

Stab Series **NEOS**

Gyrostabilized 2-Axis Pan & Tilt

Stab Neos is a two-axis platform designed to carry multiple payloads on-the-move and in harsh environments.

Used for situational awareness, security and surveillance applications, Neos offers a versatile platform that enables multiple optical sensors packages to provide sharp images and/or videos. It can be mast-mounted or embarked on a mobile platform.



FEATURES

- I shape configuration
- Up to 3 mounting interfaces
- Rugged design
- Gyrostabilization

BENEFITS

- 0,01° class pointing accuracy
- High payload modularity
- Compliant with multiple payloads with different sizes
- Compensation of platforms slow movements
- Zero intrusion into cabin space ("all inside design")
- Harsh environments
- Free of license – No ITAR components

APPLICATIONS

- Land and maritime
- Situational awareness and security
- Tracking
- Coastal and borders surveillance

TECHNICAL SPECIFICATIONS

Performances

Motorized axis	2
Pan axis range	nx360 °
Tilt axis range	> -90 ° to < +90 °
Tilt axis gyrostab. range	> -70 ° to < +70 °
Pan rate	0,01 °/s to 60 °/s
Tilt rate	0,01 °/s to 60 °/s
Pan acceleration	< 0,01 °/s ² to > 90°/s ²
Tilt acceleration	< 0,01 °/s ² to > 90°/s ²
Line of sight gyrostab (with APG 25 profile and balanced payload)	< 1 m rad rms < 20 µrad rms for L7 (with APG 25 profile)
Position accuracy	0,01 °

Physical

Construction	Aluminium
Coating and painting	Epoxy/polyamide
Weight	< 25 kg
Overall dimensions (without arm)	Length 288 mm Height 537 mm Width 235mm No Intrusion

Payload

Max Weight (with payload counterweights) On-The-Move applications	40 kg (total balanced payload)
Static applications (building, mast, tripod)	60 kg (total balanced payload)
Pan Payload Inertia	TBD < J < TBD kg.m ²
Tilt Payload Inertia	TBD < J < TBD kg.m ²
CoG / balanced point max	X : ± 40 mm Y : ± 40 mm Z : ± 40 mm
Modal behavior	< 100 Hz for first mode of rotation around each axis (typical)

Electrical

Input voltage	20-33 VDC
Pan tilt peak power req	< 80 W
Connectors to host	D38999
Connectors to payload	D38999
Communication	RS422

Environmental

Operating temperature	-32 °C to +65 °C
Storage temperature	-40 °C to +71 °C
Low pressure	270 hPa
Vibrations	1.5 g rms 3 axis
Shocks	20 g, 11 ms ¹ / ₂ sinus
Rain	10 cm/h
Water/dust	IP 65 (land) IP 67 (naval)
Salt Fog	+35°C, 5% NaCl 48h
EMC	CE102, CS114, CS115, CS116 RE101, RS 103

CONFIGURATIONS

NEOS S – A – B – C – D

A Environment

Materials and finishing are reinforced to sustain maritime application

- A = L for land application (Aluminum with Nickel plating type)
- A = N for naval application (Bronze type)

B Slip-ring

A capsule slipring is used to allow unlimited rotation in Azimuth axis

- B = 0 Custom
- B = 1 Standard 43 lines (type 2A)

C Painting color

- C = 0: Custom
- C = 1: Sand PIR 32X2 (NORMDEF 0001)
- C = 2: Green NATO PIR 24X5 (NORMDEF 0001)
- C = 3: Green dark PIR 34X3 (NORMDEF 0001)
- C = 4: Grey/blue mid-clear 2625 (NORMDEF 0001)
- C = 5: Brown land PIR 30X4 (NORMDEF 0001)
- C = 6: Black 3603 (NORMDEF 0001)
- C = 7: White UV NATO 36X0 (NORMDEF 0001)

D Accessories

- D = 0: no accessories
- D = 1: TBD

Packaging

Wooden packing case, reusable transportation case (pelicase type) upon request

Neos S documentation (upon request)

00228460: Mechanical ICD

00000150: Electrical ICD

DIN00099: Communication protocol

TBD : Qualification data package