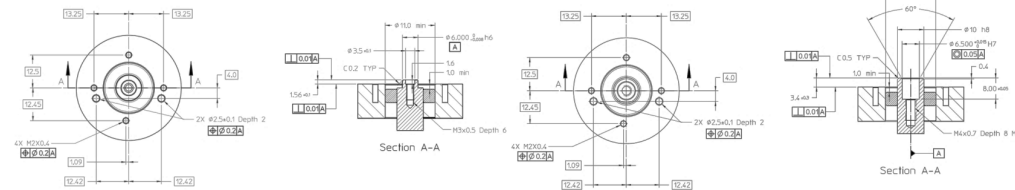
M4 Hub screw



Mounting

M3 Hub screw

M4 Hub screw



Electrical Spec.

Resolution	Multi turn: 24bits Single turn: 18bits
Current Consumption (No load)	65mA Max (5v) 55mA Max (7v)
Supply Voltage	5V ± 10% or 7 to 12V
Electrically Permissible Speed	< 12000 min ⁻¹
Initialization Time	< 1s

Mechanical Spec.

System Accuracy (With electrical correction)	± 313 Arc-sec
Mechanical Permissible Speed	< 12000 min ⁻¹
Shaft Play	≤ ±0.05 mm (Radial) ≤ ±0.2mm (Axial)

Environmental Spec.

Storage Temperature	-40 to 115 °C
Operating Temperature	-40 to 115 °C
Relative Air Humidity (Non-Condensing)	90%RH (T _{amb} = 60°C)
Vibration	10G; 10 to 2000Hz
Shock	6ms; Half Sine; 200G
Electrostatic Discharge (Module level)	± 4kV

Connection

Pin No	SSI	BiSS-C	RS-485
1	GND	GND	GND
2	VDD	VDD	VDD
3	SCLK-	MA-	NC
4	SCLK+	MA+	NC
5	DAT-	SLO-	DATA-
6	DAT+	SLO+	DATA+
7	SPI CLK	NC(1)	NC(1)
8	SPI DO	NC(1)	NC(1)
9	SPI DIN	NC(1)	NC(1)
10	GND	GND	GND

Note (1): Do not connect during operation

*Recommended mating connector:
Hirose Part No: DF13-10S-1.25C (CL No.536-0006-8)
Hirose (Terminal Pin for Wire 26~30AWG):
DF13-2630SCF (CL No.536-0300-5)

Data communication

Interface	SSI		BiSS-C		RS-485			
	Interface	Circuit	Interface	Circuit	Interface	Circuit		
Shift Clock (SCLK)	Receiver	(P/N: ISL3283E)	Serial Clock (MA)	Receiver	(P/N: ISL3283E)	Receiver	(P/N: ISL3283E)	
Data Output (DAT)	Transmitter	(P/N: ISL3295E)	Serial Data (SLO)	Transmitter	(P/N: ISL3295E)	Serial Data (DAT)	Transmitter	(P/N: ISL3295E)

[Note]

There are an Alignment Fixture and a Phase calibration kit (SSI, Biss-C or RS-485) available separately. Please contact our Sales for inquiries about this product of details.