

## Rotor RAS



# DESCRIPTION

Rotor RAS is a high-strength, designed to run large satellite dishes and comes complete with an electronic control unit. The rotor is designed in such a way that it is possible to assemble "pipe in pipe", or on an optional adapter plate for mounting in the configuration of a conventional tower. It can also be mounted outside of the tower, mast or wall mounted.

# SPECIFICATIONS

<b>Rotation angle:</b>	360 +/- 180 °
<b>Rotation time for 360°:</b>	90 sec *45 sec.
<b>Electric motor:</b>	12 V DC
<b>Weight Antenna rotor:</b>	19 Kg
<b>Encoder Type:</b>	Magnetic 6 pulse /HR 32 pulse
<b>Vertical load:</b>	250 Kg
<b>Rotating torque:</b>	1.800 *3.240

# CONTROLLERS WORKING WITH MACHINE

## ROT 2



The controller works with a PC. Controller works with motorized satellite RAS, RAS1. In addition, works with all rotors having pulse output (Pulse). It is designed to work with amateur structures so that it has a programmable gear (eg pulses / degree). To control them using a computer there is specially prepared program ham radio SpidSat. Controller functions the same as for Rot1Prog.

### Specifications:

Power supply:	12V - 18V DC
Power rotors:	2 x 18V DC / 1.5A (2 x 12V DC / 2.5A)
Input signal:	Pulses
Electronic reserve:	<ul style="list-style-type: none"><li>• 360 level ° (-180 °, 180 °)</li><li>• vertical 180 ° (-20 °, 20 °)</li></ul>
Dimensions	120 x 70 x 220 mm
Output	COM 9-pin connector for PC connection

## MD-01



MD-01 is an electronic control unit for rotating the rotors. It is a multifunctional device that allows for different combinations of settings work. The controller can be connected to individual rotors (eg, two rotors azimuth) or double (one rotor azimuth / elevation). The basic layout provides work with DC motors.

Controller parameters:

- Controller MD-01 supply voltage 15 VDC (I<sub>max</sub> - 2A),
- Rotor supply voltage 12-14 VDC (I<sub>max</sub> - 40 A),
- Maximum supply voltage of a single motor up to 20 A.
- 2 RS232 ports
- 1 USB host port
- 1 USB device - visible in the system as a virtual COM port.
- 1 RJ45 Ethernet port.

## MD-02



MD-02 is an electronic control unit for rotating the rotors. It is a multifunctional device that allows for different combinations of settings work. The controller can be connected to individual rotors (eg, two rotors azimuth) or double (one rotor azimuth / elevation). The basic layout provides work with DC motors.

Controller parameters:

- Controller MD-01 supply voltage 15 VDC (I<sub>max</sub> - 2A),
- Rotor supply voltage 12-14 VDC (I<sub>max</sub> - 40 A),
- Maximum supply voltage of a single motor up to 20 A.
- 2 RS232 ports
- 1 USB host port
- 1 USB device - visible in the system as a virtual COM port.
- 1 RJ45 Ethernet port.

# COMPARISON OF AVAILABLE MACHINES

Rotator Comparison Table	RAU and RAU/HR ( 18 V ) *(24V)	RAK and RAK/HR (18V) *(24V)	BIG RAK and BIG-Rak/HR (18V) *(24V)	RAS and RAS/HR (18V) *(24V)	BIG-RAS and BIG-RAS/HR (18V) *(24V)
<b>Rotating torque</b>	900 *1800	1.800 *3.240	8.000 *8.000 **	1.800 *3.240	8.000 *8.000 **
<b>Braking torque</b>	8.000	14.000	24.000	14.000	24.000
<b>Vertical load</b>	350 lbs	550 lbs	>700 lbs	550 lbs	>700 lbs
<b>Break type</b>	Double worm	Double worm	Double worm	Double worm	Double worm
<b>Carter</b>	Metal	Metal	Metal	Metal	Metal
<b>Gear</b>	Metal	Metal	Metal	Metal	Metal
<b>Mast plate</b>	Metal	Metal	Metal	Metal	Metal
<b>Reduction ratio</b>	3300 / 1	4950 / 1	6120 / 1	4950/ 1	6120 / 1
<b>Encoder type</b>	Magnetic 4 pulse /HR 32 pulse	Magnetic 6 pulse /HR 32 pulse	Magnetic 6 pulse /HR 32 pulse	Magnetic 6 pulse /HR 32 pulse	Magnetic 6 pulse /HR 32 pulse
<b>Precision</b>	1° / 1.0° /HR 0,1° / 0.1°	1° / 1.0° /HR 0,1° / 0.1°	0.5° / 0.5° /HR 0,1° / 0.1°	1° / 1.0 /HR 0,1° / 0.1°	0.5° / 0.5° /HR 0,1° / 0.1°
<b>Rotation angle</b>	360° +/- 180°	360° +/- 180°	360° +/- 180°	360° +/- 180°	360° +/- 180°
<b>Rotation time for 360°</b>	45 sek	90 sek *45 sek	240 sek * 145sek	90 sek *45 sek	240 sek *145 sek
<b>Electric motor</b>	12 Vdc	12 Vdc	12 Vdc	12 Vdc	12 Vdc /HR 24 Vdc
<b>Environment</b>	-20° +50°	-20° +50°	-20° +50°	-20° +50°	-20° +50°
<b>Weight Antenna rotor</b>	8 kg	12 kg	15kg	19kg	25kg
<b>Weight Digital Rotator Controller</b>	Rot1Prog- 1,5 kg MD-02 – 4 kg MD-01 – 5 kg	Rot1Prog- 1,5 kg MD-02 – 4 kg MD-01 – 5 kg	Rot1Prog- 1,5 kg MD-02 – 4 kg MD-01 – 5 kg	Rot2Prog- 2 kg MD-02 – 4 kg MD-01 – 5 kg	Rot2Prog- 2 kg MD-02 – 4 kg MD-01 – 5 kg