RF HAMDESIGN BV The Netherlands

I: www.rfhamdesign.com
E: info@rfhamdesign.com
T: +31650882889

SPID Azimuth & Elevation antenna rotator
Model: SPID-RAS

Supplied incl Rot2Prog controller or NEW MD-03 controller

SPID RAS

Rot2Prog Controller

MODE: NORMAL
A1:   0.0 E2:   0.0

SPID MD-03 Controller

ⓘ **RF HAMDESIGN offers SPID RAS including Rot2Prog Controller or SPID NEW MD-03 Controller**

MD-03 controller will replace Rot2Prog controllers in near future.
(Standard controllers are still available, but will be sold out soon)

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.

Advantage of the new MD-03 controller is: 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)
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)

Specification Rotor Body
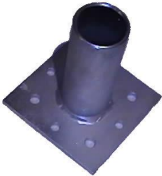
SPID RAS AZ&EL Rotator	RAS @ 12V-DC	RAS @ 18V-DC
Turning torque in-lbs/Nm	1,327 in lb/150 Nm	2,734 in lb/309 Nm
Brake Torque in lbs/Nm	13,984 in lb/1,580 Nm	13,984 in lb/1,580 Nm
Brake Construction	Double Worm Gears	Double Worm Gears
Vertical Load lbs/Kg	>639 lbs/250 Kg	>639 lbs/250 Kg
Rotation Speed	2.5 degree/sec	3 degree/sec
Resolution	1.0 deg / step	1.0 deg / step
Rotation Range Az/El	360/180 dgr	360/180 dgr
Weight lbs / Mass Kg	31 lbs/ 14 Kg	31 lbs/ 14 Kg
Position Sensor	Reed Switch	Reed switch
Connecton control cable	Junction box incl 4-pin contact block	Junction box incl 4-pin contact block
Mast size inches/mm bottom mount	2.6 inch / 66 mm	2.6 inch / 66 mm
Mast size inches/mm Elevation	2.0 inch / 50 mm	2.0 incl / 50 mm
Control cable core	8-core / 1.5mm2	8-core / 1.5mm2
Environment	Ground / mobile free air and / or sheltered	
MTBF	12500 hours / -20 to 55°C	

Specification Controller

Description	Controller model MD-03	Controller model Rot2Prog
Supply voltage	12…..18 Volts DC	12…..18 Volts DC
Current consumption	2…..10 Amp	2……11 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)	Digital controller Build in PC track interface (USB) Connectors Mouse USB-cable Fast setup sheet
Dimensions	34x26x6.5cm	24,5x23,5x4cm
Weight	3Kg	1.6Kg
Case	Alumnium / Steel	Alumnium / Steel
Environment	Ground / Mobile Sheltered	Ground / Mobile Sheltered
MTBF	15000 hours -5 to +40°C	15000 hours -5 to +40°C
Display	LCD 2*20 digit (green)	2* 4 digit (green)
Control cable	8-core 1.5mm2	8-core 1.5mm2
Pulse reading frequency	Max 0.5 sec / command	Max 0.5 sec / command
Internal resolution	0.01 degree / step	0.25 degree /step
Connector for motor	2* 5 pin MATE-N-LOK connector	2* 4 pin-MIC connector
Buttons front panel	CW + CCW / UP + Down / On-Off / Functions button / Save button	CW + CCW / UP + Down
Controller housing		

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

SPID RAS optional Accessories (Should be ordered separately)

SPID RAS optional Accessoires	P/N Refer Pricelist	Model
Motor Control Cable 2* 4-core (4x1,5mm2) Reel: 25, 50, 75, 100 meter length **for SPID RAS and Rot2Prog or MD-03**	**CC4-001/25 Need 2***	
Power Supply PS-03 for MD-03 AC 110-240Volt Output max 18Volts DC (Desktop Power supply enclosure fits perfect to MD-03)	**PS-03**	
Antenna Mounting Bracket for SPID RAS This bracket is used to create a flat base to mount RF HAMDESIGN Mesh Dish or antennas. **Bracket is supplied without center pipe**	**BR-02**	
Power Supply for use with RAS + Rot2Prog AC 110-240Volt Output max 15 Volts DC Note: this is a plugin enclosure PSU, needs to build in enclosure for safety use	**PW320-15**	
Ethernet Module TCP/IP for MD-01 and MD-02 Control rotor system through internet (Remote control) **Only for MD-03 Controller**	**SPID-ET**	
SPID-CCM CURRENT CONTROL MODULE measurement module to measure Amp's during use direct in MD-0x controllers. (Perfect to find out rotor balance / use for AZ/EL rotors) **Only for MD-03 Controller**	**SPID-CCM**	
SPID ADAPTOR Plate Used to Mount the rotator at a base-plate (Note: RAEL rotor needs 50mm pipe to connect to the adaptor) Weight: 2.5Kg	**SPID ADAPT**	

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

Optional Power supply:
SPID Power Supply Module, PS-03

Power Supply model PS-03

Model: SPID PS-03 and MD-03 / Above picture is how it looks when MD-03 and PS-03 placed together.

Perfect solution and fitting power supply desktop model PS-03 which connects direct to MD-03 Rotor controller. This PS-03 is useful for all standard SPID Rotors (NOT for /HR rotors)

Specifications: SPID PS-03 power supply	
Model:	**Desktop Enclosure**
AC input	50/60Hz – 100-240VAC (auto select)
Output Voltage	13.....18 Volts DC (Adjustable) / Max 33Amp
Dimensions	(340x260x65mm)
Weight lbs / Mass Kg	3.7 Kg
Environment	Ground / Mobile free air and / or Sheltered
MTBF	32000 hours @ -20 to +55°C
Supplied with:	Mains cable / Mounted Connector set to interface MD-03
PS-03 Fits to	SPID RAK / BIG-RAK / RAS / BIG-RAS / RAU / RAEL and all other SPX **standard** rotators.

