

Absolute type

N20MA Series

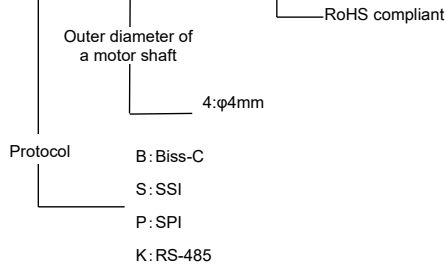


Small

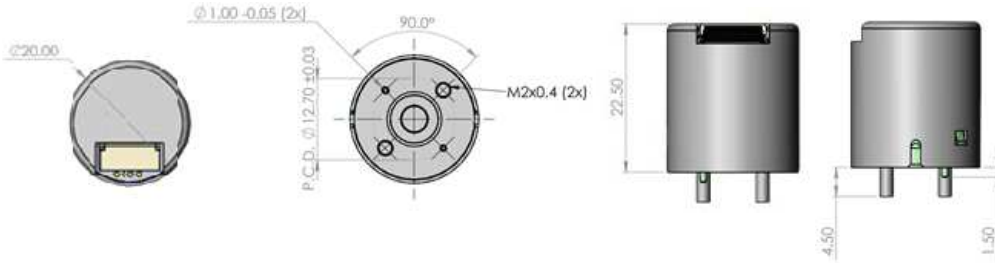
- ◇ Magnetic Battery-less
- ◇ Module type(OD Φ20mm)

Model

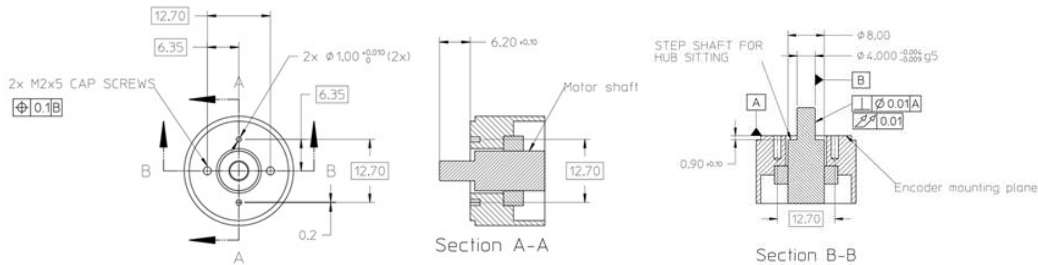
N20MA – M42□ – 4 – 00E



Dimension



Mounting



Electrical Spec

Supply Voltage	5V ± 10% or 7V	
Supply Current	40mA	
Single Turn Accuracy	±360 Arc-sec	
Power on Standby	500 ms	
Output Voltage	V _{OH} (No Load)	More than 4.4 V (VCC 5V)
	V _{OL}	Less than 0.5 V
Input Voltage	V _{IH}	2.8 to 5.5 V
	V _{IL}	0 to 1.8 V
Resolution	Multi turn	24-bit (32-bit max)
	Single turn	18-bit
Permissible Speed	< 12000 min ⁻¹	
Transmission Length (Max.)	25 meter	

Environmental Spec

Operating Temperature	-40 to + 115 °C
Storage Temperature	-40 to + 115 °C
Relative Humidity (non-condensing)	RH 90% or less
Vibration	30G; 10 to 2000Hz
Shock	6ms; Half Sine; 200G
ESD (HBM), JS-001-2014	±2kV

Electrical Connections

Pin	BISS-C	SSI (1)(2)	RS-485	SPI
1	+5V	+5V	+5V	+5V
2	0V	0V	0V	0V
3	MA+	SPI-CLK/SCLK+	DATA+	SPI-CLK
4	MA-	MOSI/SCLK-	DATA-	MOSI
5	SLO+	MISO/DATA+	NC	MISO
6	SLO-	SPI-NCS/DATA-	NC	SPI-NCS
7	NC	SEL1	NC	NC
8	NC	SEL2	NC	NC

Connector Model: SM08BSRSS TB(LF)(SN), JST

Note

- (1) SEL1 and SEL2 pins are required during calibration by switching to SPI communication mode
- (2) SSI option is configured via the shared SPI pins

Data communication

BISS-C		SSI		RS-485		SPI	
Interface	Circuit	Interface	Circuit	Interface	Circuit	Interface	Circuit
Shift Clock (MA)	Transmitter (P/N:ISL3295E)	Shift Clock (SCLK)	Transmitter (P/N:ISL3295E)	Serial data (DATA+)	Transmitter (P/N:ISL8405E)	Shift Clock (SPI-CLK/MOSI/SPI-NCS)	Transmitter (P/N:ISL3295E)
Data Output (SLO)	Receiver (P/N:ISL3283E)	Data Output (DATA)	Receiver (P/N:ISL3283E)	Serial data (DATA-)	Receiver (P/N:ISL8405E)	Data Output (MISO)	Receiver (P/N:ISL3283E)

[Note]

There are an Alignment Fixture and an Accuracy calibration station available separately. Please contact our Sales for inquiries about this product of details.