Satellite Communications: Antenna Positioner Controller

SAT-2000A-CTR Antenna Positioner Controller



The SAT2000A is a controller for motorized antenna positioners for automatic pointing of satellite communications antennas. The controller is compatible with AvL positioners.

The system can control two-axis (azimuth/elevation) or three-axis (azimuth/elevation/polarization) positioners.

Depending on the configuration, the SAT2000A can be used to perform the following operations:

Manual positioning

The operator moves the antenna using the jog controls in the controller.

Automatic positioning

The operator selects a satellite in the (editable) list, and the controller automatically points the antenna. (The last selected satellite is memorized, so in the next deployment the operator only needs to turn the controller on and press "To Target").

The earth station position data is automatically read from connected GPS and Electronic compass. Optionally, the operator can manually inform the system's position.

Automatic fine adjustmnt (Requires optional DVB receiver board)

After the initial positioning, the operator can select the scan function so the controller finds the best signal level fine adjusting the position – provided that the satellite in use is transmitting a known DVB/DVB2 signal.

Features and Characteristics

- User-friendly touchscreen interface
- Controller software is field upgradable (USB flashdrive)
- Relative Signal Level and SNR (with optional DVB board)
- Digital monitoring of the motors currents, with individual programmable limits, to avoid mechanical damage if movement is obstructed
- One touch operation; power on, then press "To Target" to point to last used satallite.
- Field programmable independent fast/slow speeds for positioning and jogging.
- Help and information screens

Model	SAT-2000A-CTR
Pointing rages	
(limits depend on the positioner)	
Azimuth	-180 to 180 deg
Elevation	0 to 90 deg
Polarization	-90 to 90 deg
Pointing resolution	
(positioner sensors readings)	
Azimuth	0.4 deg
Elevation	0.2 deg
Polarization	0.2 deg
Maximum motor drive current	10A
Power supply	120 Vac, IEC 60320-1 C14 connector
Connextions/Communications	
GPS	DB9 RS232 + 12Vdc or USB NMEA protocol
Electronic Compass	DB9 RS232 + 12Vdc or USB
	NMEA protocol
RF (optional DVB board)	F Female, L band
Sensors (positioner)	2x DB15
Motors	9 pin Amphenol MS3102A22-20S
Weight	9.5 kg
Size	88x483x550 mm (2U)
Código	59327





ESTE PROJETO CONTA COM O APOIO DA FINEP:

