

NEMICON +
ABSOLUTE TYPE

N33MA Series



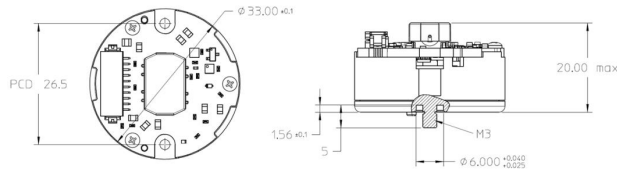
- Battery less
50bit Multi turn
- Module type
- Full Magnetic

Model
N33MA-M50 □ - □ □ - **00E**

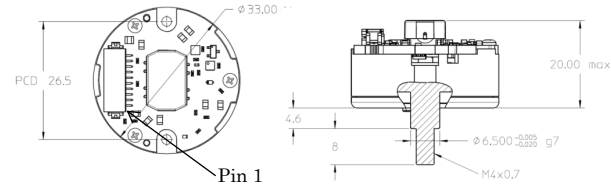
Complying with RoHS
Operating Voltage
5 : 5V±10% / 7 : 7 to 12V
Hub screw
3 : M3 pitch 0.5 / 4 : M4 pitch 0.7
Serial Protocol
B : Biss-C / S : SSI / K : RS485 Half duplex

Dimension

M3 Hub screw

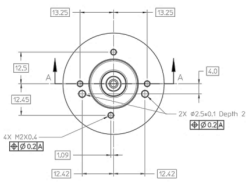


M4 Hub screw

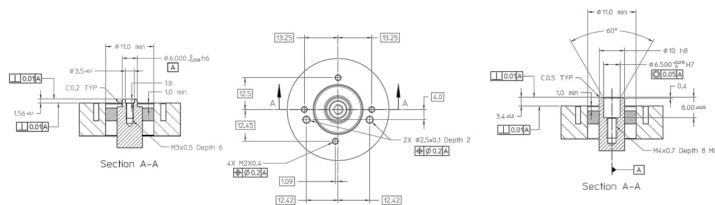


Mounting

M3 Hub screw



M4 Hub screw



Electrical Spec.

Resolution	Multi turn:32bits Single turn: 18bits
Current Consumption (No load)	90mA Max (5v) 75mA 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 Typ (At 25°C) ±1260 Arc-sec Max (Over -40°C to 115°C and 12000RPM)
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	UART RX	NC	NC
8	UART TX	NC	NC
9	Zero reset	NC	NC
10	GND	GND	GND

*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)	Serial Clock(MA)	Receiver (P/N:ISL3283E)	Serial Receiver (P/N:ISL3283E)	Receiver (P/N:ISL3283E)	Serial Data (DAT)	Receiver (P/N:ISL3283E)
Data Output (DAT)	Serial Data(SLO)	Transmitter (P/N:ISL3295E)	Serial Transmitter (P/N:ISL3295E)	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.