

DYNAMIXEL MX-106R

**Cautions

- MX-106R supports RS-485 communication.
- Recommended voltage of MX-106 is different with that of former EX-106+
(Operating Voltage : 10~ 14.8V (Recommended Voltage 12V))

** DESCRIPTION

- DYNAMIXEL is a robot exclusive smart actuator with fully integrated DC Motor + Reduction Gearhead + Controller + Driver + Network in one DC servo module.
- MX series is a new concept of DYNAMIXEL with advanced functions like precise control, PID control, 360 degree of position control and high speed communication.

** CHARACTERISTIC

- Advanced durability, degree of precision, and wider control zone were achieved thanks to newly applied [CONTACTLESS ABSOLUTE ENCODER](#)
- [360° POSITION CONTROL](#) without dead zone
- [4,096 PRECISE RESOLUTION by 0.088°](#)
- [SPEED CONTROL at ENDLESS TURN MODE](#)
- Reliability and accuracy were advanced in the position control through [PID CONTROL](#)
- High baud rate up to [3Mbps](#)
- [RS-485 LEVEL COMMUNICATION](#)
- [Torque control via current sensing](#)
- [Supports dual mode for master/slave method](#)
- [Uses aluminum case](#)

The assembly structure of the MX-106 and EX-106 are the same but there some modifications to the case.

MX-106 External Improvements



** INCLUDES

Description		Qty
DYNAMIXEL	MX-106R	1
HORN	HN05-N101 (MX Exclusive)	1
WASHER	Thrust Washer	1
CABLE	4P Cable 200mm	1
BOLT/NUT	Wrench Bolt M2.5*4	16pcs
	Wrench Bolt M3*8	1pcs
	Nut M2.5	18pcs

**** H/W SPECS**

Product Name	MX-106R		
Weight	153g		
Dimension	40.2mm x 65.1mm x 46mm		
Gear Ratio	225 : 1		
Operation Voltage (V)	10	12	14.8
Stall Torque (N.m)	8.0	8.4	10.0
Stall Current (A)	4.8	5.2	6.3
No Load Speed (RPM)	41	45	55
Motor	Maxon Motor		
Minimum Control Angle	About 0.088° x 4,096		
Operating Range	Actuator Mode : 360° Wheel Mode : Endless turn		
Operating Voltage	10~14.8V (Recommended voltage : 12V)		
Operating Temperature	-5°C ~ 80°C		
Command Signal	Digital Packet		
Protocol	RS485 Asynchronous Serial Communication (8bit, 1stop, No Parity)		
Link (physical)	RS485 Multi Drop Bus (daisy chain type connector)		
ID	254 ID (0~253)		
Baud Rate	8000bps ~ 3Mbps		
Feedback Functions	Position, Temperature, Load, Input Voltage, Current , etc.		
Material	Case : Engineering Plastic Gear : Full Metal		
Position Sensor	Contactless absolute encoder		
Default	ID #1 – 57600bps		

** After purchase, please change ID and baud rate according to your use.

**** COMPATIBLE PRODUCTS**

- Controller : CM-2+, CM-700
- Interface(I/F) : USB2Dynamixel (RS-485)
- **NOTICE : Not compatible with the EX-106 horn. (HN05-N101 Set / T101 Set)**

**** CONTROLLING ENVIRONMENT**

- Software for Dynamixel control : ROBOPLUS - [Download](#)
- C/C++, C#, Labview, MATLAB, Visual Basic et. : Library - [Download](#)

****[Click here to download 2D and 3D drawings](#)**

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