MX-64T / MX-64R

Parts Photo

[MX-64T]   [MX-64R]

※ Control Table's Compliance replaced by PID.

※ The control table's order for PID has changed to DIP from this version onwards. Please make reference of this change.

※ Although the MX-64T (TTL) and MX-64R (RS-485) differ in communications protocols both have the same features and perform equally. (TTL uses 3-pin connectors while RS-485 uses 4)

H/W Specification

- MCU : ST CORTEX-M3 (STM32F103C8 @ 72MHZ,32BIT)
- POSITION SENSOR : Contactless absolute encoder (12BIT,360 DEGREE)
    - Maker : ams (www.ams.com), Part No : AS5045
- MOTOR : Maxon
- BAUD RATE : 8000 bps ~ 4.5 Mbps
- CONTROL ALGORITHM : PID CONTROL
- Resolution : 0.088°
- Running Degree

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    - 0° ~ 360°
    - Endless Turn
- Weight : 126g
- Dimension : 40.2mm x 61.1mm x 41mm
- Gear Reduction Ratio :   200 : 1
- Stall Torque

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  - o 5.5N.m (at 11.1V, 3.9A),
  - o 6.0N.m (at 12V, 4.1A)
  - o 7.3N.m (at 14.8V, 5.2A)

- No load speed

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    - o 58rpm (at 11.1V)
    - o 63rpm (at 12V)
    - o 78rpm (at 14.8V)
- Running Temperature : −5℃ ～ +80℃
- **Voltage : 10 ～ 14.8V (Recommended Voltage 12V)**
- Command Signal : Digital Packet
- Protocol Type

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    - o MX−64T (Half duplex Asynchronous Serial Communication (8bit,1stop, No Parity))
    - o MX−64R (RS485 Asynchronous Serial Communication (8bit,1stop, No Parity))
- Link (Physical)

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    - o MX−64T (TTL Level Multi Drop Bus)
    - o MX−64R (RS485 Multi Drop Bus)

- ID : 254 ID (0~253)
- Feedback : Position, Temperature, Load, Input Voltage, etc.
- Material : Full Metal Gear, Engineering Plastic Body
- Standby current : 100 mA