PAN TILT
TS-MPT-HS SERIES

The TS-MPT-HS Series Pan & Tilt Unit is designed to perform precision positioning applications of various sensor units. It is designed for payloads up to 45 Kg.

TS-MPT-HS pan & tilt units, designed according to military standards and having compact structure, are resistant to all kinds of harsh conditions.

FEATURES

- Robust and compact design.
- High torque and performance.
- Precise positioning.
- High duty cycles.
- Suitable for fixed and mobile environments. 100% CNC Machined from high strength 6000 series aluminium and stainless steel.

Payload Capacity
up to 45 kg

Rated Torque at Tilt Axis
70 Nm

Position Accuracy
0,02°

Position Repeatability
0,02°

Zero backlash

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Product Code	TS-MPT-HS-1	TS-MPT-HS-2	TS-MPT-HS-3
Payload Capacity	45 kg	30 kg	30 kg
Rated Torque at Tilt Axis	70 Nm	50 Nm	50 Nm
Power Consumption			
Max. Power Consumption	100 W	140 W	140 W
Standby Power Consumption	15 W	20 W	20 W
Heater Power	40 W	60 W	60 W
Operating Voltage Range *	18-32 V	44-52 V	44-52 V
Pan			
Range of travel *	n × 360° (Continuous Rotation)	n × 360° (Continuous Rotation)	n × 360° (Continuous Rotation)
Max. Speed	180 °/s	180°/s	180°/s
Min. Speed	0.005°/s	0.005°/s	0.005°/s
Tilt			
Range of travel *	180° (+90°/-90°)	180° (+90°/-90°)	180° (+90°/-90°)
Max. Speed	18 °/s	60°/s	60°/s
Min. Speed	0.005°/s	0.005°/s	0.005°/s
Position Accuracy and Repeatability			
Position Accuracy	0.02°	0.02°	0.02°
Position Repeatability	0.02°	0.02°	0.02°
Backlash	None at Tilt Axis	None at Tilt Axis 0.1° Pan Axis	None
Rotation Limits			
Software Limits	Available	Available	Available
Mechanical Limits	Available at Tilt Axis	Available at Tilt Axis	Available at Tilt Axis
Encoder Type and Position Feedback			
Encoder Type *	Absolute Encoder	Absolute Encoder	Absolute Encoder
Position Feedback	0.005°	0.005°	0.005°
Operating Temperature			
Working Temperature	-32°C to +55°C	-32°C to +55°C	-32°C to +55°C
Storage Temperature	-40°C to +60°C	-40°C to +60°C	-40°C to +60°C
Drive Systems			
Drive System (Pan)	BLDC Motor	BLDC Motor	BLDC Motor
Drive System (Tilt)	Stepper Motor	BLDC Motor	BLDC Motor
Brake	Magnetic Brake	Magnetic Brake	Magnetic Brake
Construction			
Exterior Finish	Powder Coat Black (Default), Special Finishes Available		
Weight ***	7 kg	9 kg	8.5 kg
Dimensions ***	315.5x258.5x139	323.5x258.5x148.5 mm	313.5x264.2x150.5 mm
Payload Mounting Type	Top or Side Mount		
Ambient Conditions and EMI/EMC Compatibility			
Electromagnetic Compatibility	MIL-STD-461G (CE102, CS101, CS114, CS115, CS116, CS118, RE102 and RS103)		
Min. Operating and Storage Temperature	MIL-STD-810G, Method 502.6 Procedure II and Procedure I		
Max Operating and Storage Temperature	MIL-STD-810G, Method 501.6 Procedure II and Procedure I		
Thermal Shock	MIL-STD 810G, Method 503.6 Procedure I-C		
Moisture Resistance	MIL-STD 810G, Method 507.6 Procedure II		
Rain Resistance	MIL-STD-810G, Method 506.6 Procedure I		
Dust and Sand Resistance	MIL-STD-810G, Method 510.6 Procedure I and Procedure II		
Vibration Compatibility	MIL-STD-810G,Method 514.7 Procedure I		
Shock Compatibility	MIL-STD-810G, Method 516.6 Procedure IV		
Icing and Freezing Rain Resistance	MIL-STD-810G, Method 521.3 Procedure I		
Protection / IP rating	IP67		

Control of Positioner Unit		
Command and Control	GUI-Joysitck-Software	
Protocol	TS-MPT Protocol and Pelco-D	
Power Outputs to Payload *		
24 VDC - user on/off switchable	Optional	
12 VDC - user on/off switchable	Optional	
5 VDC - user on/off switchable	Optional	
Instantly Monitoring		
Power On and Run Time Monitoring	Available	
Voltage Monitoring	Available	
Current Monitoring	Available	
Communication Interfaces to Payload *		
Serial	RS232, RS422, RS485 (2 Channel Configurable)	
TTL	1 Channel	
IP	1 Channel Gigabit Ethernet	
Communication Interfaces to Pantilt*		
Serial	RS232 or RS422/RS485	
IP	Optional	
Connectors *		
Main Connector	D38999/20WD35PN	D38999/20WD35PN
Payload Connector	D38999/20WD35SN	D38999/20WD35SN x2

* If you have other requirements or need further assistance, please reach out to us.
** Configuration is available for particular lines including RF, SDI, HD-SDI, Fiber, etc.
*** The specified values apply to top mount setups.

Please note: Accessories such as cables and power supplies are not included in the package.

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