

ADVANCED ELECTRONICS AND SYSTEMS



AZELi™

ANTENNA POSITIONING

DA  
GROUP

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# AZELi™ - ANTENNA POSITIONING SYSTEM

AZELi™ is an all-weather precision pedestal/antenna positioning system with network connection, integrated controller and multiple RF and electrical throughputs.

## FLEXIBLE, MULTI-USE SYSTEM

The integrated construction offers simple cabling, easy installation and secured remote control. The light weight makes most installation easy. Heavy duty pedestal supports installation of various antenna sizes and additional antenna equipment installations.

## MINIMUM MAINTENANCE NEEDS

The wide temperature range and minimum maintenance need enable demanding placements in remote, hard-to-reach locations.

## CONTINUOUS ROTATION

AZELi™ supports continuous azimuth and up to 210° elevation rotation.

## RELIABLE, SECURE NETWORK CONTROL

AZELi™ supports copper or optical Ethernet with encrypted data transfer. It has manual remote, automatic and group controlling modes.

- Ethernet TCP/IP control
- Fully encrypted communication
- User definable encryption key
- Windows GUI
- Client interface API DLL

## POSITIONING METHODS

- Manual control with joystick from remote PC via GUI (Windows or Linux)
- Stand-alone operation
- Automated and pre-programmable functions
- Multi-positioner control method
- Easy connectivity to upper level systems via AZELi API
- User friendly GUI (Windows or Linux)

## SYSTEM COMPONENTS AND OPTIONS

- / AZIMUTH ROTATOR WITH CONTROLLER SYSTEM AND WITH CONTINUOUS ROTATION
- / STAND FOR 80 CM DISH ANTENNA WITH ELEVATION 120° ROTATOR
- / STAND FOR 130 CM DISH ANTENNA WITH ELEVATION 120° ROTATOR
- / STAND FOR 180 CM DISH ANTENNA WITH ELEVATION 120° ROTATOR
- / SINGLE GUI SOFTWARE LICENSE
- / CLIENT API (OPTION)
- / SINGLE LICENSE FOR MULTI-POSITIONER CONTROL SOFTWARE (OPTION)
- / USB JOYSTICK (OPTION)
- / OPTICAL OR COPPER ETHERNET OPTIONS
- / SINGLE CHANNEL OR MULTI-CHANNEL RF ROTARY JOINT OPTIONS
- / SEVERAL OPTICAL ROTARY JOINT OPTIONS
- / SEVERAL SLIP RING OPTIONS
- / ANTENNA EQUIPMENT CONTROLLER AND POWER SUPPLY (OPTION)
- / CUSTOMIZED REQUIREMENTS ARE WELCOME



## AZELi SPECIFICATIONS VALUE

### AZIMUTH

AZi weight typical	40 kg
AZi dimensions (LxWxH)	620x450x250 mm
AZi vertical load max.	typical 2000N
AZi rotation angle	continuous 360°
AZi torque max.	500Nm
AZi rotation speed max.	max. 20°/s
AZi rotation torque max.	200 Nm
AZi position accuracy	± 6 arc minutes

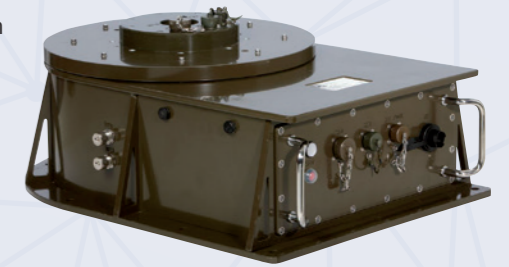
## NOTICE

Depends on version
Depends on version
Light model 500N
Light model 30 Nm
Light model ± 12 arc

### ELEVATION

AS8 stand height	500 mm
AS8 load	typical 300N
AS13 stand height	850 mm
AS13 load	typical 300N
AS18 stand height	1000 mm
EL12 elevation angle	120° (-15°... 90°... +15°)
Elevation speed max.	max. 10°/s

Dish dia 80 cm
Depends on version
Dish dia 130 cm
Depends on version
Dish dia 180 cm



### ENVIRONMENT

Operating temperature	-40°C...+65°C	Over +40°C no direct sun allowed
Maintenance environment	25°C ± 5°C	Clean workshop condition
Storage temperature	-50°C...+80°C	
Vibration	IEC 60068-2-27; operation 3mm 2-9Hz, storage and transport; 5G 9-200Hz	
Shock	IEC 721-3-3; operation 8G 11ms; storage and transportation 15G 11ms when packed according to instructions	
EMC	EN EN61000-4-2 Conducted Immunity - ESD EN61000-4-3 Radiated Immunity - Radiated RF Immunity EN61000-4-4 Conducted Immunity - Transients, Inductive Switching EN61000-4-5 Conducted Immunity - Transients, Switch Arcing CISPR 22 Radiated Emissions - Radiated RF Emission CISPR 22 Conducted Emissions - Conducted RF Emission	
Humidity max.	< 95% RH	
Sealing	IP 65	

### ELECTRICAL

Power supply	48VDC +/- 5% or 90-265VAC with 40-63Hz or 47-440Hz	
Heating	48 DC/110/240 VAC	Optional
Slip rings	8 pc 10A channels 10 to 20 pc 2A channels, depending other options selected	Optional, max. 10A available
RF-joint single channel	DC-18 GHz	Optional
RF-joint dual channel	1 ch: DC to 18GHz Dual channel: 1 ch DC to 18GHz and ch 2 DAC to 13 GHz	Optional: Mixed RF and optical on request





DA-Group is a provider of advanced electronic solutions and products for technology industry, defence and aerospace applications. Our clients use high-performance products in demanding environments ranging from sea depths to space vacuum.

We are experts in embedded systems, electro mechanics and RF/microwave engineering. Our clients benefit from the complete range of services: from R&T, optimal solutions, product development and design, testing/validation, manufacturing to product life cycle management.

The proven DA Quality System fulfills the key standards:

- ISO 9001:2008 and AQAP 2110
- Facility Security Clearance (FSC) level EU SECRET
- National Security Auditing Criteria (KATAKRI II)
- Safety Integrity Level (SIL) and ATEX compliance
- ESA PSS/ECSS requirements

The trusted and experienced partner to increase technical performance and competitiveness.

Contact us!

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