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

INFO SPID built in tracking interface in Rot2Prog and MD-03 Controller

Build in tracking interface of SPID Controllers will support the following tracking software:

- ✓ PST Rotor (Also /HR controllers MD-0X)
- ✓ MacDoppler (MacDoppler Ham Radio Satellite Tracking for Macintosh)
- ✓ N1MM Logger
- ✓ Ham Radio Deluxe
- ✓ Logic 7   Version => 7.0.45
- ✓ Orbiton   Satallite Tracking (Not updated anymore)
- ✓ Gpredict   Satallite Tracking Linux and MAC
- ✓ SatPC32   Satallite Tracking - works on windows only
- ✓ DXLab (DX View)
- ✓ TRXmanager

Most software should also work if it supports Yaesu type rotators !
(Please note: Only basic commands are supported when set to Yaesu protocol in MD-0x controller)

Note:
#1 Software may have new versions and some options may have changed
#2 We have not tested all this software !
#3 Most software is for use with SPID Rot2Prog protocol and Rot2Prog controller (Dual-Ax rotor AZ&EL), but some also work with the single Axis controller rotor system Rot1Prog.
 # 4 RF HAMDESIGN and SPID do not support third party installation issues and connection issues for tracking programs. (Contact writer of your PC track software and ask if it supports SPID Rot2Prog protocol)
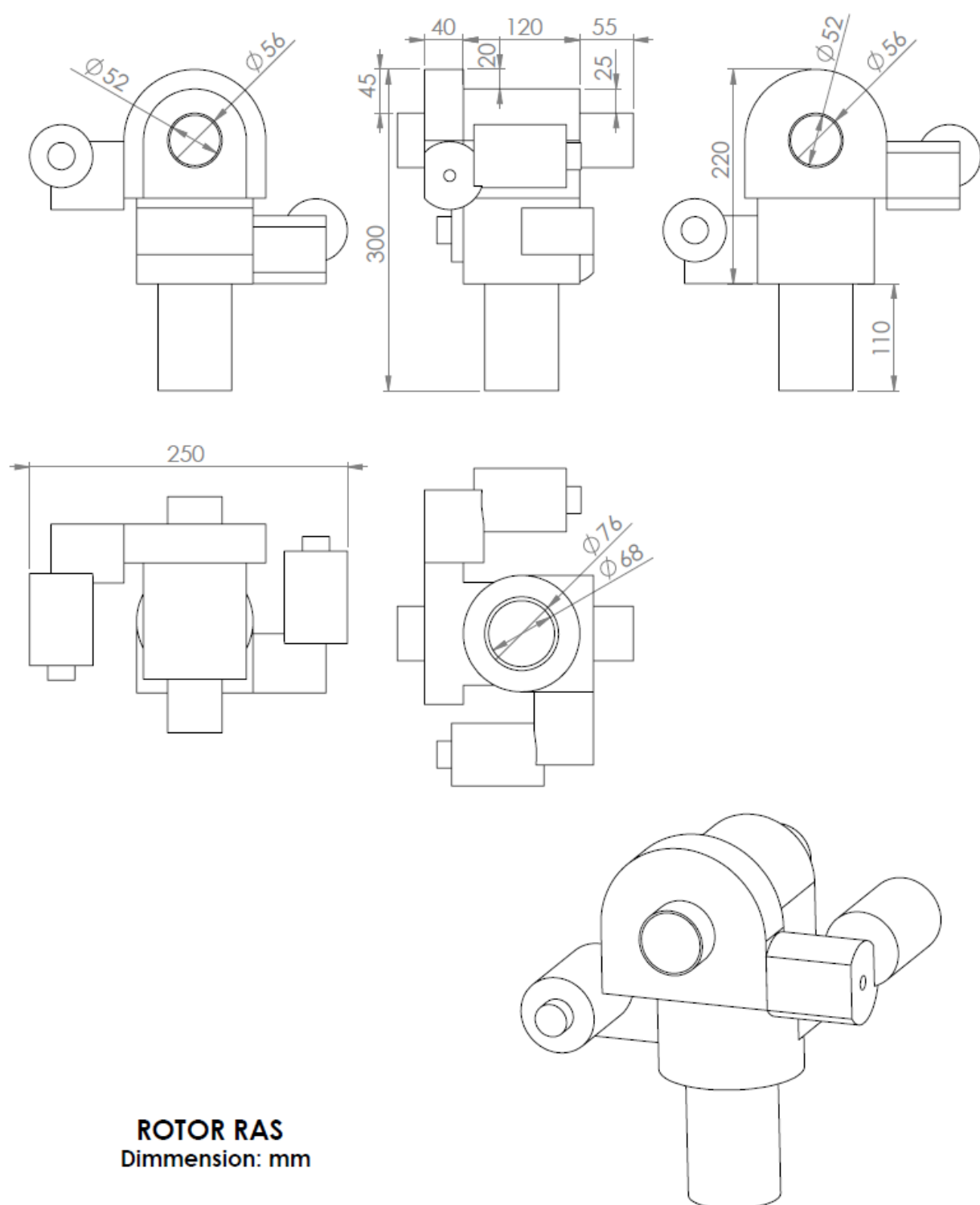
ROTOR RAS
Dimmension: mm

Dimension SPID ADAPTOR Plate

SPID Adaptor plate is needed when the SPID AZ rotator will be mounted at a flat plate in a tower or base plate

Dimensions in mm