

Specifications sheet MD-03

Standard Antenna Rotator controller

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MD-03 Controller Rotator System

Fits to all standard RF HAMDESIGN supplied Pulse count rotators



MD-03 controller

Standard supplied including build in track interface (USB) and Connectors
(Optional Remote controller through internet by use of Ethernet module, check MD-03 Available Accessories page)

Note: This **MD-03** is a new controller which replace standard controller Rot2Prog & Rot1Prog in near future. (MD-03 is no replacement for MD-01 or MD-02 controllers!)



RF HAMDESIGN offer: NEW MD-03 Rotator Controller.....

MD-03 controller will replace the Rot1Prog and Rot2Prog controllers in near future.
Standard controllers (Rot1Prog & Rot2Prog) are still available, but will be sold out soon
(Note: MD-03 is NOT a replacement for MD-01 or MD-02 controllers)

For Existing users Rot1 or Rot2Prog controllers: you can change to MD-03 if needed.

RF HAMDESIGN Already offers the new MD-03 and PS-03 (Power supply) for use with all standard pulse count SPID and SPX antenna rotators.


MD-03 can handle rotators with 1.0 and 0.5 degree resolution step rotors

Advantage of the new MD-03 controller:

- * Control 2 rotators by 1 controller (AZ + AZ or EL + EL or AZ + EL)
- * Firmware update / Flash firmware (Easy to do by user)
- * TCP/IP module for Remote Control (Optional) (Part No: **SPID-ET**)
- * Built in track interface
- * Motor Speed control (PWM) and soft start and stop
- * High resolution or Absolute encoder input possible (Optional)
- * Motor measurement current in Ampere during rotation (Optional) Part No: **SPID-CCM**)

MD-03 is the new standard for all SPID and SPX antenna rotators which use pulse count by reed relays.

Specification Controller

Description	Controller model MD-03
Supply voltage	12.....18 Volts DC
Current consumption	3.....6 Amp
Supplied with	Digital controller and 2 row display (Green) Build in PC track interface (USB) Flash firmware by user Connectors Fast Setup sheet (PDF)
Dimensions	34x26x6.5cm
Weight	3Kg
Case	Alumnium / Steel
Environment	Ground / Mobile Sheltered
MTBF	15000 hours -5 to +40°C
Display	LCD 2*20 digit (green)
Control cable	4-core 1.5mm2
Pulse reading frequency	Max 0.5 sec / command
Pulse count options	1.0 / 0.5 / 0.25 degree step
Internal resolution	0.01 degree / step
Connector for motor2	2* 5 pin MATE-N-LOK connector
Buttons front panel	CW + CCW / (UP + Down) / On-Off Functions button / Save button
Controller housing	

Note: Actual Prices can be found in our price list, download link at our web-site: www.rfhamdesign.com

We recommend to use Power supply module **PS-03 to drive the MD-03 and Rotor**. PS-03 is a power supply which will be direct connected to the MD-03 controller and drive the rotor as well.
PS-03 is supplied including power supply unit which offer max rotation speed.

MD-03 Controller fits to model rotor:

(listed rotors in this table are standard rotors which count pulse by reed relay)

Model Rotor Azimuth & Elevation	Model Rotor Azimuth
SPID RAS	SPID RAU
SPID BIG-RAS	SPID RAK
SPX-01	SPID BIG-RAK
SPX-02	SPID RAEL
SPX-03	SPX-361
	SPX-362
	SPX-03/EL
Please note: All rotators above are standard rotors. (std)	

Introduction MD-03 controller and additional PS-03

The MD-03 controller is used to control the rotation of your rotor system. MD-03 is a multifunctional device and may be connected to your Antenna Rotator system and display the angles direct in degrees on the front LCD display in 1.....0.1 degree resolution.
Operation voltage of this system is 12...18Volts DC

Additional Power source option:

PS-03 Is a perfect solution to drive this rotor system, fits perfect to MD-03 and is a desktop enclosure as well. Input power is 110-240 Volts AC / out detect input voltage

Setup MD-03 and PS-03 down below on picture. (PS-03 is optional and needs to order separately)



Short summary MD-03 controller

Build in MD-03 rotor controller is a track interface which will be connected through USB (Win XP....Win 7, 8, 10, 11)
USB Driver not needed, WIN OS support SPID products.
New functions are available now and can be configured by the user through MD01dde.exe PC interface:

MD-03 (UI) Interface (Picture right) can be used to control the AZ & EL rotor by Personal Computer.
You can install your favourite track program and control MD-03 through USB without the MD01dde PC interface as well. (PST rotor is most used)

More available functions MD-03

- ✓ Most used and special function is the integrated function: Soft Start and Soft Stop ! Soft start and stop has available a 3 step Delay time and a 3 step acceleration time. Both Delay and acceleration can be set by the user step by step. This function is very helpful for large dishes
- ✓ Firmware update free of charge
- ✓ Short way function for Satellite track
- ✓ USB controlled
- ✓ Minimum and maximum angle free adjustable for Y and X Axe
- ✓ Write your own protocol and/or PC application (protocol available for download)
- ✓ Ethernet module option (optional unit)
- ✓ Current measure module option, actual current in Amp's of both motors (optional unit)
- ✓ Free of charge software update available at our High Resolution support page (need password to access)
- ✓ Lot of track software is supported: for example Orbitron (quit old) and PST rotor and much more.
(Track software should support SPID or Rot2Prog protocol)



Supplied User Interface (UI)
Sent commands or setup controller by use of this Win OS user interface



SPID rotor systems is supplied including a User Interface (UI) program: spidMD01DDE.exe

Once installed on a Windows PC you can use this program to operate the rotor from the PC / manage settings by means of upload / download, basic rotation commands.

spidMD01DDE.exe is not a tracking program !
You should install a tracking program of your choice separately on your Windows PC.
A installed tracking program must support the protocol: Rot2Prog or the SPID protocol.

SPID Power Supply Module PS-03





Power supply PS-03 will be direct connected to MD-03.
Control cables are standard supplied including mounted connectors.

PS-03 is supplied including a professional 18Volt DC / 33Amp Power Supply unit which offers maximal rotation speed.

PS-03	PS-03 Desk top mount enclosure
AC input	50/60Hz – 100-240VAC
Dimensions	34x26x6.5cm
Weight lbs / Mass Kg	3.7 Kg
Environment	Ground / Mobile free air and / or Sheltered
MTBF	32000 hours @ -20 to +55°C
Supplied with:	Connectors with readymade cables and mains cable

MD-03 Available Accessories

Additional to order

MD-03 Accessoires	P/N Refer Pricelist	Model
SPID Mouse Connect mouse direct to MD-03 and control full rotation by mouse	SPID MOUSE	
Power Supply PS-03 AC 110-240Volt Output 18Volt 33Amp (Same dimensions as MD-03 controller)	PS-03	
MD-03 Ethernet Module TCP/IP Control rotor system through internet	SPID-ET	
SPID-CCM CCM - CURRENT CONTROL MODULE measurement module to measure Amp's during use direct in MD-0x controllers. (Perfect to find out rotor balance)	SPID-CCM	

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