

## DYNAMIXEL MX-28R

### \*\*Caution

- MX-28R supports RS-485 communication.
- Recommended voltage of MX-28 is different with that of former RX-28.  
(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](#)

### \*\* INCLUDES

Description		Qty
DYNAMIXEL	MX-28R	1
HORN	HN07-N101	1
WASHER	Thrust Washer	1
CABLE	4P Cable 200mm	1
BOLT/NUT	Wrench Bolt M2.5*6	16pcs
	Wrench Bolt M2.5*8	1
	Wrench Bolt M2*3	10pcs
	Nut M2.5	18pcs

**\*\* SPECIFICATIONS**

<b>Product name</b>	<b>DYNAMIXEL MX-28R</b>		
Weight	72g		
Dimension	35.6mm x 50.6mm x 35.5mm		
Gear Ratio	193 : 1		
Operation Voltage (V)	10	12	14.8
<b>Stall Torque (N.m)</b>	<b>2.3</b>	<b>2.5</b>	<b>3.1</b>
Stall Current (A)	1.3	1.4	1.7
<b>No Load Speed (RPM)</b>	<b>50</b>	<b>55</b>	<b>67</b>
Motor	Maxon Motor		
<b>Minimum Control Angle</b>	<b>About 0.088;° x 4,096</b>		
<b>Operating Range</b>	<b>Actuator Mode : 360;°</b> Wheel Mode : Endless turn		
<b>Operating Voltage</b>	<b>10~14.8V (Recommended voltage : 12V)</b>		
Operating Temperature	-5;°C ~ 80;°C		
Command Signal	Digital Packet		
Protocol	Half duplex Asynchronous Serial Communication (8 bit, 1 stop, No Parity)		
Link (physical)	<b>RS-485 Multi Drop Bus</b> (daisy chain type connector)		
ID	254 ID (0~253)		
Baud Rate	8000bps ~ 3Mbps		
Feedback Functions	Position, Temperature, Load, Input Voltage, etc.		
Material	Case : Engineering Plastic Gear : Full Metal		
<b>Position Sensor</b>	<b>Contactless absolute encoder</b>		
<b>Default</b>	<b>ID #1 - 57600bps</b>		

\*\* 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)
- OLD Horn : RX-28 HN07-N1 Set (Horn RX-28), RX-28 HN07-T1 Set (Horn 28T Set),  
RX-28 HN07-I1 Set (Bearing Set RX-28)
- OLD Frame : RX-28 FR07-H1 Set (OF-RX28H Set), RX-28 FR07-S1 Set (OF-RX28S),  
RX-28 FR07-B1 Set (OF-RX28B)
- NEW Horn : RX-24F/RX-28 HN07-N101 Set, RX-24F/RX-28 HN07-T101 Set,  
RX-24F/RX-28 HN07-I101 Set
- NEW Frame : RX-24F/RX-28 FR07-H101 Set, RX-24F/RX-28 FR07-S101 Set,  
RX-24F/RX-28 FR07-B101K Set, RX-24F/RX-28 FR07-F101K Set,  
RX-24F/RX-28 FR07-X101K Set

**\*\* CONTROLLING ENVIRONMENT**

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