

White Paper

Observation & Surveillance Solutions

PoS Series

Pan-Tilt Systems for Thermal Cameras & Microwave Antennas



Table of Contents

- 1. INTRODUCTION.....3
- 2. PoS 6.....4
- 2. TECHNICAL SPECIFICATIONS5
- 3. PoS 20.....6
- 4. TECHNICAL SPECIFICATIONS.....7
- 5. APPLICATION SCENARIOS.....8

This document is the property of ESC BAZ Ltd.

Reproduction of this document or any part of it without prior written permission from ESC BAZ Ltd is restricted.

Pictures for illustration only

INTRODUCTION

ESC BAZ offers a comprehensive series of intelligent, high performance Pan-Tilt units for positioning and control of almost any payload from thermal cameras to microwave antennas. The PoS family comprises of a series of versatile and adaptable devices designed to carry different payload weights.

The systems are characterized by their compact form factor and rugged build intended for outdoor use and ease of portability. The PoS family is an "off-the-shelf" product line which can be integrated seamlessly with any payload and deployed quickly with minimal efforts. The systems are robust, military grade and weatherproof with the ability to withstand harsh environment conditions.

APPLICATION SCENARIOS



1. PoS 6

What is PoS 6?

The PoS 6 is a lightweight, high-performance Pan-Tilt positioning system for a variety of payloads such as thermal surveillance cameras and microwave communication antennas.

What is the system structure?

The system is extremely modular with a flexible design which supports diverse technologies and is fully customizable to customer requirements.

How is PoS 6 used?

The system is easily integrated with cameras and antennas supporting weights of 6kg on the top and 12kg on the side. The PoS 6 is an intelligent system with continuous rotation capabilities, and incorporates a mechanism to control movement of both the payload (camera or antenna) and pan-tilt system via single connector (control unit). This reduces complexity, installation and deployment time.

Features:

- Modular, flexible design carries weights of up to 6kg (13lbs) on top, 12kg (26lbs) on side
- Integrates with variety of payloads including surveillance cameras & antennas
- Small, compact form factor easily portable, built for outdoor use
- Intelligent system with continuous rotation capabilities
- Pan-Tilt & payload controlled via single connector (control unit)
- Robust and stable, delivers precise & accurate performance with very low TCO



2. TECHNICAL SPECIFICATIONS

PoS 6



General	Performances
Weight <4 kg	Max Load (on top) 6kg
Operating voltage 12-24 VDC	Max Load (on side) 12kg
Operating Temp -32 to +60°C	Operational Pan Angle +/- 220° or Continuous rotation
Standards Compliance¹ IP67, MIL-STD-461E, MIL-STD810F	Pan Speed 0.01°/sec to 60°/sec - Depending on specific model
Communication RS422 or IP	Operational Tilt angle +/-60° or +90° to -30°
	Tilt Speed 0.01°/sec to 20°/sec - Depending on specific model
	Backlash +/-0.15° or 0 Backlash
	Repeatability <0.1°
	Payload Signal Pass Optional (including RF, signal and video)
	Velocity control Optional

Note 1: Developed and manufactured to comply with the listed Standards
* Technical specifications are subject to change from time to time, without prior notice.

3. PoS 20

What is PoS 20?

The PoS 20 is a heavyweight, high-performance Pan-Tilt positioning system for a variety of payloads such as thermal surveillance cameras and microwave communication antennas.

What is the system structure?

The system is extremely modular with a flexible design which supports diverse technologies and is fully customizable to customer requirements.

How is PoS 20 used?

The system is easily integrated with cameras and antennas supporting weights of 20kg on the top and 30kg on the side. The PoS 20 is an intelligent system with continuous rotation capabilities, and incorporates a mechanism to control movement of both the payload (camera or antenna) as well as the pan-tilt system via a single connector (control unit). This allows seamless integration and significantly reduces installation time & efforts.

Features:

- Modular, flexible design carries weights of up to 20kg (44lbs) on top, 30kg (66lbs) on side
- Integrates with variety of payloads including surveillance cameras & antennas
- Weighs less than 12kg, easily portable and transportable for rugged outdoor use
- Intelligent system with continuous rotation capabilities
- Pan-Tilt & payload controlled via single connector (control unit)
- Robust and stable, delivers precise & accurate performance with very low TCO



4. TECHNICAL SPECIFICATIONS

PoS 20



General

Weight
<12 kg

Operating voltage
12-24 VDC

Operating Temp
-32 to +60°C

Standards Compliance¹
IP67, MIL-STD-461E, MIL-STD810F

Communication
RS422 or IP

Payload adapter
Standard or by customer's demand

Performances

Max Load (on top)
20kg - Optional 30kg

Max Load (on side)
30kg

Operational Pan Angle
+/- 170° or Continuous rotation

Pan Speed
0.01°/sec to 60°/sec -
Depending on specific model

Operational Tilt angle
+/-60° or +90° to -30°

Tilt Speed
0.01°/sec to 20°/sec -
Depending on specific model

Backlash
+/-0.15° or 0 Backlash

Accuracy
<1 mrad-
Depending on specific model

Repeatability
<0.5 mrad

Payload Signal Pass
Optional (including RF, signal and video)

Velocity control
Optional

Note 1: Developed and manufactured to comply with the listed Standards
* Technical specifications are subject to change from time to time, without prior notice.